



Standards 2016





The recipe for better food

KRAV is Sweden's most well-known sustainability label for food, based on principles of organic farming with especially rigorous requirements for animal care, health, social responsibility and climate impact.

This is the English edition of the KRAV Standards 2016. If there are any discrepancies between the English and Swedish editions, it is the Swedish version that is valid.

The KRAV Association

Standards for KRAV-certified Production 2016

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New in the KRAV Standards 2016

For 2016 we have reviewed and made changes in the following chapters:

- Chapter 1 Introduction to the KRAV Standards provides an extensive background to the standards, as a support and help to understand the approach and purpose of the standards. This was previously at the beginning of each chapter.
- Chapter 5 Animal Husbandry has been divided into separate sections for each type of livestock. Standards that apply to all types of livestock are at the beginning of the chapter. The standards for deer have been cancelled.
- Chapter 7 Aquaculture – This standards text is now replaced with EU Regulation (EC) 889/2008.
- Chapter 15 Restaurants and Caterers
- Chapter 16 Import and Bringing In Products or Raw Materials

We have also made some changes in:


- Chapter 2 General Standards for Certification
- Chapter 3 General Standards for all KRAV Licensees
- Chapter 4 Crop Production
- Chapter 6 Apiculture
- Chapter 8 Wild Harvest Production
- Chapter 9 Food Processing
- Chapter 10 Slaughter
- Chapter 11 Feed Production
- Chapter 12 Manufacturing and Marketing of Production Aids
- Chapter 14 Shops
- Chapter 17 Fisheries
- Chapter 18 Standards for Certification Bodies
- Chapter 19 Certification of Chains
- Chapter 20 Labelling and Marketing

New and revised standards have been marked in the text with the following symbols:

-  New
-  Revised

For standards marked with the “Revised” symbol, the meaning of the standard has changed. Standards moved to another part of the book, or that only have linguistic changes, are not marked with the symbol “Revised”.

A new symbol added in Chapter 5 Animal Husbandry is

-  Major nonconformity

On the KRAV Website, www.krav.se/kravsregler, more information can be found about changes in the standards.

About the Text

All definitions are found at the end of the book in the definitions section. Words in the standards that are included in the definitions section are written using a different font and bold formatting.

The Text

We have written the text so that it is clear what the mandatory requirements for KRAV-certification are and what the certification body verifies, and what in some cases are examples and explanations. The latter are written in italics.

Origin of the Standards

In order for a product to be sold as organic within the EU, Swedish law also requires that production complies with the requirements in the EU Regulation (EC) 834/2007, referred to here as “the EU regulation”.

All KRAV-certified production must comply with Swedish law, but since the KRAV standards are also applied outside of Sweden, in some cases understanding is facilitated by making the legal requirements clear, therefore the KRAV standards include some legal requirements.

The KRAV Standards have developed over a long period of time and in cooperation with international bodies. Therefore, our standards include requirements that go beyond the EU regulation. To make the background of a standard clear, the following abbreviations are used in the text:

- (EU) – the standard complies with the EU regulation
- (SL) – the standard is a clarification of other Swedish legislation
- (I) – the standard complies with IFOAM Norms
- (K) – the standard is KRAV’s own
- (EU/K) – the standard partially complies with the EU regulation
- (K/SL) – the standard partially complies with Swedish legislation

For more information on the background of any standard please contact KRAV, for example by sending an e-mail to regler@krav.se

Becoming KRAV Certified

In order to use the KRAV label, you need a certificate that shows that your activity complies with the KRAV standards. Certificates are issued by independent certification bodies that are authorized to inspect and certify according to the KRAV standards. There are several to choose from, which are listed below and found at www.krav.se.

This is what you need to do to get a certificate:

1. Find out what applies in order for your activity to be KRAV certified.

2. Make the changes that may be needed.
3. Contact a certification body with the authorisation to inspect KRAV production, and sign a certification contract.
4. An auditor from the certification body visits you and carries out an audit to ensure that your activity complies with the KRAV standards.
5. When your production is approved by the certification body and you have received a certificate, you can begin to use the KRAV label.
6. You pay an annual license fee to KRAV. You also pay fees to the certification body and are inspected at least once per year.

What Parts of the KRAV Standards are of Concern to Me?

The KRAV standards comprise both general standards, Chapters 2, 3 and 20 which apply to everyone regardless of type of production, as well as standards adapted to specific types of production. The Table below shows which chapters of the standards apply to you if you have a certain type of production.

If for example, you have crop production, Chapters 2-4 and 20 apply to you.

ACTIVITY	CHAPTER	COMMENTS
- crop production.....	2 3 4.....	20
- greenhouses.....	2 3 4.....	20 especially section 4.6
- mushroom cultivation	2 3 4.....	20 especially section 4.7
- animal husbandry.....	2 3 4.....	5... 20
- cattle.....		especially section 5.2
- sheep and goats.....		especially section 5.3
- pigs.....		especially section 5.4
- poultry.....		especially section 5.5
- apiculture	2 3 6.....	20
- aquaculture	2 3 7.....	20
- wild harvest production.....	2 3 8.....	20
- food processing	2 3 9.....	20
- slaughter.....	2 3 10.....	20
- feed production	2 3 11.....	20
- production aids	2 3 12.....	20
- shops.....	2 3 14.....	20
- restaurants.....	2 3 15.....	20
- single product certification	2..... 15.5	20
- import and bringing in	2 3 16.....	20
- fisheries	2 3 17.....	20
- certification of chains	2 3 19.....	20
- marketing of coffee, draught beer or eggs served by others.....	2 3 9.....	20 especially section 20.8
- voluntary origin labelling	2 3 9.....	20 especially section 20.9

List of Certification Bodies

At this time, the following certification bodies are accredited to inspect and certify according to KRAV standards:

Debio

1940 Bjørkelangen - Norway

E-mail: kontor@debio.no

Website: www.debio.no

Tel.: (+47) 63 86 26 50

Labelling code: NO-ØKO-01

The logo for Debio, featuring the word "Debio" in white, bold, sans-serif font on a dark blue rectangular background.

Debio offers certification according to the KRAV standards of the following production: aquaculture, fisheries and processing of products from aquaculture and fisheries.

HS Certifiering AB

Flottiljvägen 18, 392 41 Kalmar

E-mail: info@hscertifiering.se

Website: www.hscertifiering.se

Tel: 0480-156 70

Labelling code: SE-EKO-04



HS Certifiering

HS Certifiering offers certification according to the KRAV standards of the following production: crop production including greenhouses, mushroom cultivation, animal husbandry, apiculture, food processing, shops, restaurants and catering including chain certification, slaughter, feed production, importing and bringing in products or raw materials, voluntary origin labelling, as well as marketing of coffee or beer served by others, and assessment of products permitted for feed or as production aids.

Intertek Certification AB

Box 1103, 164 22 Kista

E-mail: info.sc-sweden@intertek.com

Website: www.intertek.se/livsmedel-och-lantbruk/livsmedelscertifiering/

Tel.: 08-750 03 33

Labelling code: SE-EKO-08

The logo for Intertek, featuring the word "Intertek" in white, bold, sans-serif font on a dark blue rectangular background.

Intertek Certification AB offers certification according to KRAV standards of the following production: food processing, slaughter, feed production, use of seeds and plants, importing and bringing in products or raw materials, voluntary origin labelling, as well as marketing of coffee or beer served by others.

Kiwa Sverige AB

Box 1940, 751 49 Uppsala

E-mail: info@kiwa.se

Website: www.kiwa.se

Tel.: 018-17 00 00

Labelling code: SE-EKO-01



Kiwa offers certification according to KRAV standards of the following production: crop production including greenhouses, mushroom cultivation, animal husbandry, apiculture, aquaculture, fisheries, wild harvest production, food processing, slaughter, feed production, production aids, restaurants and catering including chain certification, importing and bringing in products or raw materials, voluntary origin labelling, marketing of coffee or beer served by others, as well as assessment of products as permitted for feed or as production aids.

ProSanitas Certifiering AB

Box 9006, 400 91 Göteborg

E-mail: info@prosanitas.se

Website: www.bmgprosanitas.se

Tel: 031-771 00 70

Labelling code: SE-EKO-07



ProSanitas Certifiering AB offers certification according to KRAV standards of the following production: food processing, feed production, importing and bringing in products or raw materials, voluntary origin labelling, as well as marketing of coffee or beer served by others.

SMAK Certifiering AB

Box 42, 230 53 Alnarp

E-mail: certifiering@smak.se

Website: www.smak.se

Tel.: 020-61 62 63

Labelling code: SE-EKO-03



SMAK offers certification according to KRAV standards of the following production: crop production including greenhouses, mushroom cultivation, animal husbandry, apiculture, food processing, slaughter, feed production, production aids, restaurants and catering including chain certification, importing and bringing in products or raw materials, voluntary origin labelling, marketing of coffee or beer served by others, as well as assessment of products as permitted for feed or as production aids.

Valiguard AB

Box 5609, SE-114 86 Stockholm

E-mail: foodsafety.sc@saiglobal.com

Website: www.valiguard.com

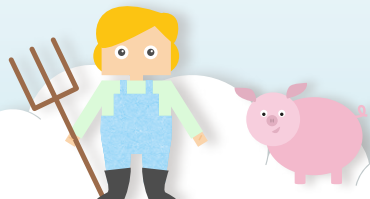
Kontaktperson: Henrik Wallin

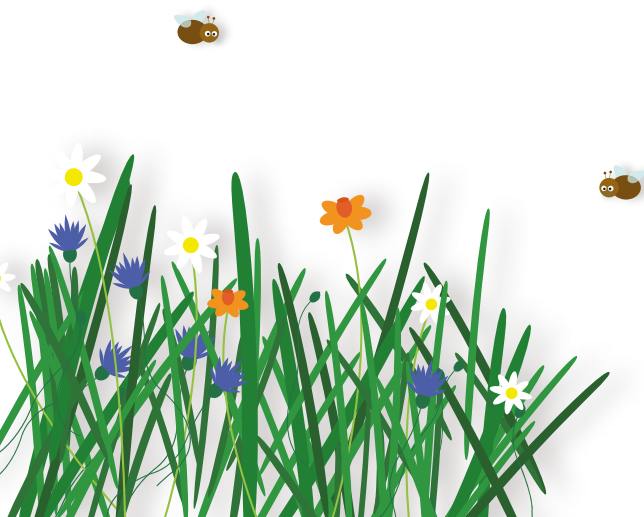
Tel.: 070-420 56 27, 08-402 84 90

Labelling code: SE-EKO-05



Valiguard offers certification according to KRAV standards of the following production: food processing, slaughter, importing and bringing in products or raw materials, voluntary origin labelling, as well as marketing of coffee or beer served by others.



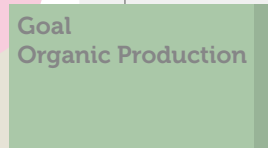
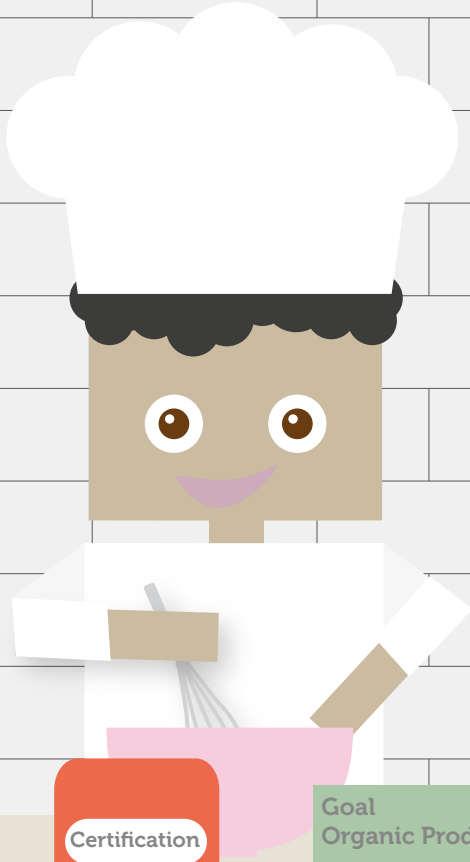


Standards for KRAV-certified Production - 2016 Edition

Adopted by the KRAV board 3 June 2015



The recipe for better food



1

Introduction to the KRAV Standards

KRAV's first standards were published in 1985 and consisted of one A4 page of standards for crop production. Today there are standards for 19 different types of production. Several certification bodies are accredited to provide KRAV certification.

Help us to improve our Standards! Send an e-mail to regler@krav.se with your comments about our standards.

1.1 The Goal of Organic Production

The basis of *organic* production is care for nature's fundamental cycles and global solidarity. The goal is sustainable production that provides consumers with high quality, confidence-inspiring production of food and other products.

The aim is to show care for natural processes and behaviour at every step (production, *processing*, distribution, etc.), and to design operations so that:

- the long-term productivity of the soil and other parts of the ecosystem is preserved and enhanced,
- the biological and genetic diversity of the cultural landscape is protected and developed in the same manner as production,
- discharge of pollutants and use of energy, especially fossil fuels, and other non-renewable natural resources is minimised,
- use of non-naturally occurring substances is avoided,
- good health of animals is promoted and animals have the opportunity to express their natural behaviour, and experience a dignified existence and a dignified end,
- processing takes place using selected processes that are gentle towards nature and the products themselves and with a minimum of *additives*,
- farmers and others involved in the production earn a reasonable income, have a safe working environment as well as joy and satisfaction in their work,
- organic products are available to all consumers, and
- trade in organic products promotes an environmentally, socially and economically sustainable development both where the goods are produced and where they are consumed.

Organic production aims to strengthen the ties between rural and densely populated areas as well as between *producers* and consumers, for example through openness about all aspects of production. Further, diversified and geographically distributed food production facilitates the maximal recirculation of nutrients and humus.

With the exception of the heading, the above text is from The KRAV Association statutes (paragraph 4).

1.2 The Basis for the Standards

Purpose

The KRAV standards are a tool to implement in practice the goal of organic production, as formulated in the KRAV statutes, throughout the whole chain from production of raw materials to consumption of food and other agricultural products.

The standards take many factors into consideration in order to include the production system and the surrounding environment in their entirety. Social responsibility is an integral part. Biological mechanisms and contexts serve as the foundation for what is considered natural and therefore compatible with organic production. The aim is to have scientific support for all the standards. The precautionary principle is often prioritised until research and proven experience can provide a secure basis for a standard's boundaries. The ban on the use of GMOs or technologically manufactured nanomaterials are examples of application of the precautionary principle. When there is a conflict between different objectives, a holistic view can be regarded as more important than the different parts of the conflict.

The KRAV standards determine how production must take place in order for products to be labelled and marketed with the KRAV label, or with reference to the KRAV standards. This creates a platform that facilitates unified marketing of KRAV-certified production, and provides confidence in all steps of the production chain and in the marketplace.

Framework

National legislation, such as animal protection and environmental laws, always form the basis for KRAV-certified production. The KRAV standards are also governed by other standards at the European and global level. The KRAV standards for example meet the international coordinating group The International Federation of Organic Agriculture Movements' (IFOAM) requirements for organic standards. The EU also has standards for organic production, in Regulation (EC) 834/2007, (EC) 889/2008 and (EC) 1235/2008 as well as the amending regulations for these.

The regulations are the law in Sweden and regulate how the word "organic" may be used. The regulations encompass crop production, animal husbandry, apiculture, aquaculture, wild harvest production, food processing, importing, and feed production. The KRAV standards comply with EC regulations and are in some cases more stringent, and as well cover more areas, for example certification of restaurants and fisheries.

Scope

The standards are established based on what is practical and possible to achieve at present. The standards are established by the KRAV board and apply until otherwise decided. KRAV's decisions on standards set boundaries for the products and production or handling of organic products that can be approved. The KRAV

label is primarily intended for use on food, but other raw materials from organic agriculture can be certified. KRAV reserves the right to determine whether or not the standards are applicable for a certain production.

The standards and inspection include:

- production conditions,
- products and recipes,
- documentation
- labelling, and
- sampling and analysis.

Areas of concern:

- primary production,
- production aids and inputs,
- handling, storage and packaging,
- processing,
- sales and marketing, as well as
- products and raw materials certified according to other standards for organic production.

1.3 Inspection and Certification

For food to be marketed as organic the whole production chain must be inspected. This is regulated by mutual legislation that applies within the EU. In Sweden, producers can choose to be certified according to the KRAV standards, which are written so that they also comply with the EU regulations for organic production. Certification according to the KRAV standards is a way for producers to increase the credibility in their activity for customers and consumers. In order to be certified, a company must apply to an approved certification body and sign a contract. Products can then be marketed as organic and KRAV-labelled.

Making an agreement to comply with the KRAV standards is a voluntary commitment available to everyone. Those who produce, process, package, store, market, import or bring in products that will be KRAV-labelled must be certified. Companies that only transport products or only handle unopened packages do not however have to be certified.

Certificates and Registration of Products

To sell products with the KRAV name or label, the company in question must have a valid certificate for the area of the standards encompassed by the activity. Before the certificate is issued by the certification body, an inspection is made to see that all relevant standards are complied with.

For the standards covering aquaculture, food processing, feed production, production aids, as well as import and bringing in, the company must also register each product on the KRAV website before it can be sold. KRAV-certified

companies can register new products on already approved production lines as they become available. The company is responsible for ensuring that the product complies with the KRAV standards.

Audits

The certification body carries out at least one, and sometimes more, inspections annually of KRAV-certified activities. For farmers with livestock, two annual inspections are done in the first two years of certification in order to ensure that the standards are complied with both during the stable period and during the grazing period. In addition to this, 30% of all KRAV-certified livestock farms receive an extra unannounced inspection every year. Large slaughterhouses also receive two visits per year. Other than a visit to carry out a complete inspection of all the standards, an extra unannounced inspection is carried out that focuses on handling live animals.

Nonconformities and Appeals

A nonconformity is when an activity either partially or completely does not comply with a KRAV standard. There are three levels of nonconformity: minor, major and grounds for suspension. It is normal for an activity to have minor nonconformities. What is important is that they are found, corrected and prevented from occurring again. If a producer discovers a nonconformity, for example due to a mistake, it must be reported to the certification body. Normally however, nonconformities are discovered during an inspection.

Major nonconformities that cannot in due course be corrected can result in rejection for land, animals or products. For especially serious cases, a whole activity can be rejected and in rare cases it can lead to an up to three year disqualification for a producer. Such strong measures are only taken when there is reason to believe that the producer consciously broke basic standards.

KRAV licensees have a right to appeal decisions of the certification body. Appeals are sent to the certification body which then makes decisions in its certification committee. Appeals regarding decisions based on laws for organic production must be made to the County Administrative Board in the county where the certification body is registered.

License and Certification Fees

The cost for KRAV-certification consists of both a license fee to KRAV and a fee to the certification body for its services. Farmers and fishermen are billed for the entire fee via the certification body. Those certified for aquaculture, food processing, slaughter, feed production, production aids, or import and bringing in must report the value of their sales of KRAV products to KRAV, which bills them for the license fee.



1.4 General Standards

The general standards must be complied with by all KRAV-certified companies.

Social Responsibility

The KRAV standards differ from the EU-organic standards by including standards on social responsibility to protect those who work for KRAV-certified companies. This also includes staff from agencies supplying workers and temporary staff. In Sweden this means that, in the first place, KRAV-certified companies must comply with legislation on social responsibility. As it is included in the standards, certification includes inspection of compliance with the legislation. There are also requirements that go further than the legislation, for example concerning housing conditions for immigrant workers. In wild harvest production and other activities with seasonally employed staff, KRAV's assessment is that there is an increased risk regarding social responsibility.

At the international level the KRAV standards on social responsibility are based on the UN Universal Declaration Of Human Rights, the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, the UN Global Compact and The International Labour Organization's (ILO's) conventions and recommendations.

Handling and Storing KRAV-certified Products

The purpose of the standards for how KRAV-certified products must be stored and handled is to ensure that they are not mixed with non-KRAV-certified products and that they are not contaminated.

When similar conventional products are handled at the same location, the KRAV-certified products must always be well labelled, so as to minimize the risk of confusion. When the same equipment is used for conventional products, equipment must always be cleaned before KRAV-certified products come in contact with the surfaces. This applies to the manufacturing industry as well as to agricultural machines.

Ban on GMOs

Use of genetically modified organisms (GMOs) or products made from or of GMOs is prohibited in KRAV-certified production. It is, amongst other reasons, in order to be cautious that KRAV does not accept GMOs, since the risks of dispersion in nature and the consequences of dispersion are difficult to determine. There are clear risks that biodiversity can be depleted if foreign genes disseminate in nature and this can have an impact on the number of species as well as diversity within a species in a negative way. In addition, the way today's GMO technology is applied in agriculture leads to, amongst other things a one-sided, agricultural system dependent on chemicals from multinational companies that own and sell both the seed and pesticides. Another reason that GMOs are prohibited is that organic farming must be an alternative for consumers that want production that does not use GMOs.

Products and raw material that may contain GMOs require a document confirming the product does not contain GMOs, or in some cases sampling and analysis. KRAV also prohibits contamination by or unintentional addition of GMOs.

The KRAV risk lists for GMOs are on the KRAV website, www.krav.se.

Packaging, Waste Management and Choice of Material

The substances or materials used in KRAV-certified production should not cause risks for the environment or human health. When using chemical or biotechnical products, the least damaging alternative must always be chosen. The main purpose of packaging must be to protect and preserve the food. In addition, packaging must be as resource efficient and as climate neutral as possible, and substances and materials damaging to health and the environment must be avoided. KRAV-certified companies must also ensure that activity results in as little hazardous waste as possible. All waste must be sorted and taken for recycling or delivered to a landfill.

Nanomaterials

With the help of nanotechnology, very small particles can be created, nanoparticles, of various substances. As the particles are so small, the substances have new properties and functions. In food, nanoparticles are present in, amongst other things, food supplements and nutrition drinks, where the purpose is that the substances will be more easily absorbed. Nanomaterials are also used in food packaging to give the packaging properties that can increase the shelf life of the products.

There is insufficient knowledge on how nanomaterials act in the environment, for example how they are absorbed by organisms or if they bioaccumulate. There is also great uncertainty about how nanoparticles affect the human body. It is however known that they can go through cell membranes and even from the blood into the brain. With the precautionary principle as a starting point, KRAV therefore prohibits nanomaterials.

Environmental and Health Impacts from Measures Related to Hygiene

The purpose of standards for measures related to hygiene is to minimise negative health and environmental impacts that occur during cleaning, disinfecting and pest control. Cleaning agents must be ecolabelled when such products that provide satisfactory results are available. To avoid problems with pests, in the first place, preventive measures must be taken, and secondly, mechanical or physical methods should be used.

If chemical methods are necessary for pest control, no KRAV-certified products can be handled or stored on the premises at the time. In some situations, however, pest control in shops with KRAV-certified products is permitted.

Protection of Natural and Cultural Environments

All KRAV-certified companies must carry out systematic environmental management and show care for natural and cultural environments. For KRAV-certified agriculture this means that there must be either a management plan for natural and cultural environments, or use of the checklist in LRF's General Farming Requirements (Miljöhusensyn) for biotope protection and historic sites. There is also an action list that must be complied with in the KRAV standards on crop production. Other companies must have an environmental policy and continually document their environmental management using an environmental management system or similar process.

Energy Use

One goal of organic production is to minimize energy use and reduce the need for fossil fuels. The KRAV standards for energy use are also important for reducing the negative climate impact of agriculture. All KRAV-certified companies must therefore be able to report on their energy efficiency measures. Large companies must as well carry out an energy audit with the help of an energy expert.

Drivers who work permanently in the certified part of an activity must be trained in fuel-efficient driving. It is an efficient way to reduce use of fossil energy and at the same time lower the costs of the company. Results from practical training in fuel-efficient driving show for example that tractor drivers reduce their fuel consumption by an average of 10 to 20%.

The electricity used in KRAV-certified companies must come from renewable energy sources, such as solar, hydro or wind power. The standard applies to all production locations with KRAV-certified production, even if the production accounts for only a small part of the total. All electricity companies are able to offer electricity from renewable sources, often for the same or a marginally higher price than the electricity that is not specifically produced from a particular source. By increasing the demand for environmentally friendly electricity, a contribution is made to increased investment in wind and solar energy.

1.5 Primary Production

This section addresses some standards that apply in common to the areas of crop production, animal husbandry, apiculture, and aquaculture.

Conversion Periods

KRAV-certified production begins with a conversion period when the producer complies with the standards but cannot sell the products as KRAV-certified. It is, amongst other reasons, out of consideration to consumers that a period of time must pass from when production begins to be carried out according to the KRAV standards until the products are sold as KRAV-certified food. At the same time, for the producer the conversion period means an income reduction since it is not possible to charge extra for the products during that period. The length

of the conversion period is therefore based on a balance between consideration to consumers and willingness to make it easier to convert to organic production. Conversion periods are not unique to KRAV-certified production. They are found in various standards for organic farming throughout the world, though the length of time may vary. The conversion periods in the KRAV standards are completely adapted to the EU regulation for organic production.

The conversion period for crop production can in some cases be shortened if the farmer can show that no prohibited fertilisers or pesticides have been used on the land during the years prior to the application for certification. If the land was certified according to the EU regulation, a new conversion period is not required in order for it to be KRAV-certified. For animal husbandry, conversion periods vary in length depending on the livestock and type of product.

Parallel Production

Parallel production is when the same crop is cultivated or the same livestock is raised both conventionally and organically in the same company. This is in general not permitted within agriculture and apiculture. The reason is that the risk of confusion between the two is greater and it is more difficult to avoid the sale of conventional products as KRAV-certified.

Raising different types of livestock on the farm as KRAV-certified respectively conventionally raised is not considered parallel production. Also, for crop production, it is not considered parallel production if different types of the same crop are cultivated and the differences are obvious, for example potatoes with different coloured skins.

There is a possible exception regarding both crop production and animal husbandry. Parallel production may be permitted on agricultural holdings that carry out research or formal education, but approval is required from The Swedish Board of Agriculture as well as extra careful inspections of separation and of the amount of products sold. Parallel production may be permitted for aquaculture. In that case the KRAV-certified production unit must be clearly defined and demarcated so that there is no risk of confusion with conventional feed or production aids. Documentation on the conventional operation is then also included in inspections.

Documentation Requirements

The basis of certification is that the producer must be able to show that the KRAV standards are complied with. Therefore there are requirements on record keeping where all important measures are documented. All inputs such as, for example, fertiliser, seed and feed must be traceable. There must be a declaration of ingredients for all multi-ingredient products. Producers can thus show that only products permitted according to the KRAV standards have been used. The majority of the documentation requirements are already included in legislation and ordinances from The Swedish Board of Agriculture.

1.6 Crop Production and Production Aids

The goal is to run crop production that is sustainable in the long-term and that, from the perspective of consumers, is confidence-inspiring and provides high quality products. The purpose of the standards for KRAV-certified crop production is to:

- preserve and strengthen the long term production capacity of the land,
- protect and develop the biological and genetic diversity in the cultural landscape and in production,
- minimize use of fossil fuels and other nonrenewable resources,
- avoid non-naturally occurring substances and minimize release of contaminants to the surrounding environment, and
- reduce releases of greenhouse gases.

Contaminants and Protective Distance

There are several standards that deal with protecting cultivated foods from various types of contaminants. It is possible, amongst other things, to completely reject a contaminated place of cultivation or crop with excessive levels of harmful substances. According to the standards, there must be a clear demarcation between organic and conventional parcels of land. The protective distance requirement is greater for conventional cultivation adjacent to organic cultivation by the same user, since the farmer can then choose to not use prohibited fertiliser or pesticides on the parts of the conventional parcels of land close to the organic land. However, if the conventional parcels of land are used by a neighbour, it is not possible to have the same requirements. It is thus all the more important to inform neighbours that farm conventionally that a crop is organic and to ensure that they comply with the legislation on protective distance when using pesticides.

KRAV-certified food must also not be grown near roads with a lot of traffic, due to the risk that contaminants from the traffic can impact the crops. In the 1990s, The National Food Administration and The Swedish Environmental Protection Agency recommended that leafy vegetables not be grown within 25 m of heavily trafficked roads. At that time, gasoline still contained lead additives, and it was an attempt to avoid the risk of food with high levels of lead. Although today lead contaminants are not as clear a problem, traffic is still a source of contaminants, and the uppermost layer of land near roadways with a lot of traffic have increased levels of various heavy metals. KRAV has therefore decided to keep the protective distance of 25 m for food crops to show care for consumers. Animal feed and seed can however be grown on this land. With regards to feed, it is a very small part of an animal's total ration that is grown within this area.

Good Maintenance

Organic farming is a system with many active measures to achieve good production. Organic farming does not only mean that prohibited aids are excluded, such as for example pesticides or artificial fertiliser. Poorly maintained land does not inspire confidence for KRAV-certified cultivation and therefore

there are requirements for good management of land, for example by using good crop rotation and active weed control.

Cultivation on Humus Soils

Cultivation on humus soil contributes significantly to the release of greenhouse gases to the atmosphere. It is estimated that this type of cultivation accounts for about one-fifth of the total release of greenhouse gases from agriculture. When humus soils are drained and cultivated, air circulation is increased and the organic material slowly breaks down. It is a process where carbon dioxide and nitrous oxide are released. KRAV has discussed if it is possible to introduce standards for how humus soils must be used to minimize release of greenhouse gases, but there is no clear-cut answer as to what methods or crops result in the lowest releases. Putting humus soils underwater would reduce releases, but it is not reasonable or even practically possible in most cases. Current standards involve no special limits on how current cultivation on humus soils takes place, but on the other hand new cultivation is prohibited. In any case, the purpose of having a standard is to raise awareness about the problem. It is also a way to make farmers aware that the cultivation may be regulated when there is greater knowledge about the subject.

Crop Rotation and Sustainability

A basic idea of organic farming is that soil fertility is built up gradually, which places requirements on crop rotation and other well-thought-out measures. For this reason it is prohibited to remove land from organic farming, farm it conventionally for one or more years, and then return it to organic farming again. This could, in fact, be a way to avoid taking care of land, and instead get rid of weeds with chemical agents or fertilize with artificial fertilisers.

The standards require that grazing land be included in crop rotation, since that is the crop in our climate that contributes the most to building up the humus content of the soil. A higher humus content results in better structure, increases water retention capacity and benefits important soil organisms. Living soil results in a better supply of nutrients to crops. Better soil structure makes the soil easier to cultivate and thus also reduces diesel consumption. For these reasons, there is a requirement that a certain minimum percentage of grazing land or green manure must be included in crop rotation on all parcels, even on farms that do not have animals that eat roughage. Green manure grazing land sown with a cereal crop in previous years provides significantly greater root mass and is therefore preferred to a single-year green manure crop, but both methods are possible.

There are many advantages to sowing catch crops, as they bind nutrients. This also results in an increase in humus content, but not as much as with grazing land or green manure, and thus cannot replace these in crop rotation. The natural way to add nitrogen to the ecosystem is to use the ability of legumes to absorb nitrogen from the air with the help of bacteria. Since use of synthetic nitrogen fertilisers is prohibited, organic agriculture is totally dependent on legumes for its nitrogen supply. Therefore, legumes must always be included in crop rotation. It is important that crop rotation is otherwise varied, in order to avoid crop rotation

diseases and weed problems.

Management of Plant Nutrients

The purpose of the standards on management of plant nutrients is to minimize loss of nutrients from agricultural land. Leaching of phosphorous and nitrogen has a negative effect on the surrounding ecosystem as it leads to eutrophication of watercourses, lakes and oceans. Nitrogen also disappears from the soil in the form of nitrous oxide, which contributes to the greenhouse effect. Nitrous oxide is a very strong greenhouse gas, which is estimated to make up about one-third of the total climate impact from agriculture.

There is a clear connection between nitrogen leaching, as well as the amount of nitrous oxide releases, and the level of nitrogen fertilization. The use of nitrogen fertilisers permitted in organic farming is limited, and they are many times more expensive than synthetic fertilisers with the equivalent content. In organic farming, fertilization levels are therefore lower and it is reasonable to assume that the losses are also significantly lower. That land in organic production is often overgrown also reduces nitrogen losses. At the same time however it is more difficult to control fertilization in relation to crop needs when artificial fertilisers are not used. This limitation is another reason for the organic farmer to be concerned about plant nutrients.

Plant Nutrient Balance

Most KRAV-certified crop producers who bring in plant nutrients from the outside in the form of fertiliser or feed must regularly carry out a phosphorus balance. When setting up a plant nutrient balance for a farm, the amount of introduced nitrogen, phosphorus and potassium is calculated and compared to how much of the same nutrients are removed from the farm. Phosphorus and nitrogen are the nutrients that contribute the most to eutrophication. Nitrogen losses are inevitable, and the results of plant nutrient balances for nitrogen are difficult to interpret and compare between farms with varied conditions and patterns of production. KRAV has therefore chosen, in the first place, to require that farmers provide a balance for phosphorus, which is also a finite resource that needs to be conserved. On farms with average phosphorus values in the soil, the goal is to achieve a balance between the amount of introduced and removed phosphorus.

Fertiliser

A basic idea is that plant nutrients from animal and food production should be returned to the farmland as much as possible. Therefore, sorted household waste and waste products from the food industry and slaughterhouses can be used as fertiliser, assuming that they do not pose any environmental or health risks. Some conventional farmyard manure is permitted until further notice, but not manure from the most intensive conventional animal production. KRAV-certified cultivation must not depend on fertiliser from forms of production that differ greatly from KRAV-certified animal husbandry. The requirements for permitted

manure have become progressively more stringent. The goal is that only manure from KRAV-certified production must be used, as its extent increases. Currently however it would be difficult for, e.g. some vegetable growers without sufficient animal production to grow good crops if they couldn't use manure from nearby conventional farms.

Biogas production from farmyard manure has the potential to significantly reduce the amount of greenhouse gases from animal production. Biofertiliser from biogas plants is also a valuable resource for organic farming.

All raw materials (substrates) used by biogas plants must be permitted according to the KRAV standards. If however the biogas plant uses otherwise prohibited farmyard manure, certification or a permissibility assessment of the biofertiliser is required. In that case only the part of the digestion residue equivalent to the permitted incoming substrate can be used as fertiliser for cultivation according to the KRAV standards. If the biogas plant handles sorted household waste, certification is required for use of the digestion residue.

The basic principle for use of minerals and other inorganic fertilisers is that they must only be used in their natural forms. They must not have been subjected to any processes other than grinding. That is why ground limestone and gypsum from natural sources are the only forms of permitted liming materials. Gypsum has a certain positive effect on soil structure, but it is significantly more short-lived than the effect of burnt or hydrated lime, which are prohibited. KRAV's list of permitted inorganic fertilisers generally complies with the EU regulation, but there are these exceptions: KRAV prohibits aluminium calcium phosphate and Thomas phosphate. None of these substances meet the above basic criteria, as they have gone through chemical processes. Further, it is doubtful that they are available on the market in Sweden.

In some soils there is a natural shortage of some substances that plants need in small amounts. When there is a provable shortage of a certain micronutrient, the standards allow fertilizing with it, despite there not being any natural micronutrient fertilisers. The reason for this exception is that it would otherwise be difficult to obtain a good harvest on these soils, and because it is very small amounts that are required.

Plant Protection

Conventional agriculture bases plant protection primarily on use of chemical pesticides. This leads to contamination of both surface and groundwater. It is also possible to find residues of pesticides in food, though levels are often under established limits for each individual pesticide. A big problem is that the chemical residues are tested one at a time. In reality, we can consume cocktails of many substances that can interact and result in a completely different impact than each one does on its own. Researchers still know very little about what this means.

However, those who run the greatest risk of harm from pesticides are those who use them professionally. Sweden therefore has strict standards on training and protective equipment. However in poor countries, substances prohibited in the EU are often used and protective equipment is not at all as common. This

results in many people becoming sick. The UN report points out for example that the mortality rate for pregnant women in Sudan that come in contact with pesticides is three times as large. Users in industrialized countries also suffer. Researchers have for example found that those exposed to chemical herbicides and insecticides have more than twice as great a risk of getting Parkinson's disease.

In organic farming chemical pesticides made of non-naturally occurring substances are prohibited. Some chemical or biological compounds can be used, but only when there is a direct threat against the crop. There are no approved compounds for weed control of crops, but heat and electricity can be used. Plant protection in organic farming is based instead on preventive methods. A basic preventive measure to reduce weed and pest problems is good crop rotation. Another important measure is to choose robust varieties. For cultivation of perennial plants, for example fruit crops, the risk of attack from harmful insects, weeds and diseases must especially be minimized by promotion of biodiversity in and around the crop. An example of such measures is planting groundcover and crops between rows, planting trees of other species or putting up birdhouses to attract birds that eat harmful insects. Other protective measures are to encourage and distribute the natural enemies of organisms harmful to plants (for example insects or predatory mites), or use of cages and other trapping devices.

The list of permitted plant protectants in the KRAV standards generally complies with the EU regulation, but there are some exceptions where the KRAV standards are more restrictive. KRAV has omitted some plant protectants that must only be used on crops not grown in Sweden. Examples are diammonium phosphate and some pyrethroids, which according to the EU regulation are permitted in olive groves. The fact that pyrethroids are chemical pesticides is another reason that KRAV prohibits their use. KRAV also prohibits copper compounds for combating fungal diseases, since the amounts of copper required exceed KRAV's limit for addition of heavy metals. Copper in excessive amounts is hazardous to people and animals.

Additives in plant protectants are not regulated in the EU regulation, therefore pyrethrum compounds with piperonyl butoxide are permitted. Piperonyl butoxide stabilizes pyrethrum extract so that it is more potent and longer lasting, and also has a certain combating affect. Piperonyl butoxide can result in residues in the products, and is harmful to people and mammals. Pyrethrum compounds with piperonyl butoxide are therefore prohibited according to the KRAV standards.

Production Aids

There are two categories of production aids that KRAV-certified farmers can use in their crop production: a production aid can be either certified or assessed as permitted. The KRAV standards for production aids specify the types of production aids for crop production (including horticulture) that can be KRAV labelled and the criteria that they must comply with. The standards also specify what information about the production aid must be presented on product sheets and packaging.

Certified production aids can be labelled with KRAV's label for production

aids. Production aids that can be KRAV labelled are various biological and chemical products as well as some mineral products that farmers use in their crop production. Synthetic micro-fertilisers cannot be KRAV-certified since they can only be used in exceptional cases, when there is a provable shortage. Though KRAV-certified farmers are the main target group for KRAV's certification of production aids, production aids targeted towards individual consumers can also be KRAV labelled, if they comply with KRAV's crop production standards.

Production aids assessed as permitted are not KRAV-certified, but the producer has had the production aid assessed according to the KRAV standards by a certification body. The products must therefore not be KRAV labelled. It must also not be written on the package that the aid is permitted according to the KRAV standards, but it can be provided in information about the product on for example product sheets or on websites. Micro-fertilisers can also be assessed as permitted.

All production aids that are KRAV-certified and assessed for permissibility are listed on www.krav.se.

Seed and Sprouts

It is important to inspect the quality of seed. Seed must be healthy and preferably analysed (especially for bunt). The basic rule is that KRAV-certified or EU organic seed and other propagation material must be used when it is available. Harvest from a crop under conversion can also be used as organic seed. KRAV wants to stimulate production of high-quality organic seed and with a wide choice of types. At the same time, it is important that growers have access to types of seed appropriate for KRAV-certified production. Therefore, KRAV accepts that a certain type of conventional seed is used when organic seed is not available, but regardless of whether or not it is organic or conventional, it must not be genetically modified or treated with chemical aids. The Swedish Board of Agriculture regulates when conventional, non-treated seed can be used.

The Swedish Board of Agriculture's list of organic seed is available at www.jordbruksverket.se.

For cultivation of sprouts, the seed must always be KRAV-certified, since sprouts are only made up of seed that has been allowed to germinate. The same reasoning applies to growing shoots. Even though then a small amount of soil is used and the seed itself is not present in the final product, most of the nutrients are in any case taken from the seed.

Greenhouse Cultivation

Cultivation in greenhouses should also take place in soil. This means that hydroponics for cultivation in biologically inactive materials cannot be approved. According to the KRAV standards, it is permitted to cultivate in separate soil beds or containers with soil, provided that a significant portion of plant nutrients comes from the soil. Therefore, there are standards for the minimum amount of soil required per plant. Since greenhouse production is energy intensive, there are also special standards with the purpose of reducing its climate impact.

1.7 Animal Husbandry, Feed Production and Slaughter

All animal keepers must have KRAV-certified crop production. The KRAV-certified animal husbandry must be characterized by very good animal welfare. A fundamental principle is respect for the specific needs of different animals with regard to behaviour, feed and the environment they are in. Other important features of KRAV-certified animal husbandry is that the animals are outside and have the opportunity to graze, root or peck to an adequate extent.

Purchase of Animals

The goal of KRAV-certified animal husbandry is integration, i.e. that mothers and offspring are present on the same agricultural holding. Animals should be kept in their natural environment to as great an extent as possible to avoid stress and infection, which can easily occur if animals from different farms are mixed. If animals in any case still need to be purchased, they must if possible be KRAV-certified. However, so as not to hamper development of KRAV-certified production it is permitted to purchase EU organic or conventional animals for breeding. Good breeding practices result in healthier animals and the need to purchase animals for recruitment is reduced.

The standards however prohibit purchase of EU organic or conventional animals to be raised for slaughter. The only exception is day-old young of poultry for raising for slaughter. They can be purchased if the animal keeper is unable to hatch them on the farm. Pullets for laying hen stock must be bred according to the KRAV standards for feed and health care.

Beginning in 2018 there will be requirements at the EU level that pullets must be raised entirely in accordance with organic regulations.

Sometimes there are not the conditions for completely integrated production. If production is not integrated and KRAV-certified animals or animals under conversion are purchased regularly, special measures must be taken so that there is not a negative effect on the health of animals.

For this reason, there are requirements for an established cooperation and that animals are delivered directly between farms. Factors to consider in such a situation are:

- how many stocks are included in the cooperation,
- if there are stables for animals under conversion or receiving animals, and
- if the breeder and buyer are affiliated to any animal health program.

Breeding

Just as with other aspects of an animal's life, breeding must be based on natural processes. At the same time there are some techniques that provide such great advantages for animals and farmers that they should be used in organic production. For this reason insemination is permitted, however not with embryo transfer or synchronization of oestrus that requires the use of hormones. It is also permitted to use sexed semen as it reduces the need to purchase animals, for example when a herd is being built up or expanded.

The breeding material available today is not yet adapted to organic rearing. There is a lack of robust, easily birthed, slow-growing and hardy breeds or lines that are not only bred for high productivity. Instead, common breeds and hybrids are usually used in organic animal husbandry. The standards however prohibit animal breeds bred so that they can no longer mate or give birth naturally. *Examples of this are the most common breeds of turkey and the cattle breed Belgian Blue.*

Outdoor Access and Grazing

One of the fundamental prerequisites of KRAV-certified animal husbandry is that all animals must have access to the outdoors. Animals must be kept outside as much as possible since this promotes natural behaviour and contributes to animals being healthy and strong. It is important to create good conditions for outdoor access, so the land is not damaged or nutrients leached. It can therefore be necessary to harden surfaces at feeding locations and passageways.

Grazing provides animals with both feed and natural activity. Therefore, all animals must have the opportunity to graze, root or peck outside during the grazing period. There is an exception in the standards that makes it possible to temporarily keep animals indoors during the grazing period. This is primarily for animal protection purposes, such as during sickness or unsuitable weather. It can also be for practical reasons such as during insemination or just before slaughter. There is also a standard that animal production must take place continually during the whole year. The reason is that it must not be possible to avoid letting animals out to graze by only raising animals during the winter half of the year. It is however permitted to raise types of livestock with a short rearing stage exclusively during the summer.

Natural Behaviour

One of the fundamental prerequisites of KRAV-certified production is that to the greatest extent possible animals must be able to behave naturally. Therefore, there are many standards that promote the natural behaviour patterns of different species of animals. Poultry must be able to scratch and pigs root. Geese and ducks must have access to a pool of water, pigs to a mud bath and poultry and chickens must have a sand bath. For sheep and cattle it is important to be able to graze and move freely. All stables must have adequate space for the animals' freedom of movement.

The animals must be able to carry out their normal social behaviour and must therefore be able to be in groups most of the time. When mother animals give birth it is natural for them to withdraw from the herd. For this reason, cows, ewes and sows must have the opportunity for seclusion when giving birth and during the first days afterwards. This is important so that the young can suckle from their mother and get the first milk. Laying hens must also have the opportunity for seclusion when laying.

It is very important that young and mothers be able to have close contact during the young's first period of life so that the animals stay healthy and feel

good. There are therefore standards that newborn lambs and kids must be able to suckle during the first three days. In milk production however, the minimum time is shortened to 24 hours of suckling for calves. Many animal keepers experience that animals are stressed when calves are separated from cows after three days, since they have been able to create a strong connection as the calf and cow have become imprinted to each other. At the same time there is a lot of research that shows that a longer suckle period is good for the health of both cows and calves. Systems with suckling cows or gradual separation of cows and calves can be ways to get the positive effect of suckling and still avoid stress.

Housing Conditions

Animals must have access to appropriate housing and there are standards for how stables must be, both regarding size and design. Amongst other things, all stables must have windows that provide daylight in the whole building.

The basic principle is that all animals must be able to move freely, and they therefore cannot be tied up or kept in cages. Despite this, until further notice there is an exception for tied up cattle kept in small herds. KRAV has determined that it would otherwise be impossible for many small farms to convert to, or continue to have, organic production. To in some degree compensate for the limited freedom of movement, the animals must be let out daily during the period before and after the grazing period, as well as be exercised at least two times a week during the winter.

According to the standards, half of the floor area at the most can be made up of drained flooring. Although slatted flooring has the advantage of keeping animals clean, it does not provide a comfortable lying area. If animals can choose, they normally avoid laying down on slatted flooring. There is a similar requirement for laying hens, but here at least one third of the indoor area must be littered. For other poultry the whole area must be littered.

Feed and Water

Animal feed must be KRAV-certified, good quality and adapted to the livestock. Animals must also have free access to good roughage and water. For ruminants there is a restriction on the proportion of feed concentrate in the ration, as they are primarily adapted to eat roughage. Ruminants must therefore not be fed animal-based feedstuffs, with the exception of some milk products.

The required portion of organic feed in the ration has become progressively more stringent. It has been the case for many years that 100% of the feed for ruminants must be KRAV-certified. The requirements single stomach animals such as pigs and chickens have for the right protein composition are greater since they cannot themselves produce certain essential amino acids. This makes it more difficult to make good feed that is completely organic. For this reason it is still permitted to give a certain amount of conventional protein feed to pigs and chickens.

KRAV-certified farms must strive to be as self-sufficient as possible regarding feed. Different farms can cooperate regarding feed and manure and are thus

considered as one unit. Self-sufficiency results in a better ecological cycling of nutrients and reduces the risk of eutrophication. The self-sufficiency requirement has become progressively more stringent, and the KRAV standards are more stringent than the EU regulations, but the requirement varies in strictness depending on the type of production. A greater level of self-sufficiency is required for ruminants than for pigs and poultry. The explanation is that a large part of the ration of ruminants is made up of roughage that can be grown throughout the country, and which for practical reasons a farm is normally self-sufficient in.

For pigs and poultry, a greater level of self-sufficiency is required if the farm is located in flat country. For pigs and poultry stocks it is common for a large part of the feed to be purchased, especially in parts of the country not well suited to grain cultivation. Up until a few years ago it was also prohibited for hygienic reasons to give poultry feed mixtures that were not heat-treated. This meant that even farms with their own grain cultivation sold the grain and purchased all the feed for the chickens. All protein feed for poultry must still be heat-treated, but currently it is permitted to mix it with grain that is not heat-treated.

Feed Production and Additives

Feed and feed mixtures purchased for a farm must comply with the standards for KRAV-certified feed. The basic principle is that raw materials of agricultural origin must be KRAV-certified, but feed raw materials from second-year conversion cultivation can also be used. In this case, the size of the portion of the conversion feed must be clearly shown on the packaging or product sheet. For pig and poultry feed, where a small amount of conventional raw materials is permissible, the proportion of conventional feed must also be clearly given.

Processed feed must, according to the standards, be produced using approved processes, such as grinding, heating, fermenting or breaking down with enzymes. The KRAV standards also include limits for levels of heavy metals in processed feed. These limits are set taking into consideration that the KRAV limits for addition of heavy metals to soil must not be exceeded. The KRAV standards for the trace elements, minerals and technical feed additives that can be used comply completely with the EU regulation on organic production. According to the standards, feed for KRAV-certified animal husbandry must not contain genetically modified organisms (GMOs). If the raw materials in KRAV-certified feed are handled in the same transport chain or the same feed production facility as GMO raw materials, there is the risk of contamination by GMOs. In such situations, the finished feed must be analysed for GMOs. For some conventional raw materials included in feed, a special GMO-free certificate is required.

KRAV's risk list for GMOs in feed is at www.krav.se.

Processed feed that contains raw materials of agricultural origin must be KRAV-certified in order to be used in KRAV-certified animal husbandry. KRAV-certified feed can be labelled with the KRAV label. However feed not made up of agricultural raw materials, for example mineral feed, cannot be KRAV-certified. Companies that manufacture or market such feed can request an assessment of the feed by a certification body, so that animal keepers can find out if the feed

is permitted or not. Information about this as well as about permitted vitamins, trace elements and technical additives is on the website.

KRAV's list of feed certified and assessed for permissibility is at www.krav.se.

Climate and the Environment

Ruminants account for a significant part of the release of climate gases from agriculture. At the same time, it is the ruminants that keep our natural grazing lands open. Well-managed natural grazing land and long-term grazing land is able as well to store large amounts of carbon in the soil, which can have a positive effect on the climate. A well-balanced feeding with high production results in lower releases of greenhouse gases in relation to amount of product. On the other hand, more extensive methods of raising animals on natural grazing land is important for biodiversity. To cover different aspects and conditions for ruminants, the KRAV standards therefore encompass various alternatives that benefit the climate and the environment. For pigs and poultry the goal for the climate standards is high feed usage and good growth.

Health and Medical Care

KRAV-certified animal husbandry aims to keep animals healthy by ensuring that they have a good stable environment, spend time outside when appropriate, eat good feed and are well taken care of. The standards prohibit preventive treatments, with the exception of vaccination. It is for example prohibited to routinely give chemical substances against intestinal parasites. Such problems must instead be avoided by good grazing plans. Sick animals must however be taken care of and treated as quickly as possible. After an animal has received medication, a certain amount of time must pass before the products can be delivered as KRAV-certified. This withdrawal period is twice as long as the withdrawal period set for animals in conventional production, as a precautionary measure to reduce the risk of residues in the consumer products.

Slaughter

KRAV-certified animals must be slaughtered in an environment that is as calm as possible and in slaughterhouses adapted to animal needs and behaviour. Slaughter must take place at a certified slaughterhouse in order for the meat to be sold as KRAV-certified. To achieve as good an animal environment as possible, there are requirements for systematic preventive work to identify elements of risk. The requirement entails annual meetings with the person responsible for animals at each slaughter house and recurrent independent guidance with a focus on animal welfare. To minimize the stress caused by transport of animals, KRAV welcomes slaughter that takes place on the farm or at a local slaughterhouse. Currently however this is not possible on a large scale.

During transport, animals are exposed to noise and movement that they are not used to. Animals can be stressed by other animals that are agitated, bright lights, air currents, noise and loud sounds, pain, blows and being bumped. It is therefore important that the driver takes into consideration that the load is

alive and mobile. However, the most stress occurs when animals are loaded and unloaded. Staff must then handle the animals calmly and systematically. When herding animals in connection with transport and slaughter, staff must take advantage of the animals' natural behaviour, and also keep established animal groups together and not mix them with foreign animals. Electric prods or other forms of hard herding are prohibited. During the whole time at the slaughterhouse, staff must work to keep the stress level down for the animals. It is also important to keep the animals occupied.

The goal is that no KRAV-certified animals have to stay overnight at a slaughterhouse, but this is currently not entirely possible for cattle, sheep and goats for logistical or animal welfare reasons. Poultry and pigs must always be slaughtered the same day they arrive at the slaughterhouse.

Documentation and identification of animals is important for traceability and so that the people that handle the animals are familiar with their origin. The slaughterhouse must use the tagging technique that is most gentle on the animals.

1.8 Apiculture

KRAV-certified apiculture is mainly characterised by organic methods of treating disease and pests. Disease and attack by pests must in the first place be dealt with using preventive measures, for example by doing regular inspections, checking drone larvae or by keeping hives, frames and equipment clean. There are also a few aids permitted for use in combination with preventive methods.

Conversion

When converting to KRAV organic production, all existing wax must be replaced with KRAV-certified wax. It can be difficult to get adequate amounts of KRAV-certified wax. It is therefore possible to use conventional cap wax that does not contain any prohibited residues.

Purchase of Bees

When new bees need to be purchased they should preferably be KRAV-certified. If there are not enough KRAV-certified bees available for purchase, it is permitted to purchase up to 10% conventional colonies and queens per year. In exceptional cases, after approval from The Swedish Board of Agriculture, beekeepers can purchase a larger amount of conventional bees.

Beehives

According to the standards, beehives must primarily consist of materials of natural origin. Plastic material can be used, for example, as insulation, as long as it makes up less than half of the hive's total weight. It was previously permissible to use foundations made of plastic approved for use in food production, but these must now be phased out as a result of an increase in stringency of EU regulations. Placement of hives is also very important. Beehives must not be located so close

to sources of contamination (for example industrial areas, garbage dumps or crops with genetically modified organisms) that there is a risk of contaminating the honey. Feeding outside of high season is done with KRAV-certified honey or KRAV-certified sugar.

1.9 Aquaculture

KRAV-certified aquaculture covers cultivation of different aquatic animals and plants as well as transport and slaughter of these species. The area of the standards complies completely with the EU regulation for organic production. The overall goal for production is respect for the environment as well as the contentment and health of the organisms. Production must be adapted so that the organisms live in a sustainable environment that satisfies their basic physiological and behavioural needs.

Location

Consideration for surrounding environments is decisive for locating and operating the KRAV-certified unit. The total discharges must not burden the surrounding area so that the biodiversity is negatively affected or cause eutrophication of the water area. It is also important that the production is located at a safe distance from effluent sources and conventional units.

Initial Material

Breeding work must focus on goals such as health and environmental sustainability as well as good growth with the minimum possible use of input factors. Breeding should be based on a large number of parent pairs to prevent inbreeding and genetic damage. For breeding purposes, wild-caught as well as conventional organisms are permitted.

Feed and Feeding

Feed in KRAV-certified aquaculture must be of good quality and nutritionally appropriate for the species. According to the standards, feed must consist of organically produced feed raw materials and/or feed raw materials originating from wild aquatic stocks. For resource reasons, aquatic feed raw materials must come from sustainable stocks and from byproducts. A main principle is that marine feed raw materials in KRAV-certified aquaculture originate from sustainable fisheries that respect the functioning of the total marine ecosystem and that are preferably environmentally certified. To ensure that these stocks are not overestimated, ICES or equivalent quotas must be complied with. Additives such as vitamins, minerals, antioxidants and colourings must be of natural origin or as close to their natural form as possible. Synthetic/non-naturally occurring additives are prohibited.

Health and Animal Protection

An important objective is to maintain a low level of aggression and to prevent fish from injuring each other. The cultivation unit must regularly be checked so that stress and deviant behaviour is detected. Protective and preventive measures must be taken against predators that can stress or damage the aquaculture.

When cultivating fish, disease prevention must be carried out, including effective vaccination against relevant infectious diseases so that disease outbreaks and the use of veterinary medicinal products can be avoided as much as possible. Biological disease control must be prioritized over use of chemicals when possible and adequately effective, for example such as “delousing” with wrasse. It is especially important to take into consideration the risk of resistance to antibiotics in the natural environment. After medication, the withdrawal period is twice that compared to the national regulations. In KRAV-certified production, veterinary medicinal products and pesticides that do not have a withdrawal period according to national regulations, have a withdrawal period of two days.

1.10 Wild Harvest Production

The KRAV standards for Wild Harvest Production aim both to promote and define how plants can sustainably be collected or harvested in nature. The objective is to take into account the long-term capacity of the soil and ecosystem to produce the plants that will be collected. The standards cover plants and fungi that are not cultivated, as well as plants that have run wild and spread naturally. Harvesting plants and fungi on natural pasture where the KRAV standards for crop production are complied with can also be certified. The standards do not cover wild animals or aquatic plants and algae.

The area where plants are harvested must not have been exposed to contaminants or chemical pesticides prohibited according to the KRAV standards. Harvesting must take into account local cultural traditions and the people who live in the area. For production to be certified it is therefore required that the applicant can show how the plants will be harvested in a sustainable way without a negative impact on the environment, animal life or people. This is done through a study that must include a risk analysis. Documentation for the study can come for example from government agencies, the landowner or from non-governmental organizations. A certification body must approve the study before harvesting can begin. Inspection then takes place by monitoring in the field and reviewing documentation of both the harvesting and further handling.

Relevant parts of KRAV’s standards for social conditions apply to pickers. All pickers must be registered and be able to be identified. Written information must be available in a language that the pickers understand. Pickers must receive a reasonable price for the product.

1.11 Fisheries

The KRAV standards for fisheries include all parts of fisheries up until landing. The standards are formulated in Sweden and therefore relate to a great degree to fisheries in the northern part of the Northeast Atlantic. KRAV-certification of fisheries takes place in two steps. The first step is an assessment of the fishery in question, which is carried out by the KRAV Fisheries Committee. If a fishery is approved in this first assessment, the next step, certification of fishing vessels, can be taken.

Assessment of Fisheries

When an application comes in to run a KRAV-certified fishery of a new stock or with a new method, the KRAV Fisheries Committee does an assessment of:

- the condition of the fished stock,
- impacts of the fisheries on the surrounding ecosystem,
- management of the fisheries, and
- the level of environmental contaminants in products from the fishery.

As well, the Fisheries Committee carries out an annual check of approved stock to make sure the stock continues to be sustainable. Within the Fisheries Committee there must be competence in marine ecology, fisheries biology, fisheries management, ethology, fishery methods, and equipment development.

Environmental Contaminants and Foreign Substances

Levels of foreign substances in fish or shellfish must not exceed legal limits. Consumption of the product in question must also not be limited for any consumer group according to the Swedish National Food Agency's Dietary Guidelines. An example of such a limitation is the dietary advice for children and women of childbearing age to avoid eating herring from the Baltic Sea or the Gulf of Bothnia more often than two to three times per year.

Certification of Fishing Vessels

When fishing is approved, an accredited certification body can certify an individual ship. Those planning to fish in an already certified stock only need to apply for certification of the ship. The certification body checks that an approved stock was fished using methods specified by the approval. It also checks for compliance with the technical standards. It is the person with the vessel permit who is responsible for complying with the standards on fishing methods, fishing equipment and documentation, as well as the environmental requirements for the vessel itself.

1.12 Food Processing

According to the KRAV standards, food processing must be carried out using

selected processes that are gentle on both the environment and the products. Use of non-naturally occurring substances must be avoided. There are only a limited number of additives, processes and process aids that are permitted and only natural flavourings and some enzymes can be used. Unlike EU-organic meat products, nitrite is prohibited in KRAV-certified products, for precautionary reasons.

The basic principle is that only KRAV-certified raw materials must be used in food marketed with the KRAV name or label. To make it easier to develop organic multi-ingredient products, up to 5% conventional ingredients are allowed in a KRAV-certified product. In this case, only ingredients that are not available as organic or KRAV-certified may be used. If they are not included on the EU list of permitted conventional ingredients in organic products, approval is required from the Swedish National Food Agency.

1.13 Shops

The overall purpose of the standards for shops is to contribute to increasing demand and sales of KRAV-certified products. The goal is that consumers can easily find clearly marked KRAV-certified shops. In these shops, there must be a wide range of high quality KRAV-certified products, as well as knowledgeable staff that can handle the products and answer questions about them. The shop must also be able to handle KRAV-certified products in bulk parallel to non-KRAV-certified products. Finally, the shop must also be able to package and repackage KRAV-certified products.

Shops must:

- keep a wide range of KRAV-certified products,
- continually strive to expand the selection,
- exhibit the KRAV name and label,
- ensure that KRAV-certified products are easily accessible and plainly visible to customers, as well as
- ensure that the staff are well informed about KRAV and organic products.

The standards also place environmental requirements on certified shops. Shops must strive towards reducing use of fossil fuels and otherwise increasing energy efficiency. Electricity must come from renewable energy sources. When new investment is made in refrigeration equipment, coolants must be chosen that do not have a negative climate impact. Farmers who have a farm shop and purchase others' products that they sell in bulk or using their own brand name must comply with the standards for shops. Farm shops however do not need to provide a large selection, and are therefore exempt from the requirement of having a wide range of products.

1.14 Restaurants and Catering

The standards for restaurants can be applied to all forms of catering, restaurants and cafés, as well as companies that deliver grocery meal bags with recipes and raw materials to customers. Small production units such as group homes and preschools are also covered. The standards for restaurants can also be used for chain certification. In the text below, “restaurant” is used as a collective term.

A KRAV-certified restaurant must contribute to increased accessibility of KRAV-certified food by:

- using a guaranteed lowest proportion of KRAV-certified food,
- exhibiting the KRAV name and label, as well as
- having staff who are well-informed about KRAV and organic production.

KRAV-certification of restaurants has three levels. The division of the levels is based on the size of the portion of approved food used by the restaurant. KRAV-certified, EU-organic, and MSC-certified products are counted as approved. Marketing at the restaurant must always be done using the number of KRAV labels the restaurant is certified for.

The three levels are:

- Level 1: One KRAV label, at least 25% approved food or at least 15 approved foods.
- Level 2: Two KRAV labels, at least 50% approved food.
- Level 3: Three KRAV labels, at least 90% approved food.

It is also possible to certify a company to market one or several KRAV-labelled products that have been taken out of the packaging and served to customers. In that case, only simple preparation of the product is allowable, for example brewing coffee. There is a separate section of a chapter in the standards for this.

1.15 Import and Bringing In

Since the EU system differentiates between import (from countries outside the EU and EFTA) and bringing in (trade between EU countries), the same division is used in the KRAV standards. The purpose of the KRAV standards is to make it easier to buy and sell organic products from the rest of the world, provided they comply with certain basic criteria which according to KRAV are lacking in the EU regulation on organic production. Through also KRAV-labelling products that are produced outside Sweden, the goal of increasing consumption and production of organic products is achieved.

KRAV is part of the international organic movement and works to strengthen and uphold the cooperation that has been built up on a voluntary basis amongst these organizations. Therefore, KRAV has also made a commitment to comply with the global cooperation body IFOAM's criteria so that the KRAV standards can be included in the “IFOAM Family of Standards.”

Organic standards may differ between countries due to the existence of different traditions, climate and conditions in various areas. Locally or regionally

developed and adapted standards also have greater credibility for local producers than foreign standards. Therefore, KRAV accepts that standards applied in other countries lead to KRAV-labelling, even though there may be certain differences between the standards. In the same manner, the EU regulation on organic production also recognizes other standards and certification programs which are assessed as equivalent to the EU regulations (in such cases regulations are so-called equivalent). This is also the case in the IFOAM Standards.

Therefore products certified according to the EU regulation, or according to a standard for organic production recognized by the EU regulation, can be KRAV-labelled if they are produced:

- in a manner that complies with the additional requirements in Chapter 16, or,
- according to a standard equivalent to the KRAV standards.

KRAV's assessment of standards are available at www.krav.se.

1.16 Labelling and Marketing

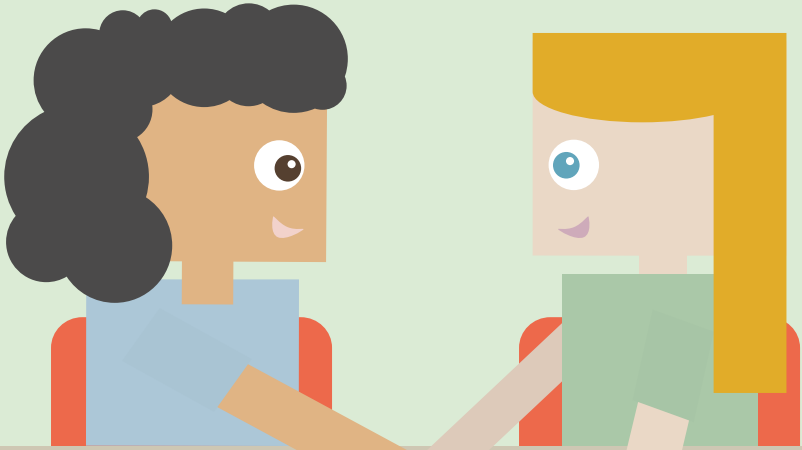
The KRAV label is a trademark registered with The Swedish Patent and Registration Office. The registration gives The KRAV Association sole and exclusive rights to the KRAV trademark. This means that non-licensees are prohibited from labelling or re-labelling KRAV-certified products. However, it is permitted to state in product lists and advertisements that others' products are KRAV-certified.

KRAV has several different labels for different types of products. Besides the ordinary KRAV label, there is a label with English text for use outside Sweden and a special label for production aids. KRAV-certified pre-packaged products covered by the EU regulation must also be labelled with the EU logo. It is however prohibited to use the EU logo on fisheries products as well as pet food, since there are no EU standards for these areas.

Information about who is responsible for the product and which certification body certified the product must always be clearly stated on the packaging.

Voluntary Origin Labelling

The purpose of the standards on voluntary origin labelling is to make it possible, for the KRAV licensees who so wish, to complement the KRAV label with text on geographic origin. The standard applies only to products produced within Sweden. A condition for the labelling is that the products come from a clearly defined and demarcated area. Generally accepted designations such as a particular farm, city, municipality, region, lake, county or sea must be used. Raw materials must always come from the specified area and ideally also be processed there.



This chapter contains the general standards for certification that apply to all KRAV-certified companies.

Contents of this chapter:

- 2.1 What it Means to be KRAV Certified
- 2.2 Certificates
- 2.3 Your Obligations when Certified
- 2.4 Audits
- 2.5 Non-Compliance with the Standards
- 2.6 Appealing Decisions or Lodging Complaints
- 2.7 Contract Issues
- 2.8 Change of Certification Body
- 2.9 Confidentiality
- 2.10 Use of Personal Information
- 2.11 Cooperation with Third Parties
- 2.12 KRAV's Right to Compensation

2.1 What it Means to be KRAV Certified

This section briefly describes what it means to be certified according to the KRAV standards as well as the types of production that can be certified.

2.1.1 Who can Become KRAV Certified

Becoming *KRAV certified* is voluntary and open to anyone who complies with the KRAV standards and a certification body contract. (EU/K)

The KRAV standards for agriculture (Chapters 4-6) can be used in the Nordic countries.

The KRAV standards for fisheries and aquaculture can be used in the Northeast Atlantic and the Baltic Sea as well as in bodies of fresh water in the Nordic countries.

Other KRAV standards can be used within the EU and EEA.

2.1.2 Activities that Require KRAV Certification

Your company must be certified in the following cases:

- In order for you to be able to produce, process, package, store, import or bring in products the company uses or markets with the KRAV name or label (EU/K).
- In order for you to be able to market a KRAV-labelled product and use the company's own name or trademark (EU/K).
- In order for your restaurant to use the KRAV name or label (K).
- In order for your shop to be able to handle bulk sales of KRAV-labelled products and non-KRAV-labelled products where it would be difficult for the consumer to differentiate between them (EU).

2.1.3 Activities that Do Not Require KRAV Certification

Your company does not need to be certified in the following cases:

- If your shop only handles KRAV-labelled products in unopened packages (EU).
- If your shop does not have bulk sales of KRAV-labelled and non-KRAV-labelled products where it would be difficult for consumers to differentiate between them (EU).
- If you are a wholesaler that only handles KRAV-labelled products in unopened packages (K). You do need certification however according to EC regulations (EU).
- If you are a subcontractor and made a contract with a KRAV-accredited agricultural company according to standard 2.11 (K).
- If you have a **vending company** that has made contracts with KRAV-certified companies according to standard 20.8 (K).
- If you have a transport company and transport KRAV-certified products. Both the KRAV-accredited company responsible for loading the products and the KRAV-accredited company receiving the products must check that transport is carried out correctly.

2.1.4 Types of Production

The KRAV standards are partly general and partly adapted to specific categories of activity. You can commit yourself to comply with the KRAV standards for one or several types of production.

The current types of production are:

– Crop Production	Chapter 4
– Greenhouses	Section 4.6
– Mushroom Cultivation	Section 4.7
– Animal Husbandry	Chapter 5
– Apiculture	Chapter 6
– Aquaculture	Chapter 7
– Wild Harvest Production	Chapter 8
– Food processing	Chapter 9
– Slaughter	Chapter 10
– Feed Production	Chapter 11
– Production Aids	Chapter 12
– Shops	Chapter 14
– Restaurants and Caterers	Chapter 15
– Single Product Certification.....	Chapter 15.5
– Import and Bringing In	Chapter 16
– Fisheries	Chapter 17
– Certification of Marketers	Section 20.7
– Marketing of Coffee, Draught Beer or Eggs Served by Another Party	Section 20.8
– Voluntary Origin Labelling	Section 20.9

If you only store and/or handle KRAV-certified products you must be certified according to section 9.15 (Food Processing), section 11.6 (Feed Production) or section 12.6 (Production Aids) depending on the type of activity.

If you are a farmer and process KRAV-certified raw materials you must comply with the standards in Chapter 9 regardless of whether the raw materials come from your own or someone else's production.

If you have a farm shop and purchase others' products that you sell in bulk or using your own name you must comply with the standards in Chapter 14, with the exception of the requirement regarding having a broad selection of goods (standard 14.1.2).

2.1.5 Application

In order to be certified according to the KRAV standards for the various types of production, you must submit an application to an approved **certification body**. The types of production available are given in standard 2.1.4.

An application for KRAV-certification is a commitment to:

- comply with the relevant sections of the KRAV standards (EU/K),
- provide completed application forms to the certification body (EU), and
- pay the appropriate fees for certification to the certification body (EU) and for the licence to KRAV. See also standard 2.7.1 (K).

There is a list of approved certification bodies on the KRAV website.

Certification bodies provide application documents and information about current standards and prices.

2.1.6 When to Apply

For most activities, an application can be submitted at any time during the year. You must submit your application far enough in advance so that the **certification body** has enough time to deal with it prior to when you want to start the KRAV-certified activity. The relevant certification body provides information about when applications must be submitted and about any fees involved, for example if a new **audit** is required after a change in activity. If your production requires a **conversion period**, the certification body must provide notification of when your production can be approved. For wild harvest production (Chapter 8), the final application date is during the spring so that the certification body can plan and carry out an audit in time. This date can be found in the certification body's application documents for each year.

2.1.7 Compliance with Standards and Revisions

Certification means that you commit yourself to comply with the current KRAV standards. These are on the KRAV website, www.krav.se.

KRAV has as a goal to notify certified entities well in advance of changes in the standards for KRAV-certified production. The goal is to provide notification at least three months before the new standards take effect.

2.1.8 KRAV Standards Comply with EU Regulation (EC) 834/2007

The KRAV standards are written to comply with EU regulations on organic production. If the EU regulations are stricter than the KRAV standards, the EU regulations take precedence.

The following types of KRAV production do not have an equivalent in the EC regulation: feed production for pet food (section in Chapter 11); shops (Chapter 14); restaurants and caterers (Chapter 15); and fisheries (Chapter 17).

2.1.9 KRAV Labelling in Relation to Other Organic Regulations

You must not KRAV-label products produced in Sweden if the raw materials are certified according to an organic **standard** other than the KRAV standards.

Specific standards must be followed in order to KRAV-label products *imported* or *brought in*, see Chapter 16 (Importing and Bringing In).

2.1.10 Compliance with the Law

You must follow the applicable laws and regulations for the type of production you are certified for. Furthermore you must also act responsibly, amongst other things, by not taking part in production or activities that are in conflict with the KRAV statutes or that could damage the KRAV trademark.

All laws and regulations that apply to your activity take precedence over the KRAV standards for KRAV-certified production. (EU)

2.2 Certificates

This section describes how certified companies get their **certificate**, i.e. the affidavit for the production the company is certified for. Without a certificate, you are not allowed to sell products with the KRAV name or label on them.

2.2.1 Valid Certificates

You must have a valid **certificate**. You are not allowed to sell products with the KRAV name or label on them before you have received a signed certification contract and a certificate for the type of production concerned from your certification body (see standard 2.7.3). Before a certification body issues a certificate an **audit** of your activity must be carried out and the results approved. (EU)

2.2.2 A Certificate is Required for Each Individual Type of Production

You must apply for a new **certificate** for new activities within a type of production that you have not previously been certified for. The types of production are listed in standard 2.1.4.

2.2.3 Report Changes

You must inform your **certification body** about all significant changes in your activity (EU). Important changes are for example, change of location of an activity, change of ownership, or change of contact person. Another important change is alteration of certified production so that information previously submitted about the production that is significant for certification is no longer correct.

You must also report the following changes to your certification body:

- new *agricultural holdings/barns/greenhouses*, (EU)
- new parcels, (EU)
- new animal breeds, (EU)
- new *production unit*, (EU)
- new production line, (EU) and
- new processes. (EU)

2.2.4 Notification of New Products

If you are certified for one or more of the following production types: aquaculture, food processing, slaughter, feed production, production aids or *import* and *bringing in*, you must inform KRAV of the KRAV-certified products you plan to sell prior to marketing them. As well, you must also deregister products no longer sold as KRAV certified. Reporting is done by filling out a form on the KRAV website. See also standard 2.7.2. (K)

Your certification body verifies that the information is correct when they carry out an audit. (K)

As KRAV-certified companies can start new lines of production at any time during the year, a product can be registered on the KRAV website before being approved in an annual audit. Certification does not imply any pre-approval of individual products.

2.3 Your Obligations When Certified

This section describes your obligations when certified. These include, amongst other things, that you have a contact person, document your compliance with the KRAV standards, report *nonconformities* and that you make sure everyone involved in your activity is aware of the implications of KRAV-certification.

2.3.1 Inform Staff

You must inform everyone involved in your activity about the implications of KRAV-certification. It is your responsibility to ensure that all staff handling KRAV-certified products are adequately aware of the requirements for the activity so that they can comply with the standards. (EU)

2.3.2 Contact Person

You must designate a contact person for each *production unit* covered by the contract for certification according to the KRAV standards. You must give the name of the contact person to your *certification body*. The contact person must be well informed about the KRAV standards and the activities at the production unit. (K)

2.3.3 Documentation Requirement

You must document how you comply with the KRAV standards and the documentation must be made available according to instructions from the

certification body. The certification body has the right to require that you have the documentation it deems necessary.

You must keep current documentation about the **products** and raw materials you purchase for use in KRAV-certified production. The documentation must include information on what you have purchased, how much was bought, as well as who or what company supplied the products or raw materials. As well, you must keep current documentation about the KRAV-certified products you sell, i.e. what you have sold, how much and to who or what company. (EU)

In order for purchased raw materials and **products** to be considered KRAV-certified, it must be clearly stated on invoices, delivery vouchers or other documentation (e.g. a **certificate**) that they are KRAV-certified. (EU/K)

You must save the documentation for at least two years or according to current law so that it can be checked by the certification body. (K)

2.3.4 Report Nonconformities

You must as soon as possible report to your **certification body** if anyone within your operation violates the standards for KRAV-certified production in a manner that results in a major **nonconformity** (see standard 2.5.7). You must do this regardless of who was involved and whether or not it was a mistake. (EU)

2.3.5 Inform Buyers about Changes

If a **product** that was KRAV-certified no longer is, you must immediately correct your information about the product so that customers are not misled. Amongst other things, it may be necessary to actively inform buyers to avoid incorrect marketing.

2.3.6 Economic Liability Towards Buyers

When you sell **products** using the KRAV name or label, you have full responsibility for complying with the KRAV standards in KRAV-certified production. Your company is economically liable towards buyers if you supply products as KRAV-certified that are not. (K)

2.4 Audits

During an audit the **certification body** carries out an **inspection** of your activity within the types of production you are already certified for or in the process of being certified for. A quality management or corresponding system often facilitates audits and evaluations.

2.4.1 Audit Interval

Your **certification body** must carry out at least one annual **audit** of your KRAV-certified activity. (EU)

For animal husbandry, on average, more audits are required than for other KRAV-certified production. During the first two years, KRAV-certified animal farmers must be audited twice per year. This is to ensure that the standards are

complied with both during the *stable and the grazing periods*. Starting with the third year of being a KRAV-certified animal farmer, the *certification body* carries out at least one annual audit. (K)

2.4.2 Unannounced and Extra Audits

The *certification body* can carry out unannounced or announced audits and extra audits at any time during the period of the contract. (EU)

Ten per cent of a certification body's audits must be unannounced audits and 10% must be risk-based extra audits (these do not need to be unannounced). These audits must be distributed among all the certified companies. (EU/K)

For animal husbandry farms, the certification body must make 30% unannounced extra audits per year, for example, at critical times. The certification body distributes these unannounced audits in part according to a risk analysis and in part completely at random. These unannounced extra audits can be with regard to specific issues or be more comprehensive. (K)

For slaughterhouses (with the exception of small slaughterhouses) certification bodies must carry out at least one annual unannounced extra audit which focuses on management of live animals (see also standard 10.1.5). (K)

2.4.3 Access

The *certification body* is entitled to inspect and receive documentation on all your activities if it considers it necessary in order to certify the registered production.

You must:

- provide all information about the operation in question that is requested by the certification body, for example accounting, *certificates*, and documents (EU), and
- give the certification body access to all land, *greenhouses*, stables, warehouses, manufacturing and production facilities, sales locations, serving locations and other places that are part of the operation. (EU)

2.4.4 Sampling

The *certification body* has an obligation to take samples of products and cultivated land from the equivalent of 5% of all certified companies as well as in the case of suspected non-compliance with the standards. The samples must be analysed for prohibited substances such as prohibited *pest control substances*, *GMOs*, food additives and pharmaceuticals. (EU)

2.5 Non-compliance with the Standards

This chapter deals with nonconformities. A *nonconformity* is when an activity either partially or completely does not comply with a KRAV standard. There are three levels of nonconformity: minor, major and grounds for suspension. (K)

It is normal for an activity to have small nonconformities. What is important is that you find and correct your nonconformities, as well as prevent them from occurring again. (K)

The purpose of issuing nonconformities is to improve activities, to clearly show when the KRAV standards have not been met, to avoid the sale of products that do not meet the standards, as well as to prevent damage to the credibility of the KRAV label. (K)

2.5.1 Registering Nonconformities

When an **auditor** discovers a **nonconformity**, the auditor must document it. Every nonconformity must be documented separately. This is called registering a nonconformity.

2.5.2 Closing of a Nonconformity

Nonconformities are dealt with in two steps: you must first correct the problem in question and then you must take measures to prevent further occurrences of the nonconformity. You must also report the actions taken to your **certification body**, which determines if the problem really has been corrected and if the preventive measures are adequate. Once the certification body has approved the measures the nonconformity is considered closed. If the measures are not approved, the nonconformity can be closed by issuing a sanction. Exactly how nonconformities are closed varies according to whether they are minor, major or grounds for suspension.

2.5.3 Immediate Closing of a Nonconformity

In some cases a **nonconformity** can be taken care of so quickly that it can be closed while the auditor is still on site. Such nonconformities must be registered, dealt with and prevented from occurring again in the same manner as other nonconformities. It is thus easier to see if a problem recurs.

2.5.4 Minor Nonconformities

A minor **nonconformity** is when your activity does not comply with one or more individual requirements of a KRAV standard.

In the case of a minor nonconformity, you must respond to the auditor within 28 working days. Your response must include:

- which measures you have taken to correct the problem, and
- which preventive measures you have taken or will take to prevent a recurrence of the nonconformity.

Within five working days your **certification body** must notify you if they have decided to approve the measures you have taken. The nonconformity is considered closed when the certification body has approved the measures taken.

2.5.5 If Measures to Remove a Minor Nonconformity are Not Approved

If the **certification body** does not approve your response, they will provide notification that the **nonconformity** is classed as a major nonconformity and the case is handled according to standard 2.5.7 - 2.5.11.

If the certification body considers that your response only partly solve the problem, they can request extra information. The amount of time you have to answer is determined by the certification body.

2.5.6 *Checking Measures to Remove a Minor Nonconformity*

The measures you have taken to correct a problem and prevent it from recurring will be checked by the **certification body** during the next **audit**. If it turns out that you have not corrected a **nonconformity** or prevented it from recurring as documented in the response, the auditor must treat the nonconformity as a major nonconformity.

2.5.7 *Causes of Major Nonconformities*

The following result in major **nonconformities**:

- You seriously fail to comply with a more extensive standard or group of standards concerning closely related issues. In Chapter 5, non-compliance with standards that normally result in a major nonconformity are indicated while in other chapters they are not.
 - You incur at least six minor nonconformities during a single audit regarding requirements in the same chapter or a total of 10 minor nonconformities.
 - You carry out production or activity that conflicts with current laws and regulations for the types of production you are certified for (see standard 2.1.10).
 - Deficient working or social conditions (see standard 3.1).
 - You did not correct or prevent recurrence of a minor nonconformity.
- A current list of types of production is given in standard 2.1.4.

2.5.8 *Major Nonconformities that Can be Corrected*

If your **certification body** determines that a **nonconformity** can be corrected, they request an action plan from you. You must submit it to the certification body within seven working days. The plan must describe:

- the measures that you will take to correct the problem,
- the reason for the nonconformity, and
- the preventive measures that you will take to prevent the nonconformity from recurring.

Your certification body must notify you within five working days if they have decided to approve the action plan. If the plan is approved, the certification body will do a follow-up by carrying out an extra audit within 28 working days after the original audit. This may take a longer time if necessary, for example if the audit must be done in the right season. When the certification body has done the extra audit and verified that the measures have been implemented, the nonconformity is closed.

The certification body has the right to require payment for this extra audit.

2.5.9 *If Measures to Close a Major Nonconformity Are Not Approved*

If your **certification body** does not accept your action plan, they will decide to totally or partly decertify the production in question. The case is handled as a major **nonconformity** that cannot be corrected (see standard 2.5.11).

In some cases the certification body can decide to decertify your products instead of wholly or in part suspending your certificate (see standard 2.5.13).

The certification body can request extra information if they consider that the situation is close to a satisfactory solution.

2.5.10 If Measures to Close a Major Nonconformity Are Not Complied With

If at the follow-up audit a major **nonconformity** has not been corrected, the certificate for the production in question is totally or partly cancelled.

When the nonconformity is corrected and the **certification body** has verified this through an extra audit, a new conversion period begins for production that has a **conversion period**.

2.5.11 If a Major Nonconformity Cannot be Corrected

If the **certification body** determines that a **nonconformity** cannot be corrected, they must totally or partly decertify the production. You must then notify your certification body within seven days about the measures you have carried out as a result of the loss of the certificate, for example that you have informed your customers that a product is no longer KRAV-certified and have recalled such **products**.

In some cases the certification body can decide to decertify your products instead of totally or partly withdrawing your certificate (see standard 2.5.13).

2.5.12 Nonconformities that Constitute Grounds for Suspension

In the case of very serious nonconformities, your certification body may decide to suspend you for from one to three years. You cannot be KRAV certified during the suspension period. You can be suspended if your production seriously deviates from "The Goal of Organic Production" (see Chapter 1) in any of the following ways:

- you seriously deviated from animal care standards,
- you repeat a major nonconformity for the third time during a five year period.

The following can also result in suspension:

- you have consciously used prohibited chemical products in crop production,
- you have consciously used genetically modified organisms (GMOs) or GMO products,
- you have consciously used prohibited additives in KRAV-certified food, or
- you have consciously declared that a non-KRAV-certified raw material or product is KRAV-certified.

If the KRAV licensee is a legal person, action from a managing representative can be ascribed to the legal person.

After the suspension period, you can apply for certification according to the same conditions as new certification.

2.5.13 Suspension of Labelling

Your certification body can suspend labelling of your products until a major **nonconformity** has been closed. This means that during that period you cannot sell the products concerned as KRAV-certified. When you have closed the

nonconformity and again comply with the standards, the suspension of labelling is terminated.

Suspension of labelling assumes that you comply with all other standards while measures are taken to close the nonconformity that resulted in the decision to suspend labelling.

2.5.14 *Temporary Suspension of a Certificate Because of a Nonconformity*

The *certificate* for your production can be totally or partly suspended if the *certification body* finds a major nonconformity or a nonconformity that constitutes grounds for suspension. The suspension is in effect while the nonconformity is investigated so that faulty products are not sold.

2.5.15 *Withdrawal of a Certificate*

The *certificate* for your production can be totally or partly withdrawn. The decision by the certification body documents the extent of the withdrawal, *e.g. for specific parcels of land or specific products*. If a *certification body* withdraws a *certificate* for land or animals, a new *conversion period* is required according to standards 4.1.1 and 5.1.2.2. (EU)

2.5.16 *Restoration of a Certificate*

For your production to regain its *certificate*, you must submit a plan including the following information:

- the reason for the *nonconformity*, and
- the preventive measures that you will take to prevent the nonconformity from recurring.

If the plan is approved, the *certification body* will carry out a follow-up extra audit within 28 working days after you gave notification that you implemented the planned preventive measures.

The certification body has the right to require payment for this extra audit. (K)

2.6 **Appealing Decisions or Lodging Complaints**

This section is about appealing decisions regarding certification as well as about lodging complaints. Your *certification body* can give you a detailed description of how to appeal a negative decision regarding certification.

2.6.1 *The Right to Appeal*

You have the right to appeal decisions by your *certification body*.

2.6.2 *Appeal to the Right Authority*

Your appeal of decisions regarding the KRAV standards must be sent in writing to your *certification body* which will make a decision on the appeal (K). Appeals regarding decisions based on laws for *organic* production must be made to the County Administrative Board in the county where your certification body is registered. (EU)

2.6.3 Who Can Appeal?

Only you and your KRAV-certified company can appeal a decision in a specific certification case. The appeal must be received by the **certification body** within three weeks of when you received the decision in question. (K)

The certification body has the right to reconsider a decision if new information becomes available, even if you have not appealed.

2.6.4 Complaints

Complaints about a **certification body** must be addressed directly to the certification body. Complaints regarding KRAV or the KRAV standards should be addressed to KRAV.

2.7 Contract Issues

This section covers the formal parts of the contract between a KRAV-certified entity and the **certification body**, specifically, contracts, cancellation of contracts, fees, and financial reporting.

2.7.1 KRAV-certification

Once your **certification body** has received and dealt with your complete application, both you and the certification body must sign a certification contract. It is at this point that you become **KRAV-certified**. It is your responsibility to ensure that the information you provide to the certification body is correct. (EU)

2.7.2 Contract with the Certification Body

Your contract with your **certification body** regulates amongst other things: (K)

- what information you must report to the certification body and how this must be done,
- periods of notice, and
- other conditions concerning contract termination.

2.7.3 Contract Termination

When the contract ends, the **certification body** immediately revokes all valid **certificates**. After that point, you cannot use the KRAV label and/or refer to KRAV in any way. You must destroy or send back to KRAV all material that suggests that your operation is certified according to the KRAV standards.

Furthermore, you can no longer market products as KRAV-certified. (K) For six months following termination of the contract, the certification body has the right to check that the KRAV name or label is not being used improperly. This means, amongst other things, that the certification body has the right to inspect the company's financial accounts and check warehouses and packaging areas. (K)

If you stop producing KRAV-certified products but want to continue selling products left in stock, you must remain **KRAV-certified** and possess a valid certification contract.

2.7.4 License and Certification Fees

The cost for KRAV-certification consists of both a license fee to the KRAV association and a certification fee to the *certification body*.

You must pay a licence fee for the right to use the KRAV standards and the KRAV label according to KRAV's annually set price list. You will be invoiced by the certification body that carries out the KRAV-certification, unless certification is for one or more of the following production types: aquaculture, food processing, slaughter, feed production, production aids, or *import* and *bringing in* (see standard 2.7.5). (K)

In addition to the license fee you must pay the certification body for its certification services. (EU)

2.7.5 Reporting Value of Sales

The value of sales of KRAV-certified products during the previous calendar year must be reported by 15 March every year if you are certified for one or more of the following production types:

- aquaculture,
- food processing,
- slaughter,
- feed production,
- production aids, and/or
- *import* and *bringing in*.

You must report the values by filling out a form on the KRAV website, www.krav.se/rapportering (click on "Logga in/rapportera" - in Swedish only).

Invoicing for KRAV licences takes place in two steps: first there is a preliminary invoice based on sales from the previous year and then a final invoice where KRAV credits or invoices depending on what the actual sales value was for the year in question.

2.8 Change of Certification Body

This section deals with the requirements if you want to change from one KRAV-accredited certification body to another KRAV-accredited *certification body*.

2.8.1 Application to Change Certification Body

If you want to change *certification bodies*, you must apply to the new certification body for a transfer of certification. The new certification body must then get assurance from the current certification body that your activities have their approval. (EU)

When changing certification bodies, the contract with the previous certification body must be terminated in writing when the contract with the new certification body is completed. (EU)

When you are issued a new certificate, the new certification body reports the change to KRAV. (K)

2.8.2 Documentation Requirement for Change of Certification Body

When changing *certification bodies* you must submit the following documentation to the new certification body: (EU)

- audit report from the latest audit,
- all nonconformities and information about corrective measures from the four most recent years' audits,
- copy of the current KRAV *certificate*, and
- a report of what in your operation is: KRAV-certified, in first year's conversion, in second year's conversion, *EU-organic* or conventional.

If you have certified crop production you must also submit a land use report with associated map. The following must be marked on the map: first and/or second year conversion areas, and EU-organic or conventional areas.

If you have certified animal husbandry, the number of animals of each kind and information about any on-going *conversion period* for animals must also be given.

2.8.3 New Audit Upon Change of Certification Body

The new certification body examines the documentation and determines if they have to carry out a new *audit* before issuing a new *certificate*.

All nonconformities must be corrected before you are issued a new certificate. This includes both nonconformities from the previous certification body as well as those found by the new certification body. (K)

2.9 Confidentiality

If you have not granted permission to give out information on your business activities and production methods, neither the *certification body* nor KRAV can give this information to anyone else, except in the following cases:

- KRAV has the right to give out information if it can be shown that the information was already generally known. (K)
- The certification body and KRAV have the right to make information public if a court or government agency requires it. The certification body and KRAV must then inform you about this as soon as possible. (EU)
- KRAV can use information about and from your certified activities even if the data would otherwise be protected by confidentiality if the purpose is to develop the organic market, for example, by publishing statistics. This may only be done in ways that do not reveal your identity. (K)
- Your certification body must provide the information they have regarding your production to KRAV if KRAV requests it. In such a case, confidentiality applies to KRAV according to this standard.
- The certification body and KRAV are entitled to provide information about if and how a certified party violates the KRAV standards. (EU)
- Certification bodies must exchange information when a customer changes certification body or when nonconformities are investigated. (EU)

2.10 Use of Personal Information

To be able to provide information about which companies are certified according to the KRAV standards and in order to work efficiently, the certification body and KRAV keep a list of all certified parties. (EU)

2.10.1 Publishing Information

KRAV and the certification body can publish information about name, address, contact person, type of activity and certified products on their respective websites. The purpose of publishing this kind of information is to help buyers find KRAV-certified companies and products. (K) (I)

2.10.2 Consent for Use of Personal Information

By signing the certification contract, you consent to use of personal information by KRAV and the *certification body*. (K)

2.10.3 Withdrawing Consent and Changing Information

If you want to withdraw consent and permission for personal information to be used in this way or to correct information in the *certification body's* or KRAV's list, you must contact the certification body and KRAV. (K)

2.10.4 Access to Information

Upon your request, your *certification body* or KRAV must be able to provide the following information: how your personal information is handled, for what purposes information about you has been used, what information about you is registered, the source of the information, as well as to whom the information has been given. (K)

2.11 Cooperation with Third Parties

This section describes how a *KRAV-certified* farmer can make contracts with subcontractors and what must be included in such contracts.

2.11.1 When a Contract is Required

A KRAV-certified farmer can hire a subcontractor for part of their KRAV-certified production without the subcontractor being KRAV-certified. The *certification body* then *audits* the subcontractor as part of the audit for the activity. (EU/K)

It is assumed that the activity concerned is so simple that the KRAV-certified farmer can be responsible for making sure that the KRAV standards are complied with. Examples of such an activity are the storing of products or simple processing of raw materials such as drying grain, cleaning seeds or making jam. For simple processing all *ingredients* included in the product must be self-produced. Exceptions are vegetable materials and permitted *additives* (according to Appendix 2), which may be purchased. (K)

Contracts with subcontractors cannot be used for slaughter. (K)

A contract is not required if both your agricultural company and the hired subcontractor are KRAV certified. (EU)

2.11.2 Reporting

If you hire a subcontractor for any part of your KRAV-certified agricultural production you must report it to your **certification body** and make a contract with the subcontractor before the cooperation begins. (EU)

2.11.3 Contents of Contracts

The following must be included in contracts between a KRAV-certified entity and a subcontractor (K):

- The subcontractor must agree to comply with the relevant parts of the KRAV standards.
- The subcontractor must give the certification body the right to carry out audits of the activity concerned according to the conditions in these standards.
- The KRAV-certified entity is responsible for any nonconformities by the subcontractor that the certification body finds.
- The subcontractor does not have the right to use the KRAV name or label.

2.11.4 List of Subcontractors

You must keep an easily understood list of any subcontractors you have had contracts with. (EU)

+ 2.12 Damages and Suspension in Situations where the KRAV Trademark can be Damaged

+ 2.12.1 Action that constitutes Grounds for Suspension

If you violate laws and standards, or otherwise act in a reprehensible manner, and KRAV believes that your actions risk damaging the KRAV trademark or reputation, the **certification body** can make a decision to suspend you for one to three years. You cannot be KRAV certified during the suspension period.

Examples of actions that can lead to suspension:

- that you slander or spread faulty information about KRAV,
- that you commit a criminal act of at least the normal degree related to animal welfare, the environment, and social responsibility, or
- that you violate other laws and standards in a way that risks damaging the KRAV organisation or the KRAV trademark or reputation, or
- that you in any other way act in a reprehensible manner that risks damaging the KRAV organisation or the KRAV trademark or reputation.

If the KRAV licensee is a legal person, behaviour from a leading representative can be attributed to the legal person.

2.12.2 *KRAV's Right to Compensation*

If you act in such a way that KRAV must intervene to a substantial extent to protect its trademark, you can be liable for additional costs incurred. (K)



PACKAGING



SOCIAL RESPONSIBILITY



ENERGY

3

General Standards
for all KRAV Licensees

This chapter contains standards relevant to all companies certified according to the KRAV standards with the exception of Single Product Certification (Chapter 15.5).

Contents of this chapter:

- 3.1 Social Responsibility for KRAV Licensees
- 3.2 Handling and Storing of KRAV-certified Products
- 3.3 Substances and Materials
- 3.4 Reduction of Environmental and Health Impacts due to Measures Related to Hygiene
- 3.5 Packaging
- 3.6 Protection of Natural and Cultural Environments
- 3.7 Energy Use
- 3.8 Energy Planning for Agricultural Companies
- 3.9 Energy Planning For Greenhouses

3.1 Social Responsibility for KRAV Licensees

This section includes standards for working conditions and the working environment.

3.1.1 The Labour Force Concerned

The standards for social responsibility apply to the entire labour force in a KRAV-certified activity. This includes seasonal workers, immigrant workers, staff from agencies supplying temporary workers, or anyone who out of personal interest helps with the activity (*for example volunteers or trainees*). The standards do not apply to service companies, transport companies, tradespeople or other workers who do not work with the core activity. (K)

3.1.2 Respect Human Rights

You must respect basic human rights in all aspects of your activity. (K)

The KRAV standards on social responsibility are based on the UN Universal Declaration Of Human Rights, the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises, the UN Global Compact and The International Labour Organization's (ILO's) conventions and recommendations relevant for social responsibility.

3.1.3 Compliance with Laws on Social Responsibility

You must comply with Swedish labour law regarding working conditions and the working environment and The European Convention on Human Rights (Article 4). KRAV has selected certain parts of these laws that are especially important (K):

- employment contract,
- discrimination,
- salary,
- working hours,
- sickness and accidents,

- housing/overnight accommodation, and
- education and communication.

These selected parts are found in KRAV's checklist - Social Responsibility for those with KRAV certification (July 1, 2015 edition, in Swedish only), which can be downloaded from www.krav.se.

+ 3.1.4 Checklist for Social Responsibility

Those engaged in activities within areas where KRAV considers there to be an elevated risk for noncompliance with the standards on social responsibility, must fill in a checklist (see Standard 3.1.3) prior to audits.

The activities are (K):

- wild harvest production
- activity with seasonal workers
- upon admission for KRAV certification for wild harvest production or activities with seasonal workers,
- in other cases where certification bodies determine there are risks.

3.1.5 Areas of Risk Regarding Social Responsibility

KRAV considers that there is a risk for noncompliance with the standards on social responsibility in connection with: wild harvest production, activity with seasonal workers, and when applying for KRAV certification. In individual situations, certification bodies can determine there to be other risks. (K)

3.1.6 Safe and Hygienic Living Conditions

The living conditions you offer employees must be safe and hygienic (SL). If you do not provide housing, you must in any case make sure that housing complies with Swedish law (K). *This can apply to, for example, hygiene, health, environmental and fire protection in housing for seasonal workers.*

3.1.7 Multilingual Information

Written information needed by employees to carry out their work must be available in a language that the employee understands (SL). *This can apply to, for example, work routines, employment contracts and the KRAV standards for social responsibility.*

3.2 Handling and Storing KRAV-certified Products

This section gives standards for storing and handling KRAV-certified *products*. The goal of these standards is to ensure that KRAV-certified products are not mixed with non-KRAV-certified products and that they are not contaminated by the surrounding environment.

3.2.1 General Separation

You must handle KRAV-certified products in such a way so that there is no risk of mixing them with non-KRAV-certified products. You must have clear routines

for storing and handling KRAV-certified products so that they are always kept separate from non-KRAV-certified products. (EU)

3.2.2 Separation During Processing

When you use the same premises, machines, etc. for both KRAV-certified production and production which is not KRAV-certified, the risk of mixing them up must be minimised by clearly separating them during the production process. Carefully clean items such as containers, transportation equipment and machines each time production of KRAV-certified products begins. Make sure there are written procedures to ensure that the separation is maintained. (EU)

3.2.3 Avoiding Contaminants

You must have in place procedures to ensure that KRAV-certified **products** and production aids cannot be contaminated by unwanted substances in the surroundings (for example by containers or packaging). (EU)

Carefully clean packages or wrapping that has contained non-KRAV-certified products if it will be used to store KRAV-certified products. (EU)

3.2.4 Receiving a KRAV-certified Product

When you purchase KRAV-certified **products** you must check, upon delivery, that the product is properly labelled and packed in such way that it cannot be mistaken or mixed up with other products. You must be able to give an account of how you check goods on reception. (EU)

You must always ask to see the current KRAV certificate before purchasing KRAV products. The certificate does not need to be shown for subsequent purchases from the same seller unless the certificate has expired at the next purchase. In that case you must request to see a new certificate. (K)

3.2.5 Labelling for Storage

KRAV-certified **products** must be stored clearly labelled with the KRAV name or label to avoid confusion with conventional products. The only exception is when all products in a storage space are KRAV-certified. (EU)

3.2.6 Storage Atmosphere

You can use both airtight storage and storage in a controlled atmosphere (carbon dioxide, nitrogen gas, argon or oxygen). (EU)

3.3 Substances and Materials

This section covers how to work in a preventive manner in choosing substances and materials for use in your activity.

3.3.1 General Guidelines for Substances and Materials

You should try to use substances and materials in your KRAV-certified production

that meet the following general requirements:

- they must not be non-naturally occurring,
- they must not pose risks to human health or the environment,
- they must promote good animal care,
- the production process must be sustainable from an environmental perspective,
- their use must contribute to and be necessary for good food safety, and
- their use must be in accordance with the understanding and expectations of consumers. (K)

3.3.2 Precautionary Principle – Substitution Principle

You must avoid use of chemical products or biotechnological organisms that do not meet KRAV's general criteria for substances and material in standard 3.3.1 if they can be replaced by products or organisms that are presumed to be less harmful. (SL)

3.3.3 Preventive Measures

You must take preventive measures such as risk assessment, hygienic and construction measures, monitoring as well as cleaning in order to minimize the use of chemical substances and risks for contamination. (EU)

3.3.4 Use of Genetically Modified Organisms is Prohibited

In your KRAV-certified activity, you are prohibited from using genetically modified organisms (GMOs) or products made from or of GMOs such as food, food ingredients (including additives and flavourings), processing aids (including extraction solvents), feed, multi-ingredient feed, feed raw materials, feed additives, processing aids for feed production, seed, plant protectants, fertilisers, soil improvement products, vegetative propagating material, and animals. An exception is veterinary medicinal products. (EU)

You are also prohibited from cultivating genetically modified crops on a KRAV-certified agricultural holding. If you cooperate with another agricultural company in accordance with standard 4.1.3, the standard also applies to these agricultural holdings. (K)

3.3.5 Risk Assessment for GMOs

In your KRAV-certified activity, you must do what you can to ensure that the products you use do not contain GMOs or are made from or of GMOs. If there is a risk that a product or raw material contains GMOs or is made from or of GMOs, a document must be procured which confirms that the product does not contain GMOs or is made from GMOs, or an analysis of the product must be requested. The maximum permissible level allowed for unintentional and technically unavoidable occurrence of GMOs is 0.1%. (K)

For assessment you must use the KRAV risk lists for GMOs (July 1, 2015 edition) on the KRAV website, www.krav.se/extra-requirements-all-products.

3.3.6 Use of Nanomaterials and Nanotechnology is Prohibited

You must not use technologically created nanomaterials in KRAV-certified production and processing, including packaging and other surfaces that come into contact with food. (K)

3.4 Reduction of Environmental and Health Impacts due to Measures Related to Hygiene

This section deals with standards for working with hygiene. The aim is to minimise negative health and environmental impacts that occur during measures related to hygiene, such as cleaning, disinfecting and pest control.

See the Swedish Chemicals Agency's priority guide for more information on the environmental and health hazards of chemicals.

3.4.1 Hygienic Measures Apply to the Entire KRAV-certified Production Unit

All hygienic measures are included, *such as, for example, cleaning or disinfecting animal stables, other production facilities, facilities for plant cultivation including greenhouses or facilities for the processing industry.* (EU)

Cleaning of KRAV-certified shops, caterers, and restaurants are also included in the requirement. (K)

3.4.2 Documentation

You must document routines for cleaning and disinfecting. Pest management measures must always be documented.

3.4.3 Permitted Cleaning and Disinfection Agents

The cleaning agents you use must be ecolabelled with The Nordic Ecolable, Good Environmental Choice or the equivalent if such products are available for the task at hand. (K)

You can use products for cleaning and disinfecting teats and milking facilities. Products in "Bra Kemråd" ("Good Chemical Advice" - in Swedish only) (for farms) can be used in livestock stables (www.brakemrad.se) (K).

As well, you can use the following substances for cleaning and disinfection in production and storage areas where KRAV-certified products are stored or handled (K):

- potassium and sodium soap,
- water and steam,
- lime wash,
- lime,
- quick lime,
- caustic soda,
- caustic potash,

- hydrogen peroxide,
- natural essences of plants,
- citric acid, peracid, formic acid, lactic acid, oxalic acid and acetic acid,
- alcohol,
- nitric acid (dairy equipment),
- phosphoric acid (dairy equipment), and
- sodium carbonate.

You can use substances not on the list if they are required in order to comply with laws or requirements of government agencies. Decontaminated premises can be used once the decontamination is complete (EU). The standards for veterinary treatment in standard 5.1.11.9-14 apply to prescribed veterinary pharmaceuticals (K).

3.4.4 Pest Control

For pest control indoors and outdoors at KRAV-certified places of production, you must always first take preventive steps, for example, blocking entry. As a second option, mechanical measures may be used, *for example, traps for rodents*. Traps should be placed strategically taking into account situational factors, for example the paths taken by the pests or access to other food.

You can use the following physical methods:

- freezing,
- ultrasound,
- UV-light,
- heat,
- steam,
- diatom powder, and
- oxygen reduction with nitrogen gas.

You must have valid authorisation and competence documentation for use of substances against rodents (rodenticides), or a professional pest control company must be hired. You must document the location of pest control stations, the substances used, who has carried out the pest control and when it took place. You must also carry out an evaluation of the efficiency of the pest control. (EU/K)

3.4.5 Pest Control on Premises Without KRAV-certified Products

At places of production where KRAV-certified activity is carried out, and where pest control and disinfection by means other than those given in 3.4.3 and 3.4.4 has taken place, but in premises where no KRAV products are handled or stored for the time being, you must take measures to ensure that no residues of the substances used can contaminate KRAV-certified products. You must keep a record of the disinfection and pest control measures carried out.

3.4.6 Pest Control in Shops Only After Examination

After examination by a certification body, pest control in shops may be permitted even when KRAV-certified products remain on the premises. (EU)

3.5 Packaging

This section includes standards for packaging.

3.5.1 Resource-efficient Packaging for KRAV-certified Products

You must choose or design packaging so that food, feed or production aids reach final consumers without unnecessary loss of quality, and so that waste is minimized at every stage. (K) The main purpose of packaging is to protect and preserve the product.

In addition, packaging should be as resource efficient and as climate neutral as possible by taking the following into account (K):

- using as little material as possible,
- using renewable packaging material,
- using recycled material when possible,
- making sure packaging can be re-used or recycled in existing systems,
- making sure packaging favours energy efficient methods of transportation, and
- making sure it is easy for consumers to sort and empty packaging.

During inspections, you must be able to show that this has been done for the packaging used. For existing packaging, an explanation of the reasons the packaging was chosen must be available by 1 January 2016 at the latest. (K)

3.5.2 Avoiding Substances and Materials that are Harmful for Human Health and the Environment

The toxicity of substances and materials used in packaging of KRAV-certified products must be as low as possible. This is especially important for the part of the packaging that comes in contact with food, feed or production aids. (K)

For KRAV-certified shops and restaurants, the standard applies to all packaging materials used in the KRAV-certified activity.

For new packaging, you must not use materials where SIN substances have been intentionally used during production. A current list of SIN substances is given in Appendix 3. If SIN substances are present in current packaging, a list of the substances and materials in the packaging must be made as well as a phase-out plan. (K)

The following dates apply to the following substances:

- starting 1 January 2017, PVC (polyvinyl chloride) and other chlorine-based plastics must not be present in any part of packaging (K).
- starting 1 January 2018, BPA (Bisphenol A) must not be present in any part of packaging (K).

Furthermore, packaging must not be treated with preservatives or disinfectants. However, disinfection with the help of hydrogen peroxide is permitted. (K)

3.6 Protection of Natural and Cultural Environments

3.6.1 Protection of Natural and Cultural Environments

You must show care for natural and cultural environments, especially for natural and cultural environments that warrant protection if your production is carried out in or near such environments. (K)

In standards 4.1.10 and 4.1.11, there are more standards for protection of natural and cultural environments that apply to agriculture.

3.6.2 Products to Avoid

The following applies to agricultural companies:

- You must not use pesticides on gravel paths, roads and yards, with the exception of vinegar for weed control.
- You must not use non-woven fabrics or plastics based on chlorinated plastic such as polyvinyl chloride (PVC) for ground or plant cover, insect net or silage plastic. If you use non-woven fabrics or plastic of any type, they must be removed from the ground after use. You must not burn them on sites where they have been used. You do not need to remove decomposable material from the cultivation location. (K)

3.6.3 Hazardous Waste

You must ensure that your activity produces as little **hazardous waste** as possible.

Waste is considered hazardous if it is, for example, explosive, flammable, oxidizing, poisonous or unhealthy. Examples of hazardous waste are oil refuse, impregnated lumber, electric and electronic scrap, batteries, solvents, agricultural chemicals, as well as paints and lacquer.

You must store and handle hazardous waste so as to avoid contamination of soil, air and water. Different types of hazardous waste must not be mixed together. Furthermore, hazardous waste must not be mixed with other types of waste or other substances or material. (SL)

Hazardous waste must only be transported by companies with specific authorization. If your company does not have such authorization, you can still transport small quantities of hazardous waste after reporting this to the County Administrative Board (Länsstyrelsen).

For further information see the waste regulation (SFS 2011:927) and LRF's General Farming Requirements (Miljöhousesyn), Hazardous Waste (Allmänna Gårdskrav. Farligt avfall). (SL)

3.6.4 Removal of Scrap and Trash

Scrap metal, scrap cars, plastic, paper and other waste products or waste that you do not likely need for repairs, must be sorted and taken for recycling, re-use, energy extraction or disposal. Re-use must be prioritised over recycling. (K/SL)

You must keep materials stored for repair purposes well organised. You must also take care of the storage site so that the materials do not become overgrown with plants. You must remove wire fencing no longer in use. (K)

3.6.5 Systematic Environmental Management

You must practice systematic environmental management. (K)

For agricultural companies this means that you must implement a self-check system for complying with legal and branch requirements for the operating unit, for example LRF's *General Farming Requirements (Miljöhusensyn)*, *The Swedish Beekeepers' Association Self-check System (Bihusesyn)* or other system considered equivalent by a certification body. You must annually, between 1 January and 1 July, review the requirements that apply to your activity to determine whether or not you comply with them. A reasonable remediation plan must be made for requirements that you determine you do not comply with. (K)

For other companies this means that you must have an environmental policy and ongoing documentation of environmental management through use of an environment management system or similar method. You must have defined goals that can be evaluated by a certification body during an audit. (K)

3.7 Energy Use

One goal of organic production is to minimize energy use and reduce the need for fossil fuels. This section applies to all types of KRAV-certified production. Agricultural companies and greenhouse production must also comply with the standards on energy planning (sections 3.8 and 3.9).

3.7.1 Fuel-efficient Driving

You must ensure that all transport or professional drivers who are permanently employed in the company, who drive more than 80 hours per type of vehicle per year (for example farm machines, private cars and trucks), and work in the certified part of the operation are trained in fuel-efficient driving. The training must provide a level of competence in fuel-efficient driving equivalent to the training provided in a driving school. Approved training includes courses, workshops or private studies. Training in fuel-efficient driving for tractors or heavy vehicles is considered sufficient for driving lighter vehicles such as private cars. Training in fuel-efficient driving for private cars however is not considered sufficient for driving heavier vehicles such as, for example, tractors. Driving for an activity outside of KRAV-certified operations (for example forestry work) does not require training in fuel-efficient driving. (K)

During temporary periods of intensive work, extra staff without training in fuel-efficient driving may be used. (K)

3.7.2 Renewable Electricity

All electricity you purchase must come from renewable sources, for example, hydropower or ecolabelled electricity. This standard applies to all production units where KRAV-certified production takes place even if the production only makes up a small part of the overall production. (K)

The following dates apply to introduction of the standard (K):

- by 2015-12-31 at the latest farmers must comply with the standard when entering into new electricity purchase contracts or when switching utility companies.
- by 2016-12-31 at the latest shops must comply with the standard when entering into new electricity purchase contracts or when switching utility companies.
- by 2017-12-31 at the latest greenhouse production, apiculture, aquaculture, wild-harvest production, restaurants and caterers as well as fisheries must comply with the standard.
- by 2018-12-31 at the latest food processors, importers, feed producers, production aid producers as well as slaughter houses must comply with the standard.

Electricity use that you cannot control, *for example when purchasing services or if the electricity is included in the rental of premises*, is not considered the KRAV licensee's and does not need to come from renewable sources. If you have a fixed-term electricity purchase contract that cannot be changed to renewable sources by the dates above, the subscription must be switched to electricity from renewable sources at the latest when a new electricity contract is entered into. (K)

If you have a company with a production unit certified for several types of production with different introduction dates according to the above, you must purchase electricity from renewable sources for the whole production unit at the latest when the first introduction date applies for any part of the production. (K)

3.7.3 Improving Energy Efficiency

You must strive to improve energy efficiency and reduce use of fossil fuels, and you must be able to give an account of the measures you have taken. (K)

This standard applies from 1 January 2015. For companies with a large consumption of energy or many livestock units, there are more detailed standards with other introduction dates in sections 3.7.4, 3.8 and 3.9. (K)

3.7.4 Energy Audits

Slaughterhouses and processors of food, feed or production aids, with a production unit that uses more than 500,000 kWh/year, must in their work to improve energy efficiency proceed from an energy audit carried out by a certified energy expert or person with equivalent competence and be completed in 2017 at the latest. Energy audits must be carried out for the production units concerned even if the KRAV-certified production comprises only a small part of the total production. The energy audit is not required for the entire enterprise. (K)

Farms with an annual energy use of more than 500,000 kWh or more than 100 livestock units or greenhouse production must carry out an energy audit according to standard 3.8.1 and standard 3.9.1, respectively. (K)

3.7.5 Choice of Cooling Agents in Shops

When shops certified according to the KRAV standards make a new investment in refrigeration, equipment that uses cooling agents without a negative climate

impact must be chosen. For example, hydrofluorocarbons (HFCs) must not be chosen. Examples of refrigerants that may be used are carbon dioxide, butane, propane and ammonia.

3.8 Energy Planning for Agricultural Companies

This section only applies to companies with an annual energy use of more than 500,000 kWh or more than 100 livestock units.

3.8.1 Energy Audits for Agriculture

You must carry out an energy audit of the energy used by your farm’s processes and activities. The audit must (K):

- include a review of all energy-consuming tasks that must be divided with clear boundaries between systems
- include farm-specific proposals for action to improve energy efficiency
- calculate the farm’s annual direct energy use for the following categories: electrical energy, diesel fuel, heating fuel, as well as any other propellants and fuels.
- be able to be confirmed with receipts or similar documentation.
- be updated every five years.

Information on how to carry out an energy audit is available on the KRAV website, www.krav.se/energiplanering (in Swedish only).

3.8.2 Key Performance Indicators for Energy

You must calculate key performance indicators for the amount of energy used in relation to area of the farm, animals delivered, as well as the drying of grain, pulses and oilseeds (K). You must document the key performance indicators every five years when the energy audit is revised. Key performance indicators must be expressed according to the Table below. (K)

Branch of Production	Key Performance Indicator
Driving farm machinery in crop production	Litre/hectare
Animal production	kWh/kg milk kWh/suckler cows and calves (until the age of 220 days) kWh/kg beef (live weight) kWh/slaughter pigs kWh/young pigs kWh/lamb kWh/kg egg kWh/chicken
Drying	kWh/kg water removed by drying

3.9 Energy Planning For Greenhouses

The standards in this section only apply if you heat your greenhouse or if additional lighting contributes to heating the greenhouse.

3.9.1 Energy Audits For Greenhouses

The amount of each type of energy used in greenhouse production must be calculated annually. *If, for example, an energy source is used for several premises, you must determine the amount of fuel and/or electricity used for heating, lighting, cold-storage rooms and carbon dioxide production.* (K)

The energy consumption both per amount of crop produced and per square metre cultivation surface must be calculated. For potted plants, it is sufficient to calculate energy use per square metre cultivation surface. Energy consumption must be divided into renewable and non-renewable energy. (K)

Information on how to calculate energy consumption and surface area is on the KRAV website at www.krav.se/energianvandning-i-vaxthusodling (in Swedish only).

3.9.2 Renewable Energy

You must comply with one of the two following standards:

- At least 80% of the total energy you use for heating, lighting and cold storage rooms, as well as for production of carbon dioxide must be from renewable energy sources or waste heat. This must be calculated per calendar year. (K)
- The average amount of fossil energy you use must not exceed 2.5 kWh per square metre per cultivation week during the cultivation period. (K)

3.9.3 Insulate During the Winter

You must equip heated greenhouses with energy retention fabric or plastic film if used between 15 October and 1 April. This is not required for double material greenhouses. (K)



4

Crop Production



Those certified for crop production must also follow the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 4.1 General
- 4.2 Conservation of Plant Nutrients
- 4.3 Fertilisers and Soil Conditioners
- 4.4 Plant Protection
- 4.5 Seeds and Plants
- 4.6 Greenhouse Cultivation
- 4.7 Mushroom Cultivation

4.1 General

This section contains the standards on conversion periods, *parallel production* and what must be documented. Furthermore, there are standards for the transition from *EU-organic* to KRAV-certified crop production, about how KRAV crop production cannot be moved around on a farm, about cultivation on *humus soil*, as well as standards about protective distances and what must be done to avoid contaminants. There is also a standard for determination of permissibility that describes how manufacturers of production aids can have their aids evaluated as permissible for KRAV-certified cultivation.

4.1.1 Conversion Period

You are not permitted to sell a crop as KRAV-certified before the soil has been in conversion for a period of time. The conversion period is the period of time that elapses from the start of cultivation according to the KRAV standards until crops can be sold as KRAV-certified. (EU)

The KRAV standards must be complied with during the conversion period and you must have registered with an *approved certification body* so that they can carry out an audit of your operation. The conversion period starts on the date you inform a certification body that you want to use the land for KRAV-certified cultivation or when a certification body has determined that you comply with the standards. (EU)

4.1.1.1 Conversion Period According to the Type of Crop

Land used to cultivate annual crops has a conversion period of two years. In other words, you cannot sow the first crop that will be KRAV-certified until two years of conversion have elapsed. Note that an autumn-sown crop can thus first be approved if sown in the autumn two years after the start of the conversion period. (EU)

For ley and grazing land the conversion period is two years before you can harvest a crop that can be KRAV-certified (EU).

For exercise yards and grazing land for pigs and poultry however, the conversion period is one year. This can however be shortened to six months if you

can show that prohibited substances were not used on the land during the last year. (EU)

For fruit trees, berry bushes and other established perennial crops other than ley, the conversion period is three years before you can harvest a crop that can be KRAV-certified. For perennial crops established on land in conversion, the two-year conversion period must have passed before the crops can be harvested as KRAV certified. (EU) Note standard 4.5.3 on organic plants.

Conversion periods are seasonally based. This means that for annual and perennial crops, it doesn't have to be exactly two respectively three years to the day from the beginning of the conversion period to when you sow the first crop that can be KRAV-certified. (EU)

If the land has been exposed to intensive chemical pest control, the conversion period can be extended. The Swedish Board of Agriculture makes such decisions. (EU)

If sewage sludge has been spread on the land, the conversion period is extended to at least three years for all crops. During this entire period crops from this land must not be used as feed for KRAV-certified animals. (K)

If you cultivate in a separate bed containing soil approved according to standard 4.6.1, no conversion period is required. A separate bed is a cultivation area where there is a barrier that prevents contact between the crop and the original soil. Such barriers can be made of plastic, sheet metal, concrete, wood or other material that crop roots normally cannot penetrate.

4.1.1.2 Feed From In-conversion Crops (does not apply to greenhouses)

You can use feed crops from cultivation in-conversion to feed your own KRAV-certified animals in accordance with certain standards, see standard 5.1.9.11. As well, feed from in-conversion crops can be sold if the feed is harvested no sooner than 12 months after the conversion period for the land began. In such cases, use the following labelling for marketing and sales: "Conversion year feed produced during the second year of the *conversion period* before production can be KRAV-certified." (EU)

If you plan to produce feed mixtures for sale, certification is required according to Chapter 11.

4.1.1.3 Seeds from In-conversion Crops

If you comply with the following conditions, you may sell or use harvests from a parcel in conversion to *KRAV-certified* production as KRAV-certified seeds:

- You must register the land for conversion and begin the conversion period before sowing the seed crop. (EU)
- If you cultivate grass seed or other perennial crops, you must register and begin the conversion period at least 12 months before the crops are harvested. (EU)

4.1.1.4 Retroactive Approval of the Conversion Period

If you have had your production in a system that supports *organic* production, you

can under certain conditions, retroactively use that time as a part of the conversion period. (EU)

These conditions are:

- land for which you have received government subsidies for organic production (for one or two years) or government subsidies for grazing lands and meadows in the “Swedish rural programme” (“landsbygdsprogrammet”) (three consecutive years before the year of application). (EU)
- land that did not benefit from these government subsidies can be approved retroactively if you can prove that no forbidden substances were used on the land during at least three consecutive years prior to registration. In such cases, The Swedish Board of Agriculture makes a decision on a case by case basis. (EU)

Application for retroactive approval must be made to the certification body well ahead of the growing season.

Before a KRAV-certified crop can be harvested from land with retroactively approved conversion, the certification body, or where applicable The Swedish Board of Agriculture, must have given retroactive approval to the previous year’s conversion period.

4.1.1.5 Retroactive Approval for Part of a Conversion Period

If your application for retroactive approval of a conversion period can only be approved for one previous year, then the current year’s crop can be considered as feed cultivated on land in conversion and can be harvested as KRAV-certified after 12 months. Standards 5.1.9.13 or 5.1.9.14 can then be applied. This is under the condition that you harvested the year’s crop after the date the certification body, or where applicable The Swedish Board of Agriculture, retroactively approved the previous year’s conversion period.

4.1.2 Transition from EU-organic to KRAV-certified Crop Production

To KRAV-certify organic crop production which has been certified according to Regulation (EC) 834/2007, you must notify your certification body. No new conversion period is required, but you must comply with the KRAV standards for crop production at the latest from the date you have notified your certification body as the beginning for your KRAV-certified production. (K)

The above applies even if you resign your KRAV certification, are EU-certified and then want to reinstate your KRAV certification. You cannot however routinely switch back and forth between EU organic and KRAV certification on the same land. (K)

4.1.3 If you have Several Agricultural Holdings or Close Cooperation with Other Farms

On request, you must provide information about agricultural holdings other than those that are KRAV-certified to the certification body. The certification body is entitled to audit these holdings. This applies if there is a risk of mixing together

KRAV-certified and conventional production. The standard applies when:

- you operate several *agricultural holdings*, for example if one agricultural holding is divided into several units or companies,
- you have an extensive cooperation with another farm, and
- the management of a KRAV-certified farm is also responsible for the management of a farm with conventional production. (EU)

🕒 4.1.4 Moving KRAV-certified Crop Production is Prohibited

You are prohibited from carrying out conventional cultivation for a period of time on previously KRAV-certified land and then starting to cultivate KRAV-certified crops there again. If you terminate KRAV-certification and operate a farm conventionally, you must wait one year before you can reapply for certification. Upon re-certification, the conversion period for the land according to 4.1.1.1 applies. This also applies to individual KRAV-certified fields. You cannot however routinely switch back and forth between conventional cultivation and cultivation according to the KRAV standards on the same land. (K)

You can only get new land KRAV-certified if all previously KRAV-certified land remains certified. As well, if you register new land, you are prohibited from removing KRAV-certified land from certification during the same season.

There are two exceptions to this rule:

- if you lose formerly KRAV-certified land, e.g. due to expiration of a lease,
- if through the process the KRAV-certified part of your agricultural holding becomes more unified.

If you want to take advantage of any of these exceptions, you must document what land is involved and explain why an exception should be allowed. The certification body will determine if you fulfil the criteria.

4.1.5 Separation Between KRAV-certified and Conventional Production

If you carry out both KRAV-certified and conventional production on the same *agricultural holding*, it must take place on clearly separated production units. Even conversion period production must take place on production units that are clearly separated from those with conventional production. (EU)

4.1.6 Parallel Production is Prohibited

You are prohibited from cultivating the same crop both conventionally and KRAV-certified on in-conversion land, so-called parallel production. It makes no difference if you planned to use a *parallel produced* crop for your own conventional livestock or sell all crops of the same kind as conventional. Parallel production is still not allowed. (EU)

As well, you are prohibited from cultivating spring and fall varieties of the same crop, as this is also regarded as parallel production. (EU)

You are permitted, however, to cultivate different varieties that are easy to distinguish from each other, e.g. potatoes with different skin colours. This is not regarded as parallel production and is allowed. All land on a farm does not have to be converted to KRAV-certified production. Another example is that you grow only

oats on KRAV-certified land and sow at least 10% barley with your conventional oats thus turning it into a seed mixture. (EU)

Cultivation of the same crop on land in-conversion and on KRAV-certified land is not regarded as parallel production. This is allowed without an extra inspection for parallel production. You must, however, keep the KRAV-certified crop separate from the in-conversion crop and the separation must be documented. (EU)

4.1.6.1 There are a Few Exceptions to the Prohibition on Parallel Production

There are some exceptions where parallel production of the same variety or varieties that are difficult to distinguish from each other is permissible. (EU)

Parallel production is allowed:

- for multi-annual perennials with a cultivation period of not less than three years; this exception is valid under a maximum transition period of five years, see below,
- for research or educational purposes,
- for production of seeds, vegetative propagation material and plants, and
- on land used for grazing. (EU)

To take advantage of any of these exceptions, the certification body must carry out a specific audit for parallel production (EU). This means that you must:

- make a written application for an audit regarding parallel production in advance to the certification body. Contact your certification body to find out how this is done, when and what it costs. They will forward your application to The Swedish Board of Agriculture for the required approval.
- notify your certification body at least 48 hours before harvesting each one of the products in question.

After harvesting, inform the certification body about exactly how much was harvested and how the conventional and KRAV-certified products were kept apart. Documentation on harvested quantities and practices for separation must be available for inspection. (EU)

Those who use the first exception above must also make a plan for conversion of all perennial crops on the farm. The last part of the cultivation must be converted within five years. The plan must be monitored and approved annually by The Swedish Board of Agriculture. You should be able to show your certification body that The Swedish Board of Agriculture has approved your plan. (EU)

4.1.7 Documenting Cultivation

You must keep an updated crop cultivation record book with information about distribution of the crops by parcel and dates action is taken, substance used and amount, as well as treatment methods. The following must be documented:

- use of fertiliser per parcel: type of fertiliser and quantity (amount per hectare) as well as date of use (EU). Information on fertilization plans is in standard 4.2.5. (K)
- use of *plant protectants* per parcel: the type and amount per hectare as well as date of use. Comments on why the plant protectants need to be

used (what pests are combated). (EU)

- purchase of production aids: what production aids have been purchased. You must be able to show receipts and product sheets for purchased production aids. (EU)
- harvest: amount harvested per crop cultivated (average tonne per hectare per crop). (EU)

Documentation must be clear and well organized. It should be saved on the farm in order to provide information that covers an extended time period. Record book documentation is approved during audits carried out during the cultivation season. (EU)

4.1.8 Assessment of Production Aids as Acceptable or Unacceptable

Fertilisers and *plant protectants* are considered production aids. These can be KRAV-certified according to Chapter 12, which means that they are approved for use in KRAV-certified cultivation and may be marketed as such. Producers and marketers of production aids who do not want to get their aids certified can, nevertheless, have an assessment made to see if the product may be used according to the KRAV standards. Approved certification bodies perform such assessments for a fee. In such a case, the manufacturer or marketer must provide the information needed by the certification body to assess the product.

If the product meets all the standards regarding production processes and origin of the raw materials according to Chapter 4 in the KRAV standards and is as well acceptable for use according to regulation 834/2007, information about the product is published on the KRAV website, www.krav.se.

The producer can include in their product information that the product is approved for KRAV-certified production. The producer cannot however include this on the packaging. These products cannot be labelled with the KRAV label for production aids nor can the KRAV label be used in marketing the product. The KRAV label for production aids can only be used for products that are certified according to Chapter 12.

The purpose of this standard is to make it unnecessary for each individual to assess the various products on the market.

4.1.9 Contaminants and Protective Distance

These standards prevent KRAV-certified crops from being contaminated during cultivation. Pollutants are e.g. traffic pollutants, adjacent conventional cultivation, or heavy metals or other unwanted substances which may be found in fertilisers or soil.

4.1.9.1 Heavily Trafficked Roads (does not apply to greenhouses)

Crops grown within 25 metres from the edge of a heavily trafficked road may not be used as food. In this context, a road is regarded as heavily trafficked if it is used on average by more than 3,000 vehicles per 24 hours calculated on an annual basis. (K)

4.1.9.2 Rejection of a Contaminated Cultivation Site or Crop

The certification body can reject a cultivation site if the amount of residue from unwanted substances is so high that it can cause problems. This applies e.g. if the KRAV-certified products contain contaminant residues in such concentrations that the value of the product as food or feed is affected. High levels of contaminants are also a reason for the certification body to reject the crop. (K)

At the start of the conversion period the producer must be able to report on previous land use (K). If there is any reason to suspect that the land is contaminated, the producer must use cultivation records to investigate and document the presence of such contaminants. (SL)

4.1.9.3 Protective Distance From One's Own Conventional Cultivation (does not apply to greenhouses)

If you produce crops conventionally, in the same or in another company, and the cultivation is adjacent to your KRAV-certified fields, the following protective distances must be applied for the KRAV-certified fields (K):

- at least 25 metres from land where chemical pesticides have been used,
- at least 10 metres from land where artificial fertiliser has been used, and
- at least one meter from land where there has been manure spreading in rows or impregnated seeds have been sown.

4.1.9.4 Border With a Neighbour's Conventional Cultivation (does not apply to greenhouses)

Measures must be taken to minimise the risk of KRAV-certified fields or fields in conversion being contaminated by chemical pesticides or artificial fertilisers from adjacent cultivation. You must inform your neighbours that organic cultivation is taking place or you must have a protective zone. (K)

There must be a clearly marked border in the field between KRAV-certified land and conventionally cultivated land. If the parcels are joined together and there is no natural separation such as a ditch, road or permanent fence or headland, then border-marking poles or the equivalent must be set up along the border at intervals of less than 50 metres. (K)

When chemical treatment is carried out, the neighbour using conventional cultivation must, as a minimum, use a protective distance appropriate for wind conditions and take "special care" in accordance with the regulations of The Swedish Environmental Protection Agency (SNFS 1997:2) and general recommendations (97:3), www.naturvardsverket.se. See also The Swedish Board of Agriculture's "Guide for determining wind-appropriate protective distance when using an agricultural sprayer with boom". (SL)

4.1.9.5 Clean Machinery

Sowing machines, manure dispensers, spray pumps, etc. must be cleaned well if they have been used for production aids, harvests or for sowing seeds not permitted according to the KRAV standards. (K)

4.1.9.6 Heavy Metals

You should limit the addition of heavy metals to your arable land. Heavy metals may be present in e.g. fertilisers, liming materials, soil enhancers, **plant protectants**, feed or feed minerals. If there is reason to believe that the content of heavy metals in such products may be high, the products must be analysed for heavy metal levels prior to use. The Table below shows maximum allowable amounts via purchased production aids that can be added annually per hectare arable land. The limit values refer to averages calculated over a five year period. (K)

Substance	g/ha and year	
lead	25	
cadmium	0.45	
copper	300*	* Larger amounts of copper, maximum one kg per hectare, are permitted if it can be shown that the arable land in question requires additional copper.
chromium	40	
mercury	0.8	
nickel	25	
zink	600	
silver	3	

The limits for heavy metals are in accordance with The Swedish Environmental Protection Agency regulation SNFS 1994:2.

Addition of one tonne per hectare per year of a product that contains one ppm of a certain substance, results in addition of one gram per hectare per year of that substance. Remember to add the amounts together when using a number of different substances.

4.1.10 Management Plan for Environmental and Cultural Protection as well as Biological Diversity

Those who are KRAV certified must show great consideration for natural and cultural environments, including biological diversity. This applies to the entire agricultural holding. A management plan for environmental and cultural values should be established and implemented. If there isn't such a management plan, the environmental inspection tool (Miljöhusensyn) on biotope protection and historic sites must be complied with. (K) (I)

4.1.11 Measures for Natural and Cultural Protection

You must take the following measures if they are relevant for your farm:

- Minimize negative impacts on land and water from grazing. (K) (I)
- Avoid supplementary feeding on natural grazing land. (K)
- Avoid using preparations containing difficult to degrade substances for parasite control when animals graze on natural grazing land. An example of such substances are avermectines. (K)
- Protect natural grazing land as well as non-arable outcrops and other valuable landscape elements from livestock that dig up the land. (K)

- Maintain valuable meadows and pastures well e.g. those of great importance for flora and fauna or that have important cultural value. (K)
- Maintain productive trees and bushes, such as wild fruit trees, nut trees, etc., as well as pollarded trees and tree-lined avenues. When this is not possible, they must be replaced with new trees. (K)
- Avoid measures that can harm biotope protected areas in farmland, for example, stone walls, clearance cairns, non-arable outcrops, tree-lined avenues, open ditches, springs as well as ponds and wetlands.
- Avoid cultivating on, or by other means permanently altering, important and sensitive ecosystems with long continuity, e.g. natural forests and wetlands. (I)
- Make sure that water resources are not overexploited. If there is a risk of excessive soil salinity, measures must be taken to counteract its occurrence. (I)

4.1.12 Good Maintenance

Cultivations must be maintained well, i.e. well-kept in order to minimize the risk of an increase in pest and weed levels. (EU)

4.1.13 Cultivation on Humus Soils

Peat land must not be drained to establish new cultivation on humus soil. Note that cultivation can be maintained on existing cultivated land on humus soil.

Cultivation on humus soil contributes significantly to the release of greenhouse gases to the atmosphere from agriculture. When humus soils are drained and cultivated, air circulation is increased and the organic material breaks down releasing carbon dioxide and over time, also increasing the release of nitrous oxide. The purpose of the standard is to raise awareness about problems associated with cultivating on humus soil. The standard can be strengthened as new knowledge is gained.

4.2 Conservation of Plant Nutrients

In this section there are standards for **crop rotation**, fertilization plans, **plant nutrient balance** and other measures you must take to reduce loss of plant nutrients and reduce release of greenhouse gases. Through crop rotation, where you cultivate ley and legumes, you take advantage of the capacity of plants to create good soil structure and absorb nitrogen from the air.

What We Want to Achieve

Erosion and leaching or other nutrient losses from agricultural land should be kept to a minimum. The goal of the standards is to minimize the negative effects of agriculture on the land and surrounding ecosystem and to reduce use of non-renewable resources.

Keep In Mind

You must have a fertilization plan and be able to show what you do to reduce plant nutrient losses.

Most KRAV-certified plant cultivators who use external plant nutrients in the form of fertilisers or feed must regularly make a phosphorous balance report. You have to aim for a balance between added and removed phosphorous.

4.2.1 Ley or Green Manure in Crop Rotation (does not apply to greenhouses)

You must have a varied *crop rotation* which includes legumes and ley or *green manure* on every field. The nitrogen fixing legumes are important to provide the KRAV-certified cultivation with nitrogen. Ley and green manuring control weeds, contribute to an increase in and maintenance of soil fertility as well as a reduction in the risk for plant nutrient leaching. To also achieve low nitrogen leaching for annual green manuring combined with a large legume component, it is important that the point in time for ploughing is adapted to the type of soil and climate. Ley or green manuring cannot be replaced with *catch crops*. (EU)

Ley or green manuring must make up at least 20% of the crop rotation for each individual parcel. The portion can be reduced to 10% in exceptional circumstances. Crop rotation normally encompasses 10 years at the most. If you have between 10 and 20% ley in your crop rotation you must be able to report on your particular reasons for doing so. (K)

You do not need to comply with the varied crop rotation requirement if you cultivate perennials with cycles longer than five years, e.g. bushes and trees or permanent grazing land. (EU)

4.2.2 Minimize Erosion and Plant Nutrient Leaching

For your crop production to be approved, you have to cultivate in a way that minimizes loss of plant nutrients and reduces risk of erosion. You must be able to provide an account of measures taken and planned. (K)

Examples of such measures are:

- having the land covered with vegetation during the winter,
- cultivating catch crops,
- densely storing and managing farmyard manure so leaching losses of nutrients are minimised,
- spreading farmyard manure with suitable technology at a suitable point in time (which can require a larger storage capacity than required by law),
- plough the ley under at a suitable point in time,
- good management of nutrient solutions and irrigation surpluses in greenhouses.

You must also at a minimum comply with the laws in your region, e.g. with regard to vegetative ground cover during the winter and when farmyard manure may be spread. A summary of the laws in this area can be found in the Federation of Swedish Farmers “Miljöhusensyn” (a checklist of legal requirements for farming) in the Crop Production section (“växtodling”). The “Miljöhusensyn” can

be found at www.miljobusesyn.nu (in Swedish only).

4.2.3 Leave a Permanent Buffer Strip Bordering on Watercourses (does not apply to greenhouses)

At a minimum, you must leave a three metre protective zone beside watercourses, wetlands and lakes that are normally water-bearing year-round. This protective zone must have permanent vegetation and be free from fertilization. Three metres is calculated horizontally from the mean water line. (K)

When you spread farmyard manure near watercourses, you must also leave a non-fertilized protective zone that stretches at least two metres from the edge of the agricultural land and into the agricultural land. (SL)

4.2.4 Ploughing in Liquid Manure, Urine and Digestion Residue (does not apply to greenhouses)

Fast decomposition of liquid manure, urine and digestion residue is important to reduce the release of ammonia and thus make it possible for increased nitrogen use.

You must plough in liquid manure, urine and digestion residue directly or within four hours after spreading it on bare ground. (K) Note however that in some parts of Sweden the law requires solid manure to be ploughed in when spread.

4.2.5 You Must Have a Fertilization Plan

You must adapt fertilization to the needs of the crop so as to minimise the risk of plant nutrient loss. You must therefore plan your fertilization so that every year, for different parcels, you take into consideration at least nitrogen and phosphorus. Assume the harvest result from the previous year for the parcel in question, the expected harvest level for the current year, the previous crop, as well as local conditions (based for example on the current soil survey). If you use several parcels in the same way, they can be reported on together. You do not need to have a fertilization plan if you fulfil the exemptions in Standard 4.2.6. Then it is adequate for you to show via your fertilization record book that the farm manure has been spread evenly over the area. (K)

For greenhouse cultivation you must adapt fertilization as much as possible to the needs of the crop. (K)

Note that current legal requirements limit the maximum amount of phosphorous and nitrogen that can be added from organic fertilisers per hectare per year (for more information see www.jordbrukverket.se). (SL)

4.2.6 The Plant Nutrient Balance Requirement for Agriculture and Outdoor Cultivation of Vegetables, Fruit and Berries (for greenhouses see standard 4.2.7)

In order to have good control of phosphorus use at the farm level you must regularly make a phosphorus balance report for your KRAV-certified crop production. You must also do a nitrogen balance report if the certification body determines it necessary. (K)

KRAV has chosen to focus primarily on phosphorus because phosphorus is a non-renewable resource and if too much phosphorus is added to soil in a high

phosphorus class, there is an increased risk of phosphorus losses. Further, it is easy to calculate phosphorus balance and relatively easy to interpret it. There is also a great risk of adding too much phosphorus when you fertilize with farmyard manure and products made from farmyard manure.

Exceptions

You do not need to report a phosphorus balance if you do not normally bring in any fertiliser or feed products to your KRAV-certified farm. This applies regardless of size of area and livestock units. Mineral feed or small purchases of additional feed during extreme years are not considered purchases. Even though you normally bring in fertiliser or animal feed you do not need to make a phosphorus balance if you meet all three of the following points:

- cultivate at the most five hectares arable land in open ground cultivation to produce vegetables, potatoes, sugar beets, fruit and berries,
- cultivate at the most fifty hectares arable land of other arable crops, and
- have a maximum of 25 livestock units. This applies whether or not the animal husbandry is KRAV-certified. Livestock units are defined according to SFS 1998:899, see Federation of Swedish Farmers' "Miljöhusensyn". (K)

If you have a cooperation agreement on feed (standard 5.1.9.2) with another farm, you can be exempt from the requirement of reporting a **nutrient balance** report if you both together comply with the requirement of not doing a phosphorus balance report, for example by not bringing in phosphorus to the joint KRAV-certified production. This is determined by your certification body. (K)

Even if these exceptions apply to you, your certification body can require a phosphorus and/or nitrogen balance report if the certification body believes it is needed to assess the plant nutrient situation on your farm. Standard 4.2.6.3 on maximum allowed surplus applies to all. (K)

4.2.6.1 You Must Have a Current Phosphorous Balance Calculation

You must have a current calculation of the farm's phosphorus balance. If no change in the production has taken place, a new calculation every third year is adequate. A change in production is for example if you change fertiliser or feed purchases that increase the amount of phosphorus brought into the farm, if you change crop choice so that phosphorus removal from the farm is increased or decreased, or if you switch production approach. The balance must be calculated after the season has ended and be available for audit at the latest by 31 March in the year after calculation year.

You need to calculate the farm's phosphorus balance more often if required by your certification body, e.g. if you are close to the limit of allowed surplus according to standard 4.2.6.3, or if you have a surplus that requires a plan for corrective measures. The calculation must be based on actual values from the year in question. For large deviations from a normal year you can adjust the harvest to a harvest in an average year. (K)

If the entire farm is not KRAV-certified, you should just calculate for the part of the farm that is KRAV-certified. More information about calculating a phosphorous balance is available at www.krau.se/lantbruk (in Swedish only).

4.2.6.2 You Must Have a Current Soil Map If You Have a Surplus of Phosphorus

If your phosphorus balance shows a surplus of phosphorus you must within a year have a soil map that corresponds to standardized mapping according to good soil mapping practice. For a definition of “good soil mapping practice”, see “Guidelines for fertilization and liming” (in Swedish only) on the website of The Swedish Board of Agriculture, www.jordbruksverket.se. (K)

You do not need to map:

- natural grazing land and permanent trees,
- permanent grazing land and long-term ley on arable land, as long as you do not have milk cows in these areas,
- temporarily leased land (three years in a row at the most) and leased land that will become uncertified the current year due to termination of the lease. (K)

4.2.6.3 Avoid a Surplus of Phosphorus

Using the phosphorous balance and soil map as a starting point, you must limit the amount of phosphorus you add. You must aim at reaching a balance between the amount of phosphorous you add and remove on land that is phosphorous classified *P-AL class III* and above. For land with lower phosphorous classifications you are allowed some surplus. See the Table below (K).

Average allowed phosphorous surplus on KRAV-certified area over a five-year period (kg/ha)

P-AL-value				
I	II	III	IV	V
+20	+10	+5	0	0

There are some exceptions to the permitted surplus of phosphorus. These exceptions are:

- You are allowed a higher surplus than the values in the Table for plant rotations based on open ground vegetable cultivation, and fruit and berry cultivation. In that case most of the farm’s KRAV-certified area must have this type of production. A limit has not been set because there is much too little knowledge about reasonable surpluses for these types of plant rotations.
- For fields in P-AL class IV and V, KRAV allows you to have a surplus of maximum two kg phosphorous/ha if you have KRAV-certified livestock provided that you do not purchase farmyard manure or other fertilisers that contain phosphorous. (K)

According to current legislation you can add a maximum of 22 kg phosphorous per hectare per year from organic fertilisers on surfaces where you spread organic fertiliser. You must calculate the addition as a five-year mean.

4.2.6.4 Action Plan for Phosphorous Surplus

If you have a larger surplus of phosphorous than allowed according to the Table (standard 4.2.6.3) you must report an action plan with measures to reduce the phosphorous surplus on the farm. Examples of measures are reducing purchases of fertilisers, increasing the level of self-sufficiency of feed, and increasing the area fertiliser is spread on. You may also need to adjust your *crop rotations* and increase the portion of legumes to balance phosphorous and nitrogen.

In order to determine if your fertilisation strategy complies with the KRAV standards your certification body can require that you carry out a nitrogen balance (see standard 4.2.6.5).

The action plan can stretch over several years but not more than five years. The action plan can involve follow-up with more frequent balance calculations.

You must implement your action plan, which is checked at the next audit or earlier if requested by the certification body. (K)

4.2.6.5 Nitrogen Balance Requirements and Action Plan Against Nitrogen Surplus

If you have a larger surplus of phosphorous than what is given in the Table (standard 4.2.6.3) your certification body can require you to do a nitrogen balance and if necessary an action plan. (K)

It is necessary to do a nitrogen balance calculation because it is important from both a plant nutrient and climate perspective. An improvement in nitrogen efficiency can reduce nitrogen leaching to lakes and the sea as well as nitrous oxide releases from the soil.

Nitrogen balance calculations must include nitrogen fixation and nitrogen fallout. These are included in the computer program STANK in MIND or equivalent. The calculation must be based on actual values from the year in question. For large deviations from a normal year you can adjust the harvest to a harvest in an average year. When necessary, an advisor with qualifications within the area must either carry out or review and approve the work. (K)

Using the nitrogen balance as a starting point you must strive towards reducing the nitrogen surplus on the farm. The action plan involves identification of the cause of the nitrogen surplus and then showing measures to reduce the surplus. Examples of measures are improving management of farmyard manure, making a more detailed check of your fertilisation plan for each of the crop rotations used on the farm, reducing perhaps in some cases the amount of nitrogen added by feed purchases, fertilisers or portion of nitrogen fixing crops in crop rotations. (K)

The action plan can stretch over several years but not more than five years. The action plan can involve follow-up with more frequent balance calculations (K). You must implement your action plan, which is checked at the next audit or earlier if requested by the certification body. (K)

4.2.7 Plant Nutrient Balance Requirements for Greenhouses

If you produce crops in greenhouses with a total surface of more than 200 m² and do not have a system for re-using irrigation water, you must make an annual plant nutrient balance for nitrogen, potassium and phosphorous for each greenhouse or section. If you cultivate in a delimited substrate, you must make a report per culture. A nutrient balance must be made if you during any time of the year use more than 200 m² for KRAV-certified crops. You must update the plant nutrient balance every year after the harvesting season and report it to the certification body. (K)

The purpose of calculating the plant nutrient balance is to adapt the amount of fertiliser you use as you go along according to the cultivation requirements, thereby reducing negative environmental impacts and the risk of nutrient losses.

4.3 Fertilisers and Soil Conditioners

This section covers standards for fertilisers you can use in KRAV-certified crop production and the conditions for their use. There is also a standard for assessment of whether or not use of digestion residue from biogas facilities is permitted.

What We Want to Achieve

A close connection between animal husbandry and feed production, and a closing of the ecological cycles between urban and rural areas without risking pollution of arable land are important fundamental ideas in KRAV-certified production.

KRAV-certified cultivation must not depend on fertiliser from forms of production that differ greatly from the goal of KRAV-certified animal husbandry when it comes to animal health and opportunities for natural behaviour.

Keep In Mind

- It is your responsibility to ensure that fertilisers and other products you buy for the farm do not contain high levels of heavy metals or other compounds
- To ensure that a fertiliser really is approved for KRAV-certified cultivation, you can look for the KRAV label for certified production aids. What the label looks like is shown in Chapter 20. These production aids are certified according to Chapter 12 and are included in the list of products on KRAV's website www.krav.se.
- There is also another a list of "permitted" production aids on KRAV's website www.krav.se. These substances are not KRAV-certified, but the

manufacturer has had the production aid assessed by a certification body according to the KRAV standards.

4.3.1 General

As a first choice, you must choose fertilisers that are by-products of crop production and animal husbandry, e.g. **green manure** and farmyard manure. These are organic fertilisers. Some inorganic fertilisers can be used in their natural form. (EU)

Take also into consideration the principles of ecological cycles, the risk of using up non-renewable resources and climate impact. KRAV can reject fertilisers if production or use results in an unacceptable environmental impact. (K)

4.3.2 Addition of Fertilisers is Permitted If Needed

You may only use the **organic** and inorganic fertilisers that are permitted according to standard sections 4.3.5 and 4.3.6 when required by the crop and other technical measures for cultivation and fertilisers from the farm's own organic production are not adequate. (EU)

4.3.3 Heavy Metals and Other Undesirable Substances

If you use fertilisers that you purchase for the farm or are otherwise brought in from an external source, they must not lead to the concentration of heavy metals or other environmentally hazardous substances or contaminants in the soil. It is your responsibility to make sure that the total addition of heavy metals to the soil does not exceed the quantities given in standard 4.1.9.6. (K)

Before you spread fertilisers and soil conditioners you have brought to the farm, you must analyse them for heavy metal content, pharmaceutical residues, radioactive materials, contaminants or other undesirable substances, if there are grounds to believe that levels of these may be elevated. (K)

4.3.4 Use of Genetically Modified Organisms is Prohibited

Fertilisers that you use in KRAV-certified production cannot contain **genetically modified organisms (GMOs)**. Further, they cannot be derived from genetically modified organisms or contain residues from such organisms. (EU)

You must do what you can to ensure that the products you use are free from GMOs. If there is a risk that a fertiliser you want to use contains GMOs, you must get a letter of confirmation that states that the product does not contain GMOs or request an analysis for the presence of GMOs before using the product (EU). For assessment of GMO risk and guidelines for GMO-free confirmations, see KRAV's risk lists for GMOs (July 7, 2015 edition) on KRAV's website, www.krav.se/extra-requirements-all-products.

4.3.5 Organic Fertilisers

4.3.5.1 Permitted Organic Fertilisers

Fertiliser	Description, requirements on composition, conditions of use	
farmyard manure	<p>Products made up of a mixture of animal excrements and vegetable matter (litter areas).</p> <p>From all animal husbandry that is KRAV certified or EU organic, but not from conventional animal husbandry listed as prohibited in standard 4.3.5.2.</p>	EU
composted or fermented sorted household waste	<p>Vegetable and animal household waste from a closed collection system that has been explicitly approved by The Swedish Board of Agriculture and certified according to Chapter 12. When you apply for approval of a collection system, it must be described in detail and the risks for contamination by unwanted substances must also be described.</p> <p>Waste from restaurants is considered household waste.</p> <p>For household waste according to the above to be approved:</p> <ul style="list-style-type: none"> • It must be possible to check the quality of the material in a reliable manner. • There must be a system to continually monitor if there is any risk for the waste containing unwanted substances. • The final product must not contain an excess of unwanted substances. • The collection systems and digestion or compost installations must be certified according to SPCR 120, respectively 152 or meet corresponding standards. (K) • The concentration in mg/kg dry weight of heavy metals must not be greater than: cadmium: 0.7; copper: 70; nickel: 25; lead: 45; zinc: 200; mercury: 0.4; chromium (total) 70; chromium (VI): 0 undetectable. See standard 4.1.9.6 for limits on the addition of heavy metals to arable land. 	EU
peat	Only in horticulture (market gardening, floriculture, arboriculture, nursery).	EU
mushroom culture waste	The initial composition of substrate must be limited to products given in section 4.3.	EU
dejecta from worms (vermicompost) and insects		EU
composted or fermented mixture of plant matter		EU
digestion residue from biogas production that contains by-products digested with material of plant or animal origin and is permitted according to this standard	<p>By-products of animal origin (including bi-products from wild animals) in category 3 and stomach and intestine contents in category 2 [an explanation of categories 2 and 3 is in Regulation (EC) 1069/2009] must not come from conventional animal husbandry from which KRAV does not permit the use of farmyard manure (see standard 4.3.5.2). If such by-products of animal origin are included in the mixture that is digested, the equivalent part must be deducted and not used in organic production.</p> <p>Processes must comply with regulation (EU) No 142/2011.</p> <p>Must not be applied on edible parts of a crop.</p>	EU

Fertiliser	Description, requirements on composition, conditions of use	
digestion residue from biogas production where prohibited farmyard manure is included according to standard 4.3.5.2	<p>When permitted and otherwise not permitted farmyard manure is digested in the same biogas facility, it is permitted to use the amount of digested material that corresponds to the portion of permitted manure in KRAV-certified production. At least 5% of the substrate added to the biogas facility on a volume and annual basis must however come from organic production.</p> <p>It may not include manure from animals that are:</p> <ul style="list-style-type: none"> • genetically modified, • that have received GMO feed that can contain fertile material, or • caged. <p>Use of manure mixtures that includes excrement or sewage sludge is prohibited.</p> <p>Digestion residue from facilities with both permitted and not permitted fertiliser must be certified according to Chapter 12 or determined to be permitted according to standard 4.1.8. (K)</p>	EU
by-products of animal origin as below:: <ul style="list-style-type: none"> • bone meal • bone meal without adhesives • meat meal • blood meal • fish meal • horn meal • hoof meal • hair meal • wool, fur and hair • feather and chiquette meal • dairy products • hydrolyzed protein 	<p>Products must meet the requirements for category II or category III-material according to European Parliament and European Council Regulation (EC) 1069/2009 on animal by-products.</p> <p>Products must be certified according to Chapter 12. (K)</p> <p>Cannot be spread on hay-making and grazing lands, on green fodder or vegetables, but you can dig in these products when you sow these crops. (K)</p> <p>For furs the maximum levels of chromium (VI) in mg/kg dry weight: undetectable.</p>	EU
products and by-products of plant origin	<p>For example, straw, cut-off green manure plants, grazing land, plant wastes from e.g. parks and landscaping, oilseed cake meal, cocoa husks, malt culms, as well as some waste from the food, textile, pharmaceutical and forestry industries.</p> <p>The manufacturing process cannot have made the material unsuitable to spread as fertiliser. When you are going to use industrial waste products you must always ensure that they have been analysed to make sure they do not contain unwanted substances such as pharmaceutical residues, radioactive materials, contagions or heavy metals. Food classified waste products are exempt from this standard. (K) See standard 4.1.9.6 for heavy metal addition limits. (K)</p> <p>Waste must be managed and treated according to current legislation. See especially waste regulation (SFS 2011:927).</p>	EU
algae, seaweed and seaweed products	<p>Products made from algae or seaweed may go through the following processes:</p> <ul style="list-style-type: none"> • physical processes (dehydration, freezing and grinding), • extraction with water or aqueous acid and/or alkaline solution, or • fermentation. 	EU

Fertiliser	Description, requirements on composition, conditions of use	
sawdust and wood chips composted bark wood ash	The material must come from wood that has not been chemically treated after felling. Ashes from large scale combustion must be analysed to check the content of heavy metals for compliance with standard 4.1.9.6 for heavy metal addition limits. (K) Ashes from combustion on your own farm must be analysed if you use more than 100 kg ashes per hectare. (K)	EU
leonardite (untreated organic sediments rich in humic acids)	Only if it is obtained as a by-product of mining operations.	EU
organic rich sediments from freshwater formed under oxygen-free conditions (e.g. sapropel)	Only organic sediments derived as by-products from activities in fresh water or derived from previous fresh water areas. In appropriate cases extraction should take place in a manner that causes the least possible impact on the aquatic environment. Only sediments from sources that are free from contamination by pesticides, persistent organic pollutants and substances like petrol. Maximum permissible concentrations in mg/kg dry weight: cadmium: 0.7; copper: 70; nickel: 25; lead: 45; zinc: 200; mercury: 0.4; chromium (total): 70; chromium (VI): not detectable.	EU

You can also use the fertilisers according to the Table if they have undergone either biological or *physical processes* for the purpose of extracting or concentrating nutrients from organic waste products. You can however not use fertilisers or products that have been refined so that the nutritive substances are found primarily in the inorganic form. (EU)

4.3.5.2 Farmyard Manure from Conventional Production that is Prohibited

You can use farmyard manure from conventional animal husbandry except in the following cases:

- not farmyard manure from specialized production of cattle in slatted-floor boxes with the exception of integrated production of cattle with young animals on a slatted floor. (EU)
- not farmyard manure from slaughter hog stocks with an annual production of more than 50, but allowed from stocks with litter beds in large box systems. (EU)
- not farmyard manure from table chickens and other table poultry. (EU)
- not farmyard manure from battery hens, and fur-bearing or other animals in cages. (EU)

4.3.5.3 Organic Fertilisers that are Prohibited in KRAV-certified Production

You cannot use the following organic fertilisers:

- animal by-products in category I according to the European Parliament and European Council Regulation (EC) 1069/2009 (EU)
- guano (K)
- soil organisms or other micro-organisms that are genetically modified (EU)

- sewage sludge, not from your own three-compartment septic tank nor in any other form (EU)
- human urine and human faeces in any form (EU)
- other fertilisers that are not listed as permitted (EU)
- mixtures of permitted and prohibited fertilisers. The only exception is digestion residue from biogas, as mixing-in of a certain portion of prohibited farmyard manure is permitted according to standard 4.3.5.1. (EU)

4.3.5.4 Determination of Permissible Use of Digestion Residue from Biogas Facilities

Biogas production from farmyard manure has the potential to dramatically reduce the amount of greenhouse gases from animal production. It is therefore possible for KRAV-certified farmers to use digestion residue from shared biogas facilities that receive both permitted and non-permitted fertiliser. (EU)

If you run a biogas facility that receives prohibited farmyard manure according to standard 4.3.5.1, the facility must be certified according to Chapter 12 of the KRAV standards or determined permissible according to standard 4.1.8 for digestion residue to be used in KRAV-certified production. (K)

You must calculate the amount of fertiliser input and outgoing digestion residue per calendar year for the facility. Plan fertiliser use and follow-up to see how the results turn out. An *approved certification body* uses the documentation for an assessment of permissibility or certification. The requirement for an assessment of permissibility or certification also applies to biogas facilities on your own farm that receive both permitted and non-permitted fertiliser. (K)

If only KRAV-certified manure is included in the mixture of material that is digested, it is not required to determine if the digestion residue is permitted. The user of the digestion residue must however be able to show documentation of the material included in the process. The documentation must be equivalent to verification and product sheets according to 4.1.8. (K)

4.3.6 Inorganic Fertilisers

You can use inorganic fertilisers in their natural form. Mineral products must not have been subjected to processes with the purpose of making them more easily soluble, with the exception of milling. Physical extraction is permitted. Residues must not contain substances that are not explicitly permitted according to standard 4.3.5 and 4.3.6, or levels of unwanted substances according to standard 4.3.3 and 4.3.4. (K)

4.3.6.1 Permitted Inorganic Fertilisers

Below is a list of inorganic fertilisers that you can use in KRAV-certified production. Use of all the fertilisers complies with EU regulations, but in some cases KRAV has more extensive conditions, noted with (K) in the conditions for use.

Note: continued on next page.

Permitted Inorganic Fertilisers

Fertiliser	Description, requirements on composition, conditions of use	
soft ground rock phosphate	Must have tricalcium phosphate and calcium carbonate as the main components. See the exact definition in Regulation (EC) 2003/2003 Appendix I.A.2. The amount of cadmium must not exceed 12 mg Cd/kg P. (K)	EU
crude potassium salt, e.g. kainite	From unrefined potassium salts. See the exact definition in Regulation (EC) 2003/2003 Appendix I.A.3.	EU
potassium sulphate and potassium-magnesium	Product obtained from crude potassium salt by a physical extraction process. Can contain magnesium salts.	EU
vinnase and vinnase extract	Vinnase from ammonium chloride production is prohibited.	EU
calcium carbonate, ground limestone, calcite, marl, calcareous sea algae (maerl), phosphate chalk	Only of natural origin.	EU
calcium and magnesium carbonate	Only of natural origin. For example dolomitic limestone and other limestone containing magnesium.	EU
magnesium sulphate (kieserite)	Only of natural origin.	EU
calcium chloride solution	Foliar treatment of apple trees, after identification of deficit of calcium.	EU
gypsum (calcium sulphate)	Only of natural origin. See the exact definition in Regulation (EC) 2003/2003 Appendix I.D.	EU
lime from sugar production	By-product of sugar production from sugar beet.	EU
industrial lime from vacuum salt production	By-product of vacuum salt production from salt deposits found in mountains.	EU
elemental sulphur	Purified natural product or industrially produced product. Products that only contain sulphur. See the exact definition in Regulation (EC) 2003/2003 nr. 3 Appendix I.D.	EU
sodium chloride (NaCl)	Only rock salt.	EU
stone meal, e.g. silicon, basalt and granite meal, as well as clays	-	EU
trace substances (micronutrient substances)	Inorganic fertilisers that contain micronutrient substances listed in Appendix I.E of Regulation (EC) 2003/2003. See also standard 4.3.7	EU

4.3.6.2 Inorganic Fertilisers that are Prohibited in KRAV-certified Production

You cannot use the following inorganic fertilisers:

- aluminium calcium phosphate (K)

- basic slag (K)
- artificial fertiliser (synthetic commercial fertiliser) (EU)
- nitrogen salts and solutions (EU)
- other substances not specified as approved (EU)

4.3.7 Micronutrients

You can use special fertilisers with micronutrients if the need for micronutrients cannot be met by reasonable amounts of other approved fertilisers and if there is a clear deficiency. (EU)

For field-scale cultivation you must show from earlier experience or analysis that there has been a deficiency, if there are not currently clear deficiency symptoms. For greenhouse cultivation with computer-controlled nutrient supply, deficiency symptoms can be avoided by proper calculation. (K)

You cannot use micronutrient fertilisers that contain an amount of nitrogen that has significance for the plants' nitrogen supply. You cannot use fertilisers that contain several micronutrients if you cannot prove that the crops lack all these micronutrients. Micronutrients can be added to the soil or a growing crop. For a definition of micronutrient substances see the Table in section 4.3.6.1. (EU)

4.4 Plant Protection

In this section there are standards for plant protection products permitted for KRAV-certified crops and the conditions of use for these products. You cannot use chemical crop protection products, but should instead use preventive methods and biological protection.

Keep In Mind

To ensure that a plant protectant really is approved for KRAV-certified cultivation, you can look for the KRAV label for certified production aids. What the label looks like is shown in Chapter 20. These production aids are certified according to Chapter 12 and are included in the list of products on KRAV's website www.krav.se.

On KRAV's website there is also a list of permitted production aids. These substances are not certified, but the manufacturer has had their production aid assessed for permissibility by a certification body according to KRAV standard 4.1.8. These substances are found on KRAV's website www.krav.se/lantbruk (in Swedish only).

4.4.1 Preventive Methods

You must use preventive methods against weeds and pests as much as possible. The *plant protectants* listed in KRAV standard 4.4.5 can only be used when there is a direct threat to the crop. (EU)

A basic preventive measure is good *crop rotation*, i.e. which crops you

cultivate and in what order. With good plant rotation, you reduce problems with weeds and pests. Another example is to choose resistant crop varieties. (EU)

When you cultivate perennials, you must minimise the risk of harmful insects, weeds and diseases attacking your crops by having extensive biological diversity in and around the cultivation. With fruit crops, you must take measures to increase diversity. Examples of such measures are to plant groundcover crops between rows, to plant other kinds of trees, or to put up birdhouses to attract birds that eat harmful insects. (K)

Other preventive measures are favouring and distributing natural enemies of plant pests (e.g. insects and arachnids such as predaceous mites to control pests) as well as use of traps or capturing devices. (EU)

You can also use thermal weed control (heat) and electrical weed control (EU). It is prohibited to sterilize soil thermally. (K)

4.4.2 Use of Genetically Modified Organisms is Prohibited

Plant protectants that you use in KRAV-certified production cannot contain **genetically modified organisms (GMOs)**. Further, they cannot be derived from genetically modified organisms or contain residues from such organisms. (EU)

If there is a risk that a plant protectant you want to use contains GMOs, you must get a letter of confirmation that states that the product does not contain GMOs or request an analysis of GMO content before using the product. (EU) For assessment of GMO risk and guidelines for GMO-free confirmations, see KRAV's risk lists for GMOs (July 7, 2015 edition) on KRAV's website, www.krav.se/extra-requirements-all-products.

4.4.3 Heavy Metals

If you use **plant protectants**, the use cannot result in accumulation of heavy metals or other environmentally hazardous substances in the soil. It is your responsibility to insure that the total addition of heavy metals to the land you cultivate does not exceed limits given in section 4.1.9.6. (K)

4.4.4 Legislation on Plant Protectants

Plant protectants must be approved by the National Chemicals Inspectorate before they can be sold and you can use them. According to regulation EC 1107/2009 on approval of plant protectants, plant protectants with physical effect such as soap, plant oils and paraffin oil must also be approved by the National Chemicals Inspectorate. There are also regulations on cautious use of the plant protectants. These regulations limit how you may use chemical products or biotechnical organisms for combating pests. The regulations are found in the Environmental Act, Chapter 14 §5. (SL)

4.4.5 Permitted Plant Protectants

You can use certain types of plant protectants in your KRAV-certified crop production. Note that plant protectants must be approved by the National Chemicals Inspectorate (standard 4.4.4).

Plant protectant	Description, compositional requirements, conditions for use	
Substances of crop or animal origin		
Azadirachtin extracted from <i>Azadirachta indica</i> (Neem tree)	Insecticide.	EU
Beeswax	Pruning agent.	EU
Hydrolysed proteins	Attractant, only in authorized applications in combination with other appropriate products on this list.	EU
Lecithin	Fungicide.	EU
Plant oils (e.g. mint oil, pine oil, caraway oil)	Insecticide, acaricide, fungicide and sprout inhibitor. The products referred to in the Commission Implementing Regulation (EU) 540/2011.	EU
Pyrethrins extracted from <i>Chrysanthemum cinerariaefolium</i>	Insecticide.	EU
Quassia extracted from <i>Quassia amara</i>	Insecticide, repellent.	EU
Micro-organisms used for biological pest control		
Micro-organisms (bacteria, viruses and fungi)	The products referred to in the Commission Implementing Regulation (EU) 540/2011 and that do not originate from genetically modified organisms.	EU
Substances produced by micro-organisms		EU
Spinosad	Insecticide. Only where measures are taken to minimize the risk of key parasitoids and to minimize the risk of development of resistance.	
Substances that can only be used in traps and/or dispensers		
Pheromones	Attractant; sexual behaviour disrupter; only in traps and dispensers. The products listed in the Annex to Commission Implementing Regulation (EU) 540/2011 (numbers 255, 258 and 259).	EU
Preparations to be surface-spread between cultivated plants		
Iron (III) phosphate	Molluscicide.	EU

Plant protectant	Description, compositional requirements, conditions for use	
Other substances		
Ethylene	Degreening bananas, kiwis and kakis. Degreening of citrus fruit only when it is part of a strategy to prevent fruit fly attacks on citrus fruit. Flower production of pineapples. Sprouting inhibition of potatoes and onions. Can only be approved for indoor use as a growth regulating substance. Can only be approved for professional use.	EU
Potassium salt (soap) of fatty acids	Insecticide.	EU
Lime sulphur (calcium polysulphide)	Fungicide, insecticide, acaricide but not for thinning.	EU
Paraffin oil	Insecticide, acaricide. The products listed in the Annex to Commission Implementing Regulation (EU) 540/2011 (numbers 294 and 295).	EU
Quartz sand	Repellent.	EU
Sulphur	Fungicide, acaricide, repellent	EU
Calcium hydroxide (slaked lime)	Fungicide. To control cankers (<i>Nectria galligena</i>) on fruit trees.	EU
Potassium bicarbonate	Fungicide and insecticide.	EU
Aluminium silicate (kaolin)	Repellent.	EU
Laminarin	Trigger for the crop's own defence mechanism. Kelp must either be grown organically according to Article 6D or harvested sustainably in compliance with Article 6C.	EU
Scent repellents of animal or plant origin/ mutton suet	Repellent. Only on the non-edible parts of the crop, and if the crop is not eaten by sheep or goats. The products listed in the Annex to Commission Implementing Regulation (EU) 540/2011 (number 249).	EU

4.4.6 Plant Protectants that are Prohibited in KRAV-certified Production

It is prohibited to use the following plant protectants even though they are permitted according to Appendix II Regulation (EC) 889/2008:

- pyrethrum (K), and
- copper in the form of copper hydroxide, copper oxychloride, (tribasic) copper sulphate, and cupric oxide (K).

4.4.7 Additives in Plant Protectants

You must not use pyrethrum extract with piperonyl butoxide. (K)

4.5 Seeds and Plants

You must use KRAV-certified or EU-organic seeds and other propagation material whenever possible. The Swedish Board of Agriculture regulates use of conventional untreated seeds. Seeds from an in-*conversion* crop may be used as organic seeds under specific conditions. You cannot use chemically treated seeds or propagation agents, nor seeds or other propagation material originating from genetically modified organisms.

What We Want to Achieve

KRAV wants to stimulate the production of high-quality seeds with a broad range of varieties. At the same time, it is important that you, the grower, have access to seeds suitable for KRAV-certified production. Therefore, KRAV allows use of conventional seeds when organic seeds for certain varieties are not available.

Keep In Mind

You must comply with The Swedish Board of Agriculture's list for when organic seeds and vegetative propagation material is required. It is at www.jordbruksverket.se. For production of shoots or sprouts you must always use KRAV-certified seed.

It is important that the quality of seed be inspected. You must use fresh seed and it is good to have it analysed (especially bunt).

4.5.1 Use Organic Seeds and Plants

You must use *organic* propagation material when possible. This means that seeds, plants and vegetative propagation material must be certified according to the KRAV standards or Regulation (EC) 834/2007 on organic production. (EU)

You must comply with The Swedish Board of Agriculture's requirement for organic seed and vegetative propagation material. When there are no organic seeds or plants of a crop or variety, The Swedish Board of Agriculture decides if you and other KRAV-certified farmers can use conventional untreated seeds or not. The Swedish Board of Agriculture can also make exceptions on an individual basis if there are special circumstances. In the same way, The Swedish Board of Agriculture regulates when you and other KRAV-certified farmers can use conventionally cultivated perennial plants instead of KRAV-cultivated plants. Annual plants must always be organic. (EU)

The seeds you use to produce organic seeds can be conventional seeds that have not been chemically treated. (EU)

4.5.2 Seeds from Fields In Conversion

Seeds from fields in conversion to *KRAV-certified* production can be considered as KRAV-certified seeds. You must have registered the land as in conversion with the certification body before sowing the seed crop. For ley seed, you must register the land at least 12 months before harvesting. (EU)

The reason why you can use a harvest from fields in conversion as KRAV-certified seeds is that KRAV wants to stimulate the production of organic seeds. This exception will be removed when production of organic seeds meets market demands.

4.5.3 Plants and Vegetative Propagation Material

For annual plants you must use organic plants. You must also do this if you cultivate perennials and you plan on selling the harvest as KRAV-certified in the same calendar year as you planted the plants. (EU)

You can, without limitation, use conventional seedlings to produce vegetative propagation material for perennials. Plant materials must have been cultivated in compliance with the KRAV standards for at least two growing seasons to be sold as KRAV certified. (K)

4.5.4 Chemically Untreated Seeds

You must not use chemically treated seeds in KRAV-certified cultivation, but biologically treated seeds are permitted, as well as heat-treated seeds. (EU)

4.5.5 Use of Genetically Modified Organisms is Prohibited

No seeds, plants or other propagation material that you use can originate from genetically modified organisms. (EU)

4.5.6 Cultivation of Sprouts

KRAV-certified seeds must be used when you cultivate sprouts. This also applies to shoot cultivation. (K)

4.6 Greenhouse Cultivation

This section is about special standards for *greenhouses*. Amongst other things it addresses how much soil you must put in each pot when cultivating in pots and what the soil you use can contain. Also included are new standards for energy consumption that aim at reducing the impact of greenhouse cultivation on climate change. Those who cultivate in greenhouses must comply with all the other applicable standards for crop production in this chapter, unless “does not apply to greenhouses” is in the title of the standard.

4.6.1 Seed-starting Soil and Potting Soil

You can use vermiculite, sand, clay, lightweight-aggregate concrete and perlite in seed-starting soil and potting soil. You can also use soil conditioners and fertilisers that are permitted according to section 4.3. (K)

4.6.2 When you Cultivate in a Delimited Substrate

A substantial portion of the plant nutrients a plant takes up must come from the soil the plant is grown in. Therefore, you cannot cultivate exclusively in

biologically inactive material or cultivate in excessively minimal soil volumes.

If you cultivate in a delimited substrate, e.g. in a pot, and you add plant nutrients after planting, each plant must have at least 30 litres of soil. This applies to annual vegetable crops with a long cultivation time, e.g. tomatoes, cucumbers, red peppers and eggplants.

Other cultivations must have at least 0.2 litres substrate per pot. (K) Other cultivations include mainly herbs and lettuce, though berry cultivations such as strawberries can be included.

For bedding-plants that are then cultivated on open land there are no size requirements for pots, but they must be grown in a biologically active material.

4.6.3 Hydroponics

Hydroponic cultivation is when plants are grown in a water solution. You can only cultivate aquatic plants with this technique. Sprouts must be sprouted and rinsed in clean water. (EU)

4.6.4 Artificial Light

You cannot use artificial lighting as the only source of light during the entire lifespan of a plant. When cultivating shoots, nutrients are added to the soil, and thus the standards for greenhouses apply and artificial light cannot be the only source of light. For sprouting, only water is added and it is not considered greenhouse production. Such production does not require any daylight at all. (K)

4.7 Mushroom Cultivation

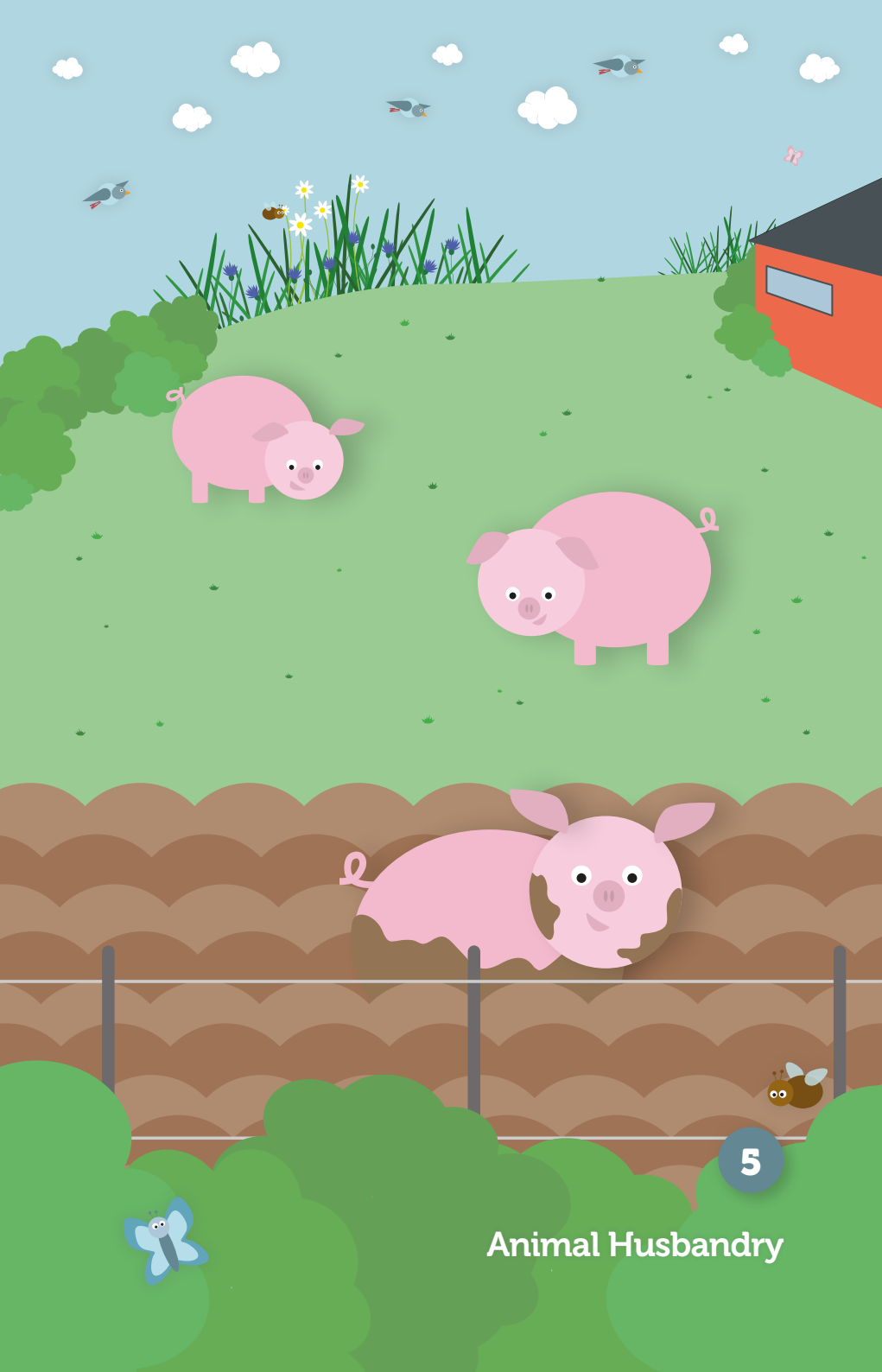
There are some specific standards if you cultivate mushrooms. (EU)

You must cultivate your mushrooms in a substrate that may only contain:

- farmyard manure from organic production,
- farmyard manure from conventional production which is approved as fertiliser and soil conditioner (see standard 4.3.5.2), though not more than 25% of the total weight of the substrate before it is composted or before addition of water,
- other products of agricultural origin from organic production,
- peat which is not chemically treated,
- wood not chemically treated after felling,
- mineral products which are approved as fertilisers and soil conditioners (see standard 4.3.6.1),
- water, and
- soil.

You can cultivate mushrooms in the dark. You can use artificial lighting as the only light source when you work with the cultivation.

In other respects, you must comply with the applicable standards in Chapters 2, 3, 4 and 20.



This chapter describes the standards for animal husbandry on a KRAV-certified farm.

Those certified for animal husbandry must also comply with the general standards in Chapters 2, 3 and 20 as well as the standards in Chapter 4, Crop Production.

Contents of this chapter:

- 5.1 Standards for All Types of Livestock
- 5.2 Cattle
- 5.3 Sheep and Goats
- 5.4 Pigs
- 5.5 Poultry

5.1 Standards for All Types of Livestock


The regulations in this section apply to all KRAV-certified animal husbandry regardless of type of livestock. This sections includes:

- 5.1.1 General
- 5.1.2 Notification and Conversion Period
- 5.1.3 Parallel Production and Change of Production
- 5.1.4 Identification and Documentation
- 5.1.5 Purchase of Animals
- 5.1.6 Breeding
- 5.1.7 Outdoor Access and Grazing
- 5.1.8 Housing Conditions
- 5.1.9 Feed and Water
- 5.1.10 Processes, Additives and Preservation of Feed
- 5.1.11 Health and Care
- 5.1.12 Handling and Transport
- 5.1.13 Wool and Hides

5.1.1 General

5.1.1.1 Good Care and Environment

You must provide animals with care and an environment that is of a sufficiently good standard so that every animal can stay healthy (EU). Animals must be able to live with dignity (K). Good animal health is a condition for animal production to be KRAV-certified. (K)

 *It is a major nonconformity if animal care, state of health or environment is significantly deficient.*

5.1.1.2 Knowledge about Animal Husbandry

You must have the necessary basic and professional knowledge about *animal health* and protection (EU).

5.1.2 Notification and Conversion

5.1.2.1 Notification

You must notify your **certification body** about your animal husbandry before the **conversion period** can begin. You must also report new types of livestock and changes in production to your certification body. Notification must be done enough in advance so that the certification body can carry out an audit before the start of the conversion period if necessary. (EU)

+ 5.1.2.2 Start of the Conversion Period

You must take care of your animals according to the KRAV standards from the starting date for the conversion period set by the **certification body**. (EU)

5.1.2.3 The Conversion Period

You must take care of your animals according to the KRAV standards during a **conversion period** before you can sell animal products or animals as KRAV-certified. The conversion period varies for different types of livestock. (EU)

The conversion period is given in the section for each respective type of livestock.

5.1.2.4 Conversion Period During the Transition from EU-organic to KRAV-certified Production

If you switch from **EU-organic** production to KRAV-certified production, your time spent as EU-organic can be included in the **conversion period**, from the date the **certification body** verifies that you have complied with the KRAV standards for animal husbandry. (K)

! *It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.*

5.1.3 Parallel Production and Change of Production

5.1.3.1 Parallel Production

Parallel production is prohibited. Parallel production is prohibited even if the animals are at separate production units within the same company. (EU)

5.1.3.2 Exceptions when Parallel Production is Permitted

Parallel production is allowed if it is carried out for research or educational purposes. The Swedish Board of Agriculture makes the decision as to whether the products can be sold as **organic**, which is a condition in order for them to be KRAV-certified.

The following conditions must be complied with in order to carry out parallel production (EU):

- You must notify your **certification body** that you have parallel production. The certification body forwards your application to The

Swedish Board of Agriculture which decides if the parallel production is permitted.

- You must notify your certification body as to the measures you take to keep animals, animal products, fertiliser, and feed separate between the different units (the organic and the conventional).
- You must notify your certification body as to the quantities produced by both units and how the products can be identified.
- You must notify your certification body prior to delivery or sale of animals or products.

5.1.3.3 *KRAV-certified and EU-organic of the Same Livestock at the Same Time*

You must not have *EU-organic* animal husbandry at the same time as you have KRAV-certified animal husbandry with the same livestock. (K)

🔄 5.1.3.4 *Changing Between KRAV-certified and EU-organic Production*

You cannot temporarily change your animal husbandry to *EU-organic*. If you switch to EU-organic production and then want to return to KRAV-certification for the production, you must once again go through the *conversion period* for the livestock in question. (K)

However, the time your animal husbandry has been EU-certified can shorten the conversion period if your certification body can verify that you have complied with the KRAV standards for animal husbandry. See section 5.1.2.4.

🔄 5.1.3.5 *Changing Between KRAV-certified and Conventional Production*

You cannot temporarily change to conventional animal husbandry. If you switch to conventional production and then want to return to KRAV-certification for the production, you must once again go through the *conversion period* for the livestock in question. (K)

For egg production, you must take at least a 12 month break before you can begin KRAV-certified production again. (K)

Note that other conversion standards apply to land, see section 4.1.4.

5.1.4 *Identification and Documentation*

🔄 5.1.4.1 *Identification of Animals*

You must mark every animal that can be marked individually according to the applicable laws. (SL)

Fattening pigs, lambs and poultry that cannot be marked individually must be able to be distinguished if they are being treated with veterinary medicinal products. (EU)

🔄 5.1.4.2 *Documentation*

You must be able to show the following documentation for your animal husbandry (EU):

- born, purchased, sold and dead animals,
- all injuries and sicknesses,

- all treatments, including those you carry out yourself, with information about treatment results and extra *withdrawal* time that must be applied,
- preventive measures, injections with selenium, *feed supplements* or other preparations,
- *key performance indicators* for preventive health work with dairy cows,
- castration and dehorning,
- start and stop times for the *outdoor period*,
- start and stop times for the *grazing period*,
- temporary indoor periods during the outdoor or grazing periods for animal groups or a few animals,
- which tethered cattle were not taken outdoors, the reason and/or the weather conditions should be clearly given,
- temporarily tethered animals, which animals and when,
- feed rations,
- purchase of feed, feed supplements, additives and preservatives,
- product sales,
- own feed production,
- remarks from slaughter, live inspections, milk assessments or equivalent,
- drawings of buildings, exercise yards, pastures and raceways, and
- any additional information required in specific cases in other standards.

All animals and groups of animals must be identifiable in the documentation. When complete groups of animals are documented, the group must be defined so that it is clear which individuals are included. The documentation must be clear, well-organized and stored on the farm so that it provides information about conditions over the long term (see also section 2.3.3). (EU)

The reason for all documentation about your production is that animals, feed and other inputs must be traceable. Declarations of contents must be available for multi-ingredient products. You can then show that you only use products approved according to the KRAV standards. The documentation also helps you monitor production to see that it complies with the KRAV standards. Several of the documentation requirements are already included in the laws and regulations of The Swedish Board of Agriculture.

5.1.4.3 Documentation for Live Animals

If you sell live animals, you must give the next owner an excerpt from the most recent 12 months from the treatment journal. You must also give documentation for any ongoing withdrawal period for example conversion or treatment. (K)

5.1.5 Purchase of Animals

🔄 5.1.5.1 Purchase of Animals for Breeding and Renewal

You can purchase KRAV-certified animals (also including animals in conversion) if needed for breeding, renewal or expansion. There is no limitation regarding number or age. (K)

If KRAV-certified animals are not available, you can purchase *EU-organic*

animals. However, if you regularly purchase renewal animals, these must be KRAV-certified and you must have an established cooperation with the breeder.

5.1.5.2 Purchase of Animals to Raise for Slaughter

If you purchase animals to raise for slaughter the animals must be KRAV-certified or in conversion. You must be able to show that the forms of cooperation between you and the breeder are such that the animals stay in good health and are delivered directly between the **farms**.

In the evaluation of compliance with the standards, your certification body takes into consideration how many different herds are involved in the cooperation, the age of animals when purchased, the presence of a quarantine stable or reception stable, what the stable system looks like, and if you and the breeder are affiliated with a health program.

It is a major nonconformity if you have purchased conventional or EU-organic animals to raise for slaughter.

5.1.5.3 Purchase of a Few Conventional Animals for Reproduction and Renewal

If KRAV-certified or EU-organic animals of the breed or with the characteristics appropriate for your production are not available, you can purchase a few conventional replacement and breeding animals. The purchased animals cannot have given birth but may be pregnant. (EU)

Limitations on the number of purchases per year as well as conversion periods for the conventional animals are given in the standards for the respective livestock.

5.1.5.4 Purchase of Several Conventional Animals When there are Changes in Production

You can only purchase more conventional animals for breeding and renewal when KRAV-certified or EU-organic animals are not available, in three specific situations (EU):

- When you are going to switch animal breed as part of a long-term plan. The animals purchased must be of the breed that is going to be the main production breed in the herd.
- When you change animal husbandry specialization but continue with the same livestock. The new specialization must then differ substantially from the existing animal husbandry, *for example a change from dairy cows to suckler cows.*
- When you need to renew endangered breeds of animals.

Mother animals must not have had offspring, as long as they are not from an endangered species. You are permitted to purchase 40% new animals at the most calculated using the number of mother and pregnant young animals you have after the purchase. You must document that KRAV-certified or EU-organic animals have not been available for purchase. (EU)

The conversion periods for conventional animals are given in the standards for the respective livestock.

5.1.5.5 Purchase of Conventional Animals When Increasing Existing Production Requires Approval by The Swedish Board of Agriculture

When you are going to increase your stock and there are no KRAV-certified or EU-organic animals available, you need approval from The Swedish Board of Agriculture to purchase a large number of conventional mother animals. You must also apply for approval if you need to purchase new animals due to some form of catastrophic situation resulting in high mortality among your animals. (EU)

You are permitted to purchase 40% new animals at the most calculated using the number of mother animals and pregnant young animals you have after the purchase. The animals to be purchased must not have had offspring (EU).

The conversion periods for the conventional animals are given in the standards for the respective livestock.

5.1.6 Breeding

5.1.6.1 Animals Must be Able to Mate and Give Birth Naturally

KRAV-certified animals must come from breeds that are able to mate and give birth naturally. (EU)

■ *It is a major nonconformity if you purchase or keep a forbidden breed of animal.*

5.1.6.2 Breeding Material to Promote Organic Production

You can use semen and **genomic selection** to achieve the desired progress in breeding. You can also use sexed semen. (EU)

Sexed semen can be used in organic production according to current praxis in Sweden. Use of sexed semen is not regulated in the EU law for organic production, which may change.

5.1.6.3 Embryo Transfer

Transfer of embryos is not permitted (EU). It is also not permitted to purchase animals developed with embryo transfer (ET). (K)

You can however use semen from embryo transfer animals for insemination and you may purchase animals of ET descent (EU). *This is permitted so as not to limit breeding material.*

5.1.6.4 No Preparations are Permitted to Control Reproduction

It is not permitted to synchronize females' oestrus or to routinely induce labour with the help of artificial substances, hormone preparations, etc. (EU)

■ *It is a major nonconformity if you do not comply with the standard.*

5.1.6.5 No Genetically Modified Animals

Genetically modified animals are prohibited in KRAV-certified production. (EU)

■ *It is a major nonconformity if you have genetically modified animals in your KRAV-certified production.*

5.1.6.6 Take Care of all Animals According to KRAV Standards

You must take care of all animals of the same type according to the KRAV standards, in other words even if the animals are not going to be KRAV-certified (K). *This can for example be the case with purchased, rented or medicated animals.*

5.1.7 Outdoor Access and Grazing

See also under the respective livestock as to what applies for outdoor access and grazing.

5.1.7.1 Maximized Outdoor Access

You must keep animals outdoors as much as possible without causing injury to animals or damage to the land.

You must plan the animals' outdoor access and grazing periods so that they work well to the greatest possible extent even if it is unusually dry or rainy. (K)

One of the basic conditions of KRAV-certified animal husbandry is that animals are able to be outdoors. You must be able to report on your routines for outdoor access during different times of the year.

5.1.7.2 Grazing for Feed and Activity

You must ensure that all livestock can graze during the appropriate part of the year. Grazing must provide both feed and activity for the animals. (K)

You must show how you have planned for adequate grazing during the whole grazing season, e.g. with a written grazing plan.

5.1.7.3 Year-round Production

Production must be continual and year-round. There must be outdoor access and grazing for the herd but not always for each individual, as there are some animals that have a lifespan shorter than a year. It is however permitted to have production exclusively during the grazing and outdoor season. (EU)

If you cooperate with another KRAV-certified farm, for example by raising lambs and **calves**, one of the **farms** can raise animals during the stable period only and the other during the **outdoor** and **grazing period**. (EU)

It is a major nonconformity if you do not comply with the standard.

5.1.7.4 Fencing

All fences must be well taken care of. You must avoid use of barbed wire fencing, but if used it cannot be electrified. (SL)

If you combine barbed wire with electrified smooth electric fencing you must comply with The Swedish Board of Agriculture's regulations. This means for example that you must install the electric wires on a spacer at least 150 mm horizontally from the barbed wire. The barbed wire must be grounded and the electric fence wire must be installed on the animals' side of the fence. (SL)

5.1.7.5 Outdoor Area

The outdoor area must not leach plant nutrients during the fall, winter and spring. The surface must also provide animals with a solid and dry underlay (K). Ground surfaces that receive a lot of wear by animals must be hard, drained or naturally have the equivalent characteristics. (SL)

5.1.7.6 Animals in Seasonal Mountain Holdings

If you have animals in seasonal mountain holdings that are registered with the County Administrative Board, they can be kept indoors during the night even during the *grazing period* if it is necessary due to an abundance of gnats and mosquitoes over a prolonged period of time. This means that you then do not have to comply with the standard that animals must be outdoors most of the time. You can also keep animals indoors during the night if the risk for attack by predatory animals is great. (K)

5.1.8 Housing Conditions

5.1.8.1 Housing

Your animals must have housing that is well-suited to them.

There are detailed standards under each respective livestock.

5.1.8.2 Free Range Herds

You can be exempted from the requirement of having suitable housing if you have a free range herd of cattle and received a permit from Swedish Board of Agriculture to keep your animals without an open shed.

5.1.8.3 All Animals Must be Able to Move Freely

All animals must be able to move freely. Animals must not be tethered or held in any form of *cage*. (EU)

See the exception in the special standards for cattle in small holdings, 5.2.4.9.

5.1.8.4 Temporary Tethering

If you have special reasons, you can temporarily tether animals providing that you keep them under supervision. “*Special reasons*” means for reasons of security, animal welfare or veterinary requirements.

You must limit the time the animal is tethered to what is strictly necessary to achieve the objective of the specific reason. However, the longest period is two weeks unless a veterinarian prescribes a treatment that requires longer tethering. (EU/K)

5.1.8.5 At Least Half the Floor Area Must be Solid


At least half of the minimum floor area must be solid for all animals other than poultry. The rest can be slatted flooring. (EU)

The dimensions for minimum floor area and other detailed standards are found in the section for the respective animal.

5.1.8.6 *The Animals' Lying Area*

You must provide the animals with a comfortable and spacious lying area, which must be kept clean, dry, draft-free and if necessary warm. The lying area must have a solid floor, be littered and be comfortable for the animals. You must take care of the lying areas, maintaining good hygiene and preventing propagation of flies. Straw for bedding can be conventionally cultivated. (EU/K)

You can have a mattress or a rubber mat on the lying area, but there must also be litter material.

 *It is a major nonconformity if you do not comply with the standard.*

5.1.8.7 *Access to Eating Places*

All animals in a group must be able to eat without competition, which in most cases means that more eating places are required than the minimum number specified by the Swedish Animal Welfare Act. (K)

5.1.8.8 *Access to Daylight*


Animals must have access to a lot of daylight and lighting that supports their daily rhythm and behaviour needs. Light openings must provide daylight that is evenly distributed through the entire stable. (SL)

If you add buildings to the certification or if there is new construction or renovation, daylight must be let in via an area equivalent to at least 3% of the floor area. (K)

5.1.8.9 *Electric Wire Shock Systems are Prohibited in Stables*

You must not install electric wire shock systems in the stable. (SL)

Indoors, there is a risk that animals would be pressed against the electric wire since the movement area is more limited than outdoors.

 *It is a major nonconformity if you do not comply with the standard.*


5.1.9 *Feed and Water*

All feed specifications are given as dry matter (DM) if not otherwise noted.

5.1.9.1 *Feed Self-sufficiency*

You must to a certain degree produce the feed for your animals on your own **farm** or in cooperation with another farm according to standard 5.1.9.2.

The level of self-sufficiency is calculated from the annual use of feed on the farm, including grazing. You must base the calculation on your harvests during normal conditions. If you have several types of KRAV-certified livestock on the farm, you can add the self-sufficiency requirements together for the whole farm. (K)

 *It is a major nonconformity if you do not comply with the standard.*

5.1.9.2 Cooperation on Feed and Fertiliser Between KRAV-certified Farms

You can cooperate with other KRAV-certified *farms* on feed and manure so that your farms together reach at least the level of self-sufficiency in feed required for the livestock you have. In that case, make a cooperation agreement between your farm and those you work together with. (EU)

5.1.9.3 Purchased Feed

If you purchase feed, you can offset the following crops that you or one or more *farms* that you cooperate with grow and sell (EU):

- all crops that can be used as feed for the animal concerned, and
- planting seed.

5.1.9.4 Spread Fertiliser on Organic Land

Manure from KRAV-certified animal husbandry must be spread on KRAV-certified or *EU-organic* land. Cooperation agreements may be made with another KRAV-certified or EU-organic *farm* if you do not have sufficient land area yourself that is farmed organically. (EU)

5.1.9.5 Water

Animals must always have access to good quality water. (SL)

- *It is a major nonconformity if you do not comply with the standard.*

5.1.9.6 Good Quality Feed that is Adapted to the Livestock

Animals must get feed that keeps them healthy. The feed must be of good hygienic quality and its composition must be adapted to the respective livestock and production. (SL)

- *It is a major nonconformity if you do not comply with the standard.*

5.1.9.7 All Feed Must be KRAV-certified

All feed of agricultural origin must be KRAV-certified. However, until 31 December 2017 you can give pigs and poultry a small portion of conventional protein feed (EU). *See standards which specify percentages for this under each respective livestock.*

- *It is a major nonconformity if you do not comply with the standard.*

5.1.9.8 Do Not Include Mineral Feed

You must not include mineral feed, calcium, seashells and similar substances when you calculate the percentage of KRAV-certified feed. (EU)

5.1.9.9 No Genetically Modified Organisms in Feed

You cannot use *genetically modified organisms* as feed or for making feed, feed additives or feed preservatives. (EU)

- *It is a major nonconformity if you do not comply with the standard.*

5.1.9.10 Permitted Feed of Animal Origin

You can give high quality feed of animal origin to pigs and poultry. It is prohibited however to feed pigs and poultry meat byproducts. Whey, skim milk and other residual products from KRAV-certified milk production can also be given to ruminants. The products that can be given are listed in Appendix 1. (EU)

Fishmeal must come from sustainable fisheries, in other words fisheries that comply with ICES advice or equivalent, which are based on scientific stock estimates. KRAV recommends use of mussel meal. (K)

5.1.9.11 Feed Harvested From Land in Conversion

You can use feed grown on land in conversion in various ways depending on how much of the *conversion period* has been completed before you harvest. You must keep different types of *conversion feed* separated as well as separated from KRAV-certified feed.

5.1.9.12 Harvest From Your Own Farm the First 12 Months - Up to 20%

If you harvest from land on your own farm before 12 months have passed since you began conversion of the land, you can use the harvest for your own KRAV-certified animals and animals in conversion. This applies however only if it is (EU):

- grazing land, feed from perennial feed crops or protein crops, and
- a maximum of 20% of the annual quantity of feed.

5.1.9.13 Harvest From Your Own Farm After at Least 12 Months - Up to 100%

When 12 or more months have passed from the beginning of the *conversion period* to the harvest, you can use all crops as conversion feed. The *conversion feed* from your own *farm* can then comprise the entire annual quantity of feed. (EU)

5.1.9.14 Purchased Conversion Feed - Up to 30%

You can purchase *conversion feed* harvested 12 months or more after the beginning of the *conversion period*. Purchased feed can thus comprise (EU):

- 30% at most of the annual quantity of feed, and
- all of the crops for the animal concerned.

The feed must be marked with "Conversion feed produced during second-year conversion cultivation before production can be KRAV-certified".

5.1.9.15 Combinations - Up to 30%

You must not use more than a total of 30% purchased *conversion feed* and feed from your own *farm* that you harvested during the first 12 months. (EU)

5.1.9.16 All Conversion - Up to 100%

If you start conversion of animals and crops at the same time, you can choose 24 months conversion for animal husbandry. You can then use all your own *conversion feed* of various types even if 12 months have not passed from when

conversion began to the time of harvest. (EU)

5.1.9.17 Cooperation Agreements - Several Farms are Regarded as a Single Unit

If you have a written cooperation agreement for feed production and manure with one or several *farms*, you can count the farms as one unit according to the standards for plant nutrients, feed supply and *conversion feed*. Grazing animals can thus also be moved between the farms. (K)

5.1.10 Processes, Additives and Feed Conservation

5.1.10.1 Approved Feed Processes

All processed feed you use must be made using processes permitted by the KRAV standards. These are (EU):

- mechanical and *physical processes*,
- biological processes, for example *fermentation* (for example use of lactic acid cultures and fungus cultures),
- coagulation with the help of enzymes (for example rennet),
- using enzymes to break down (for example the enzyme amylase),
- extraction with water, ethanol or fats, and
- sedimentation.

Feed certified according to Chapter 11 is in the product list on the KRAV website (www.krav.se/produkter). Feed determined to be permitted according to standard 11.2.7 is in another list at www.krav.se/tillatna-foder (in Swedish only).

5.1.10.2 Salt in Feed

You can supplement feed with salt and seashells. See Appendix 1. (EU)

5.1.10.3 Trace Elements, Vitamins and Minerals

If possible, you must use trace elements, vitamins and minerals from natural sources. The permitted trace elements, vitamins and minerals are found in Appendix 1 (EU). You can use synthetic feed additives for a limited time if the following three conditions are met (EU):

- it is recommended by a veterinarian,
- the additives are necessary for the animal's health, and
- natural alternatives are not available.

Enzymes are an example of such synthetic feed additives. (EU)

5.1.10.4 Amino Acids and Urea

You cannot use pure amino acids or urea. (EU)



It is a major nonconformity if you do not comply with the standard.

5.1.10.5 Feed Preservatives

The chemical feed preservatives that are permitted in *roughage* are formic acid, propionic acid and acetic acid. It is also permitted to use propionic acid to preserve grain. It is prohibited to use chemical feed preservatives such as for

example formic acid, propionic acid and acetic acid to sour milk. (EU)

5.1.10.6 No Additives to Straw

It is prohibited to use straw treated with ammonia or other feed preservatives. (EU)

5.1.10.7 Additives when Ensiling

You can use the following additives when ensiling:

- bacteria preparations (EU); you can only use bacteria preparations that contain natriumbensoat as a preservative in milk production where you cannot avoid problems with spores in any other manner (K),
- formic acid, sodium formate, propionic acid and acetic acid (EU),
- enzymes (EU),
- molasses in the amount needed for ensiling (EU).

On the KRAV website there is a list of substances for ensiling that are assessed as permitted by a certification body according to this standard (www.krav.se/tillatna-ensileringsmedel, in Swedish only).

5.1.10.8 Acidifying Milk

To acidify milk you can use acidified milk, for example sour milk, bacteria cultures and acidification substances of plant origin. (K)

5.1.11 Health and Care

5.1.11.1 Supervision

Your animals must be well supervised. (SL)

5.1.11.2 Animal Health

You must take preventive measures by providing a good environment for the animals and taking care of them well, and by having good grazing and feeding routines (EU).



It is a major nonconformity if you do not comply with the standard.



5.1.11.3 Animal Cleanliness

You must keep animals clean. Animals that are considerably fouled by manure or that receive remarks from the slaughterhouse indicating deficient animal care cannot be KRAV-labelled. (K)

Slaughterhouses are required to inform the animal keeper's certification body if there are remarks regarding slaughter that indicate deficient animal welfare in the population (see section 10.2.7).



It is a major nonconformity if your animals are not clean.

5.1.11.4 Preventive Health Care

You must be able to show that you take preventive measures and that the health of the animals is good. You must have a well thought out plan for strategic

preventive animal health care including protection against infection. The plan must include at least (K):

- routines for protection of infection from visitors and during transport of animals to and from the herd, and
- a plan for requisite testing, for example, for parasites or udder health,
- a grazing plan to, amongst other things, minimize infection from intestinal parasites and limit propagation of infection on the land,
- the possible need for **quarantine**, vaccinations and other measures to improve health, and
- cleaning and **disinfection** of stables.

5.1.11.5 Follow-up by a Veterinarian

In the following cases, a veterinarian must help with the preventive health care work (K):

- when the mortality rate for animals by category is abnormally high,
- there are recurring problems with certain types of diseases,
- there are recurring problems with lameness or other physical injuries,
- there is an increasing number of cases of sickness,
- there is an increasing frequency of inspection faults according to slaughter injury statistics, and
- there are other situations your **certification body** determines as unsatisfactory.

You must annually, thereafter, together with your veterinarian, follow-up the preventive care measures for at least two years. (K)

5.1.11.6 Taking Care of Sick Animals

You must immediately take care of an animal that shows signs of being sick or hurt, and give them the care they need. If health disturbances arise that can be attributed to deficiencies in the animals' environment, care or feeding, you must immediately remedy the deficiencies. Critically ill animals that cannot be treated must be put down. (SL)



It is a major nonconformity if you do not comply with the standard.

5.1.11.7 Vitamin and Mineral Injections

In exceptional cases, a veterinarian or someone else who is qualified can give injections of vitamin and mineral preparations. To avoid recurrence of this type of problem, you must thereafter supplement feed with vitamins and minerals. In areas where there is a documented low level of selenium, injections with a selenium preparation for preventive purposes are allowed. (K)

5.1.11.8 Do not Treat Routinely or Preventively

You cannot treat your animals routinely or preventively with veterinary medicinal products or chemical pest control substances (EU). There are however the following exceptions:

- You can use vaccine if there is an obvious need and other methods of treatment are considered worse (EU). You must have a plan as to which

vaccinations are required for the population (K).

- You can use *analgesics* and *local anaesthetics* for operations such as dehorning and castration (EU).

It is a major nonconformity if you do not comply with the standard.

5.1.11.9 You Must Use Veterinary Medicinal Products When Needed

You must use veterinary medicinal products if there is a need from an animal welfare perspective. If you use veterinary medicinal products or veterinary preparations, you must comply with the *withdrawal periods* given in sections 5.1.11.12 and 5.1.11.14. You can even use veterinary medicinal products or vaccines developed with or made from GMOs. (EU)

Cows with verified raised cell counts can be treated during the dry period.

It is a major nonconformity if you do not comply with the standard.

+ 5.1.11.10 Combating Parasites

Combating parasites with medical preparations must not be done preventively, but rather only when the need can be verified. The need for combating parasites can be verified by taking samples that show that an animal is infected with parasites and/or when treatment is recommended by a veterinarian. It is prohibited to use preparations with long-term effects such as fly tags and capsules placed in rumens since they are considered preventive treatments.

Decisions on combating parasites must be based on weighing good animal welfare and the goal of not being dependent on chemical synthetic pharmaceuticals against contributing to an increased resistance to deworming preparations.

It is a major nonconformity if you do not comply with the standard.

5.1.11.11 Deworming with Avermectins

You can only use avermectins for deworming when other preparations are not expected to give the desired result. When animals are on natural grazing land you must avoid preparations that contain difficult to break down substances such as, for example, avermectins. (K)

5.1.11.12 Double Withdrawal Periods or Two-day Withdrawal Periods

For preparations that The Swedish Medical Products Agency has set a *withdrawal period* for, you must apply double the withdrawal period given (EU). *The treatment receipt you receive from the veterinarian shows the withdrawal period that applies to the preparation. It is that time period you must double.*

If you use a preparation with a withdrawal period of zero days or when no information is given about the withdrawal period, you must apply a two-day withdrawal period (EU). *Treatments that do not have a withdrawal period are given in section 5.1.11.13.*

During the withdrawal period the milk and eggs from treated animals must be separated from the products of healthy animals. Milk and eggs from treated animals must not be delivered as KRAV-certified.

It is a major nonconformity if you do not comply with the standard.

5.1.11.13 Preparations and Treatments Without a Withdrawal Period

Provided that the preparation you are using does not have a stipulated **withdrawal period**, the following list of preparations and treatments do not have a withdrawal period (K):

- calcium treatment during milk fever,
- agents to increase blood sugar levels such as propylene glycol if the animal does not have an appetite,
- carbon preparations,
- vitamin and mineral injections,
- washing with disinfectants, and
- all external treatments other than parasite treatments, and
- vaccinations.


Preparations for external treatment can contain ingredients based on mineral oil. (EU)

5.1.11.14 Withdrawal Period in the case of Repeated Drug Treatment

For certain types of repeated drug treatment, animals must go through a new **withdrawal period**. This applies to animals that have been treated with chemical synthetic veterinary medicinal products more than three times during a year, or animals with a lifespan that is shorter than 12 months that have been treated more than once during their lifetime. In these cases the length of the withdrawal period is (EU):


- 12 months for cattle, though at least three quarters of the animal's life,
- six months for pigs, sheep and goats,
- six months for milk production,
- 10 weeks for poultry for meat production, and
- six weeks for laying hens.

A treatment is considered to be all regimens intended to cure one and the same sickness. Vaccinations, combating parasites or **analgesics** and **local anaesthetics** must not be counted in the number of treatments. As well obligatory treatments required by government agencies must not be included. (EU)

 *It is a major nonconformity if you do not comply with the standard.*

5.1.11.15 Animals Must Not be Mutilated

You cannot mutilate animals. You can however in some cases castrate calves and pigs as well as dehorn animals so that they cannot injure each other. (SL)

 *It is a major nonconformity if you do not comply with the standard.*

5.1.12 Handling and Transport

5.1.12.1 Loading, Transport and Unloading

You must ensure that all animals are exposed to a minimum of physical and psychological stress when they are loaded, transported and unloaded. (EU)

You must be able to describe how you handle animals in order to minimize negative effects during loading, transport and unloading.

5.1.12.2 Cohesion of Animal Groups

You must avoid introducing new animals into groups destined for slaughter. If you in any case put together new animal groups, it should be done two weeks before transport at the latest, so that the animal group has time to become established. (K)

5.1.13 Wool and Hides

5.1.13.1 Who Can You Use the KRAV Name When Selling Wool or Hides?

If you have KRAV-certified livestock and sell your own products to consumers, you can state that wool and hides come from KRAV-certified production. (K)

5.1.13.2 How Can You Use the KRAV Name?

When you label or market a hide from KRAV-certified animal production, you can for example write:

“This sheepskin comes from KRAV-certified livestock.”

Write the word “KRAV” in capital letters. (K)

Keep in mind that labelling wool, hides or skin products as KRAV-certified or with the KRAV label is prohibited.

5.1.13.3 Where to put the Label

When you label a hide, it can be done with sewn-on labels, a hanging label, or by marking the package cover, or by stamping. (K)

5.1.13.4 Companies that Prepare Wool or Hides

If you sell prepared hides or wool, you must indicate which company was responsible for the preparation. (K)

5.2 Cattle

This section has all the animal specific standards for KRAV-certified cattle that you must comply with together with section 5.1 Standards for All Types of Livestock. This section includes:

- 5.2.1 Conversion Periods for Admission and Purchase
- 5.2.2 Purchase of Animals
- 5.2.3 Outdoor Access and Grazing
- 5.2.4 Housing Conditions
- 5.2.5 Self-sufficiency and Feed
- 5.2.6 Feeding Calves
- 5.2.7 Preventive Healthcare for Dairy Cattle
- 5.2.8 Surgical Operations

5.2.1 Conversion Periods for Starting and Purchase

5.2.1.1 Conversion Periods at the Start of the Certification Process

Conversion periods for cattle are (EU):

- 12 months for the production of meat and hides from cattle, however at least three quarters of their life expectancy, and
- six months for the production of milk.

Calves born during the conversion period can be sold as KRAV-certified after 12 months from the start of the conversion period.

Alternatively you can choose:

- 24 months for milk, meat and hides when land and animals together are converted to KRAV-certified production. You must feed the animals primarily (more than 50%) your own feed from the land in the conversion. *In this case you do not need to comply with the standards for use of one's own conversion feed.* (EU)

Example: a young animal that is one year old when you begin the certification process can be sold as KRAV-certified when four years of age at the earliest, since it takes that long to have been certified during three-quarters of the animal's lifetime. If you have not yet converted crop production, it is therefore advantageous to choose 24-month conversion of both animals and crops at the same time. After 24 months, all animals that began conversion at the start of the conversion period can be sold as KRAV-certified, regardless of the age of the animal.

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.2.1.2 Conversion Periods for Purchased Conventional Cattle

If you already have KRAV-certified cattle and purchase conventional cattle for renewal or breeding, the purchased animals must go through a **conversion period** before you can sell products from them as KRAV-certified. Calves from these purchase animals have no conversion period.

The conversion periods are (EU):

- 12 months for the production of meat and hides from cattle, however at least three-quarters of their expected lifetime, and
- six months for the production of milk.

If you have cattle in conversion and purchase conventional animals for renewal or breeding, the purchased animals must go through the same conversion period before you can sell products from them as KRAV-certified. Calves from these purchased animals can be sold as KRAV-certified when the conversion period for the original herd is complete. (EU)

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.2.2 Purchase of Animals

5.2.2.1 Purchase of KRAV-certified Calves to Raise for Slaughter

You can purchase calves from a maximum of three different herds within a 12 month period. If you purchase *calves* from more than three herds within a 12 month period, your production must be affiliated with a *health program*. (K)

If the purchaser has suckler cows, or access to KRAV-certified milk for feeding by another method, calves can be moved earlier than during the weaning if it takes place in such a way that the health and development of the calves is not negatively affected by the early move. (K)

5.2.2.2 Purchase of a Few Conventional Cattle

You can only purchase a few conventional animals for breeding purposes. For renewal, you can in addition purchase a maximum of 10% conventional heifers per year, calculated using the number of cows and pregnant heifers you will have after the purchase. If there are less than 10 mother animals in the herd, you can purchase one conventional animal per year at the most. (EU)

5.2.3 Outdoor Access and Grazing

5.2.3.1 Grazing Time for Cattle (Not Dairy Cattle)

You must arrange for cattle over six months of age to be outdoors most of the day during the *grazing period*. (K)

“*Most of the day*” denotes more than 12 hours during an entire day.

! It is a major nonconformity if you do not comply with the standard.

5.2.3.2 Grazing Intake During the Grazing Period

All cattle more than six months of age, other than dairy cows and steers, during the *grazing period* must have pasture that provides at least 50% of the daily intake of feed calculated as *dry weight (DW)*. (K)

Any drought that results in a shortage of pasturage for the animals must be documented. (K)

! It is a major nonconformity if you do not comply with the standard.

5.2.3.3 Grazing for Dairy Cattle

You must actively work in order to have your dairy cattle outdoors on grazing land most of the day during the *grazing period*. The daily grazing intake must be at least 6 kg dry weight. (K)

“*Most of the day*” denotes more than 12 hours during an entire day.

! It is a major nonconformity if you do not comply with the standard.

5.2.3.4 Grazing Intake for Steers

The daily grazing intake for steers during the *grazing period* must be at least 50% of the roughage intake. (K)

5.2.3.5 Outdoor Access for Calves

During the **grazing period** you must arrange outdoor access for calves at the latest from the age of four months. When outdoors, **calves** must have access to a shed or other protection, for example trees. The outdoor access may consist of an exercise yard and must take place during part of the day. (EU)

Calves that are four months old in August may be kept inside for the rest of the grazing and **outdoor period**. (K)

5.2.3.6 Outdoor Access for Breeding Bulls

Breeding bulls must be kept in bare exercise yards during both the grazing and outdoor period. (K)

5.2.3.7 Outdoor Access for Cattle at Other Times

During the outdoor period you must arrange for the animals to be outdoors at least part of the day. The outdoor period must total at least two months, but should be longer if possible. During the rest of the year, during the **stable period**, cattle can be kept indoors. (EU/K)



It is a major nonconformity if you do not comply with the standard.

5.2.3.8 Cattle Temporarily Indoors

In certain cases you can keep animals indoors that otherwise would be outdoors every day. During the **grazing** and **outdoor periods**, you can temporarily keep cattle inside for two weeks at the most which applies as well during mating, insemination, drying off, birthing or before slaughter. You can also keep them temporarily indoors due to sickness, black fly attacks, unsuitable weather, or when there is great risk for attack by predatory animals. During the **withdrawal period** after drug treatment, you must provide animals with access to the outdoors. (EU)

5.2.3.9 Young Bulls Registered for Slaughter

You can keep young steers indoors if they are registered for slaughter and will be slaughtered before (K):

- 15 June in Götaland, and
- 1 July in Svealand and Norrland.



It is a major nonconformity if you do not comply with the standard.

5.2.4 Housing Conditions



5.2.4.1 Space Measurements in Housing for Cattle

The space indoors and outdoors that must always be accessible to the animals is specified in the Table below. For cubicles and other details not given in the KRAV standards, the minimum measurements according to Swedish animal protection regulations apply. (K)

The space requirements are minimum levels. Functional requirements can mean that greater areas are needed in your stable.

Table 1. Space Requirements for Cattle

Category of animal	A. Total minimum area indoors and outdoors (m ² per animal)	B. Minimum outdoor/exercise yard area (m ² per animal)
calf, young animal and suckler cow:		
live weight (kg)		
< 60	1.5 (SL)	1.1 (EU)
< 90	1.7 (SL)	1.1 (EU)
< 150	2.2 (SL)	1.9 (EU)
< 200	2.5 (EU)	1.9 (EU)
< 250	2.9 (SL)	2.2 (EU)
≤ 350	4.0 (EU)	3.0 (EU)
> 350	1 m ² /100 kg (at least 5.0) (EU)	0.75 m ² /100 kg (at least 3.7) (EU)
milk/foster cow on litter bed	8.5 (SL)	4.5 (EU)
milk/foster cow other loose housing	6.0 (EU)	4.5 (EU)
dry cow	6.0 (EU)	4.5 (EU)
breeding bull	10.0 (EU)	30.0 (EU)
tethered adult cows	animal protection regulations	4.5 (EU)

The measurements in the Table are based on Swedish animal protection legislation as well as requirements of the EU regulation.

+ 5.2.4.2 Space Indoors

During the **stable period**, you can count available space outside the stable in with the total indoor space (Table 1, column A) if the animals have continual access to the space.

+ 5.2.4.3 Outdoor Area (Exercise Yards)

During the **outdoor period**, when animals must be outdoors at least part of the day, the outdoor area must comply with the minimum measurements in Table 1, column B, if the animals are not let out on grazing land.

Up to 75% of the area of the exercise yard can be covered with a roof. (EU)

+ 5.2.4.4 Cattle in Open Sheds

For cattle kept in open sheds with continual access to the outdoors, the area covered by a roof must be equivalent to the minimum measurements for lying area according to Swedish animal protection legislation. The total accessible area indoors and outdoors must however be (EU):

- at least according to the measurements in Table 1, column A during the **stable period**, and
- at least according to the measurements in Table 1, column A+B during the **outdoor period**.

5.2.4.5 Access to Lying Areas

In stables with cubicles, there must be at least one cubicle per animal. (SL)

5.2.4.6 New Construction for Cattle Must be Loose Housing

Loose housing design must be used for new construction, extensive renovations or additions for cattle stables. (SL)

5.2.4.7 Cows Must be Able to Calf in Seclusion

Cows must be able to calf in seclusion away from other animals. Calving indoors must take place in a calving box, that can be permanent or temporary. You must plan so that you have access to an adequate number of calving boxes in relation to the distribution of the calving throughout the year. (K)

If calving takes place on **deep litter beds** indoors, it may only take place within the herd if you monitor the animals so that you can separate the cow and calf from the rest of the herd in connection with birthing if necessary. (K)

You can only in exceptional circumstances tether a cow that is going to calf. Lack of space is not a good enough reason to tether a cow during calving. (K)

Seclusion during birthing is important, amongst other reasons, so that the calf can get colostrum from its mother. During grazing there is abundant space and cows can themselves get away from the herd.

5.2.4.8 Groups of Calves

You must keep **calves** in groups. You can keep one calf in an individual box for a maximum of one week (EU). If you, in exceptional cases, must keep a calf alone in a box for a longer period, the box must be as big as two individual boxes (K). *It is more important that calves in a group are about the same age, so that feeding functions well, than that there are many in the group. Therefore, two calves in a group is enough if it means that you have a better age distribution.*

5.2.4.9 Exceptions for Tethered Cattle in Small Holdings

Cattle that are older than 20 months and kept by small agricultural holdings can be tethered during the **stable period**, provided they are exercised outdoors at least twice per week. A “small agricultural holding” is a herd with 45 or fewer tethered cattle (calculated using the number of usable cubicles), regardless of the size of the herd. The exception applies until further notice. (EU)

At the age of nine to 20 months, cattle in small herds can be tethered for a total of one month in order to become accustomed to being tethered. (K)

You must be able to show routines for exercising (see details for implementation of exercising in the National Guidelines for Organic Production, in Swedish only).

It is a major nonconformity if you do not comply with the standard.

5.2.5 Self-sufficiency and Feed

5.2.5.1 Level of Self-sufficiency for Cattle

You must to a certain degree produce the feed for your animals on your own **farm** or in cooperation with another farm. The level of self-sufficiency for cattle must be:

- at least 60% for dairy cattle and renewal animals (EU), and
- at least 75% for other cattle (K).

Herds of cattle in areas with limited access to the keeper's own feed and limited opportunities for cooperation regarding feed and fertiliser with another KRAV farm, for example on islands, can be exempt from the 75% self-sufficiency requirement. The level can then be lowered, though not lower than 60%. (K)

Your certification body determines what a reasonable level is for your farm. It is a major nonconformity if you do not comply with the standard.

5.2.5.2 Portion Concentrated Feed in the Ration for Cattle

You can feed according to the following:

- Maximum 30% **concentrated feed** for slaughter animals and young animals (K).
- Maximum 40% concentrated feed for cows. For up to three months in the beginning of lactation, you can increase the portion to 50% (EU).
- Maximum 40% concentrated feed for **calves** in transition from suckling to a normal roughage ration. The period can last at most until six months of age. (K)

You must calculate the amount of concentrated feed in the ration using the daily intake of feed as **dry weight**.

It is a major nonconformity if you do not comply with the standard.

5.2.5.3 Free Access to Roughage

You must give your animals free access to good quality **roughage** (EU). Grazing, hay or silage must be included in the animals' ration. You can temporarily feed with straw only, for example when drying off cows. (K)

It is a major nonconformity if you do not comply with the standard.

5.2.5.4 Amount of Urea and Ration for Dairy Cows

You must monitor the urea content and correct the feeding of your dairy cows if levels are greater than 5.5 or under 2.5 mMol/l. To make corrections you must monitor the values for the three most recent months. If the level deviates occasionally or during high grazing consumption it is considered as a normal variation. You must use analysis values from your milk tank. If your corrections are not effective you must contact an advisor. (K)

5.2.5.5 Climate and Environmental Benefits of Roughage Usage

For animals other than milk cows, you must comply with at least one of the following standards (K):

- During the **grazing period**, you must keep your animals primarily on grazing land. This means at least one grazing period for slaughter cattle. “Grazing land” is land defined according to code 52 of The Swedish Board of Agriculture and similar land. Permanent pasture on arable land, where the grazing land has not been farmed for the last 10 years, is also considered grazing land.
- You must have a good feeding strategy in order to minimize the risk of over or under feeding. *You must be able to describe your feeding strategy, for example that you analyse your harvested roughage or in other ways assess the nutrient content in different sections of the harvest, and feed it to various groups accordingly.*
- You must monitor that your slaughter and renewal animals are growing well by weighing them or assessing growth in other ways. *You must be able to show good growth in your slaughter animals with, for example, normal slaughter weights on the slaughter reports. When there are recurrent problems, for example with slaughter weight or unplanned high calving age, documented monitoring of growth and feed strategy is required until the problem has been solved.*

You can use different alternatives to comply with the standard for different animal groups.

5.2.6 Feeding Calves

5.2.6.1 Suckling

Calves must suckle at least a full day, in other words 24 hours, but a longer suckling period is certainly acceptable. (K)

If your herd is going through a period of decontamination from a particular disease when suckling cannot be permitted during the decontamination, exceptions to the standard are permitted. You must then inform your certification body in advance.

■ *It is a major nonconformity if you do not comply with the standard.*

5.2.6.2 Milk-feeding During the Suckling Period

After the suckling period, calves must be raised primarily using KRAV-certified milk from their own species until they are 12 weeks old. (EU)

If a calf does not have the opportunity to suckle, it must be able to suck milk in a natural position through an artificial nipple that must not be placed too high. To satisfy the animal’s need to suck, you should let the milk bar, feeding pail or equivalent be available for a while after the animal has finished drinking the milk. (K)

Weaning can begin at the earliest when one week remains of the suckling period. “Primarily be raised on” denotes at least half of the daily energy intake.

5.2.6.3 Feeding Concentrated Feed and Roughage During the Suckling Period

You must ensure that calves raised with milk feeding have free access to

concentrated feed and appropriate **roughage** during the suckling period. You can adapt calves to other feeding one week before possible sale to conventional rearing. (K)

The section for portion of concentrated feed, 5.2.5.2, applies at the end of the suckling period.

5.2.6.4 Feeding with Milk from Cows in Conversion

You can feed **calves** with milk from purchased conventional heifers that have calved two months after the beginning of the heifers' conversion period. (K)

5.2.6.5 Feeding with Milk from Cows Treated with Veterinary Medicinal Products

You must only give milk from a cow treated with veterinary medicinal products to its own **calf** during the **withdrawal period** set by The Swedish Medical Products Agency. After that you can also give the milk to other calves. (K)

The above also applies to milk from cows treated repeatedly and that must go through an extra withdrawal period according to section 5.1.11.14. (K)

5.2.6.6 Feeding with Other Milk and Milk Substitutes

You can use conventional milk or milk substitutes in exceptional emergency situations. If the feeding with a milk substitute or conventional milk is carried out for one week at the most, the calf can still continue to be KRAV-certified. (K)

Calves raised for slaughter cannot be KRAV-certified if you raise them with conventional milk or milk substitutes for more than one week. However, calves kept in the herd for renewal can be KRAV-certified after a **conversion period** of 12 months. (K)

It is permitted to heat milk to combat disease if recommended by a veterinarian. (K)

5.2.6.7 Milk Acidification

To acidify milk you can use acidified milk, for example sour milk, bacteria cultures and acidification substances of plant origin. (K/EU)

5.2.7 Preventive Healthcare for Dairy Cattle

“Ask the Cow” (“Fråga kon”) or an equivalent animal welfare assessment acts as an aid to identify areas where measures need to be taken to improve animal welfare. Read more about “Ask the Cow” (“Fråga kon”), “Milk Health Package” (“Hälsopaket Mjölk”) and “Cow Inspection” (“Kokontrollen”) at www.vxa.se (in Swedish only).

5.2.7.1 Herds Registered with the “Cow Inspection” (“Kokontrollen”)

You must regularly monitor the **key performance indicators** below from “Signals of Animal Welfare” (“Signaler Djurvålfärd”) (in Swedish only) (K):

- suckling calf mortality 0-24 hours,
- calf mortality 1-60 days (heifer calves),

- calf mortality 2-6 months (heifer calves),
- young animal mortality 6-15 months (heifers),
- cows that die a natural death or are euthanized,
- total loss (cows) (not live),
- total number of cases of illness reported for cows,
- mastitis treatments, and
- hoof and leg diseases (cows).

You must have “Ask the Cow” (“Fråga kon”) or the equivalent carried out if any of the above key performance indicators from “Signals of Animal Welfare” (“Signaler Djurvålfård”) (in Swedish only) show a red light symbol (which means that the herd belongs to the 10% with the worst values for the key performance indicator in question), or if other signals in animal management indicate an animal welfare problem in the herd. (K)

An exception is if any key performance indicator shows a red light symbol and the cause can be traced to a carefully prepared strategy that does not jeopardize *animal welfare* or to an isolated event (for example the temporary breakout of disease). In that case you do not need to carry out “Ask the Cow” (“Fråga kon”) or the equivalent. You must however follow-up that measures already taken have been effective by checking after 12 months have passed that the key performance indicator has changed to a yellow or green light symbol. (K)

5.2.7.2 Herds Not Affiliated with “Cow Inspection” (“Kokontrollen”)

You must have a system to monitor *animal welfare* by annually documenting at least the following *key performance indicators* (K):

KEY PERFORMANCE INDICATOR	MAXIMUM PERMITTED*
• suckling calf mortality 0-24 hours	11%
• calf mortality 1-180 days (heifer calves)	10%
• young animal mortality 6-15 months (heifers)	4%
• cows that die a natural death or are euthanized.....	10%
• total cows lost (not live)	47%
• total number of cases of illness (cows)	44%
• mastitis treatments.....	22%
• hoof and leg diseases treated by a veterinarian	5%

* *The numbers are equivalent to limit values for the 10% with the worst values in herds from “Signals of Animal Welfare” (“Signaler Djurvålfård”) (in Swedish only) (= red light symbol).*

On www.krav.se there is a guide to how the parameters above are calculated.

If any of the key performance indicators exceed the limit values given in the Table or if other signs indicate an animal welfare problem, you must have “Ask the Cow” (“Fråga kon”) or the equivalent carried out. (K)

An exception is if any key performance indicator exceeds the limit values and the cause can be traced to a carefully prepared strategy that does not jeopardize animal welfare or to an isolated event (for example the temporary breakout of

disease). In that case you do not need to carry out “Ask the Cow” (“Fråga kon”) or the equivalent. You must however follow-up that measures already taken have been effective by checking after 12 months have passed that the key performance indicator shows a value under the limit value. (K)

5.2.7.3 *New in Certification*

When you register your milk production to be KRAV-certified, you must have an animal welfare assessment carried out, such as “Ask the Cow” (“Fråga kon”), “Milk Health Package” (“Hälsopaket Mjölk”), or the equivalent. (K)

5.2.7.4 *After an Animal Welfare Assessment*

You must implement the proposed remedies resulting from “Ask the Cow” (“Fråga kon”), “Milk Health Package” (“Hälsopaket Mjölk”), or the equivalent. You must follow-up that the measures have had an effect by checking the key performance indicators, and when necessary, by carrying out a new animal welfare assessment after a certain amount of time has passed. (K)

5.2.8 *Surgical Operations*

5.2.8.1 *Castration of Calves*

You can have *calves* castrated that are younger than eight weeks. The calves must be given *local anaesthetics* and *analgesia* during the operation. In exceptional cases you can have older animals castrated. (EU/K)

5.2.8.2 *Dehorning Calves*

You can dehorn *calves* younger than eight weeks using hot dehorning methods (K). A calf must receive a *local anaesthetic* (SL) and be given *analgesia* during the procedure (K). In special cases, such as late horn growth, hot dehorning can be done at somewhat older ages. (EU)

Occasional dehorning of older animals is permitted for animal welfare or handling reasons. *Sedation of calves during castration and dehorning is permitted but not required. You can find information on local anaesthetics, analgesia and sedation on the KRAV website (www.krav.se/bedovning-och-smartlindring, in Swedish only).*

5.3 Sheep and Goats

This section has all the animal specific standards for KRAV-certified sheep and goats, that you must comply with together with section 5.1 Standards for All Types of Livestock. This section includes:

- 5.3.1 Conversion Periods for Admission and Purchase
- 5.3.2 Purchase of Animals
- 5.3.3 Outdoor Access and Grazing
- 5.3.4 Housing Conditions

- 5.3.5 Self-sufficiency and Feed
- 5.3.6 Feeding Lambs and Kids
- 5.3.7 Surgical Operations

5.3.1 Conversion Periods for Starting and Purchase

5.3.1.1 Conversion Periods for Starting

Conversion periods for sheep and goats are (EU):

- six months for production of meat, hides and wool, and
- six months for the production of milk.

You can sell lambs and kids as KRAV-certified that are born during the conversion period, six months after the start of the conversion period. (EU)

Alternatively you can choose:

- 24 months for milk, meat, hides and wool when land and animals together are converted to KRAV-certified production. You must feed the animals primarily (more than 50%) with your own feed from the land in the conversion. (EU)

In this case you do not need to comply with the standards for use of one's own conversion feed.

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.3.1.2 Conversion Period for Purchased Conventional Sheep and Goats

If you already have KRAV-certified animal husbandry and purchase conventional animals of the same type for renewal or breeding, purchase animals must go through a conversion period before you can sell products from them as KRAV-certified. Lambs and kids from these purchased animals do not have a conversion period. (EU)

Conversion periods for sheep and goats are (EU):

- six months for production of meat, hides and wool, and
- six months for production of milk.

If you have a herd in conversion and purchase conventional animals of the same type for renewal or breeding, purchased animals must go through a conversion period before you can sell products from them as KRAV-certified. Lambs and kids from these purchased animals can be sold as KRAV-certified when the conversion period for the original herd is completed. (EU)

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.3.2 Purchase of Animals

5.3.2.1 Purchase of KRAV-certified Animals to Raise for Slaughter

You can purchase lambs and kids from a maximum of three different herds within a 12 month period. (K)

5.3.2.2 Purchase of A Few Conventional Sheep and Goats

You can only purchase a few conventional animals for breeding purposes. For renewal, you can in addition purchase a maximum of 20% young ewes/goats per year that have not lambed/kidded, calculated using the number of mother animals and pregnant young animals you will have after the renewal. If there are less than five mother animals in the herd, you can purchase one conventional animal per year at the most. (EU)

5.3.3 Outdoor Access and Grazing

5.3.3.1 Time Grazing During the Grazing Period

You must arrange for your sheep and goats to be outdoors on grazing land around the clock during the **grazing period**. (EU)

It is a major nonconformity if you do not comply with the standard.

5.3.3.2 Grazing Intake During the Grazing Period

The animals must have a pasture that provides them with at least 50% of the daily intake of feed calculated as **dry weight (DW)**. (K)

It is a major nonconformity if you do not comply with the standard.

5.3.3.3 Outdoor Access for Rams and Bucks

In exceptional circumstances, rams and bucks for breeding can be kept in bare exercise yards during the **grazing period** and **outdoor period**. They can be kept inside during the winter, if you comply with the extra requirements in section 5.3.4.4. (K)

5.3.3.4 Outdoor Access for Sheep and Goats at Other Times

During other times than the grazing period, sheep and goats must be able to be outdoors at least part of the day. You can however during the winter make an exception to the requirement of outdoor access if you comply with the extra requirements in section 5.3.4.4. (K)

It is a major nonconformity if you do not comply with the standard.

5.3.3.5 Sheep and Goats Temporarily Indoors

In some cases you can keep animals indoors that otherwise would be outdoors every day. During the **grazing period** and other periods when animals must have daily outdoor access, you can temporarily keep them inside for two weeks at the most during mating, insemination, drying off, birthing or before slaughter. You can also keep them temporarily indoors due to sickness, black fly attacks, unsuitable weather, when there is great risk for attack by predatory animals, or after shearing. During the **withdrawal period** after drug treatment, you must provide animals with access to the outdoors. (EU)

5.3.4 Housing Conditions

5.3.4.1 Space Measurements in Stables for Sheep and Goats

The space indoors and outdoors that must always be accessible to the animals is specified in the Table below. For details not given in the KRAV standards, the minimum measurements according to Swedish animal protection regulations apply. (K)

The space requirements are minimum levels. Functional requirements can mean that greater areas are needed in your stable.

Table 2. Space Requirements for Sheep and Goats

	Minimum space indoors (m ² per animal)	Minimum outdoors/exercise yard (m ² per animal)
adult sheep or goat	1.5 (EU)	2.5 (EU)
pregnant ewes	1.7 (SL)	2.5 (EU)
lamb or kid: live weight (kg):		
< 15	0.35 (EU)	0.5 (EU)
< 30	0.5 (SL)	0.5 (EU)
> 30	1.0 (SL)	1.0 (K)

The measurements in the Table are based on Swedish animal protection legislation as well as requirements of the EU regulation.

+ 5.3.4.2 Outdoor Area (Exercise Yards)

Sheep and goats must have year round access to an exercise yard except when they are in the grazing period, and provided they are not being kept in a stable that complies with the requirements in section 5.3.4.4. (K)

Up to 75% of the area of the exercise yard can be covered with a roof. (EU)

+ 5.3.4.3 Sheep and Goats in Open Sheds

For animals kept in open sheds with permanent access to the outdoors, the area covered by a roof must be equivalent to the minimum measurements for lying area according to Swedish animal protection legislation. The total accessible area must thus be as big as the combined area of the smallest indoor respectively outdoor/exercise yard, according to Table 2.

Example: you have 10 pregnant ewes in a group in an open shed with permanent access to the outdoors. According to Swedish animal protection legislation, the ewes must have a space of 1.2 m² per animal, i.e. 12 m², in the open shed. If the spaces indoors and outdoors/exercise yards (17 m² + 25 m²) are added together, the result is that the ewes must have a total of at least 42 m². As you have reduced the area “indoors” to 12 m², the area of the exercise yard must therefore be at least 30 m².

5.3.4.4 Sheep and Goats in Stables in the Winter

You can keep sheep and goats inside during the winter without access to an exercise yard if the stable has (K):

- one-and-a-half times as large an area as the minimum indoor area according to Table 2 for adult animals,
- twice as large an area as the minimum indoor area according to Table 2 for lambs and kids,
- openings for light into the stable that are equivalent to at least 10% of the floor area, and
- admission of fresh air so that the stable environment is similar to outside, but dry and protected from the wind.

In addition, your sheep and goats must be outdoors around the clock for a longer time than just during the **grazing period**, weather permitting. (K)

The standard also applies to lambs born during the winter and slaughtered before the grazing period, if consistent with the EU regulation on **organic** production. If this is not the case, these lambs must have access to the outdoors in an exercise yard after the lambing period in order to be sold as KRAV-certified. (K)

It is a major nonconformity if your sheep or goats do not have access to the outdoors during the winter without your stable complying with the conditions above.

+ 5.3.4.5 Seclusion During Lambing/Kidding

Sheep and goats must if needed be able to lamb/kid in seclusion from other animals. Indoors, you must monitor the animals to be able to separate them from the rest of the flock in connection with birthing.

Seclusion during birthing is important. Outdoors there is abundant space and the animals can themselves get away from the flock.

5.3.5 Self-sufficiency and Feed

5.3.5.1 Level of Self-sufficiency for Sheep and Goats

You must to a certain degree produce the feed on your own **farm** or in cooperation with another farm. The level of self-sufficiency for sheep and goats must be:

- at least 60% for milking animals (EU), and
- at least 75% for others (K).

Flocks in areas with limited access to the keeper's own feed and limited opportunities for cooperation regarding feed and fertiliser with another KRAV farm, for example on islands, can be exempt from the 75% self-sufficiency requirement. The level can then be lowered to 60%, but not less. (K)

Your certification body determines what a reasonable level is for your farm.

It is a major nonconformity if you do not comply with the standard.

5.3.5.2 Portion of Concentrated Feed in the Ration for Sheep and Goats

You can feed according to the following:

- Maximum 30% **concentrated feed** for slaughter and young animals (K).
- Maximum 40% concentrated feed for milk producing animals (EU). For up to three months early in the lactation period, you can increase the portion to 50% (EU). You can also move forward the three-month period for heavily pregnant ewes and goats when they do not have enough space to consume an adequate amount of **roughage** due to growth of the foetus. (K)
- Maximum 40% concentrated feed for lambs and kids in transition from suckling to a normal roughage ration. The period can last one month at most after weaning. (EU)

You must calculate the amount of concentrated feed in the ration using the daily intake of feed as **dry weight**.

■ *It is a major nonconformity if you do not comply with the standard.*

5.3.5.3 Free Access to Roughage

You must give the animals free access to good quality **roughage** (EU). Grazing, hay or silage must be included in the animals' ration. Goats must have access to woody plants or branches year-round. (K)

■ *It is a major nonconformity if you do not comply with the standard.*

5.3.5.4 Climate and Environmental Benefits of Roughage Usage

For sheep and goats you must comply with at least one the following standards (K):

- During the grazing period, you must keep your animals primarily on grazing land. This means at least one **grazing period** for slaughter animals. "Grazing land" is land defined according to code 52 of The Swedish Board of Agriculture and similar land. Permanent pasture on arable land, where the grazing land has not been farmed for the last 10 years, is also considered grazing land.
- You must have a good feeding strategy in order to minimize the risk of over or under feeding. *You must be able to describe your feeding strategy, for example that you analyse your harvested roughage or in other ways assess the nutrient content in different sections of the harvest, and feed it to various groups accordingly.*
- You must monitor that your slaughter and renewal animals are growing well by weighing them or assessing growth in other ways. You must be able to show good growth in your slaughter animals with, for example, normal slaughter weights on the slaughter reports. *When there are recurrent problems, for example with slaughter weights, documented monitoring of growth and feed strategy is required until the problem has been solved.*

You can use different alternatives to comply with the standard for different livestock groups.

5.3.6 Feeding Lambs and Kids

5.3.6.1 Suckling

Lambs and kids must suckle for at least three whole days, but a longer suckling period is certainly acceptable. (K)

If your flock is going through a period of decontamination from a particular disease when suckling cannot be permitted, for example CAE for goats, exceptions to the standard are permitted. You must then inform your certification body in advance.

It is a major nonconformity if you do not comply with the standard.

5.3.6.2 Milk-feeding During the Suckling Period

After the colostrum period, lambs and kids must be raised primarily using KRAV-certified milk from their own species until the lambs are at least eight weeks old and the kids at least six weeks old. (EU)

If the young do not have the opportunity to suckle, they must be able to suck milk in a natural position through an artificial nipple that must not be placed too high. To satisfy the animal's need to suck, you should let the milk bar, feeding pail or equivalent be available for a while after the animal has finished drinking the milk. (K)

5.3.6.3 Feeding with Milk from Mother Animals in Conversion

You can feed lambs and kids with milk from purchased conventional mother animals two months after the start of the mother animals' conversion period. (K)

5.3.6.4 Feeding Milk from Animals Treated with Veterinary Medicinal Products

You must only give milk from an animal treated with veterinary medicinal products to its own suckling offspring during the *withdrawal period* set by The Swedish Medical Products Agency. After that you can also give the milk to other lambs and kids. (K)

The above also applies to milk from mother animals treated repeatedly and that must go through an extra withdrawal period according to section 5.1.11.14. (K)

5.3.6.5 Feeding with Other Milk and Milk Substitutes

You can use conventional milk or milk substitutes in exceptional emergency situations. If feeding with a milk substitute or conventional milk is carried out for one week at the most, the fed animal can still continue to be KRAV-certified. (K)

Animals raised for slaughter cannot be KRAV-certified if you raise them with conventional milk or milk substitutes for more than one week. However, animals kept in the herd for renewal can be KRAV-certified after a conversion period of six months. (K)

It is permitted to heat milk or to use milk from another animal species to combat disease if recommended by a veterinarian. (K)

5.3.7 Surgical Operations

5.3.7.1 Dehorning

You can dehorn animals younger than eight weeks using hot dehorning methods (K). The animal must receive a *local anaesthetic* (SL) and be given *analgesia* during the procedure (K). In special cases, such as late horn growth, hot dehorning can be done at somewhat older ages. Dehorning of older animals is permissible for reasons of animal welfare or handling. (EU)

Sedation during dehorning is permitted but not required. You can find information on local anaesthetics, analgesia and sedation on the KRAV website (www.krav.se/bedovning-och-smartlindring, in Swedish only).

5.4 Pigs

This section has all the animal specific standards for KRAV-certified pigs, that you must comply with together with section 5.1 Standards for All Types of Livestock. This section includes:

- 5.4.1 Conversion Periods for Starting and Purchase
- 5.4.2 Purchase of Animals
- 5.4.3 Outdoor Access and Grazing
- 5.4.4 Natural Behaviour
- 5.4.5 Housing Conditions
- 5.4.6 Self-sufficiency and Feed
- 5.4.7 Feeding Piglets
- 5.4.8 Surgical Operations

5.4.1 Conversion Periods for Starting and Purchase

5.4.1.1 Conversion Periods at the Start of the Certification Process


Conversion periods for pigs are (EU):

- six months for production of meat and hides.

You can sell pigs as KRAV-certified that are born during the conversion period, after six months have passed from the start of the conversion period. (EU)

Alternatively you can choose:

- 24 months for meat and hides when land and animals are converted to KRAV-certified production at the same time. You must feed the animals primarily (more than 50%) with your own feed from the land in the conversion (EU). *You then do not need to comply with the standards for use of one's own conversion feed.* (EU)

 *It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.*

5.4.1.2 Conversion Periods for Purchased Conventional Pigs

If you already have a KRAV-certified group of pigs and purchase conventional gilts or boars for renewal or breeding, the purchased animals must go through a **conversion period** before you can sell products from them as KRAV-certified. Offspring from the purchased gilts have no conversion period. (EU)

If you have a group of pigs in conversion and purchase conventional gilts or boars for renewal or breeding, the purchased animals must go through the same conversion period before you can sell products from them as KRAV-certified. Offspring from these purchased gilts can be sold as KRAV-certified when the conversion period for the original group is complete. (EU)

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.4.2 Purchase of Animals

5.4.2.1 Purchase of KRAV-certified Pigs to Raise for Slaughter

You can purchase KRAV-certified piglets from a maximum of three different herds within a 12 month period. (K)

You must keep piglets purchased from different groups, as well as purchased pigs of different ages, within their groups and separated from other groups. (K)

5.4.2.2 Purchase of a Few Conventional Animals

You can only purchase a few conventional animals for breeding purposes. For renewal, you can as well purchase a maximum of 20% conventional gilts per year, calculated using the number of sows and pregnant gilts you will have after the renewal. If there are less than five mother animals in the herd, you can purchase one conventional animal per year at the most. (EU)

5.4.2.3 Quarantine for Purchased Animals

You must keep pigs purchased for renewal in **quarantine** for at least three weeks to protect your animals from infectious disease. (K)

5.4.3 Outdoor Access and Grazing

5.4.3.1 Grazing Time During the Grazing Period

You must arrange for pigs to be outdoors most of the day, during a continual period of at least four months during the grazing period, on land that is mostly covered with vegetation. (K)

It is a major nonconformity if your pigs do not have adequate outdoor access or adequate pasture.

5.4.3.2 Grazing for Feed and Activation

Pastures must provide the pigs with both feed and an abundance of opportunities for activity. Pigs must always have access to vegetation covered ground with strip grazing and other grazing systems. You must move them to new pasture as soon as they have rooted up the pasture they are in. (K)

5.4.3.3 Outdoor Access at Other Times

During the time of year that pigs are not grazing, you must provide them with access to an exercise yard. (EU)

5.4.3.4 Pigs that Will be Slaughtered During the Grazing Period

Pigs must be let out to graze as soon as land and weather conditions permit. Fattening pigs that will be slaughtered in July or later during the *grazing period* must be let out on grazing land by 1 June at the latest. (K)

5.4.3.5 Outdoor Access for Breeding Boars

You can keep breeding boars in bare exercise yards when outdoors. (EU)

5.4.3.6 Pigs Temporarily Indoors

You can temporarily keep the animals indoors due to sickness, black fly attacks, or unsuitable weather. During the *withdrawal period* after drug treatment, you must provide animals with access to pasture or an outdoor exercise yard. (EU)

5.4.3.7 Indoors for Mating/Insemination

You can keep sows and gilts brought in for mating or insemination without pasture for up to four weeks, after mating or insemination that leads to pregnancy. They must have access to an outdoor exercise yard if they have to be indoors for more than a week. (K)

🔄 5.4.3.8 Farrowing Indoors

Three weeks at the latest after farrowing, the sow and piglets must be let out to pasture during the *grazing period* or onto an exercise yard during the rest of the year. When animals are kept in groups and raised in all-in-all-out production, the three weeks is counted for the last born litter. (K)

🔄 5.4.3.9 Collection from Pasture Before Slaughter

You can collect pigs from pasture at the most two weeks before planned delivery for slaughter. During this period the pigs must have access to an outdoor exercise yard.

🔄 5.4.3.10 Cooling with Water During Grazing

During the warm season, pigs must have access to a mud bath or other ways of cooling off in water when grazing. (K)

! *It is a major nonconformity if you do not comply with the standard.*

5.4.4 Natural Behaviour

5.4.4.1 Seclusion When Farrowing

Sows must be able to farrow in seclusion and under cover, for example in a farrowing hut. A sow can farrow indoors if she has enough freedom, space to build a nest and access to an abundance of material to build a nest with. (K)

You can move a sow to a farrowing box at the earliest one week before the expected farrowing. Your routines for taking care of animals and other conditions in connection with farrowing must make it possible for the sows to be in the group up until the days before farrowing. (EU)

It is a major nonconformity if you do not arrange for your sows and gilts to be able to farrow in seclusion.

5.4.4.2 Pigs Must be Kept in Groups

You must keep grower pigs and sows without piglets in groups both indoors and outdoors. (EU)

It is a major nonconformity if you do not comply with the standard.

5.4.4.3 Pigs Must be Able to Root

You must give pigs access to natural activity and active food search behaviour by providing them with the possibility to root, for example through fallow land, forest or woodland, or in **deep litter beds**. (EU)

It is a major nonconformity if you do not comply with the standard.

5.4.5 Housing Conditions

5.4.5.1 Space Measurements in Housing for Pigs

The space indoors and outdoors that must always be accessible to the animals is specified in Table 3. For details not given in the KRAV standards, the minimum measurements according to Swedish animal protection regulations apply. (K)

The space requirements are minimum levels. Functional requirements can mean that greater areas are needed in your stable.

Table 3. Indoor and Exercise Yard Space for Pigs

	Live weight (kg)	Minimum space indoors (m ² per djur)	Minimum space outdoors (exercise yard, not grazing land) (m ² per djur)
dry pregnant sow, pregnant gilt		2.5 (SL)	1.9 (EU)
boars for breeding		7.0 (SL)	8.0 (EU)
mother sow with piglets up to 40 days old		7.5 (EU)	2.5 (EU)
fattening pigs	< 30	0.6 (SL)	0.4 (K)
	< 50	0.8 (SL)	0.6 (EU)
	< 85	1.2 (SL)	0.8 (EU)
	< 110	1.5 (SL)	1.0 (EU)

You must calculate the space in boxes for several animals based on the largest individuals in the group.

5.4.5.2 Housing for Pigs

If you build a new stable for pigs or newly establish production, the building must be planned and sectioned in order to provide for the best possible protection from infectious disease. (K)

5.4.5.3 The Feeding, Lying and Dunging Area for Pigs

Indoors, pigs must have access to separate lying areas with deep litter beds and a separate dunging area. They must also have a well-defined feeding place. The space must be well-ventilated and big enough so that all the animals can eat at the same time or rest at the same time without having to compete. Pigs that have free access to **concentrated feed** do not all need to be able to eat simultaneously, but you must ensure that there are enough eating places so that all the pigs are able to eat without crowding and competition. (K)

5.4.6 Self-sufficiency and Feed

5.4.6.1 Level of Self-sufficiency for Pigs

You must to a certain degree produce the feed on your own **farm** or in cooperation with another farm. The level of self-sufficiency for pigs must be at least 50%. (K)

It is a major nonconformity if you do not comply with the standard.

5.4.6.2 Level of Self-sufficiency for Farms in Norrland as well as Forest and Central Districts

Pig farms in Norrland as well as in forest and central districts (in Sweden) may be exempted from the self-sufficiency requirement of 50%. This can then be reduced to a lower level, but no lower than 20% (EU). You must strive toward successively increasing your level of self-sufficiency. (K)

Your certification body determines what a reasonable level is for your farm.

5.4.6.3 Level of Self-sufficiency for Farms with Special Crops

Farms that raise pigs and also have special crops, for example vegetable crops, can be exempt from the requirement of 50% self-sufficiency. This can then be reduced to a lower level, but no lower than 20% (EU).

The exemption applies only if manure is needed for your own crop. (K)

Your certification body determines what a reasonable level is for your farm, in relation to manure needs.

5.4.6.4 Maximum 5% Conventional Feed

According to the European Commission's extended exemption you can give pigs at the most 5% conventional protein feed of agricultural origin. This applies up until 31 December 2017. (EU)

Conventional feed that is not of agricultural origin, for example fish meal, can be included in the ration for pigs (EU). You can give at the most 10% such conventional feed, calculated using the annual feed consumption. (K)

In order to give conventional feed regardless of origin, the feed must be necessary to make the ration complete and permitted in **organic** animal husbandry. (EU)

You must calculate portions of feed per animal and year, not per group of animals and year. For animals with a lifetime shorter than one year, consumption for the animals' lifetime applies. (EU)

The conventional feed that is not of agricultural origin and is permitted is given in Appendix 1.

■ *It is a major nonconformity if you do not comply with the standard.*

5.4.6.5 Maximum 15% Conventional Feed Per Day

If you give your pigs conventional feed, at the most 15% of the daily feed consumption can be conventional. (K)

5.4.6.6 Free Access to Roughage

You must provide pigs with free access to good quality **roughage** (EU). Grazing, hay or silage must be included in the animals' ration. (K)

■ *It is a major nonconformity if you do not comply with the standard.*

5.4.6.7 Feed Consumption for Pig Production

You must annually calculate how much **concentrated feed** is used per kilo fattening pig or piglet that you sell. You choose yourself if you want to do separate calculations for the piglet and fattening pig parts of your production. (K)

5.4.7 Feeding Piglets

5.4.7.1 Weaning Piglets

You can wean piglets when they are 40 days old at the earliest, if you keep them in groups and raise them in all-in-all-out production. You must then follow a **health plan** (EU). *The health plan must help you maintain good protection against infectious disease and strict group keeping so that animals stay healthy.*

If you do not apply strict grouping and raising in all-in-all-out production, piglets can be weaned at 49 days of age at the earliest. (K)

■ *It is a major nonconformity if you wean piglets too early.*

5.4.7.2 Iron for Piglets

You must make sure that piglets get enough iron. They must have access to soil or iron enriched peat. If you give piglets iron paste within 24 hours of birth, you must within a week at the latest give them soil or peat. (K)

You can enrich the soil with iron sulphate, for example. The iron supplements you use must not contain prohibited feed additives. (EU)

5.4.7.3 Feeding with Milk Substitutes

You can use conventional milk or milk substitutes in exceptional emergency situations, or during sickness if recommended by a veterinarian. If feeding with a milk substitute or conventional milk is carried out for one week at the most, the animal can still continue to be KRAV-certified. (K)

Animals raised for slaughter cannot be KRAV-certified if you raise them with conventional milk or milk substitutes for more than one week. However, animals kept in the herd for renewal can be KRAV-certified after a *conversion period* of six months. (K)

5.4.8 Surgical Operations

5.4.8.1 Castration of Pigs

You can have pigs younger than seven days of age castrated (SL). The pigs must receive a *local anaesthetic* (SL) and *analgesia* when being operated on (K).

There is information on the KRAV website about local anaesthetics and analgesia, see www.krav.se/bedovning-och-smartlindring (in Swedish only).

5.4.8.2 Clipping Piglets' Teeth

You can clip the teeth of piglets from a large litter if it takes place during the pig's first 24 hours of life (before the tooth enamel has hardened). (SL)

5.5 Poultry

This section has all the animal specific standards for KRAV-certified poultry that you must comply with together with section 5.1 Standards for All Types of Livestock. This section includes:

- 5.5.1 Conversion Periods for Starting and Purchase
- 5.5.2 Purchase of Animals
- 5.5.3 Outdoor Access and Grazing
- 5.5.4 Housing Conditions
- 5.5.5 Self-sufficiency and Feed
- 5.5.6 Handling Before Slaughter

Note that the European Commission is developing a new EU regulation for organic production which will come into force 1 July 2017. The current proposal under consideration proposes many changes in the regulations affecting poultry production. There are proposed regulations regarding stocking density in housing, raising pullets, and parent animal production. There are also proposals for requirements for verandas, pop-holes, distance to the nearest pop-hole, etc. If you are going to do any large new constructions or renovations, it is important that you check your plans with advisors.

5.5.1 Conversion Periods for Starting and Purchase

5.5.1.1 Conversion Periods for Starting

Conversion periods for poultry are:

- six weeks for egg production from other poultry than laying hens (EU),
- six weeks for egg production from laying hens, if you convert a mixed age flock that was already on your *farm* (EU),

- six weeks for egg production from laying hens if you convert existing conventional flocks along with the purchase of new batches of pullets raised according to section 5.5.2.1 (K), and
- 10 weeks for meat production (EU).

If you start egg production with purchased pullets, they must be raised according to section 5.5.2.1 and then a conversion period is not required. (EU)

Alternatively you can choose:

- 24 months for eggs and meat when land and animals together are converted to KRAV-certified production. You must feed the animals primarily (more than 50%) with your own feed from the land in the conversion. *You then do not need to comply with the standards for use of one's own conversion feed.* (EU)

This alternative can for example apply when several types of livestock on the farm are simultaneously converted to KRAV-certified production.

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.5.1.2 Conversion Periods for Purchased Conventional Poultry

For poultry other than laying hens, it is currently permissible to purchase chickens and other young from conventional poultry, if they are less than three days old. The purchased animals must go through a conversion period before you can sell products from them as KRAV-certified.

The conversion periods are (EU):

- six weeks for egg production from other poultry than laying hens, and
- 10 weeks for meat production.

If you purchase pullets, they must be raised according to section 5.5.2.1. (EU)

It is a major nonconformity if products or animals are sold as KRAV-certified before the conversion period is over.

5.5.1.3 Lowest Slaughter Age for Poultry

Poultry that doesn't come from a **slow-growing breed** can be slaughtered after they have reached the following ages, regardless of whether they were purchased when they were younger than three days old or raised on the **farm** (EU):

- 81 days for chickens,
- 140 days for geese,
- 49 days for Peking ducks,
- 70 days for female Muscovy ducks, and
- 84 days for male Muscovy ducks.

5.5.1.4 Slaughter Age for Slow-growing Breeds

Slow-growing breeds of poultry can be slaughtered (EU):

- after a 10 week **conversion period** at the earliest, if the day-old chicks are conventionally hatched, and
- regardless of age if the parent animals are KRAV-certified.

“Slow-growing breeds of poultry” are defined as a breed where the animal on average grows a maximum of 45 g per day.

5.5.2 Purchase of Animals

5.5.2.1 Purchase of Pullets for Flocks of Laying Hens

You must purchase pullets from KRAV-certified raising operations by 1 January 2018 at the latest (EU). From 2018, EU regulations apply for organic raising of pullets. These EU regulations will also apply for the raising of KRAV-certified pullets. Until then, pullets purchased from three days of age must meet the following conditions (EU):

- raising complies with the KRAV standards for feed (other than the requirement on self-sufficiency) and standards for health and medical care,
- pullets are 18 weeks old at the most when added,
- pullets are purchased from a breeder who has registered their operation with a **certification body**.



It is a major nonconformity if you do not comply with the standard.

5.5.2.2 Purchase of Poultry Other than Laying Hens

For other poultry than laying hens, you can until further notice purchase animals that are three days old at the most, if you are not able to hatch them yourself (EU). You must choose KRAV-certified animals as a first choice. (K)

5.5.3 Outdoor Access and Grazing

5.5.3.1 Times for Outdoor Access

You must actively work so that poultry can be outside in an exercise yard during most of the year. Poultry must:

- be able to be outdoors most of the time for at least four continuous months from May to September; the stable must be open more than 12 hours per day (K),
- be able to be outdoors most of the time from early spring to late fall, as long as weather and ground conditions are suitable (K), and
- be able to be outdoors during at least one third of their life (EU).

You cannot substitute outdoor access with the animals having **access to a veranda** (EU). Table birds can be kept without an exercise yard until they are one month old. (K)

Poultry can be kept indoors during the night.



It is a major nonconformity if you do not comply with the standard.

+ 5.5.3.2 Outdoor Access After Addition

You must arrange outdoor access for pullets as soon as possible, and four weeks after addition at the latest (K). Young hens can get used to being outside gradually and initially do not need to be outdoors most of the time, even if they are added between May and September. However, when pullets are 25 weeks old at the latest, the stable must be open more than 12 hours per day.

5.5.3.3 Exercise Yard for all Poultry

Exercise yards and pasture for poultry must:

- Have trees, bushes or other facilities where the animals can find protection and feel secure. You must place plants or other protection so that it helps poultry to use the entire exercise yard. (K)
- Provide the animals with both pasture and abundant opportunities for activity. (EU)
- Be mostly covered with vegetation during the whole period of use. (K)
- Be left empty for at least two months between each batch of poultry (EU).
In the spring of 2015 The Swedish Board of Agriculture circulated the "ordinance on organic production" for comment. The poultry branch has proposed shorter non-use periods for laying hens respectively table birds. If the ordinance, when it comes into force, results in a change, the change also applies to KRAV-certified production.
- Have a divider between the different flocks so that the groups do not mix. Exercise yards must be designed so that they comply with the requirement of separation between flocks, but if you have a problem with attack by predators and the chickens graze together with other livestock, you do not need to separate the flocks in the exercise yard. (K)
- Not have any bottlenecks. This applies if you construct new buildings or add buildings to the certification (K). For existing buildings that were KRAV-certified before 1 January 2016, bottlenecks that hinder pasture utilization must be remedied (K). *A bottleneck is a passage that is narrower than the pop-hole from a veranda to the exercise yard. For hens this is at least 6.7 m per 1,000 hens and for table birds 4 m per 100 m² floor area.*

You must not feed poultry outdoors with anything other than *roughage* and water. (K)

! *It is a major nonconformity if your exercise yard is not properly designed.*

5.5.3.4 Detailed Requirements for Exercise Yards for Laying Hens

Each laying hen must during its lifetime have access to at least four m² of exercise yard area.

If you construct new buildings or add buildings to the certification, the exercise yard must extend a maximum of 150 metres from the nearest pop-hole in the housing. For existing buildings that were KRAV-certified before 1 January 2016, the exercise yard must extend a maximum of 250 metres from the nearest exit hole in the housing. (K)

You must actively work so that laying hens use as much of the exercise yard as possible, by offering a stimulating and interesting environment that attracts them to being outdoors. You must carry out measures in your exercise yard based on current research and advice.

Examples of possible measures to encourage hens to go outdoors are:

- *letting pullets out as soon as they arrive on the farm,*
- *more roosters in the flock,*

- *planting trees or shrubs, and*
- *having water in several places in the exercise yard.*

On the KRAV website (in Swedish only) there is a checklist with more suggestions for measures and support for promoting outdoor access for hens during the grazing period.

If you use a rotation plan, you can divide the exercise yard into different pens to, for example, sow new vegetation or reduce parasites. If you use rotation grazing during the period from May to September and have permanent buildings, each hen in the flock must always have access to an area of at least two square metres. You must be able to describe your rotation plan.

During the early spring and late fall outdoor access can be limited to part of the exercise yard, to even less than an area of two square metres per animal, so as to be able to offer the laying hens outdoor access without the land or pasture being damaged.



It is a major nonconformity if your exercise yard is not properly designed.

+ 5.5.3.5 Detailed Requirements for Exercise Yards for Table Chickens

Each chicken must during its lifetime have access to at least four square metres of exercise yard area. The exercise yard must be located at a maximum of 150 metres from the nearest exit hole in the stable. You must actively work so that table chickens use as much of the exercise yard as possible by offering a stimulating and interesting environment that attracts them to being outdoors. You must carry out measures in your exercise yard based on current research and advice. (K)



It is a major nonconformity if your exercise yard is not properly designed.

5.5.3.6 Temporary Indoor Periods for Poultry

You can in some cases keep poultry indoors during the period when they are required to have access to the outdoors. This applies when government agencies have decided on restrictions, for example when there is an outbreak of contagious disease. (EU)

5.5.3.7 Geese and Ducks Must have Access to Pools of Water

Geese and ducks, during the period from May to August, must have access to pools of water to the degree that all animals can freely and according to need use them to bathe. (EU)



It is a major nonconformity if you do not comply with the standard.

5.5.4 Housing Conditions

5.5.4.1 Space Measurements in Housing and Exercise Yards for Poultry

The space indoors and outdoors that must always be accessible to the animals is specified in the Table below. For details not given in the KRAV standards, the minimum measurements according to Swedish animal protection regulations apply. (K)

The space requirements are minimum levels. Functional requirements can mean that greater areas are needed in your stable.

Table 4a. Number of Poultry per Section as well as Building Area per Stable

Maximum number of animals per section in a stable:		Maximum number of animals or building area per stable:
laying hens	3,000 (EU)	for 18,000 animals (K)
table birds	4,800 (EU)	1,600 m ² (EU)
Guinea fowl	5,200 (EU)	1,600 m ² (EU)
female Muscovy/Peking ducks	4,000 (EU)	1,600 m ² (EU)
males or other ducks	3,200 (EU)	1,600 m ² (EU)
geese	2,500 (EU)	1,600 m ² (EU)

The measurements apply for all groups of animals, even those recently put in a poultry barn. Included in the available floor space or indoor space is the floor area on all levels, nesting-box footings (for example the cover over an egg conveyor) and litter area. (K)

Table 4b. Indoor and Outdoor Space for Poultry

	Number of animals per square metre indoors	Perches indoors (cm per animal)	Nest***	Outdoor space – available space in rotation (m ² per animal)
laying hens*	6 hens, the nesting box area cannot be included in the available area (EU)	18 (EU)	6 hens/nest or with shared nest 120 cm ² /hen	4 (EU) Note! Maximum 170 kg nitrogen may be added via manure per ha/year.
table birds	10 animals with maximum live weight/m ² : 16 kg (ducks) (SL) 14 kg (geese) (SL) 20 kg (table chickens) (SL)	20 (only for Guinea fowl) (EU)		4 (table chickens and Guinea fowl) (EU) 4,5 (ducks) (EU) 15 (geese) (EU) Note! Maximum 170 kg nitrogen may be added via manure per ha/year.
table birds in movable buildings	16 animals** with maximum live weight/m ² : 20 kg (ducks) (SL) 18 kg (geese) (SL) 20 kg (table chickens) (SL)			2.5 (EU) Note! Maximum 170 kg nitrogen may be added via manure per ha/year.

* For pullets, the same space as in animal protection regulations applies until further notice.

** Only when the movable building does not have a floor space greater than 150 square metres.

*** The area of a nesting box is measured as the length of the nest times the outside width, not including the area for an egg conveyor.

5.5.4.2 Measurements for Openings in Barns for Poultry

For laying hens you must adjust the total length of openings of pop-holes in

the barn wall respectively veranda to the number of animals, according to the information in Table 4c.

For other poultry, you must have a total length of openings to the exercise yard of 4 m per 100 square metres floor area (EU). Between the barn and veranda, length of openings must be at least two metres per 100 square metres floor area. (K)

Pop-holes must be evenly distributed along the walls that have contact with the exercise yard. The total width of the openings at the pop-holes per side must however be in proportion to how much of the exercise yard is on the outside. This applies if you construct new buildings or add buildings to the certification. For existing buildings that were KRAV-certified before 1 January 2016, the pop-holes must be as evenly distributed and as much in proportion to the exercise yard as possible without jeopardizing the building's safety. (K)

Table 4c. Openings in Barns for Laying Hens

Number of lay-ing hens in a group	1. Openings in barn walls to the veranda/exit passage (total length)	2. Openings in the passage from the exit passage on the barn wall or from veranda to exercise yard/grazing area (total length) (K)
up to 200	0.4 m	1.4 m
500	1 m	3.4 m
1,000	2 m	6.7 m
2,000	4 m	13.3 m
3,000	6 m	20.0 m

If you have a passageway or veranda between the barn and exercise yard you can have a smaller total opening between the barn and passage/veranda (column 1) and greater opening between the passage/veranda and exercise yard (column 2). If your hens go directly from the barn to the exercise yard, total openings must be greater, thus according to column 2.

5.5.4.3 Buildings for Laying Hens

Buildings and the indoor environment for laying hens must comply with the following requirements:

- You can have a maximum of 18,000 hens in one continuous building. Barns certified according to the KRAV standards in 2010 at the latest and that have egg production with more than 18,000 places for hens can be used for more than 18,000 hens until the end of 2020. (K)
- You can have a maximum of 3000 hens per section. If you have several sections under the same roof, you must separate each section with a solid or wire wall. (EU)
- The nesting area must not be included in the available area. (EU)

5.5.4.4 Verandas in Buildings for Poultry

If you construct new buildings, a veranda must be included. The same applies if you add buildings to the certification. (K)

5.5.4.5 Verandas as Accessible Barn Area

If you have a veranda connected to the barn, you can include the veranda area in the accessible barn area if the animals have access to it year-round during the time they are awake. In such a case, the veranda must only be closed when it is dark in the barn (during night rest). The veranda must be equipped with lights and must not be dark when used by the poultry. (K)

For laying hens, the size of the insulated part of the barn must comply with Swedish animal protection legislation for poultry. (SL)

5.5.4.6 Access to Sand Baths, Perches and Laying Nests for Hens

Hens must have access to sand baths, perches and laying nests to the degree that all animals can use them freely and according to need. There must be sand baths indoors or on the veranda, provided the hens have continual access to them. From May to September, the ground in the exercise yard can substitute for the indoor sand bath requirement, provided that the laying hens sand bathe outdoors. (K)

In Table 4b there are specific measurement requirements for perches and nesting boxes for different types of poultry.

! *It is a major nonconformity if you do not comply with the standard.*

5.5.4.7 Access to Sand Baths and Raised Perches for Table Chickens

Table chickens must have access to a sand bath to the degree that all animals can use them freely and according to need. There must be sand baths indoors or on the veranda, provided the chickens have continual access to them. From May to September, the ground in the exercise yard can substitute for the indoor sand bath requirement, provided that the chickens sand bathe outdoors. (K)

There must however also be objects that the chickens can jump up on in their indoor environment (K). *Examples of such objects are hay bales, perches and shelves.*

! *It is a major nonconformity if you do not comply with the standard.*

5.5.4.8 Litter Areas for Poultry

At least one-third of the indoor area for laying hens must be a litter area (EU). For other poultry, the entire indoor area must be litter area. (SL)

Sand baths are also included in the litter area.

! *It is a major nonconformity if your animals do not have enough litter area.*

5.5.4.9 Access to Light for Poultry

Poultry must have access to daylight and lighting that supports their daily rhythm and behaviour needs. Light openings must provide daylight that is evenly distributed through the entire barn. (SL)

If you add buildings to the certification or if there is new construction or renovation, daylight must be let in via a surface area equivalent to at least 3% of the floor area. (K)

In poultry barns however, you should be able to regulate admission of daylight when necessary. Windows can only temporarily be covered with material that does not let in light. If it is necessary to regularly limit entry of direct sunlight,

it must be done in another way. If you temporarily block entry of daylight, you must document it (K). *Examples of ways to limit direct sunlight are changing the location of windows, using awnings, or using film that lets through light.*


5.5.4.10 Night Rest for Poultry

Poultry must get at least eight hours night rest without artificial light. The barn must be dark during the night rest period. Darkening applies to electric lights. During the light part of the year, entry of natural light during the night rest is acceptable (EU). You must document the times when lighting is turned on in the barn during different times of the year (K).

5.5.5 Self-sufficiency and Feed

5.5.5.1 Level of Self-sufficiency for Poultry

You must to a certain degree produce the feed on your own *farm* or in cooperation with another farm. The level of self-sufficiency for poultry must be at least 50%. (K)

 *It is a major nonconformity if you do not comply with the standard.*

5.5.5.2 Level of Self-sufficiency for Farms in Norrland as well as Forest and Central Districts

Poultry farms in Norrland as well as in forest and central districts (in Sweden) may be exempted from the self-sufficiency requirement of 50%. This can then be reduced to a lower level, but no lower than 20% (EU). You must strive toward successively increasing your level of self-sufficiency. (K)

Your certification body determines what a reasonable level is for your farm.

5.5.5.3 Level of Self-sufficiency for Farms with Special Crops

Farms that raise poultry and also have special crops, for example vegetable crops, can be exempt from the requirement of 50% self-sufficiency. This can then be reduced to a lower level, but no lower than 20% (EU).

The exemption applies only if manure is needed for your own crop. (K)

Your certification body determines what a reasonable level is for your farm, in relation to manure needs.

5.5.5.4 Maximum 5% Conventional Feed

According to the European Commission's extended exemption you can give poultry at the most 5% conventional protein feed of agricultural origin. This applies up until 31 December 2017. (EU)

Conventional feed that is not of agricultural origin, for example fish meal, can be included in the ration for poultry (EU). You can give at the most 10% such conventional feed, calculated using the annual feed consumption. (K)

In order to give conventional feed regardless of origin, the feed must be necessary to make the ration complete and permitted in *organic* animal husbandry. (EU)

You must calculate portions of feed per animal and year, not per group of

animals and year. For animals with a lifetime shorter than one year, consumption for the animals' lifetime applies. (EU)

The conventional feed that is not of agricultural origin and is permitted is given in Appendix 1.

It is a major nonconformity if you do not comply with the standard.

5.5.5.5 Maximum 15% Conventional Feed Per Day

If you give your poultry conventional feed, at the most 15% of the daily feed consumption can be conventional. (K)

5.5.5.6 Free Access to Roughage

You must provide your poultry with free access to **roughage** (EU). You can feed them root vegetables instead of roughage. Roughage must be available indoors or on the veranda, provided your poultry have continual access to them. From May to September, grazing in the exercise yard can substitute for the requirement of roughage indoors, provided the laying hens graze outdoors. (K)

You may limit the amount of roughage during the ready-to-lay period, if required in order not to affect other feed consumption. (K)

Roughage briquettes made of long fibre do not need to be supplemented with more than 20% other roughage.

It is a major nonconformity if you do not comply with the standard.

5.5.5.7 Feed Consumption for Poultry Production

You must calculate how much **concentrated feed** is consumed annually per kg meat or eggs that you sell. (K)

5.5.6 Handling Before Slaughter

5.5.6.1 Gathering of Poultry Before Slaughter

Gathering and placement of poultry in transport crates before slaughter must be carried out by experienced personnel, or under the supervision of experienced personnel. Table chickens can be gathered mechanically with good results. (K)

When gathered manually, table birds must be gathered individually by lifting the body around the wings and carried and handled upright. (K)

KRAV recommends that hens be handled in the same manner. If this is not possible, they must be gathered by carefully taking hold of both legs and the person gathering must not have more than three animals in each hand. (K)

Geese and ducks must also be gathered under calm conditions and handled carefully to avoid injuries. (SL)

You must be able to describe how you handle poultry when gathering them. (K)



6

Apiculture

🔄 If you are certified for apiculture you must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 6.1 Starting and Conversion
- 6.2 Purchase of Bees
- 6.3 Feeds and Risks for Contamination of Feed
- 6.4 Drugs and Biological and Chemical Pest Control
- 6.5 Hives
- 6.6 Other

6.1 Starting and Conversion

Apiculture must go through a conversion period before it can be KRAV-certified. You must also replace conventional wax.

6.1.1 Conversion Year

Apiculture can be approved only after it has complied with the KRAV standards and been monitored by a certification body for one year, a so-called conversion year. It is not possible to calculate *conversion periods* retroactively (EU). Even if you can show that you have complied with the KRAV standards before certification your apiculture must go through a conversion year. You cannot apply to be KRAV-certified after 1 May of the current year. (K)

6.1.2 Parallel Production is Prohibited

Parallel production is not allowed. In other words, you cannot operate both KRAV-certified apiculture and apiculture that is not KRAV-certified.

🔄 6.1.3 Wax Handling at the Start of Conversion

You must use KRAV-certified wax when you begin conversion to KRAV-certified production. Wax produced during the conversion year is regarded as KRAV-certified wax. If KRAV-certified wax is not available in large enough quantities when you register for certification, you can use conventional cap wax providing that it does not contain any residues of pest control substances or other prohibited substances (EU). It is your responsibility to sample and analyse the conventional wax in order to prove that this is the case.

6.1.4 Competency Requirements

You must have the necessary basic and professional training in apiculture. (EU)

6.1.5 Document your Apiculture

You must mark apiaries so they can be identified (EU). Your name should be visible so you can be contacted.

You must have a list of your apiaries so that each colony can be monitored.

The following should be included in your list: (EU)

- placement of colonies as well as movement of the colonies.

- feeding: when, with what and how many of the colonies have been fed.
- veterinary treatments: what has been used, dose, how it is was administered, diagnosis, treatment time and withdrawal time.
- harvest, processing, storage as well as an estimate of the number of colonies. Every filled container should be marked with a code. Keep track of how much is processed and how much has been flavoured.

6.2 Purchase of Bees

These standards describe what you should think of before you buy bee colonies and queens.

6.2.1 *Purchase Bee Colonies and Queens from KRAV-certified Producers*

You can only purchase bee colonies and queens from KRAV-certified producers. If no KRAV-certified bee colonies or queens are available, you can purchase a maximum of 10% conventional bee colonies and queens per year. You must calculate the percent using the number of colonies you overwintered the previous year. Purchased colonies must be in good health.

6.2.2 *Choose Breeds Suitable for Local Conditions*

When you choose breeds, you must consider whether or not the bees can adapt to local conditions and their resilience and resistance they have against disease. First choice must be use of European breeds of the species *Apis mellifera* and their local breeds, i.e. local variations of the breeds. Genetically modified organisms are prohibited. (EU)

6.2.3 *Management of Wax if you Purchase Conventional Colonies*

If you purchase conventional bee colonies the queen must be placed on KRAV-certified wax and be blocked from the conventional wax. Gradually remove the conventional wax from the colonies as the hatched larvae crawl out of it, and replace with KRAV-certified wax. The conventional wax must be completely removed within two months, otherwise a one-year *conversion period* applies to the colony. Any honey on removed frames is classed as conventional and must be handled separately. (K)

6.2.4 *Renewal After a Catastrophe*

If your bees have a high mortality rate or if they must be killed due to a contagious disease or catastrophe, you can apply to The Swedish Board of Agriculture to purchase conventional bees to build up your apiculture again. This is permitted only if there are not organically certified bee colonies or offshoots for sale. If the conventional wax in the new colonies is replaced within two months no conversion period is required, as long as they were not treated with Apistan.

EU-organic bees have no *conversion period* when you purchase them for your KRAV-certified production.

6.2.5 Swarms and Packaged Bees

You can take swarms and procure packaged bees that originate from KRAV-certified colonies. If you catch a swarm or procure packaged bees that you are not sure come from KRAV-certified colonies you must handle them as new conventional colonies. You must include these bees in the number of new queens and colonies you are allowed to purchase per year according to KRAV standard 6.2.1. (EU)

6.2.6 Conversion Period When Bees are Purchased

In the following cases, your purchased bees and the bee colonies must go through a one-year conversion period before you can sell the honey as KRAV-certified:

- packaged bees, swarms or purchased colonies were treated with prohibited pharmaceuticals (Apistan).
- purchased conventional bee colonies that you did not replace the wax in within two months after purchase.
- if you catch a bee swarm of unknown origin.

The conversion period is calculated per season, not per 12 months.

6.3 Feed and Risk for Contamination of Feed

These standards describe what applies when bees naturally look for food and how you can feed them. Bees as a rule do not fly more than three km to gather food. Location of the hives is therefore very important regarding risk for pollution of the honey.

6.3.1 Feeding Range of the Bees

Nectar and pollen sources within a radius of three kilometres must mainly be KRAV-certified, organic or of natural origin, such as wild plants, forest or crops which are grown with low impact on the environment.

It is not permitted to move to areas where chemical methods of pest control are used, e.g. conventional oil-yielding plant, fruit and berry production. You can however have your apiaries permanently located at a place where conventional oil-yielding plants are occasionally grown. (EU)

6.3.2 Feeding Outside of High Season

You must use KRAV-certified sugar or KRAV-certified honey for feeding outside of high season. (EU)

6.3.3 Emergency Feeding During the Normal High Season

If you happen to experience exceptional weather conditions or a catastrophe that result in your bees not being able to gather food, they can require extra feeding. You can feed them with KRAV-certified honey or KRAV-certified sugar. Before you can do this you must receive dispensation from The Swedish Board of Agriculture. If you get dispensation you must document what you do. (EU)

6.3.4 Location of Beehives

You cannot locate beehives so close to sources of pollution, e.g. genetically

modified crops, industrial areas and garbage dumps, that the honey can be polluted. If there is cultivation with genetically modified organisms in close proximity you must locate your beehives at least three kilometres from such cultivation. (EU)

6.3.5 Chemical Pest Control

You cannot use chemical pest control near beehives. (K)

6.3.6 New Establishment and Movement of Apiaries

When you newly establish or move an apiary you must inform your certification body within a previously agreed upon time limit. (EU)

6.4 Drugs and Biological and Chemical Pest Control

Disease should primarily be combated with preventive methods but there are approved methods of pest control that may be used.

6.4.1 Preventive Measures

Prevention of disease should be based on: (EU)

- choice of suitable hardy breeds,
- measures that promote resistance to disease, prevent infection and contribute to early detection of disease, e.g. regularly changing the queen bee, regular inspection, inspection of drone larvae, destruction of polluted material and providing the bees with adequate amounts of feed,
- keeping the hives, frames and equipment you use clean.

6.4.2 Treatment

You must treat diseased bee colonies. Drone larvae may only be killed to limit attack of Varroa destructor mites (EU). You can destroy colonies that are strongly weakened by disease.

6.4.3 Approved Methods of Pest Control

Other than cold storage you can use oxalic acid, formic acid, acetic acid, lactic acid, menthol and thymol to treat disease or pests, to carry out health inspections in the hive as well as to repair frames. Other methods of chemical pest control are prohibited. (EU)

You can use spores from *Bacillus thuringiensis* to prevent wax moth in supplies of collector boxes. (EU)

6.4.4 No Petroleum Products for Pest Control

You cannot use oil, diesel fuel and other petroleum products to prevent attack by ants or for any other type of pest control (K). You can use paste adhesives and similar substances that can provide a physical hinder for insects. (K)

6.4.5 Colonies Treated with Pharmaceuticals

There are two registered pharmaceuticals for apiculture. Both are used against

Varroa mites. One is Apistan, which contains tau-fluvalinate. You must not treat your bee colonies with Apistan. Treated colonies are disapproved.

The other pharmaceutical, Apiguard, contains thymol. You can use Apiguard according to its directions for use, and the treated colonies do not require a conversion period.

6.5 Hives

These standards describe the material that can be used in hives and tray separators to prevent contamination of the honey or other products from bee colonies.

6.5.1 Foundation

You must use KRAV-certified wax in the foundation. It is prohibited to use foundations made of plastic. (EU)

If you had foundations made of plastic approved for use in food production in May 2012, you must make a plan to successively replace them. Replacement must be completed at the latest after the 2018 season. The rate of replacement is determined by your certification body.

6.5.2 Material in Beehives

Beehives must mainly be made from materials of natural origin. You must calculate the weight of boxes, frames, bottoms and tops that are used year-round. (EU)

It is prohibited to use construction material that can contain toxic substances. You must only use natural materials such as wax, propolis and vegetable oils inside the hive. (EU)

6.6 Other

This section covers bee wing cutting, what is allowed in smoke bellows and how care must be taken during harvest.

6.6.1 Wing Cutting

You are not allowed to cut the wings of queens. (EU)

6.6.2 Material for Bellows

You can use bellows. Only untreated wood products and other plant-based, non-fossil fuels are permitted in the bellows. You can use water and vinegar to drive away and calm bees.

6.6.3 Care During Harvest

You must not damage bee colonies when you harvest honey or other products from the bees. Killing larvae on the wax cakes during harvest is forbidden. You can use a bee blower when harvesting, but bee blowers must be used carefully so that the bees are not injured. Use of synthetic chemical methods to keep bees away is prohibited.



Aquaculture can be certified according to the KRAV standards if it:

- is carried out in compliance with Commission Regulation (EC) 889/2008, and
- complies with KRAV's general standards in Chapters 2 and 3 as well as the standards for labelling and marketing in Chapter 20.

The standards for catch-based aquaculture are cancelled as of 1 January 2016.



Those certified for wild harvest production must also comply with the general standards in Chapters 2 and 3, as well as the standards in Chapter 20.

Contents of this chapter:

- 8.1 Registration and Investigation
- 8.2 Environment, Social Responsibility, Soil and the Species to be Harvested
- 8.3 Harvest, Information to and Working Conditions for Pickers

8.1 Registration and Investigation

This section deals with what you must register and show before you begin collecting wild harvest plants or fungi from an area.

8.1.1 Register the Area with the Certification Body

You must define your area for wild harvest production and register the area with an approved certification body. The *certification body* must approve the area for wild harvest production before you begin harvesting. (EU)

8.1.2 The Investigation Must be Approved

Your application to register an area for wild harvest production must include an analysis of the area of land. The analysis must determine whether or not the requirements given in section 8.2 of the standards are complied with. The investigation must also include a risk analysis that examines all risks for contamination during harvesting and the risk that the harvest is not sustainable. (EU)

The source of information for your investigation can be from government agencies, environmental organizations and humanitarian organizations or the landowners. If there is no government supervision of the issues in question or if local land ownership conditions are complex, the investigation must be supplemented with information about the local area and land ownership documents.

Your certification body must approve the investigation before you begin harvesting.

8.2 Environment, Social Responsibility, Soil and the Species to be Harvested

This section covers the environmental measures you must take in addition to those in section 2.17, as well as the social issues you must take into consideration in addition to what is given in section 2.13. The section also includes standards for how you ensure that products do not become contaminated.

8.2.1 Prohibited Use of Fertilisers and Plant Protectants

The area where you carry out wild harvest production must not be treated with prohibited fertilisers and **plant protectants** during three years prior to the harvest. Further, forest plants treated with chemical methods of pest control must not have been planted during the previous three years. The area can however have been limed. (EU)

Prohibited substances are those not approved or allowed according to the KRAV standards for crop production, see section 4.3 on fertilisers and section 4.4 on plant protectants.

8.2.2 Pollutants in a Certified Area

You cannot harvest wild products that have a reduced value as food or feed because of pollutants in the area. (EU)

8.2.3 Approved Compounds Must Have Been Supplied in an Appropriate Quantity

You cannot conduct wild harvest production in an area where the ground has been treated with approved substances in such quantities that there is a risk the harvest may contain high levels of undesired substances. (K)

An example of an approved substance that can be used in forestry is recycled ashes. The ashes, however, must not be returned to the forest in such quantities that there is a risk that the harvest can absorb undesired levels of, for example, heavy metals. You must only gather products from areas where those that use the forest comply with The Swedish Forest Agency's or an equivalent government agency's recommendations for recycling ashes. (K)

8.2.4 Caesium in Soil

You cannot conduct wild harvest production in areas where the ground contains more caesium than the permissible limit given in the Table below. Products from land with a higher level of caesium will be rejected. (K)

Product	Maximum caesium content in soil
Berries (excluding cloudberries)	60 kBq/m ²
Cloudberries	40 kBq/m ²
Fungi	5 kBq/m ²

8.2.5 A 25 Metre Buffer Zone from Sources of Pollution

You cannot conduct wild harvest production closer than 25 metres from roads where traffic exceeds an average of 3,000 vehicles per day over a whole year, or closer than 25 metres from other sources of pollution, for example industries, garbage dumps, railways and agricultural land. (K)

8.2.6 Sustainable Harvest

You must submit a written description to your certification body about how

you plan to harvest and give the size of harvest possible without threatening sustainable production. Your harvest must not have a negative impact on the environment or threaten the existence of any plant or animal species. (EU)

8.2.7 Consideration Towards People that Live in the Area

You must harvest in a manner that only marginally influence people's way of life or reduces their ability to support themselves. You must show consideration towards local traditions and the people that live in the area. You must also give reasonable consideration to the interests of landowners. (K)

8.2.8 Species that are In Protection Programs or are Restricted

Species that you collect cannot be included in an international protection program or in any other way be the subject of restrictions that make it inappropriate to harvest them. You must comply with The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) special programs if the species are listed by CITES, www.cites.org. (K)

8.2.9 Red Listed and Threatened Species

You cannot collect plants that are red listed and listed as threatened in the country where you plan to harvest them. (K)

8.3 Harvest, Information to and Working Conditions for Pickers

This section covers the documentation that you must provide to your certification body. Remember especially that KRAV's social conditions for employees apply to wild harvest production, both for hired and independent pickers in all relevant parts. See section 2.13.

+ 8.3.1 Independent Pickers

Independent pickers are prohibited within KRAV-certified wild harvest production. (K)

8.3.2 Self Inspection and Traceability

You must handle your production so that the harvest can be traced in all stages up until the goods are sold or undergo further processing. (EU)

It must always be possible to trace wild harvest production back to an agent, picker or picking group and picking location or picking area, from the packaged raw material, for example pallet, container or sack of frozen, dried or fresh raw material. (EU)

You must document handling at every step from gathering to selling or processing. The documentation must describe how you comply with the requirements in this chapter and other relevant chapters. (EU)

You must have a routine that describes how information on the KRAV standards is communicated to pickers. (K)

8.3.3 Payment

If you have employed pickers hired via an agent you must make sure that salaries are paid as stipulated in collective agreements. (K)

8.3.4 Registration of Pickers

You must register all pickers and they must be identifiable by passport number or other identification. You must register the residence of all pickers. When you register pickers that have a work permit and visa you must give the name of the hiring agent they are associated with. All pickers must confirm that they will comply with the standards for KRAV-certified wild harvest production. (K)

8.3.5 Contracts with Agents

You must sign a contract with all agents. The agents must confirm that they will comply with the standards for KRAV-certified wild harvest production. (K)

8.3.6 Written and Oral Information at the Purchase Location

You must post the following written information at every purchase location in an easily seen place (K):

- Map of the approved area, with any unapproved areas marked, in a scale of 1:100,000 or more detailed. If the pickers have the information in a navigation device, GPS or other digital device that is always accessible and the equivalent information is available at the purchase location, then a paper map does not have to be posted there.
- The standards for KRAV-certified wild harvest production.
- Picking instructions that describe how the plants are harvested.
- Information about responsibilities and precautions for good land management and consideration towards landowners, for example information about the common right of access to private land in Sweden.

Agents must inform pickers of the above both in writing and orally.

8.3.7 Written Information in a Language that Pickers Understand

All written information, including purchase lists, must be in a language that pickers understand. (K)

8.3.8 Show Contracts and A Record of Payments Made

You must show your certification body:

- contracts,
- a record of payments made,
- the residence of pickers, and
- agreements between you in your capacity of being KRAV-certified and those who conduct the wild harvest production. (K)

Dairy

KRAV-labelled cheese



Those certified for food processing must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 9.1 KRAV-certified Raw Materials
- 9.2 Multi-ingredient Products
- 9.3 Conventional Raw Materials
- 9.4 Processes
- 9.5 Solvents
- 9.6 Irradiation
- 9.7 Additives, Flavourings and Processing Aids
- 9.8 Food Enrichment Products
- 9.9 Substances in Contact with Food
- 9.10 Egg Washing
- 9.11 Filtering – Cancelled
- 9.12 Yeast can be KRAV-certified
- 9.13 Wine can be KRAV-certified
- 9.14 Labelling KRAV-certified Ingredients
- 9.15 Handling KRAV-certified Products
- 9.16 Grocery Bags can be KRAV-certified

9.1 KRAV-certified Raw Materials

You must use only KRAV-certified raw materials in food that will be marketed with the KRAV name or label.

9.2 Multi-ingredient Products

The following raw materials in multi-ingredient products do not need to be KRAV-certified:

- salt (sodium chloride, potassium chloride). (EU)
- water. (EU)
- game not raised in an enclosure (reindeer are not considered game). (EU)
- other vegetable raw materials where you can show that it is not possible to get adequate quantities or quality of KRAV-certified ingredients.
EU-organic ingredients must be chosen where possible. Otherwise, conventional ingredients can be chosen according to standard 9.3.

You can use the KRAV name and label on products with at least 95% by weight KRAV-certified ingredients. Salt and water must not be included when calculating the proportion of conventional ingredients in a product. However, water added for *reconstitution* must be taken into account.

9.3 Conventional Raw Materials

A conventional raw material must not:

- be used in a product with a KRAV-certified ingredient of the same type, (I)
- contain or be made with the help of genetically modified organisms, (EU)
- be made using prohibited processes according to standard 9.4, or
- be made up of or contain *technologically created nanomaterials*.

Conventional raw materials of agricultural origin can only be used if the raw material is approved according to Annex IX in Regulation (EC) 889/2008 or has been approved by The Swedish National Food Agency according to Article 29 of the same regulation. The Swedish National Food Agency then issues a time-limited permit for you to use a specific conventional ingredients in a specific product. (EU)

Keep In Mind

Check that you have a valid permit from The Swedish National Food Agency for conventional raw materials when required.

9.3.1 Conventional Raw Materials in Products that Contain Wild-caught Fish Certified According to Chapter 17

A conventional ingredient may not:

- be used in a *product* with a KRAV-certified ingredient of the same type,
- contain or be made with the help of genetically modified organisms,
- be made using prohibited processes according to standard 9.4, or
- be made up of or contain *technologically created nanomaterials*.

Your *certification body* will determine if it is allowed to use the ingredient.

9.4 Processes

You can only use the following production processes:

- mechanical and *physical processes*, (EU)
- *biological processes*, for example fermentation and leavening (for example use of lactic acid cultures and fungus cultures), (EU)
- enzyme processes that coagulate (for example rennet) or split substances (for example the enzyme amylase), (K)
- extraction, (EU)
- smoking, (EU) and
- sedimentation (EU).

9.5 Solvents

You can only use water, ethanol, carbon dioxide or fats as a solvent. Enzyme carrier substances are allowed if required for the enzyme preparation to be effective. (I)

9.6 Irradiation

You cannot irradiate your raw materials or products with ionizing radiation. (EU)

9.7 Additives, Flavourings and Processing Aids

A list of permitted *additives* is in Appendix 2. Approved *process aids* are given in Annex VIII B of Regulation (EC) 889/2008. (I)

You can only use natural *flavourings*. (EU)

Carriers for flavourings and additives must be raw material ingredients, approved additives according to Appendix 2 or water, ethanol or fats. (K)

Additives, flavourings, carriers, *solvents* and process aids must not contain or be made with the help of genetically modified organisms. (EU)

9.8 Food Enrichment Products

Food *enrichment products* must only be used when specifically required by a government agency to be used in a particular food. (EU)

9.9 Substances in Contact with Food

Preservatives (for example antifungal agents), not listed in Appendix 2, *pest-control substances* and synthetic or naturally identical *colouring agents* must not be added to substances that come in contact with food (for example cheese wax). (EU)

9.10 Egg Washing

In order to wash eggs, a permit is required from the Swedish National Food Agency.

9.11 Filtering – Cancelled

9.12 Yeast can be KRAV-certified

Your production can be KRAV-certified if you implement the EU standards for *organic* yeast and other appropriate KRAV standards.

9.13 Wine can be KRAV-certified

Your production can be KRAV-certified if you implement the EU standards for organic wine ((EU) No 203/2012 including appendices with permitted *additives* and *process aids*) and other appropriate KRAV standards.

9.14 Labelling KRAV-certified Ingredients

You can in some cases specify that a KRAV-certified ingredient is part of a multi-ingredient *product* that cannot be KRAV-labelled. The standards for this are in this section.

9.14.1 *The Same Type of Ingredients Must Not be Mixed Together*

You cannot use both a KRAV-certified and a non-KRAV-certified ingredient of the same type in one and the same *product*.

9.14.2 *Additives, Flavourings and Processing Aids*

A list of permitted *additives* is in Appendix 2 as well as Annex VIII in (EC) 889/2008. Permitted *process aids* are in Annex VIII B of the same regulation.

You can only use natural flavourings. (EU)

Raw material ingredients, additives, *flavourings*, carriers, *solvents* and *process aids* must not contain or be made with the help of genetically modified organisms. (EU)

9.14.3 *Labelling and Marketing Products with KRAV-certified Ingredients*

In certain instances, a product that is not KRAV certified but contains KRAV-certified ingredients, may show on the packaging that the product contains KRAV-certified ingredients. Use of the KRAV label is prohibited. Labelling or marketing of products with KRAV-certified ingredients must not in any way mislead so that the product is believed to be KRAV-certified.

Write the word KRAV in capital letters.

It should be clear which ingredients are KRAV-certified. In the list of ingredients it should show the percentage by weight of the KRAV-certified ingredients.

Use one of the following phrases for labelling or marketing:

- “Contains KRAV-certified XX”
- “XX is from KRAV-certified production”

If the product contains less than 95% organic raw materials, the presence

of KRAV-certified ingredients can only be specified in the list of ingredients, see standard 9.14.5.

9.14.4 Labelling and Marketing of Ingredients in an Organic Product

If the product contains at least 95% organic raw materials of agricultural origin or from aquaculture, it can be called organic and information on KRAV-certified ingredients can be on the label. If and how you must design the label to comply with EU regulations is given in section 20.3.

9.14.5 Labelling and Marketing of Ingredients in a Product that is Not Organic

If in total your product contains less than 95% EU-organic and KRAV-certified ingredients you can only show in the list of ingredients which ingredients are KRAV-certified, and not in any other manner on the packaging.

9.15 Handling KRAV-certified Products

Those who exclusively *handle* or store KRAV-certified products must be certified according to Chapter 9. It is especially important to comply with the standards in section 3.2 that concern the handling of KRAV-certified raw materials and products. All the other general standards must also be complied with, i.e. the standards in Chapter 2, 3 and 20. (K)

Sections 9.1-9.14 do not concern those who only handle KRAV-certified products.

+ 9.16 Grocery Bags can be KRAV-certified

Those who are certified for KRAV's food processing standards can put together grocery bags for home delivery. Grocery bags are classified as multi-ingredient products and must comply with the standards for multi-ingredient products. You can use the KRAV label and name on the grocery bag. (K)



Slaughterhouse

10

Slaughter

A slaughterhouse certified for slaughtering must also follow the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 10.1 Responsibility of the Slaughterhouse
- 10.2 Handling and Animal Welfare
- 10.3 Marking, Identification and Separation
- 10.4 Transport
- 10.5 Time Point for Slaughter
- 10.6 Herding
- 10.7 Stunning and Bleeding
- 10.8 Cattle
- 10.9 Sheep and Goats
- 10.10 Pigs
- 10.11 Poultry

10.1 Responsibility of the Slaughterhouse

Section 10.1 contains general standards for slaughterhouses, including the role and qualifications of *animal welfare officers*. Slaughter must take place at a KRAV-certified slaughterhouse for the meat to be able to be sold as KRAV certified. The slaughterhouse must comply with the standards in Chapter 10 for at least all animals that are KRAV certified. Some standards, where specified, apply to all animals slaughtered at a slaughterhouse.

10.1.1 Documentation of Standard Routines and Job Instructions

The slaughterhouse must have and implement a handbook that contains standard routines and job instructions.

10.1.2 The Slaughterhouse must have an Animal Welfare Officer at Each Slaughter Facility

The slaughterhouse must have an *animal welfare officer*. This is required by law if more than 1,000 livestock units are slaughtered per year, but all KRAV-certified slaughterhouses must have one regardless of size. (K)

The animal welfare officer must:

- have completed training for the certificate required (“simplified procedure” is not acceptable) upon entry into certification.
- have completed training for the certificate required (“simplified procedure” is not acceptable).
- develop standard routines that are monitored and revised, as well as document any deficiencies in animal welfare at the slaughterhouse.
- make a plan for continual improvement for handling live animals. This plan must be revised at consultation sessions (see standard 10.1.3), and be available to your certification body during an inspection.

Regarding responsibility for ensuring KRAV’s standards are known and complied with see standard 2.3.1-2.

10.1.2.1 Annual Meeting

The *animal welfare officer* must take part in KRAV's annual meeting for animal welfare officers. If the animal welfare officer cannot take part, someone else from the slaughterhouse familiar with routines at the slaughterhouse can act as a substitute. Slaughterhouses that do not take part at all for three consecutive years are disapproved. (K)

10.1.3 Consultation with Focus on Animal Welfare

Slaughterhouses must in the cases below get help from an external consultant with specialist qualifications in handling, *herding* and stunning animals, as well as in how equipment and interior fittings should be designed to achieve good *animal welfare* at slaughterhouses. (K)

Slaughterhouses must get help:

- before certification,
- by 2016-12-31 if the slaughterhouse was KRAV-certified 2014-01-01,
- at least every three years, for *small slaughterhouses* at least every 10 years,
- in the event of extensive new or rebuilding of unloading locations, herding corridors, stable boxes or stunning boxes,
- when results show a high or increasing frequency of slaughter remark code 42 (fresh damage),
- when there are other remarks or signs that indicate recurrent animal welfare problems, and
- when other incidents occur that the certification body considers unsatisfactory regarding animal welfare.

The purpose of the consultations is to identify critical points throughout the process, from unloading of animals to stunning and slaughter. The consultations must cover all the types of livestock slaughtered at the slaughterhouse. The consultations should be used as a tool by the *animal welfare officer* to make a plan with suggestions for improvement and a schedule for measures to be taken regarding animal welfare and the animal environment at the slaughterhouse.

10.1.3.1 Qualifications of Consultants

Consultants must have documented, broad, practical experience in handling animals in the slaughter process and have studied ethology. They can then consult according to the above at a slaughterhouse where they do not have a conflict of interest. (K)

The consultant must also have:

- knowledge and understanding of the KRAV standards so that these requirements can also be identified.
- knowledge of the latest developments in animal welfare issues concerning handling animals and systems for stunning.

10.1.4 Obligations of Slaughterhouses Towards Farmers

The slaughterhouse must (K):

- give the animal keeper or handler the possibility of being present during slaughter up until and including the death of the animal.

- make arrangements so that the animal keeper can receive remarks regarding slaughter made by the official veterinarian from the National Food Agency.

10.1.5 An Annual On-site Audit and an Extra Unannounced Audit

Slaughterhouses must have at least one annual on-site audit. (EU)

With the exception of *small slaughterhouses* the certification body must also carry out an annual extra *unannounced audit* of slaughterhouses. Handling of live animals is the most essential part of KRAV's standards for slaughter and must be evaluated at every audit. The extra unannounced visit must focus only on handling of live animals. (K)

The certification body can in addition carry out extra audits, for example for follow-up of nonconformities. See section 2.5. (K)

10.2 Handling and Animal Welfare

The standards in this section deal with how animals must be handled, qualifications of staff and what the slaughterhouse must do if inadequacies are discovered.

Staff at the slaughterhouse must always work to keep the stress level down. Animals can be stressed by worry from other animals, strong light, air currents, noise and loud sounds, pain, blows and prodding. It is important that animals are occupied.

10.2.1 Handling Animals

Animals must be handled calmly and with dignity during loading, transport, unloading and at the slaughterhouse with a minimum of stress for the animal. (SL) (EU)

Animals must be handled, herded and boarded in a manner that takes into consideration their natural behaviour. Slaughterhouses must have routines for handling injured and sick animals. (SL)

10.2.2 Qualification Requirements for Staff

All staff that take part in securing and slaughter must have a certificate issued by The Swedish Board of Agriculture for the livestock in question (SL). The *animal welfare officer* must make sure that all staff use and have mastered the methods described in the standard routines.

10.2.3 Do Not Mix Animals or Animal Groups

To avoid animals worrying each other the slaughterhouse must not mix *established groups of animals* together with other animals. It is the producer's responsibility to put groups together before they are transported to the slaughterhouse, see section 5.1.12.2. (K)

10.2.4 Do Not Use Electric Prods – Otherwise KRAV-certified Animals are Rejected

Do not use electric prods on KRAV-certified animals in any step of the process from loading to slaughter (this applies to all types of livestock). (K)

Electric prods must not be used on the following types of livestock regardless of whether or not the animal is KRAV-certified (K):

- pigs
- sheep
- goats.

Slaughterhouses must also take preventive measures so that electric prods are not used at all on conventional cattle. (K)

If a slaughterhouse or transporter uses electric prods then:

- KRAV-certified animals that an electric prod has been used on must have their KRAV marking removed. They must not be sold as KRAV-certified (this applies to all types of livestock).
- Slaughterhouses must report to their certification body the number of KRAV-certified animals that have had their KRAV marking removed.
- Use of electric prods on pigs, sheep and goats results in a major non-conformity given by the certification body. This applies to both KRAV-certified and conventional animals.
- For cattle, slaughterhouses must be able to report to their **certification body** the measures taken to minimize the number of cases electric prods are used in the future.

10.2.5 Minimize Hard Herding of all Animals

Slaughterhouses, in addition to actively trying to minimize use of electric prods, must also minimize the occurrence of unnecessary or **hard herding** of animals and instead take advantage of the natural behaviour of animals when herding them. This applies to both KRAV-certified animals and all other animals handled at slaughterhouses. (K)

10.2.6 Serious Remarks from Inspection

Meat or carcasses from animals that have gotten serious remarks regarding deficient animal welfare cannot be KRAV-labelled. Such remarks from an inspection of live animals or meat are for example (K):

- animals that are greatly contaminated by manure
- animals that are emaciated or too thin
- animals with very overgrown hooves
- animals with serious exterior injuries

10.2.7 Slaughterhouses Must Inform the Certification Body About Serious Remarks

Slaughterhouses must immediately give notification of serious remarks that indicate deficient animal welfare in the stock of an individual breeder. Applicable remarks are, amongst others, those given in standard 10.2.6. Slaughterhouses must inform the certification body that certified the farmer whose animals have received remarks so that the certification body can evaluate the whole production. (K)

10.3 Marking, Identification and Separation

This section describes responsibility for marking and how the marking must be handled for separation and traceability. Documentation and marking of animals is important for traceability and so that the people handling the animals know the animals' origin. KRAV's goal is that slaughterhouses use the mildest method to mark and keep the animals apart.

10.3.1 Marking of Animals and Transport Crates

All cattle, sheep and goats as well as pigs that arrive at a slaughterhouse must be marked. Poultry must be delivered in marked crates.

10.3.2 Marking for Traceability

KRAV-labelling must accompany the carcass and guarantee traceability throughout every step in the handling process. Individual animals or groups of animals must be identifiable at every step of the transport and slaughter process. (K)

10.3.3 Responsibilities of Animal Owners and Slaughterhouses

The KRAV-certified animal keeper or handler is responsible for marking up to the point that the animals are loaded for transport from the farm. The slaughterhouse is responsible for marking during the rest of the transport and the slaughter process. (K)

10.3.4 Documentation About KRAV-certified Origin

When animals arrive at the slaughterhouse documentation must be present that confirms that they are KRAV-certified. If there isn't any documentation or it isn't complete the slaughterhouse cannot receive the animals as KRAV-certified. (K)

10.4 Transport

Transport involves noise and movement that animals are not used to. It is therefore important that the driver take into consideration that the cargo is live and moving. However, the most stressful stage is when the animals are loaded and unloaded. Staff must then handle animals calmly and systematically. Staff should take advantage of the natural behaviour of animals to move them during transport and slaughter. They should keep established groups of animals together and not mix them with unknown animals.

10.4.1 It is the Responsibility of the Slaughterhouse to Ensure Good Transport

Slaughterhouses must, both when using their own or a hired carrier as well as when animal owners transport their own animals themselves, ensure that:

- the vehicle has satisfactory ventilation for the animals
- the driver drives safely
- the driver has a valid certificate (SL)

- total transport time (including resting) does not exceed eight hours, which is the time provided for in Swedish legislation. For poultry, this time can be extended according to certain conditions provided in the legislation (SL)
- the vehicle has been inspected and approved by the County Administrative Board
- the transporter is registered with The Swedish Board of Agriculture (SL)
- the transporter is aware of the KRAV standards (K)
- the slaughterhouse's certification body can when necessary inspect the animal transport, be present when loading and unloading, as well as receive relevant documentation (*for example training certificates*).

The above is insured by the slaughterhouse's own routines for drivers they employ or by a transport agreement with external carriers, as well as agreements with producers that transport animals themselves. (K)

Those who transport their own animals to a slaughterhouse are exempt from points 3, 5 and 6 if consistent with animal welfare legislation. This means that the distance transported must be shorter than 65 km and that transports are made eight times or less per year. (SL)

10.4.2 Do Not Use Stimulants or Tranquilizers

Do not treat animals with stimulants or tranquilizers before or during transport. (EU)

10.5 Time Point for Slaughter

This section describes when animals can overnight and what documentation is required if they overnight.

10.5.1 Animals Must Normally be Slaughtered the Same Day they Arrive at the Slaughterhouse

KRAV's goal is that no animals overnight at a slaughterhouse, but at present this isn't fully applicable to cattle, sheep and goats due to logistics or animal welfare reasons. Therefore, the following applies to KRAV-certified animals:

- At least 80% (calculated per month) of cattle must be slaughtered the same day they arrive at a slaughterhouse.
- Cattle from *ranch operations* and lactating cows must not overnight.
- At least 80% (calculated per month) of sheep and goats must be slaughtered the same day they arrive at a slaughterhouse.
- Lactating ewes and goats must not overnight.
- Pigs must not overnight.
- Poultry must not overnight.

Exception from the requirements above is made in the following cases:

- Slaughterhouses that were certified 2013-12-31 and cannot currently restrict overnight facilities to a maximum of 20% of all cattle, sheep and goats can until 2017-12-31 at the latest, in certain months, house

more than 20% of these animals overnight. This is provided that the slaughterhouse gradually decreases the number of KRAV-certified animals kept overnight. The ban on keeping cattle from ranch operations and lactating animals overnight remains in force.

- Slaughterhouses can keep animals overnight that are delivered by the animal's owner regardless of the percentage provided that
 - The animals are delivered as late as possible the evening before slaughter.
 - The animals are an *established group*.
 - The animal's owner is responsible for the housing and the animals have ample access to food, water and litter.

An animal welfare reason can be that other animals, less able to deal with overnighting, need to be slaughtered first. (K)

10.5.2 Documentation on How Often and Why Animals Stay Overnight

The slaughterhouse must document the number of animals, date, time of arrival at the slaughterhouse and reason why KRAV-certified animals must stay overnight at the slaughterhouse. A monthly report must be made every month on the percentage of KRAV-certified animals that overnight. (K)

10.6 Herding

The standards in this section describe how the slaughterhouse must act to minimize the stress animals are exposed to at the slaughterhouse. A well-functioning slaughterhouse, adapted to the animals, makes handling easier and minimizes **stress** and the risk of injury for the animals.

10.6.1 Herding Culverts

Herding in culverts is prohibited. (K)

10.6.2 Herd Chute Design

Herd chutes must be designed so that herding takes place smoothly and without stressing the animals. Herding should be made easier by:

- herding chutes without abrupt corners or dead-ends
- avoiding air currents towards the animals, blinding light, and reflective surfaces
- a good climate for the animals in the herding chutes
- minimizing noise, loud sounds and odours
- the right slope in the herding chutes.

10.6.3 Take Advantage of the Natural Behaviour of Animals

Take advantage of the natural behaviour of animals when herding, for example by keeping groups together, allowing animals to go from dark to light and to follow a leader animal. (K)

10.6.4 Waiting Time in Herd Chutes

Minimize waiting time in herd chutes. Animals must never have to wait more than 15 minutes in a herd chute. A longer time can however be accepted if it means that a group is kept together all the way to the stunning box. (K)

10.6.5 Barrier from Stunning and Bleeding

Animals must be protected from **stress** with the presence of a barrier that blocks conscious animals from seeing **bleeding** and further management of slaughtered bodies. For cattle, stunning must also take place without being viewed by conscious animals. (K)

10.7 Stunning and Bleeding

The standards in this section describe how the slaughterhouse must act to minimize exposure of animals to stress when they are stunned and slaughtered. The section also deals with standards on how the slaughterhouse must handle stunned animals, check the effect of stunning and that the animal is in fact dead after being slaughtered.

10.7.1 Stun and Bleed As Soon As Possible

Once the animal arrives in the stunning area it must be stunned as soon as possible and then be bled immediately. These steps must only be carried out by staff certified for stunning and bleeding the livestock being handled. (SL)

10.7.2 Keeping Groups of Animals Together During Stunning

The slaughterhouse must keep established groups of sheep, pigs and lambs together as long as possible when they are going to be stunned.

10.7.3 Number of Animals in a Stunning Box

The slaughterhouse must make sure that there are not so many animals in a stunning box that they worry or injure each other due to crowding.

10.7.4 Monitoring Animals in a Stunning Box

The slaughterhouse must monitor remaining animals in a stunning box when a group of pigs, sheep or lambs are stunned. (K)

10.7.5 Check the Effect of Stunning

The slaughterhouse must check that the stunning is effective immediately after stunning each individual animal. Stunning must be checked according to the stunning method and livestock.

10.7.6 Monitoring Gas Stunning Facilities

It must be possible to inspect facilities while they are in operation. It is the responsibility of the slaughterhouse to have a control system in place to maintain

the right level of gas and exposure time, as well as an alarm that warns if there are operating problems (SL). Slaughterhouses must have another method of stunning animals available if the gas stunning is not working when audited. Animals must not be gas stunned a second time.

When available in the future, less aversive gases that work well for stunning must be used instead of high concentrations of carbon dioxide.

10.7.7 Backup Weapon and Evaluation of the Effect of Stunning

The slaughterhouse must ensure that backup equipment is always easily accessible during all types of stunning in case the stunning does not work (SL). When there is the smallest suspicion that stunning did not work, the animal must be stunned again.

Slaughterhouses must also have standard routines for maintenance, cleaning and calibration of stunning equipment. A record of inspection of equipment must be kept (SL). An evaluation must be made of the effect of the stunning. (K)

10.7.8 Verification of Bleeding

Slaughterhouses must verify that an animal is completely bled before the carcass continues to the next stage in the slaughter process. (SL)

10.8 Cattle

These standards apply to cattle both during transport to slaughter and during the time at the slaughterhouse.

10.8.1 Tethering Animals

Only animals that have been previously tethered can be tethered. If an animal is tethered it must be done using equipment designed so that there is no risk of strangulation or injury and so that the animal can quickly be let loose. (SL)

10.8.2 Feed, Water, Litter and Activity

Animals must have access to water (SL) and roughage in the daytime while waiting for slaughter. Animals must have access to water and roughage when overnighting. They must also have a dry, solid and littered bedding area or soft slat.

10.8.3 Boarding in Group Boxes

When **boarded** in group boxes animals must have at least the following space (SL):

Weight (kg)	Space (square metres)
less than 100	1
100–250	1.5
250–400	1.9
400–600	2.3
less than 600	2.7

10.8.4 Boarding of Animals in Single-Animal Boxes

Cattle must if possible overnight with their group. For cattle that are not part of a

group, single boxes in an *Uddevalle system* can be used if they meet the following requirements:

- whole lower edge (at least 30 cm from the floor surface), and
- space requirements according to Swedish law (L22).

10.9 Sheep and Goats

These standards apply to sheep and goats both during transport to slaughter and during the time at the slaughterhouse.

10.9.1 Handling Animals

Slaughterhouse and transport staff must not lift or pull the animals by their fur or wool.

10.9.2 Feed, Water, Litter and Activity

- Animals must have access to water and roughage in the daytime while waiting for slaughter.
- Animals must have access to water and roughage when overnighting. They must also have a dry, solid and littered bedding area.

10.9.3 Boarding in Group Boxes

When boarded in group boxes animals must have at least the following space per animal:

- 0.5 square metres if they weigh less than 50 kg
- 1 square metre if they weigh more than 50 kg.

10.9.4 Boarding of Animals in Single-Animal Boxes

Animals must only in exceptional cases be boarded in single-animal boxes, which in that case must be at least two square metres in size.

10.10 Pigs

These standards apply to pigs both during transport to slaughter and during the time at the slaughterhouse.

10.10.1 Feed, Water, Litter and Activity

- ① At the slaughterhouse during the daytime while waiting for slaughter the animals must have access to water (SL). They must also have access to straw or other suitable material to meet their behavioural needs. (K)

10.10.2 Boarding in Group Boxes

When boarded in group boxes animals must have at least the following space per animal (SL):

- 0.75 square metres for slaughter hogs that weigh less than 120 kg

- 1.5 square metres for adult pigs that weigh more than 120 kg.

10.10.3 Boarding of Animals in Single-Animal Boxes

Animals must only in exceptional cases be boarded in single-animal boxes. In that case single-animal boxes must be at least two square metres in size for pigs that weigh maximum 120 kg. Sows and galts boarded individually must have boxes that are six respectively seven square metres in size. (SL)

10.11 Poultry

These standards apply to poultry both during transport to slaughter and during the time at the slaughterhouse.

10.11.1 Same-day Slaughter

Poultry must be slaughtered the same day they arrive at a slaughterhouse. This also applies to ostriches.

10.11.2 Hanging in Foot Shackles

Hanging laying hens and table chickens in foot shackles before stunning must take place calmly. (SL)

The line of foot shackles must be as short as possible and be designed without sharp bends so that the hung birds don't hit obstacles. The birds should be subjected to as little **stress** as possible. (SL)

A conveyor belt or similar device must also be used that provides support under the chest and has a calming effect. Another alternative is to hold the birds after hanging and until stunning. (K)

The line of foot shackles must be designed so that the birds are not hung up more than 30 seconds while conscious. (K)

The foot shackles must be suited to the size of the bird. (SL)

10.11.3 Handling Animals After they are Hung Up

Hold each animal for an instant after it has been hung up on a slaughter hook. (K)

10.11.4 Handling Other Poultry Than Laying Hens and Chickens

No other poultry than laying hens and chickens can be slaughtered with the help of hanging in foot shackles unless they are held the whole time from hanging to stunning. (K)

10.12 Deer – Cancelled

This standard has been cancelled.



Those certified for feed production must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 11.1 General Standards for All Types of Feed
- 11.2 Raw Materials
- 11.3 Processing
- 11.4 Ingredients and Labelling
- 11.5 Pet Food
- 11.6 Handling KRAV-certified Feed

11.1 General Standards for All Types of Feed

General feed regulations apply in addition to what is in this chapter. Feed regulations control for example permitted levels of possible foreign substances not included in the KRAV standards.

11.1.1 No Genetically Modified Organisms (GMOs)

You cannot use *genetically modified organisms (GMOs)* as feed or to produce feed, additives, binding agents or feed preservatives. (EU)

You must do what you can to ensure that the products or raw materials you use do not contain GMOs or are made from GMOs. If there is a risk that a **product** or raw material contains GMOs or is made from GMOs you must get a certificate verifying that the product does not contain GMOs or is made from GMOs, or have the product analysed. For determination of GMO risk and guidelines for GMO-free certification see KRAV's risk lists for GMOs (July 1, 2015 edition) on the KRAV website (www.krav.se/extra-requirements-all-products). (K)

11.1.2 Irradiation

You must not irradiate your raw materials or products and you must ensure that your suppliers have not irradiated the raw materials. (EU)

11.1.3 Substances in Contact With Feed

Preservatives (other than those listed in Appendix VI of Regulation (EC) 889/2008), **pesticides** and synthetic or **colouring agents** identical to natural colourings must not be added to substances that come in contact with feed. (EU)

11.1.4 Filtering

Filtering technology that leads to chemical changes at the molecular level is prohibited if the filtering equipment contains asbestos or if it in any other way leads to chemical changes at the molecular level that negatively influence the product.

11.2 Raw Materials

This section has standards that determine which raw materials you can use in KRAV-certified feed.

Keep In Mind

All feed of agricultural origin must be KRAV-certified. However, conventional protein feed can be given to pigs and poultry according to the exception in standard 5.1.9.7 until 31 December 2017. (EU)

The particular standards for raw materials in pet food are in section 11.5.

11.2.1 Use KRAV-certified Raw Materials

You must use KRAV-certified raw materials. If this is not possible you can use non-KRAV-certified raw materials for feed of animal origin listed in Appendix 1. You must only use the raw materials for minerals, trace elements and vitamins listed in Appendix 1. (EU)

According to the European Commission's extended exemption, pigs and poultry can annually be given a maximum of 5% conventional protein feed of agricultural origin until 31 December 2017 (EU). You cannot use the same type of raw materials from both KRAV-certified and non-KRAV-certified agriculture together in a feed mixture. You also cannot use the same type of raw materials for feed that come from both second-year in-*conversion crops* and from non-KRAV-certified agriculture together in a feed mixture (K) (I). You must not include mineral feed, calcium, sea shells or similar mineral additives when you calculate the percent of KRAV-certified raw material.

11.2.2 Non-KRAV-certified Raw Materials for Feed Not of Agricultural Origin

Non-KRAV-certified raw materials for feed that are not of agricultural origin, for example fishmeal, can be included in the ration program for pigs and poultry. They can make up a maximum of 10% of the annual feed intake calculated as dry matter intake. (K) (I)

If the raw materials are processed they must be made with permitted production processes according to KRAV standard 11.3.1. (I)

11.2.3 Feed of Animal Origin

All raw materials for feed of animal origin included in Appendix 1 are permitted in feed for pigs and poultry.

Feed for ruminants can contain whey, skim milk and other residual products from KRAV-certified milk production.

Feed for KRAV-certified animal husbandry must not contain meat byproducts, as these are only permitted in pet food.

Raw materials from fisheries must originate from *sustainable fisheries*. KRAV recommends use of mussel meal. (K)

11.3 Processing

Here you can read about the additives and production processes permitted in the production of KRAV-certified feed. The particular standards for raw materials in pet food are in section 11.5.3.

11.3.1 The Production Process

You must not use chemical solvents or additives of other chemical substances when you produce or prepare feed. You must only use the following production processes:

- mechanical and *physical processes*, for example grinding, (EU)
- *biological processes*, for example *fermentation* and leavening (for example use of lactic acid cultures and fungus cultures), (EU)
- enzyme processes that coagulate (for example rennet), (K)
- splitting/digestion with enzymes (for example the enzyme amylase), (K)
- extraction with permitted solvents, (EU) or
- sedimentation. (EU)

You can only use water, ethanol or fat as a solvent. (I)

11.3.2 Technical Additives

If KRAV-certified molasses is not available you can use non-KRAV-certified molasses as a binding agent. Use for farmers is limited to 1% of the annual feed intake per animal calculated as dry matter intake for feed made from agricultural products. (EU)

With the exception of molasses, feed additives included in products for technical reasons (e.g. as a binding agent or dust absorbent) can make up a maximum of 1% of a feed mixture or *feed supplement* (K). Additives must not be made with the help of *GMOs* or chemical solvents. You must only use the technical additives listed in Appendix 1. (EU)

11.4 Ingredients and Labelling

The following information explains how you must inform about your *product*.

The particular standards for labelling pet food are in section 11.5.

Keep In Mind

It is important that every feed mix is labelled with the portion that is KRAV-certified.

11.4.1 Threshold Values for Heavy Metals in Feed

You must ensure that the feed you sell contains low levels of heavy metals. The levels of heavy metals in KRAV-certified feed must not exceed the threshold values in the Table below. You must have a control system to guarantee that these threshold values are not exceeded. Your certification body can require that

you take random samples or to see the results of samples taken by government agencies.

mg/kg feed (12% water content)					
heavy metal	chromium	cadmium	lead	mercury	nickel
regular feed	9	0.10	5	0.1	6
supplementary feed	16	0.18	10	0.1	10

11.4.2. A Declaration of Contents is Mandatory

You must show on the packaging, the product sheet for the feed or similar document what KRAV-certified raw materials are included in the product, as well as the portion by **dry weight** of the respective raw material. The contents of raw materials from second-year in-**conversion crops** must be shown in the same manner. The product's declaration of contents must also show the amount of raw materials for feed of agricultural origin. (EU)

11.4.3 Labelling

You can only use the KRAV label on sacks and product sheets if all of the raw materials in the feed are KRAV-certified and all additives comply with the KRAV standards. (K)

You can use the KRAV name to market feed mixtures that contain non-KRAV-certified raw materials but only contain approved feed additives if you immediately after the KRAV name clearly write the portion that is KRAV-certified raw material in percent by weight. Use the **dry weight** of materials for calculations and subtract mineral additives according to standard 11.2.1. (EU)

11.4.4 Assessment of Permissibility of Certain Feed that Cannot be KRAV-certified

You can note in product information but not on the package, that a feed, additive or mixture has been assessed for permissibility in KRAV-certified production. In that case all ingredients must be permitted according to the KRAV standards in Chapter 5, 7 or 11 and an approved certification body must have made an assessment of permissibility of the recipe in question to ensure compliance. An assessment of permissibility is valid for three years and then must be renewed. (K)

For mineral feed, all ingredients of agricultural origin (for example, corn, wheat and alfalfa) must be KRAV-certified or EU organic.

You do not pay a license fee to KRAV and you do not need to report sales values for feed additives and mixtures assessed for permissibility. (K)

A list of permitted feedstuffs, additives and mixtures is published on the KRAV website.

11.5 Pet Food

The standards for pet food are given here.

If you comply with the standards in section 11.5 your pet food can be called

”organic”. However you must not use the EU logo for organic production. The Swedish Board of Agriculture has made a ruling on this according to article 95.5 in regulation 889/2008.

11.5.1 KRAV-certified Raw Materials

You must use KRAV-certified raw materials. You can only use non-KRAV-certified raw materials for feed if this is not possible. (K)

11.5.1.1 Raw Materials Not KRAV-certified

No conventional raw materials of vegetable origin are permitted. You must use the raw materials for feed of animal origin given in Appendix 1. Raw materials from fisheries must originate from *sustainable fisheries*. In addition you can also use meat products and meat byproducts of human food quality. (K)

11.5.2 The Production Process

You must produce pet food according to the KRAV standards for processing, see standard 11.3.1. When you calculate the percentage of KRAV-certified raw materials you however do not need to include any mineral feed or mineral additives that are included. (K)

11.5.3 Additives, Flavourings and Process Aides

You can add vitamins and minerals from Appendices 1 and 2 to pet food. (K)

Permitted *process aides* are given in Annex VIII B in Regulation (EC) 889/2008. (EU)

You must only use natural *flavourings*. (EU)

Carriers for flavourings and additives must be raw material ingredients, permitted substances according to Annex VIII B in regulation (EG) 889/2008, water, ethanol or fats. (K)

Additives, flavourings, carriers, solvents and process aids must not contain or be made with the help of genetically modified organisms. (EU)

11.5.4 Labelling of Pet Food

You can label pet food with the KRAV label if the food contains 95% or more KRAV-certified raw materials. If the food contains less than 95% KRAV-certified raw materials the standards on KRAV-certified ingredients in section 9.14 apply.

11.6 Handling of KRAV-certified Feed

Those who exclusively handle or store KRAV-certified feed must be certified according to Chapter 11. It is especially important to comply with the standards in section 3.2 that concern the *handling* of KRAV-certified raw materials and products. All the other general standards must also be complied with, i.e. the standards in Chapter 2, 3 and 20. (K)

Sections 11.1-11.5 do not concern those who only handle KRAV-certified feed.



Manufacturing and Marketing of Production Aids

Those certified for manufacturing and marketing of production aids must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 12.1 General Standards for Production Aids
- 12.2 Soils
- 12.3 Fertilisers and Soil Improvement Aids
- 12.4 Plant Protectants
- 12.5 Assessment of Permissibility of Production Aids
- 12.6 Handling and Storage

12.1 General Standards for Production Aids

The standards in this section apply to production aids used for crop production and horticulture.

12.1.1 What Production Aids Can be KRAV-labelled?

Production aids that can be KRAV-labelled are a range of biological and chemical products as well as some mineral products used by farmers in their production. KRAV-certified products can also be used by individual consumers. Examples of production aids that can be KRAV-labelled are:

- soil mixtures,
- soil improvement aids,
- fertilisers,
- *plant protectants*, and
- microbiological preparations.

The following cannot be KRAV-labelled as production aids:

- technical equipment, and
- copper compounds.

12.1.1.1 Production Aids for Animal Husbandry Cannot be KRAV Labelled

Those that produce production aids for animal husbandry and had products that were approved 2013-07-01 may continue to sell them after 1 January 2014, though only until the end of 2015 at the latest. This is conditional on the previous KRAV standards being complied with and maintenance of certification during the period.

12.1.1.2 Environmental and Health Concerns

You can KRAV-label a production aid if:

- you have documents that prove it does not cause any serious environmental impact to produce, extract or gather, (SL)
- it is not classed as a hazard to the environment or health of animals and people, see The National Chemicals Inspectorate regulations on classifications (KIFS 2005:7),

- it does not contain *genetically modified organisms* or is made with the help of genetically modified organisms,
- it is not made by cultivating, or making any other long-term change in a primary ecosystem. (K)

12.1.3 Description of Production

You must document the production process. You must include the origin of raw materials and their natural occurrence and reserves. You must also document the manufacturing process of the production aid in your own operation, when and where the different steps take place as well as the processing methods used. (K)

12.1.4 Analyse Heavy Metal and Nutrient Content

For you to be able to KRAV-label soil mixtures, soil improvement aids and fertilisers, the finished product or raw material inputs must be analysed for content of the heavy metals lead, cadmium, copper, chromium, mercury, nickel, zinc and silver. You must also do an analysis of the amount of relevant macro and micronutrients in the products you market.

The analysis must be done:

- before certification of a new *product*.
- when there is a new *supplier* of a raw material.
- regularly when a product contains close to the threshold level for one or more heavy metals. How often is determined in consultation with your certification body.
- if your certification body determines that it is necessary.

You must take representative samples of your production aids or the raw material inputs of the product. You must use the services of a certified laboratory that uses approved methods of analysis.

The level of heavy metals must not be so high that applying the *maximum permissible ration* results in no advantage to the farmer. It is for example prohibited to use fertiliser that contains such a high level of heavy metals compared to nutrients that the fertilizing effect is marginal.

🔄 12.1.5 Importing and Bringing In Production Aids

If you import or bring in products and raw materials to be sold as production aids they must comply with all the standards in Chapter 12 as well as (K):

- the parts of Chapter 20 that apply to production aids,
- standards 3.3.4 and 3.3.5 regarding the ban on the use of GMOs,
- standards 3.3.6 regarding the ban on the use of nanomaterials, and
- section 3.5 on packaging.

If you allow a supplier outside of Sweden who is not KRAV-certified to package and KRAV-label your products, you must have a contract with the supplier. The contract must give you control over how the KRAV labelling is used and give you and your certification body the right to inspect your supplier's production if required (K).

12.1.6 Information on the Product

This section deals with the standards for how you must label and inform about your production aid.

12.1.6.1 Information on Packaging

If you sell a KRAV-certified production aid you must inform about the following on the packaging:

- The raw materials included. For agricultural products and waste products from the food industry, it must be indicated if raw materials come from conventional or *organic* production.
- For a *product* that you want to market as a soil mixture, soil improvement aid or fertiliser, you must give the amount of relevant macro and micronutrients in the products. The content can be given as a range.
- Give the *maximum permissible ration*. You can use a five year period at the most.

For products delivered in bulk, the producer must provide equivalent information in the form of a product sheet.

You must label products so that it is possible to determine when and where the production and its various stages took place, for example processing and packaging. It should be possible to trace the raw materials. You must design the labelling in an appropriate manner.

12.1.6.2 The Product List On the KRAV Website

You must enter information about your KRAV-certified products in the product list on the KRAV website (www.krav.se). Your certification body verifies that the information is correct when they do an *audit*. (K)

12.1.6.3 Labelling

You must use KRAV's particular label for production aids to label production aids that are certified according to the standards in sections 12.1-12.4. More information on labelling of production aids is in standard 20.1.5.

12.1.6.4 Organic Production Aids

Only production aids that contain 100% by weight *organic* raw materials can be called organic. You can use KRAV's standard label on the products.

12.2 Soils

In this section are the particular standards for soils and soil mixtures that can be KRAV-certified.

12.2.1 Soils and Soil Mixtures

If you produce soil or soil mixtures and want to KRAV-label them you can only use the following ingredients:

- sand, crushed stone, clay and peat from areas where no chemical *pesticides* or *artificial fertilisers* have been used 24 months before removal,
- soil from KRAV-certified land,
- organic fertiliser according to standard 4.3.5.1,
- inorganic fertiliser according to standard 4.3.6.1.

12.2.2 Heavy Metals in Soil and Soil Mixtures

If you want to market soil and soil mixtures they cannot contain levels of heavy metals above the following limits:

Substance	mg/kg dry material in soil
lead	30
cadmium	0.3
copper	40
chromium	40
mercury	0.1
nickel	25
zinc	120
silver	0.25

12.3 Fertilisers and Soil Improvement Aids

In this section are the particular standards for fertilisers and soil improvement aids that can be KRAV-certified.

12.3.1 Contents of Fertilisers and Soil Improvement Aids

If you produce fertiliser or soil improvement aids and want to KRAV-label them you can only use the following ingredients:

- sand, crushed material, clay and peat from areas where no chemical *pesticides* or *artificial fertilisers* have been used 24 months before removal,
- organic fertiliser according to standard 4.3.5.1,
- inorganic fertiliser according to standard 4.3.6.1.

12.3.2 Limit Addition of Heavy Metals

The KRAV standards on crop production has limits on the amount of heavy

metals that can be added to arable land. The maximum permissible total addition of heavy metals per year during a five-year period is:

Substance	g/ha/year	
lead	25	
cadmium	0.45	
copper	300*	* For copper, larger amounts, maximum one kg per hectare, are acceptable if it can be shown that the field concerned needs additional copper.
chromium	40	
mercury	0.8	
nickel	25	
zinc	600	
silver	3	

When a farmer uses the *maximum permissible ration* of your production aid, the addition of any heavy metal must not be greater than the approved amount according to the Table.

Remember that if a farmer adds one tonne/ha/year of a *product* that contains one ppm of a certain substance the result is addition of one g/ha/year of that substance. Also, remember to add together the amounts when several different substances are used.

12.3.3 Maximum Permissible Ration

You calculate the *maximum permissible ration* of heavy metals in a production aid by first measuring its contents of lead, cadmium, copper, chromium, mercury, nickel, zinc and silver. You then calculate the amount of your production aid that can be used without addition of any heavy metal exceeding the threshold values in standard 12.3.1 and without addition of any nutrient being too large. You can calculate the maximum permissible dose on an annual basis, or over a time period of five years at the most. You must show your calculations.

12.4 Plant Protectants

You must only KRAV-label and market *plant protectants* that are permitted according to KRAV's standards for plant protection, section 4.4.

12.5 Assessment of Permissibility of Production Aids

You can note in product information but not on a package that a production aid has been assessed for permissibility in KRAV-certified production. In that case all ingredients must be permitted according to the KRAV standards in Chapter 4 and an approved certification body must have made an assessment of permissibility

of the recipe in question to ensure compliance. An assessment of permissibility is valid for three years and then must be renewed. (K)

You do not pay a license fee to KRAV and you do not need to report sales values for production aids assessed for permissibility. (K)

A list of production aids assessed for permissibility is published on the KRAV website, www.krav.se.

12.6 Handling and Storage

12.6.1 Handling KRAV-certified Production Aids

Those who exclusively handle or store KRAV-certified production aids must be certified according to Chapter 12. It is especially important to comply with the standards in section 3.2 that concern the *handling* of KRAV-certified raw materials and products. All the other general standards must also be complied with, i.e. the standards in Chapter 2, 3 and 20. (K)

Sections 12.1-12.5 do not concern those who only handle KRAV-certified production aids.

This chapter was cancelled as of 1 January 2015. Producers with livestock may continue to apply the standards in this chapter for hides and wool, which are in section 5.1.13.

For organic certification of textiles we recommend instead the international certification Global Organic Textile Standard (GOTS), www.global-standard.org/.



Shop

KRAV
Welcome to a
KRAV-certified
shop

14

Shops

Those certified for shops must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Contents of this chapter:

- 14.1 The General Obligations of the Shop
- 14.2 Managing and Selling KRAV-certified Products
- 14.3 Labelling, Displaying and Exhibiting
- 14.4 Documentation
- 14.5, 14.6, 14.7, 14.8 are now in Chapter 3, section 3.7

14.1 The General Obligations of the Shop

The shop must attract customers looking for KRAV-certified products so that they want to return. The shop must do this by:

- having a wide range of KRAV-certified products and continually striving to expand the range,
- exhibiting the KRAV name and label,
- making sure that the KRAV-certified products are easily accessible and plainly visible for customers, and
- making sure that staff are well informed about KRAV and *organic* production.

14.1.1 Standards in Other Chapters that Also Apply to Shops

In addition to the standards in this chapter, the KRAV standards in Chapter 20 regarding labelling and the general standards in Chapter 2 and 3 also apply to those with shops. Note in particular the following points:

- 2.1-2.10 and 2.12 on certification and contracts,
- 3.3 on substances and materials,
- 3.4 on reduction of environmental and health impacts due to measures related to hygiene,
- 3.5 on packaging,
- 3.6.3 on hazardous waste,
- 3.6.5 on systematic environmental management,
- 3.7 on energy use,
- 20.1.1-20.1.3 general standards,
- 20.2 on using the KRAV name and labels,
- 20.4.8 on origin of perishable goods,
- 20.5 on labelling on delivery vouchers and invoices, and
- 20.6 on marketing.

14.1.2 Minimum Product Assortment Requirements

The shop must sell and clearly display KRAV-certified products within at least the following product categories if the shop sells products within these categories. If any of the products are available only by order, this must be clearly displayed in the shop together with information on how to order.

- rice
- bulgar, or food wheat or the equivalent
- bread
- pasta products
- flour, flakes, and bread mixes
- fresh or frozen meat, if possible from cattle as well as pigs and chickens
- fresh or frozen fish and fresh or frozen shellfish
- ready-made meals
- milk
- yogurt and processed sour milk
- cheese
- eggs
- butter or margarine
- cooking oil
- ketchup and mustard
- seasonings such as bouillon, soya, or similar products
- fresh or dried spices/herbs
- fruit
- frozen berries
- leaf and stalk vegetables (*e.g. asparagus, fennel*)
- fresh or frozen cruciferous vegetables (*e.g. cauliflower, broccoli*)
- fresh and preserved vegetables grown for their fruit (*e.g. cucumber, tomato and olives*)
- root vegetables
- onions
- mushrooms
- preserved and frozen peas
- dried and preserved lentils
- dried and preserved beans
- nuts or almonds
- sprouts
- potatoes
- sugar
- jam and marmalade
- fruit juice
- beer or cider
- juice
- coffee
- tea
- ice cream
- baby food

14.1.3 Increase Selection

You must work actively to gradually increase the selection of KRAV-certified products. You must be able to quantify this and report on it when *audited*. The statistics must be made available to KRAV on request.

14.1.4 Increase Portion of Sales

You must work actively to increase the portion of sales of organic products. You must also measure how this develops and report on it when *audited*. The statistics must be made available to KRAV on request.

14.1.5 Train Staff

Staff must be well-informed about *organic* production and KRAV. The shop must aim towards always having a staff person available during open hours who has gone through training about KRAV and organic production or studied KRAV's specially produced written information material. New and temporary staff must be informed as to which staff members have this knowledge (see also standards 2.3.1 and 2.3.2).

Staff members who have completed such training should be able to show a training certificate. Staff members who have read the written information must sign a printed copy of the information. The information must contain the following:

- basic information about organic production and its purpose,
- general information about the KRAV standards, goals and added values,
- information about routines for keeping KRAV-certified products separate in the store,
- information about labelling and marketing of KRAV-certified food, and
- basic information about other environmental labels.

14.2 Managing and Selling KRAV-certified Products

You can sell KRAV-certified products that are pre-packaged, in other words packaged by your *producer* or *supplier*. You can also sell KRAV-certified products packaged in the store, as well as unlabelled products in bulk over-the-counter or by self-service.

14.2.1 Managing

Manage KRAV-certified products so that there is no risk of them being mixed together with non-KRAV-certified products. For example, it is important to properly separate conventional and KRAV-certified fruit. Further, you must not mix together or mix up KRAV-certified products with *EU-organic* products.

14.2.2 Processing and Import

If you *process* products in the shop you must comply with the standards for processing KRAV-certified products (see Chapter 9).

If you *import* or bring in *organic* products or ingredients from other countries to KRAV-label them, you must comply with the standards in Chapter 16 that deal with import and *bringing in*.

Before you begin marketing products where you apply the standards in Chapter 9 or Chapter 16, you must apply for a new certificate from your *certification body* that also encompasses these chapters.

14.2.3 Bulk Self-service

For bulk sales make sure it is not possible to mix up KRAV-certified products with non-KRAV-certified products. When you manage both KRAV-certified and non-KRAV-certified products in bulk at the same time and when the products cannot be differentiated from each other by appearance, you must manage them so there is no risk of mixing them together with non-KRAV-certified products. You must also ensure that it is clear to customers which products are KRAV-certified.

14.2.4 Bulk Over-the-counter

In order to manage and sell, for example, cheese or meat in bulk over-the-counter, you must ensure that it is clear to customers which products are KRAV-certified.

14.2.5 Shop Packaged

You can package and repackage KRAV-certified products. Manage products so that they are not mixed together with or contaminated by non-KRAV-certified products.

Clean machines, equipment and surfaces that come in contact with products before you begin to manage KRAV-certified products.

You must have written routines that show you comply with the requirement above. If suitable, the routines can be incorporated into a self-inspection system that your shop has to comply with according to the Food Act.

14.3 Labelling, Displaying and Exhibiting

Displaying and labelling are used to make it easy to find KRAV-certified products. The particular standards that apply to KRAV-certified shops are included here. Standards for labelling that apply to all KRAV-certified companies are in Chapter 20.

14.3.1 Labelling

You can label and package KRAV-certified products with the KRAV label. You can also label KRAV-certified goods with the supplier's name if you have a written agreement with the supplier to do so.

If you have bags or other special packing materials intended to be used by customers to package the KRAV-certified products, the bags or other packaging material must be placed close to the KRAV-certified products. Customers must not be able to misinterpret which products the packaging is intended for.

14.3.2 Displaying

Customers must clearly see that the shop is KRAV-certified by a sign or *certificate* placed so that it is easily seen at the entrance.

The KRAV-certified products must be easily accessible and plainly visible to customers. You must present the KRAV-certified products so that they cannot be confused or mixed up with non-KRAV-certified products.

At counters with only KRAV-certified products you can have a display that covers all the products.

At counters where there are bulk sales of both KRAV-certified products and non-KRAV-certified or other types of *organic* products, every *product* that is KRAV-certified must be clearly displayed or labelled. You must write the name of the producer on the display, if it is not shown in another manner. The display must include a KRAV label.

14.3.3 Information Locations

To make it easy for customers to find information about KRAV-certified products, you must provide one or more information locations in the shop with information about KRAV and organic production. The information locations must be plainly visible to customers.

14.4 Documentation

+ 14.4.1 Accessible Documentation

You must have documentation that shows you comply with the KRAV standards. You must be able to show the documentation to your *certification body*. The certification body has the right to require the documentation it deems necessary in order to determine if you comply with the KRAV standards. You can decide if you want to provide the documentation electronically or on paper.

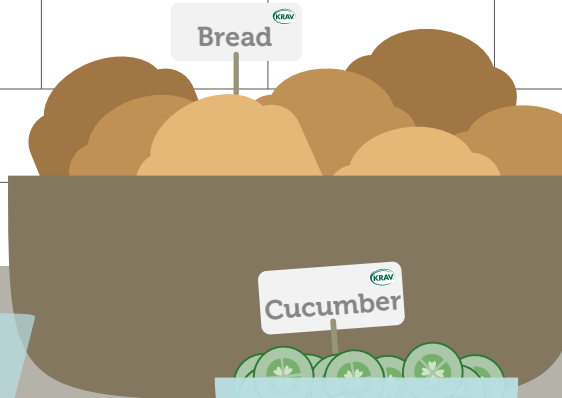
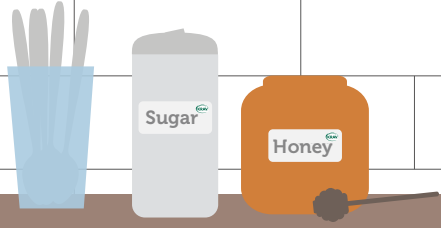
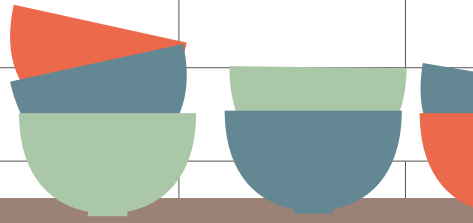
+ 14.4.2 Purchase, Sales and Suppliers

You must continually document which products and raw materials you buy for the KRAV-certified activity in the shop, the quantities, as well as your supplier or suppliers of KRAV-certified products. You must also document the quantity of KRAV-certified goods you sell. You must be able to show documentation at the product level for products managed in bulk, packaged or processed in the shop.

+ 14.4.3 Invoices or Delivery Vouchers

To be able to count purchased raw materials and products as KRAV-certified, it must be clearly shown on the invoices or delivery vouchers that the products are KRAV-certified. You must keep documentation for two years so that it can be inspected by the certification body.

Welcome
to the hotel's
KRAV-certified
breakfast!



Those certified for restaurants and catering must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20. The standards in this chapter can be used for chain certification.

Contents of this chapter:

- 15.1 General
- 15.2 Use of Raw Materials, Ingredients and Food
- 15.3 Staff Knowledge
- 15.4 Grocery Meal Bags
- 15.5 Single Product Certification

Throughout Chapter 15 and section 20.10 in Chapter 20, we have chosen to write “approved food” in bold and italics to emphasise the concept, which is defined in section 15.2.1.

15.1 General

The standards in sections 15.1-15.4 cover all forms of caterers, restaurants and cafés, as well as companies that deliver grocery meal bags with recipes and raw materials to customers. Small production units, such as for example group homes and preschools, are also included. In this chapter, all of these are referred to as restaurants.


15.1.1 Limitations of Certification

You can certify all or part of the activity. To be able to certify only a part of the activity, the accounting must be designed so that food purchases for the certified part of the activity can be totalled from separate accounts or supplier statistics.

If only part of the activity is certified, the marketing must clearly indicate which part is being referred to.

Limitations can be made according to time, for example, certification can be limited to breakfast in a restaurant or restaurant activity during a festival. Limitations can also be physical, for example, only food service at a nightclub can be certified, while the bar in the same night club is not included in the certification.

15.1.2 Activities with Several Premises

 If you have an activity with both preparation and serving kitchens, your serving kitchen needs its own certification if:

- the serving kitchen makes its own purchases,
- there is any preparation other than heating up. Brewing or making coffee is not considered preparation.

Even if the serving kitchen does not need its own certification, the following applies to serving kitchens:

- Staff must be trained according to section 15.3.2 and be able to inform customers according to section 15.3.3.
- All relevant standards in Chapter 2 General Standards for Certification and Chapter 3 General Standards for all KRAV Licensees must be complied with.

- The KRAV name and label can be used according to the standards in Chapter 20.
- The joint certificate must be kept in the serving kitchen and be plainly visible to guests.

The certification body determines how many serving kitchens require annual inspection.

You can also carry out your restaurant activity in temporary locations, such as festivals, exhibitions, etc.

+ 15.1.3 Certification Applies to the Restaurant

You can only certify the restaurant itself according to the standards in this chapter, not the dishes served there. To certify dishes or food you must be certified according to the KRAV standards in Chapter 9 Food Processing.

15.1.4 No Red Listed Fish or GMO-labelled Food

You must not serve:

- species that are red listed according to the World Wildlife Fund seafood guide, see www.wwf.se (in Swedish only), or
- food labelled as being made with GMOs.

This standard applies to the entire restaurant activity, not only the KRAV-certified part.

15.2 Use of Raw Materials, Ingredients and Food

Section 15.2 contains standards on purchasing and the three levels that a restaurant can be certified for.

15.2.1 Approved Food

Only food with the following labels can be included as *approved food*:

LABEL	LIMITATION
• KRAV-certified	All products can be included.
• organic certified	Plant products can be included.
• MSC-certified	Products without additives or with additives according to the KRAV standards in Appendix 2 can be included.

+ 15.2.2 Level Assessment During Initial Inspection

During the initial inspection, you must show your *certification body* that you can purchase *approved food* according to the level you want to be certified for. This also applies to change of level if you are already certified.

You can for example show this using the previous year's purchase level or your suppliers' selection of goods or in other ways that your certification body regards as reliable.

15.2.3 Minimum Proportion Approved Food

You must comply with the minimum requirements for one of the following three levels. You can also choose to certify your activity at level 1 according to section 15.2.8, KRAV-certified for at least 15 products.

Level 1: at least 25% of total purchase value is *approved food*.

Level 2: at least 50% of total purchase value is *approved food*.

Level 3: at least 90% of total purchase value is *approved food*.

During *inspection* you must show your certification body the proportion of *approved food* purchased during the last year. Calculate the proportion as an average of all purchases you made over the last year. *Purchasing statistics are based on, for example, receipts and supplier statistics.*

15.2.4 Portion KRAV-certified Raw Materials (% - Standard Level)

At least 50% of your annual purchases of *approved food* must be KRAV-certified.

This is verified during the annual inspection by using purchase statistics or by counting the number of KRAV-certified foods in the restaurant at the time of the inspection.

15.2.5 Self-produced Raw Materials (% - Standard Level)

If you have access to KRAV-certified raw materials from your own production, you can include them as *approved food* at an estimated market price.

15.2.6 Wild Game is Exempt from Economic Assessment (% - Standard Level)

If you purchase wild meat, the purchase value must be exempted from the total purchase value when you calculate the portion of *approved food*.

Deer, wild boar and other animals bred in captivity, as well as reindeer, are not considered wild game.

15.2.7 Purchase Records (% - Standard Level)

You must design your financial records or put together supplier statistics so that the *approved food* can be distinguished from all other purchases.

You must also have your own system for recording purchases. Your certification body must assess the reliability of your system.

🔄 15.2.8 KRAV-certified for At Least 15 Products

You must comply with all the points in the list in order to be certified for Level 1, At Least 15 Products:

- At least 15 of the products you use must be completely replaced with *approved food*.
- By 31 December 2016, at least two of the chosen products must be *staple products* in the menu of the certified part of the activity. From 1 January 2017, the number of *staple products* increases to five.
- At least 50% of the chosen products must always be KRAV-certified.
- The products must be registered with your *certification body*. All changes

to the selection must be reported to the certification body. If a registered product is temporarily not available, the deviation and reason for it must be documented and kept for *inspection*. Restaurant guests must be clearly informed about this.

- The number of registered products must increase by at least two per year until the restaurant reaches 25% *approved food*, according to section 15.2.3.

Clarification of the term “product”. The division is based on products that are essentially the same being considered as one product, while products that are different from each other or provide a different result can be considered as different products. The following examples of products should help to provide an understanding for how the division must be made:

- Drinking milk with different fat content is ONE product.
- Apple juice from different companies is ONE product.
- Different flavours of fruit and berry juices are DIFFERENT products.
- Flour that results in different types of bread with widely varying characteristics are DIFFERENT products.
- Different herbs/spices, for example thyme and basil, are DIFFERENT products. The same herbs/spices in different forms, for example, whole and ground pepper, are ONE product.
- Red wines from one and the same winemaker are ONE product. Red wines from different winemakers are DIFFERENT products. A red wine and a white wine from the same winemaker are DIFFERENT products.
- Filleted and whole fish of the same species are considered ONE product. The same species in semi-prepared form is considered ONE product. The same species in a raw material mixture is considered ONE product.

15.2.9 Registration of Food for Restaurants that are Part of a Chain that is Certified According to Chapter 19 (15 Products)

If you have restaurants that are part of a chain that is certified according to Chapter 19, you do not need to report changes in the selection of registered food according to section 15.2.8, point four. The chain may instead establish their own internal procedures to ensure that the minimum number of *approved foods* are always available in the selection and that the guests always get correct information about which foods are KRAV-certified. The chain must have central documentation about which foods are registered at each unit.

15.3 Staff Knowledge

+ 15.3.1 Tasks of the Contact Person

The contact person for certification of the restaurant must ensure that there are procedures to comply with all relevant parts of the KRAV standards.

More on the contact person is found in section 2.3.2.

If you are certified for chain certification, the contact person can be a kitchen or restaurant manager. The contact person can be responsible for several locations.

15.3.2 Knowledge About KRAV-certified Production

You must ensure that there are always staff in the restaurant during preparation and serving that have completed training about KRAV and organic production.

The contact person for certification of the restaurant must have completed the training. The training must include the following items:

- basic information about organic production and its aim,
- general information about the KRAV standards, KRAV's goal and KRAV's added value,
- information about procedures for separation of KRAV-certified products in the restaurant,
- information about labelling and marketing of KRAV-certified food, and
- basic information about other ecolabels.

Staff who have completed the training must be able to show a training certificate. Information and trainers are available at www.krav.se.

New and temporary staff must be informed as to which staff member has this knowledge.

15.3.3 Information to Customers

You must ensure that there are always staff who can answer questions from customers about which ingredients are *approved foods* and about the origin of ingredients.

15.4 Grocery Meal Bags

This section clarifies how grocery meal bags can be put together and how raw materials must be labelled.

+ 15.4.1 Delivery of Grocery Meal Bags

Those KRAV-certified for restaurants and catering can put together grocery meal bags with recipes and portioned raw materials for home delivery. You can market grocery meal bags with information that the food comes from a KRAV-certified restaurant, according to the standards in section 20.10. You must indicate the KRAV-labelled ingredients on the menu. The KRAV certificate must be available for customers, for example on the website or as a copy included in the grocery meal bag.

A bag with only raw materials is not a grocery meal bag, it is only a grocery bag. The standards for KRAV-labelling of grocery bags are found in Chapter 9 Food Processing.

15.5 Single Product Certification

This section is a standard on its own and does not assume that you comply with the other standards for restaurants and catering in this chapter.

+ 15.5.1 Report Activity

You must report to an approved **certification body** that you want to be certified according to the standard for single product certification.

+ 15.5.2 Limitations of Certification

You must comply with the standards that apply to you and the following parts of the KRAV standards:

- all of Chapter 2
- section 15.5
- section 20.1 and 20.2
- section 20.10.9

+ 15.5.3 Extent

You can market a maximum of three products that have been taken out of their KRAV-labelled packaging and served to a customer. *Products that can be certified are, for example, coffee and draft beer.* In order to do this, the following applies to every chosen product:

- The product must be plainly described and clearly demarcated from other products.
- The product that you use must be completely replaced with KRAV-labelled products. *This means that you cannot serve, for example, one coffee that is KRAV-labelled and another that is not KRAV-labelled. This can be reported via supplier invoices.*
- The product must be registered with your **certification body**.
- You use the KRAV label only in connection to the product. The label must be reproduced according to the KRAV standards in section 20.2. *The label can be downloaded from www.krav.se.*
- All staff handling the product must know how the product can be labelled.
- You must ensure that there are procedures to guarantee that no mixing up between the KRAV-labelled product and other products takes place.
- The product can only undergo simple preparation, *for example brewing coffee.*



Sindicato de Trabajadores
Bananeros Libres

Import and Bringing In
Products or Raw Materials

If you are certified for importing and bringing in, you must also comply with the general standards in Chapters 2 and 3, as well as the standards in Chapter 20.

Contents of this chapter:

- 16.1 Introductory Standards
- 16.2 Ways to Verify the Extra Requirements
- 16.3 Extra Requirements for Social Responsibility for All Products or Raw Materials
- 16.4 Future Requirements for Social Responsibility for All Products or Raw Materials
- 16.5 Other Extra Requirements for All Products or Raw Materials
- 16.6 Extra Requirements for Products of Plant Origin
- 16.7 Extra Requirements for Animal Products
- 16.8 Extra Requirements for Other Products or Raw Materials
- 16.9 Products or Raw Materials Certified According to the US National Organic Programme (NOP)
- 16.10 Products or Raw Materials Certified According to Other Standards Recognized by the EU

16.1 Introductory Standards

The standards in this chapter apply to imported and brought in organic products and raw materials. Production aids are not included in Chapter 16.

16.1.1 What Products and Raw Materials Can be KRAV-labelled?

In order for you to be able to KRAV-label imported or brought in **products** and raw materials, they must have a valid **certificate** according to Regulation (EC) 834/2007, or have a valid certificate from a country or certification body recognized by the EU. You must also have documentation which shows that the raw materials and products comply with the extra requirements specified in section 16.3-16.9 below. (K)

If you import or bring in production aids and want to KRAV-label them with the specific KRAV label for production aids, you must comply with the standards in Chapter 12. Standard 12.1.5 describes what is specifically applicable to importing and bringing in. (K)

If the product also has an IFOAM-accredited certification, several of the extra requirements are already complied with. In the standards below, you can see which extra requirements must also be verified for products with an IFOAM-accredited certification.

16.1.2 Not Swedish Products

You must not KRAV-label products that are produced in Sweden and certified according to an organic **standard** other than the KRAV standards. (K)

16.1.3 Certificate of Inspection

If you import products from a third country, i.e. outside the EU and EEA, you

must always get a certificate of inspection. You must send the original certificate of inspection to The Swedish Customs before the goods are to be cleared, and send a copy to your **certification body**. (EU)

For more information see the KRAV website at www.krav.se.

16.2 Ways to Verify the Extra Requirements

16.2.1 Verification of Extra Requirements

Verification of all extra requirements must be carried out on-site throughout the entire supply chain, at your **suppliers** and their **subcontractors**. You are responsible for a **product** or raw material complying with the KRAV extra requirements by verifying in one of the following ways (K):

- It is certified according to a **standard** that KRAV recognizes.
- Verification is carried out by a certification body using any of the KRAV checklists.
- Verification is carried out by a second party using any of the KRAV checklists.

16.2.2 KRAV can Recognize Other Standards

A **standard** can be recognized as equivalent to parts of the KRAV standards or the KRAV standards in their entirety. (K)

A standard can also be recognized as complying with one or more of the extra requirements in this chapter. (K)

The standards recognized by KRAV are given on our website (in Swedish only) at www.krav.se/import-och-inforsel. The data is updated continuously. For each recognition, the parts of the KRAV standards that apply are given, and if the standards have levels, which level is recognized. (K)

KRAV has recognized IFOAM-accredited standards that comply with some of the extra requirements, as specified below in the section on extra requirements.

16.2.3 Third-party Verification

Third-party verification must be carried out by a **certification body** accredited for organic production. Verification of the KRAV extra requirements can be done using one or several of the KRAV checklists. (K)

16.2.4 Second-party Verification

Second-party verification must be done by someone outside the company that is being verified regarding the extra requirements. The verification must be carried out by a person with competence to audit organic production. Verification can be done using one or several of the KRAV checklists. (K)

16.2.5 Who Can Apply for Recognition

If you are KRAV-certified according to Chapter 16 Import and Bringing In, you can apply to KRAV to have a **standard** recognized. (K)

16.2.6 KRAV Can Withdraw Recognition

KRAV has the right to withdraw the recognition of an individual *standard* if it changes.

16.2.7 Rejection of Certification Body – Cancelled

16.2.8 Fisheries

KRAV can recognize other *standards* for fisheries that are equivalent to the KRAV standards. Products certified according to such standards can be KRAV labelled (K). Products from fishing are not organic. (EU)

16.3 Extra Requirements for Social Responsibility for All Products or Raw Materials

Ifoam-accredited standards are equivalent to extra requirements 16.3.1 - 16.3.7. See also section 3.1.

16.3.1 Policy on Social Responsibility

Your *suppliers* and *subcontractors* must have a written policy on social responsibility.

16.3.2 No Violations Against Human Rights or Social Justice

Products and raw materials cannot be KRAV-certified if there are human rights violations or clear cases of social injustice associated with the production.

16.3.3 No Forced Labour

Your *suppliers* and *subcontractors* may not employ forced or involuntary labour.

16.3.4 No Discrimination

Your *suppliers* and *subcontractors* must treat their employees equally, provide the same opportunities to all and not act in a discriminating manner.

16.3.5 Young Employees

Your *suppliers* and *subcontractors* must make it possible for underage employees to attend school.

16.3.6 Right to Organize and Collective Bargaining

Employees must have the opportunity to organize and the right to collective bargaining.

16.3.7 Document Social Conditions

In order to KRAV-label products and raw materials you must be able to provide documentation that standards 16.3.1 - 16.3.6 are complied with in connection with their production. This applies throughout production but you do not need

to provide documentation from producers with fewer than 10 employees or from producers in countries where policies on social justice are included in national legislation. The exempted areas and countries are the European Union, EEA, USA, Canada, Australia, New Zealand and Japan. (K)

IFOAM-accredited standards are equivalent to these extra standards.

+ 16.4 Future Requirements for Social Responsibility for All Products or Raw Materials

The standards in this section are under preparation. A first draft was circulated for comment February 1 – March 31, 2015. This process can be followed on www.krav.se/paverka-kravs-regler (in Swedish only).

A new standard proposal will be circulated for comment February 1 – March 31, 2016, and then revised according to KRAV's review process for standards that ends with a decision by the KRAV board and compliance assessment by Swedac. The final wording will be published at the earliest in the KRAV 2017 standards, where it will be clear when the standards will come into force.

16.5 Other Extra Requirements for All Products or Raw Materials

This is where you will find the extra requirements, other than those related to social responsibility, which must be complied with in order to KRAV label EU-organic products or raw materials, regardless of the type of product or raw material. (K)

🔄 16.5.1 Protection of Natural Areas with Conservation Value

Cultivation or other enduring changes in areas with natural ecosystems with high conservation value (HCV) is prohibited. Land with high conservation value that was cultivated more than five years previously can however be accepted for production. The standard is applied to sugarcane, oil palm, soy, coffee, cocoa or coconuts, and aquaculture. (K)

IFOAM-accredited standards are equivalent to these extra standards.

16.5.2 No Genetically Modified Organisms (GMOs)

If there is a risk that a **product** or raw material contains **GMOs** or is made from or of **GMOs** a document must be procured which confirms the product does not contain **GMOs** or is made from **GMOs**, or you must have the product analysed. The maximum permissible level allowed for unintentional and technically unavoidable occurrence of **GMOs** is 0.1%. The list of **GMO risks** (version 2015-07-01), on the KRAV website at www.krav.se/extra-requirements-all-products, must be used to make a risk assessment. (K)

🕒 16.5.3 Extra Requirements for Labelling Agreement

If you allow a *supplier* outside of Sweden who is not *KRAV-certified* to package and KRAV-label your products, you must have a contract with the supplier. The contract must give you control over how the KRAV labelling is used and give you and your certification body the right to inspect your supplier's production if required (K). The supplier must be certified by a certification body that carries out organic certification. (EU)

The following must be included in the contract between the *KRAV licensee* and the *supplier* (K):

- The supplier undertakes to comply with relevant parts of the KRAV standards.
- The supplier gives the certification body the right to inspect the production in question, according to the conditions of these standards.
- You who are KRAV-certified have responsibility for any nonconformities by the supplier found by the certification body.
- The supplier does not have the right to use the KRAV name and label.

There is a template on the KRAV website www.krav.se.

16.6 Extra Requirements for Products of Plant Origin

16.6.1 Products from Crop Production

For EU-organic products of plant origin, other than sprouts, greenhouse products, and products from wild harvest production, there are no extra requirements other than those that apply to all products. (K)

🕒 16.6.2 Extra Requirements for Sprouts

If you are going to KRAV label brought in or imported sprouts, the seeds they were sprouted from must be organic and comply with the KRAV extra requirements for foods of plant origin. (K)

🕒 16.6.3 Extra Requirements for Products from Greenhouses

Either point A or point B below must be complied with for greenhouse cultivation (K):

- A. Of the total annual energy used for heating, cooling areas, lighting as well as production of CO₂, 80% must come from non-fossil fuels or waste heat.
- B. Fossil energy, on average, can make up at most 2.5 kWh/m² and production week during the growing period.

🕒 16.6.4 Extra Requirements for Wild Harvest Production

The extra requirements are (K):

- A. Harvesting must not have an obvious negative impact on peoples' way of life or ability to support themselves. Consideration must be given to local traditions and the people that live in the area.

- B. Species harvested must not be subject to international protection programs or in any other way be subject to restrictions that show that harvesting is inappropriate. For species listed by CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora), compliance with CITES regulations is required for those who are KRAV-certified.
- C. Species that nationally, in the country in question, are red listed and listed as endangered species cannot be harvested.
- D. You must make sure that *independent pickers* always sell berries, plants or mushrooms that they have picked themselves. An intermediary between agents and pickers is prohibited. This is especially important to ensure when large volumes of berries, plants or mushrooms are delivered.
- E. You must make sure that independent pickers are free to sell to any agent they wish, and as well that the pickers' basic human rights are not violated. Everyone who sells berries, plants or mushrooms to an agent must be paid the same price per kilo for equivalent quality. Discrimination, for example, regarding payment, is prohibited.

Products certified according to an IFOAM-accredited standard comply with extra standards A, B and C.

+ 16.6.5 Extra Requirements for Mushroom Cultivation

Your *suppliers* and their *subcontractors* must (K):

- use renewable electricity in mushroom production.
- implement energy efficiency measures, especially to reduce the use of fossil energy.

16.7 Extra Requirements for Animal Products

The extra requirements apply to all animal products and raw materials including those certified according to an IFOAM-accredited standard. (K)

16.7.1 Extra Requirement Regarding Use of Veterinary Medicinal Products

If veterinary medicinal products are used that have an approved *withdrawal period* of zero days then a withdrawal period of 48 hours must be applied. This applies to all animal products or raw materials. (K)

🔄 16.7.2 Extra Requirements for Dairy Products

For you to be able to KRAV-label dairy products, the following extra requirements must be complied with (K):

- Cows should be able to calve separately from other cows.
 - If the cows are kept on *deep litter beds* indoors, calving can take place in the herd only if the animals are monitored to, if necessary, separate the cow and calf from the rest of the herd, at the latest,

immediately in conjunction with birth.

- If the cows are kept indoors in other ways, they must calve in a calving pen.
- Lambs and kids must suckle for at least three days.
- Calves must suckle for at least one day, i.e. at least 24 hours.
- During castration and dehorning, anaesthesia and analgesia must be used. For calves, the procedure must be carried out before they are eight weeks old.
- No mutilation other than castration and dehorning are permissible.
- During the growing season, all types of livestock must have access to pasture during most of the day. Temporary indoor periods are permitted in the following cases: sickness, severe insect infestation, calving or lambing, extreme weather, mating, artificial insemination or for a maximum of two weeks before slaughter.

Cattle younger than six months as well as bulls, rams and goats for breeding must have outdoor access during the growing season, but do not need to be provided with pasturage.

16.7.3 Extra Requirements for Eggs and Egg Products

For you to be able to KRAV-label eggs and egg products, the following extra requirements must be complied with (K):

- Hens and chickens must have access to a sand bath.
- Exercise yards for laying hens must not extend more than 250 meters from the poultry barn.
- During the growing period, the poultry must have access to pasture for most of the day. They can be kept indoors at night. Temporary indoor periods are permitted in the following cases: illness, severe insect infestation, extreme weather, or a maximum of two weeks before slaughter.
- At least 50% of the feed must be produced on the keeper's farm or in cooperation with one or more other organic farms. Feed can also be produced and sold to a feed supplier and bought from the supplier.

If cooperation with other organic farmers takes place, those who grow feed must receive the corresponding amount of manure from the livestock operation. *For example: another organic farm produces 60% dry weight of all the feed your suppliers' or subcontractors' laying hens eat. That farm will then receive 60% dry weight of the manure the laying hens produce.*

- Beak trimming is prohibited.

16.7.4 Extra Requirements with regard to Slaughter for All Meat and Meat Products

For you to be able to KRAV-label meat products, the following extra requirements must be complied with during slaughter (K):

- All handling including transport in connection with slaughter must be carried out calmly and with dignity and with a minimum of physical and

psychic stress for the animals.

- There must be live inspection by a veterinarian of animals that are to be KRAV-labelled. Animal carcasses or animals during live inspection observed to have been subject to deficient animal protection cannot be labelled.
- *Established groups* of animals must be kept together during transport, *stable boarding* and *stunning*. Separate animal groups must be kept apart, so that they do not worry each other. During waiting periods, animals must be given adequate amounts of *roughage* and access to water.
- Animals' natural behaviour must be made use of while *herding* them, *for example by keeping a group together, allowing animals to go from dark to light and to follow a leader animal.*
- Use of electric prods is prohibited.
- Each animal must be stunned before slaughter and the effect of stunning must be checked for each individual animal. This must be done immediately after stunning and before *bleeding*.
- Bleeding and further handling of the carcass must be done without unstunned animals noticing.
- Animals must be checked manually to confirm that they are dead after bleeding and before the carcass continues to the next stage.
- The various extra requirements according to livestock must be complied with. They are included in the standards below.

16.7.5 Extra Requirements for Beef

For you to be able to KRAV-label beef and beef products the following extra requirements must be complied with (K):

- Cows should be able to calve separately from other cows.
 - If calving takes place outside, there must be adequate space and the cows themselves must be able to get away from the herd.
 - If the cows are kept on *deep litter beds* indoors, calving can take place in the herd only if the animals are monitored to, if necessary, separate the cow and calf from the rest of the herd, at the latest, immediately in conjunction with birth.
 - If the cows are kept indoors in other ways, they must calve in a calving pen.
- During the growing season, cattle must have access to pasture during most of the day. Temporary indoor periods are permitted in the following cases: sickness, severe insect infestation, calving, extreme weather, mating, artificial insemination or for a maximum of two weeks before slaughter.
- Calves must suckle for at least one day, i.e. at least 24 hours.
- During castration and dehorning, anaesthesia and analgesia must be used. The procedure must be carried out before the calves are eight weeks old.
- No mutilation other than castration and dehorning are permissible.
- At least 75% of the feed must be produced on the keeper's farm or in

cooperation with one or more other organic farms. Feed can also be produced and sold to a feed supplier and bought from the supplier.

If cooperation with other organic farmers takes place, those who produce feed must receive a corresponding amount of manure from the livestock operation. *For example: another organic farm produces 60% dry weight of all the feed your suppliers' or subcontractors' cattle eat. That farm will then receive 60% dry weight of the manure the cattle produce.*

16.7.6 Extra Requirements for Sheep and Goat Meat

For you to be able to KRAV-label meat and meat products from lamb, sheep, or goats, the following extra requirements must be complied with (K):

- Ewes and goats must be able to give birth separately from other animals.
 - If lambing and kidding takes place outside, there must be adequate space and the ewes and goats themselves must be able to get away from the flock.
 - If the animals are kept on **deep litter beds** indoors, lambing and kidding can take place in the flock only if the animals are monitored to, if necessary, separate the ewe and lamb or goat and kid from the rest of the flock, at the latest, immediately in conjunction with birth.
 - If the animals are kept indoors in other ways, they must give birth in a separate pen.
- Lambs and kids must suckle for at least three days.
- During the growing season, sheep and goats must have access to pasture during most of the day. Temporary indoor periods are permitted in the following cases: sickness, severe insect infestation, lambing or kidding, extreme weather, mating, artificial insemination or for a maximum of two weeks before slaughter. Rams and bucks for breeding must have outdoor access during the growing season, but do not need to be provided with pasturage.
- No mutilation other than castration and dehorning is permitted. During castration and dehorning, anaesthesia and analgesia must be used. Docking of tails or mulesing (removing of skin from the hindquarters) of sheep is not permitted.
- At least 75% of the feed must be produced on the keeper's farm or in cooperation with one or more other organic farms. Feed can also be produced and sold to a feed supplier and bought from the supplier.

If cooperation with other organic farmers takes place, those who produce feed must receive a corresponding amount of manure from the livestock operation. *For example: another organic farm produces 60% dry weight of all the feed your suppliers' or subcontractors' sheep and goats eat. That farm will then receive 60% dry weight of the manure the animals produce.*

16.7.7 Extra Requirements for Pork

For you to be able to KRAV-label meat and meat products from pigs, the

following extra requirements must be complied with (K):

- Sows must farrow alone and protected, for example in a farrowing hut. Farrowing can take place indoors if the sow has sufficient freedom and space for nesting and access to abundant nesting materials.
- Pigs must have the opportunity to exercise their natural behavioural activities such as rooting and active foraging, for example in fallow land, areas prepared for forestry or lumber processing, and during the wintertime, rooting in a *deep litter bed*.
- During the warm season pigs must have access to a mud bath or other water cooling.
- During the growing season, all types of livestock must have access to pasture during most of the day. Temporary indoor periods are permitted in the following cases: sickness, severe insect infestation, farrowing, extreme weather, mating, artificial insemination or for a maximum of two weeks before slaughter. Boars for breeding must have outdoor access during the growing season, but do not need to be provided with pasturage.
- For pigs, at least 50% of the feed must be produced on the keeper's farm or in cooperation with one or more other organic farms. Feed can also be produced and sold to a feed supplier and bought from the supplier.
If cooperation with other organic farmers takes place, those who produce feed must receive a corresponding amount of manure from the livestock operation. *For example: another organic farm produces 60% dry weight of all the feed your suppliers' or subcontractors' pigs eat. That farm will then receive 60% dry weight of the manure the animals produce.*
- It is permitted to castrate pigs younger than seven days but only with the application of anaesthesia and *analgesia* during the surgery.
- No other mutilation than castration is permitted.

16.7.8 Extra Requirements for Poultry Meat

For you to be able to KRAV-label meat and meat products from poultry, the following extra requirements must be complied with (K):

- Hens and chickens must have access to a sand bath. It can be outdoors if the soil is suitable and the animals can be outside every day.
- Exercise yards for chickens must not extend more than 150 meters from the barn.
- During the growing season, all types of livestock must have access to pasture during most of the day. Poultry can be kept indoors during the night. Temporary indoor periods are permitted in the following cases: sickness, severe insect infestation, extreme weather, or for a maximum of two weeks before slaughter.
- For poultry, at least 50% of the feed must be produced on the keeper's farm or in cooperation with one or more other organic farms. Feed can also be produced and sold to a feed supplier and bought from the

supplier.

If cooperation with other organic farmers takes place, those who produce feed must receive a corresponding amount of manure from the livestock operation. *For example: another organic farm produces 60% dry weight of all the feed your suppliers' or subcontractors' poultry eat. That farm will then receive 60% dry weight of the manure the animals produce.*

- Beak trimming is prohibited.

16.8 Extra Requirements for Other Products or Raw Materials

16.8.1 Extra Requirements for Products or Raw Materials from Aquaculture

Products certified according to Regulation (EC) 834/2007 or IFOAM-accredited certification can be KRAV-labelled, with the exception of giant prawns, i.e. large tropical prawns, which cannot be KRAV-labelled. (K)

🕒 16.8.2 Extra Requirements for Processed Food Products

For you to be able to KRAV-label processed food products the following extra requirements must be complied with (K):

- All organic ingredients that are to be considered as KRAV-labelled must comply with the other extra requirements in this chapter.
- Permitted **additives** are given in Appendix 2 in KRAV's standards.
- KRAV prohibits processes that lead to formation of non-naturally occurring molecules.

16.8.3 Extra Requirements for Feed and Feed Raw Materials

If you import or bring in feed or feed raw materials they must comply with the standards in Chapter 11 as well as the extra requirements in this chapter, in order for you to be able to KRAV label them. (K)

+ 16.9 Products or Raw Materials Certified by NOP

The EU recognizes the US standard for organic production, the National Organic Program (NOP). Therefore, products certified by NOP can be EU-labelled or constitute ingredients contained in multi-ingredient EU-organic products. (EU)

+ 16.9.1 Products of Plant Origin

In addition to the extra requirements that apply to EU-organic products, the following extra requirements apply to products of plant origin certified by NOP (K):

- If the crop is fertilized with Chile saltpetre/sodium nitrate, the product cannot be KRAV labelled.

+ 16.9.2 *Products of Animal Origin*

In addition to the extra requirements that apply to EU-organic products, the following extra requirements apply to products of animal origin certified by NOP (K):

- Meat from lamb, pigs and cattle must come from animals whose mothers are organic.
- Meat from lambs and cattle must come from animals that have received at least 70% roughage in their feed ration, and that during fattening do not receive more than 40% feed concentrate in the daily feed intake.
- Meat or milk must come from animals that have not been raised in individual pens for more than two weeks.

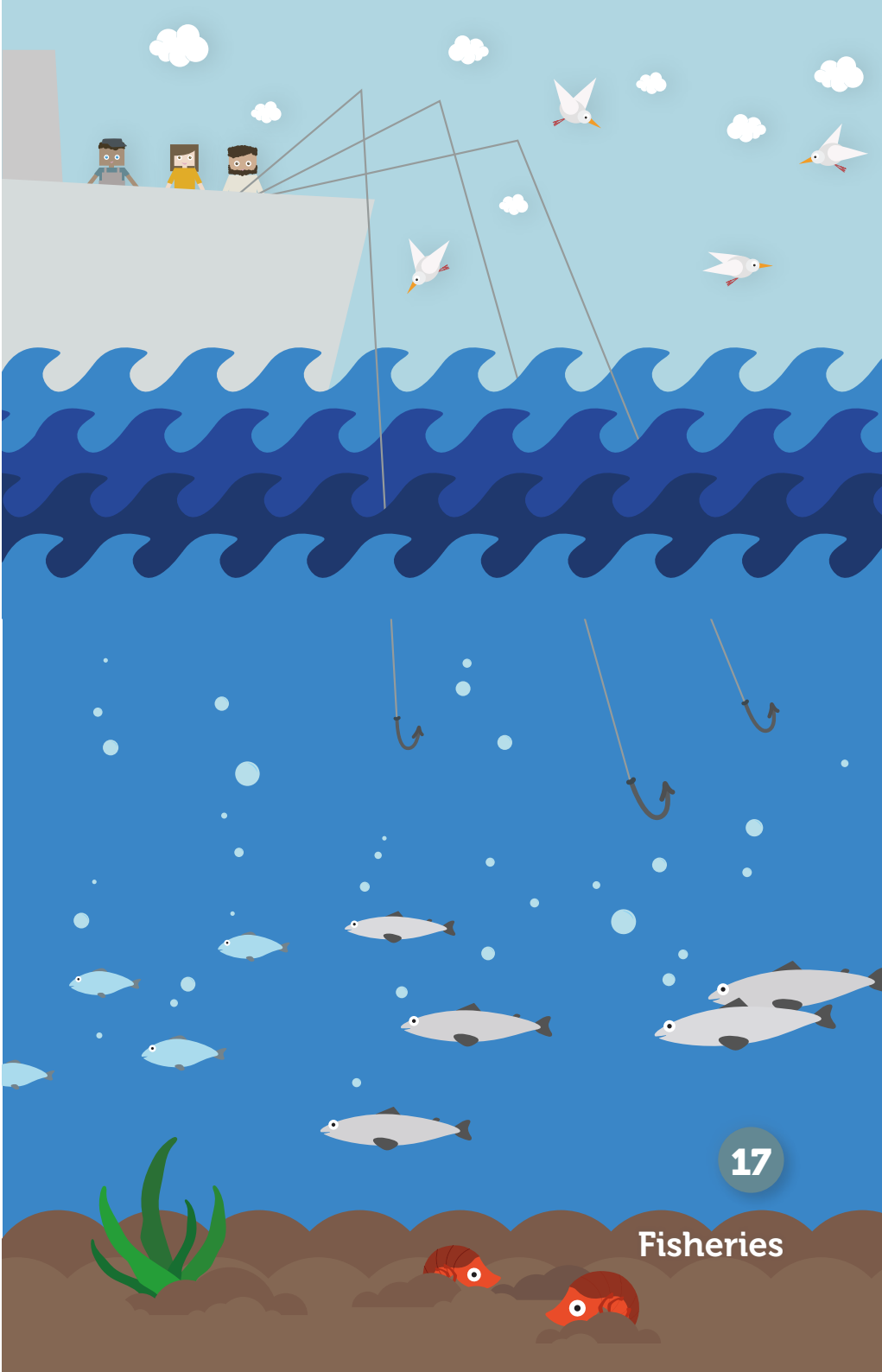
+ 16.10 **Products or Raw Materials Certified According to Other Standards Recognized by the EU**

The EU recognizes *certification bodies* and countries according to Regulation (EC) 1235/2008.

+ 16.10.1 *The Same Extra Requirements*

For products from countries that the EU recognizes or that are certified by *certification bodies* recognized by the EU, the same extra requirements as for EU-organic products produced in the EU apply. (K)

Products from the US must however, also comply with the extra requirements in section 16.9.



Those certified for fisheries must also comply with the general standards in Chapters 2 and 3 as well as the standards in Chapter 20.

Sections 17.2 and 17.3 describe how a fish stock can be approved and opened for KRAV-certified fisheries according to the standards in section 17.4.

Contents of this chapter:

- 17.1 Standards in Other Chapters
- 17.2 The Application Process
- 17.3 Assessment of the Fisheries Committee
- 17.4 Technical Standards for Vessels and Fishing Gear

17.1 Standards in Other Chapters

17.1.1 Standards in Other Chapters

In addition to the standards in this chapter, you must also comply with the relevant standards in Chapter 2 General Standards for Certification, Chapter 3 General Standards for All KRAV Licensees, and Chapter 20 Labelling and Marketing. If you process products you must comply with the standards in Chapter 9 Food Processing.

17.2 The Application Process

When an application comes in to run a KRAV-certified fishery of a new stock or with a new method (not already approved or assessed earlier the same year), the KRAV Fisheries Committee starts with an assessment of the sustainability of the fishery according to section 17.3. The information required is defined in the application form and accompanying checklist, that can be downloaded from the KRAV website or ordered from *fiske@krav.se*.

It is KRAV that approves a fishery. An accredited *certification body* then certifies individual vessels. This means that if you are going to fish in an already approved stock, you only need to apply for certification of the vessel.

17.2.1 Submitting the Application

You must submit your application on a special form with a filled in checklist of the documentation required. The form and checklist must be given to KRAV for assessment.

Both the documents can be downloaded from the KRAV website or can be ordered from fiske@krav.se.

17.2.2 Extra Information

If necessary, you must be able to provide the Fisheries Committee with extra information in addition to the information given in the application form and checklist.

17.2.3 Renewal of an Approval

It is your responsibility to submit a new application for approval well in advance of when an approval expires (at least six months before).

An approval is normally valid for three years from the date of the approval decision by the KRAV Director.

17.2.4 Decisions

The KRAV Director makes the decision to approve a fishery based on the recommendation of the Fisheries Committee. The decision covers a species, a **stock** and the fishing methods that are approved. The decision can include extra conditions regarding temporal limits, technical requirements, area limitations or reporting requirements.

17.2.5 The Opportunity to Submit Comments

You and other concerned parties have the opportunity to submit comments on the documentation underlying the decision and the proposed decision when they are made public for comment.

17.2.6 Appeals

You can appeal a decision by KRAV to approve or not approve a fishery. Appeals must be sent to the KRAV board within three weeks after KRAV has made a decision public.

17.3 Assessment of the Fisheries Committee

The Fisheries Committee assesses the sustainability of a fishery with regards to the condition of the fished stock and impacts on the surrounding environment, such as for example the risk of *by-catches* as well as if the fishery is well managed. An assessment is also made of contaminants in the fishery product. Using this as a basis, the Fisheries Committee advises the KRAV Director, who makes the decision.

17.3.1 Appointment of the Fisheries Committee

The KRAV board appoints the members of the Fisheries Committee.

17.3.2 Make-up of the Fisheries Committee

The Committee as a whole must be able to assess the impact of the fishery on the marine environment. The Committee is led by a researcher with documented knowledge in marine ecology. Within the committee there must be competence in marine ecology, fisheries biology, fisheries management, ethology, fishery methods and their direct and indirect environmental impacts, and equipment development. Specialists required for assessment of a fishery are contacted as needed. The KRAV board must be represented in the Fisheries Committee.

17.3.3 The Fisheries Committee's Way of Working

The Fisheries Committee must have a documented and transparent way of working. The Fisheries Committee must make unanimous recommendations to the KRAV Director, which are submitted in the form of documentation with a review of relevant facts together with a conclusion.

17.3.4 Stock Assessment According to a Management Plan (applies to commercial marine fisheries)

If there is long-term management plan for a stock assessed to be working well by The International Council for the Exploration of the Sea (ICES) (or equivalent scientific advisory body in other parts of the world), the stock can be approved. Checking against any biological reference points and The Red List must always take place. Any deviation from these must be clearly justified.

17.3.5 Other Bases for Stock Assessment

If stock assessment according to section 17.3.4 is not available, the Fisheries Committee can instead use procedures described on the KRAV website.

17.3.6 Toxic and Foreign Substances

Fish and shellfish that are approved must not be limited by the Swedish National Food Agency's Dietary Guidelines for any consumer group. If there are such limitations, in order for the product to be KRAV-certified, local data must show that the product is unproblematic with regard to the substance causing the limitation. As well, levels of foreign substances in fish and shellfish must not exceed legal limits.

17.4 Technical Standards for Vessels and Fishery Equipment

Presented here are all the standards for KRAV-certified vessels except for the applicable standards in Chapters 2, 3, 9 and 20.

17.4.1 Prohibited Fisheries Methods

The following fisheries methods are prohibited:

- beam trawling, and
- bottom trawling.

Bottom trawling is however still permitted for Northern shrimp in areas where it is well-documented that trawling does not cause long-term damage to the ecosystem. The standard will be re-evaluated when alternative fisheries methods are available and any damage to the ecosystems concerned must be assessed annually.

17.4.2 Use of Bait

If you use bait in cages or on hooks the bait must come from sustainably fished **stock** or be made up of by-products from the fisheries industry. You must document the amount of bait used and from which stock it comes. This must be done when *inspected* in relation to how much fish is landed.

17.4.3 Emptying Nets and Hooks

You must empty nets and hooks so that fish is never left for more than 24 hours in the net or on the hook. KRAV can make special restrictions for certain certified fish. During bad weather you can wait until the weather permits emptying without risk.

17.4.4 Emptying Cages and Traps

You must pull up cages and traps at least twice a week.

17.4.5 Transmission of Light Through Crabs

You must transmit light through crabs at sea when crab fishing. Crabs that are not meaty must be returned to the sea unharmed. Crab claw fisheries cannot be KRAV-certified, i.e. when only the claws are landed and the rest of the animal is thrown back.

17.4.6 Degradable Meshes and Degradable Panels

There must be degradable meshes and degradable panels or equivalent equipment in all cages and traps.

17.4.7 Other Equipment Onboard

A vessel certified to fish for a specific target species is prohibited from having equipment onboard used to catch the target species that is forbidden according to the certification.

17.4.8 Certified and Non-certified Fishing

A vessel cannot fish the same approved **stock** with both permitted and non-permitted equipment and methods. However, a certified vessel can carry out targeted certified fishing of an approved stock, and at the same time carry out non-certified fishing of another target species.

17.4.9 Documentation of the Fishing Trip

You must document the vessel's fishing trip so that there is no doubt about where the catch was taken. The information must give the vessel's position with an accuracy of 10 nautical miles or better. You must document both the location where the vessel puts equipment in the water and where the equipment is taken up. The documentation is checked during every *inspection*.

17.4.10 System for Reporting Position

Vessels with a greatest length longer than 12 metres must be equipped with VMS-equipment. If the vessel is:

- between 12 and 15 metres you must send information about the day's trip at least once every fishing day to a data gathering organisation.
- longer than 15 metres you must also send information about position, course and speed to a data collection organisation at least once per hour.

The certification body must have access to the information from the data

collection organisation. If the system stops functioning during a fishing trip, no parts of the catch can be sold as KRAV-certified. Vessels that return to their home port within 24 hours after the start of a fishing trip are exempt from this standard.

17.4.11 Catch Reporting

In your logbook you must report your total catch, i.e. all fish taken up, both landed and thrown back as well as any *by-catch* of seabirds, marine mammals, and invertebrates. During an *inspection*, KRAV must have access to this data compiled on an annual or quarterly basis, either directly from the fisherman or via the organisation that manages the logbook data. If the data cannot be shown during an inspection an annotation must be made. If it is missing the next time as well, KRAV must withdraw certification of the vessel for six months.

17.4.12 Storing the Catch

You must store the catch in labelled units to achieve full traceability. The label must include the KRAV name or label, species, catch location, time of the catch, etc. (see also Chapter 20). The position report must give the vessel's position with an accuracy of 10 nautical miles or better.

For coastal fisheries with small boats it is permitted to label the units on *landing*.

Information on catch location and fishery method must accompany the catch at later stages as well.

17.4.13 Marking of Equipment

You must clearly mark all equipment so it is possible to trace the equipment to you.

17.4.14 Damaged Equipment

Damaged equipment must be taken to land to be repaired or destroyed.

17.4.15 Certification of Vessels

It is the applicant's responsibility to make sure individual vessels are certified by an approved *certification body*.

Certification of a vessel means that it can land fish or shellfish as KRAV-certified. It is the person with the vessel permit who is responsible for complying with all standards when the vessel carries out certified fishing according to the KRAV standards.

17.4.16 Documentation and Routines

There must be documentation that shows how the vessel complies with the environmental, fisheries, and labour protection laws concerned. There must also be routines that ensure that the person responsible is informed, for example, about changes in the law and any fisheries bans.

17.4.17 Rendering Fish Unconscious

If you fish with a vessel longer than 24 metres you must investigate the possibility of using a method onboard to render the catch unconscious, for reasons of both fish welfare and quality. You must either make a plan to put such equipment in place or report why you think it is not possible.

17.4.18 Staff Competence

Staff on fishing vessels certified according to these standards must be well-informed about the KRAV standards and how to comply with them, e.g. either by having read them or by having the standards presented to them and then discussing them with other members of the crew.

17.4.19 Diesel Motors

Fishing vessels with diesel motors must use diesel with a maximum of 0.05% sulphur (MK 1). When there are documented technical or other acceptable practical reasons (and approved by KRAV) for not using such diesel fuel, a plan must be made and implemented for changing to use of diesel fuel with the stipulated sulphur level.

17.4.20 Outboard Motors

All outboard motors must be four-stroke motors or modern two-stroke motors with direct injection.

17.4.21 Fuel Consumption Onboard

When you fish open water species using pelagic trawling or with purse seine/ring nets, e.g. herring, mackerel, sprat, fuel consumption must not exceed 0.1 litres/kg whole fish landed.

When you fish for demersal fish such as cod, saithe, haddock and flatfish, fuel consumption can be up to 0.35 litres/kg landed head-on-gutted fish. When processing onboard, up to 0.33 litres of fuel per kg live fish brought up can be used. This is equivalent to 0.37 litres fuel per kg head-on-gutted fish. Onboard processing is assumed to require about 6% of the vessel's energy consumption.

When you fish shellfish (shrimp, crab, lobster), up to 1.5 litres fuel per kg landed live shellfish can be used (i.e. exclusive of any landing of fish at the same time). If the shellfish landed are cooked, fuel consumption should be calculated per live weight.

This is how you calculate fuel consumption: You must when inspected be able to provide a report on how much fuel the vessel has bunkered during one year and how much fish was landed during the same year (per species). If the same method was used to fish the same target species throughout the year, the total amount of fuel is only divided by the total amount landed to obtain fuel consumption. If the vessel was active in several fisheries, consumption should be calculated individually for each fishery, i.e. more detailed fuel consumption must be given.

17.4.22 Hydraulic Oils and Lubricating Grease

Hydraulic oils used onboard must be ecolabelled or approved according to the standard "Hydraulic Fluids – Requirements and Test Methods – SS 15 54 34" or meet equivalent requirements.

Lubricating grease used onboard must be ecolabelled or approved according to the standard "Lubricating Grease – Requirements and Test Methods – SS 15 54 70" or meet equivalent requirements.

The certification body can grant an exception from this standard if the vessel can show documentation that oil or lubricating grease of the quality required by the standard is not available on the market or that those available have a documented inferior quality.

17.4.23 Cleansers

Heavy-duty cleaning products used onboard must not contain components that are classed as carcinogenic, mutagenic or disruptive for reproduction. Tensides and other components must not prevent oil and water from separating or make it so that purification plants don't work. In addition, heavy-duty cleaning products must be ecolabelled when such alternatives are available.

17.4.24 Coolants Onboard

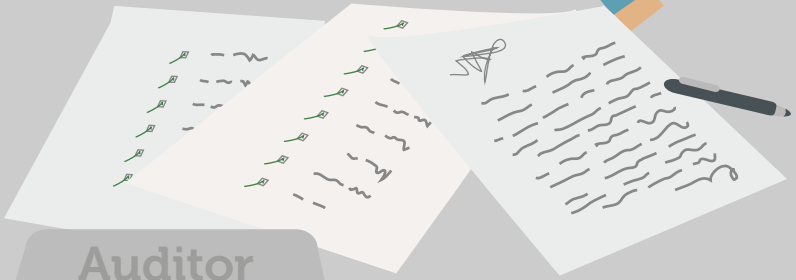
You must only use ozone and climate-neutral coolants onboard.

17.4.25 Waste

The vessel must have clear routines for handling various types of waste, in order to minimize the amount and not pollute land, air or water. Different types of hazardous waste must not be mixed together. Further, ***hazardous waste*** must not be mixed with other types of waste or other substances or material. Moreover, hazardous waste must be handled in compliance with federal regulations. Hazardous waste is, for example, explosive, flammable, oxidizing, poisonous or unhealthy waste. Examples of hazardous waste are waste oil, impregnated lumber, electric and electronic scrap, batteries, solvents, paints and lacquer.

17.4.26 Bottom Paint

The legal requirements regarding bottom paints must be complied with. Documentation on the type of bottom paint used by the vessel must be available during an *audit*.



Auditor



18

Standards for Certification Bodies

The KRAV standards for certification bodies deal with how certification bodies accredited to certify according to the KRAV standards must work, which competence auditors must have and what commitments the certification body has to KRAV.

Contents of this chapter:

- 18.1 General Standards
- 18.2 Requirements for Certification Bodies
- 18.3 Requirements for Auditors and Lead Auditors of IFOAM-accredited Certification Bodies – Cancelled
- 18.4 Requirements for Auditors and Lead Auditors
- 18.5 Competence Requirements for Chain Certification
- 18.6 Calibration of Implementation of Standards

18.1 General Standards

This section is about how to implement the standards in uncertain cases and which edition of the standards to use.

18.1.1 How to Apply the Standards

When uncertain about how one or more standards must be implemented, the activity must be calibrated internally within the certification body and with KRAV and the other certification bodies. It must also be confirmed that the implementation does not contravene any other KRAV standard that applies to the production concerned.

18.1.2 What Edition Applies?

The current website edition of the KRAV *standards* must always be used when an issue arises regarding questions about standards and evaluations in a certification matter.

If the website edition changes, the standards are given a new version number. The date of changes and what they involve is also given.

When *nonconformities* are issued the website edition that was current at the time of the nonconformity applies. If the standards change so that they become more lenient during the time that the certified producer carries out preventive measures, the certification body must take this into consideration when evaluating preventive measures.

18.2 Requirements for Certification Bodies

This section deals with the standards that a certification body must comply with in order to be authorized to certify according to the KRAV standards.

18.2.1 Accreditation

Certification bodies that certify according to the KRAV standards must be

accredited according to SS-EN ISO/IEC 17065:2012.

18.2.2 Environmental Management Program

The certification body must have a documented, structured environmental management program and be able to show that it:

- has an environmental policy,
- has annual environmental goals, and
- systematically evaluates these goals.

18.2.3 Contracts with KRAV

To certify according to the KRAV standards, a certification body must have a certification contract with The KRAV Association. An application together with a copy of the agreement with the accreditation body as well as a time schedule for accreditation must be sent to KRAV. If already accredited, a valid accreditation certificate must be sent in.

18.2.4 Design of Certificates

Certificates and certification decisions must be signed, on paper or electronically, by a representative of the certification body authorized to sign on behalf of the certification body. A KRAV certificate must clearly provide:

- the name and address of the activity and production units,
- the Swedish registration number of the activity,
- the SE number for animal husbandry,
- types of production certified according to the list in KRAV standard 2.1.4,
- date of certification,
- validity date,
- name and code number of the certification body, though only name if the type of production is not covered in EC regulation 834/2007,
- any conditions and limitations,
- the start date of the conversion and information about the conversion period if all of the production within a type of production is under conversion,
- all preparation and serving kitchens for restaurants,
- all selected approved foods for restaurants certified for at least 15 foods, which can also be given in an appendix to the certificate, and
- which product or products the certification applies to for single product certification.

The type of product groups certified must be given according to the following:

- for food according to the product groups in COICOP* or other classification of choice,
- for crop production: seed groups according to The Swedish Board of Agriculture's seed code list (SAM),
- for animal husbandry: livestock,
- for slaughter: livestock, and
- for other types of production according to KRAV's division for product reporting on the KRAV website.

If a new production location is added a new certificate must be issued.

* COICOP (Classification of individual consumption according to purpose) is an international classification developed by the UN Statistics Division. For more information see www.scb.se.

18.2.5 Check that the Applicant has Not Been Disallowed

Before agreeing to a contract for KRAV-certification it must be checked that the applicant has not been disallowed with regards to the KRAV standards by another accredited certification body.

18.2.6 Inform About the Standards

You must inform the KRAV-certified entity about the standards that apply for using the KRAV name and label, and the standards that apply for marketing of KRAV-certified products or production.

When new or revised KRAV standards are introduced, the certification body must insure that information is given to the respective *KRAV-certified* entity and that the changes are incorporated.

Responsibility for being informed and complying with current, new and revised standards is always the responsibility of the KRAV-certified entity.

18.2.7 Investigate Suspected Serious Nonconformities from the Standards

If a certification body receives reliable information about a serious nonconformity with the standards by a KRAV-certified customer, the certification body must carry out an extra on-site *audit* as soon as possible. Examples of serious nonconformities from the standards are:

- several major *nonconformities*,
- clear violations of the law,
- nonconformities listed in the standard for deviations that are grounds for suspension (standard 2.5.12), and
- nonconformities that in other ways seriously threaten the integrity of the KRAV label.

Animal protection and social responsibility issues must always be given high priority.

18.2.8 Routines for Prompt Action

Certification bodies must have clear routines to quickly deal with serious nonconformities.

18.2.9 Inform KRAV About the Outcome When Serious Nonconformities from the Standards are Suspected

For audits carried out when serious nonconformities from the standards are suspected, certification bodies must inform KRAV about the results of the *audit* within two working days after the audit is completed.

18.2.10 Reporting to KRAV

It is the responsibility of the certification body to report the status of **KRAV-certified** producers to KRAV according to the contract with KRAV (see standard 18.2.3). A report must always include the:

- name and address of the certified company,
- locations for production as well as properties where the operations take place if it is relevant,
- the type(s) of production the company is certified for,
- organisation registration number.

Certification bodies must forward complaints received about the KRAV standards to the KRAV Standards Director.

It must immediately be reported to KRAV when a certification body, completely or partly, cancels a **certificate** or disallows labelling of products or production.

18.2.11 Report the Most Common Nonconformities and How Many There Are

Annually, by 31 January at the latest, certification bodies must report the following to KRAV:

- the number of **nonconformities** in the previous year by type of production,
- the most common nonconformities,
- anything else decided at the last regular calibration meeting in the year before the calendar year the report concerns.

18.2.12 Information About Operators

A certification body must, upon request from KRAV, give KRAV the information it has regarding a KRAV-certified operator. For this information, KRAV must comply with the confidentiality requirements in standard 2.9, which applies to any information regarding certified operators.

18.2.13 Audit the Product Reporting of Customers

Certification bodies must check that their customers properly report their KRAV-certified products to KRAV according to standard 2.2.4.

18.3 Requirements for Auditors and Lead Auditors of IFOAM-accredited Certification Bodies – Cancelled

18.3.1 Certification Bodies Accredited According to IFOAM's Criteria – Cancelled

18.4 Requirements for Auditors and Lead Auditors

This section gives the requirements for auditors and *lead auditors*.

18.4.1 Education

An auditor must have:

- at least two-years high school education or other equivalent education and at least four years relevant work experience or have at least a three-year post-secondary education within a relevant area.
- completed training in carrying out and leading audits according to the requirements in SS-EN ISO 190 11 or an equivalent *standard*. Training must comprise of at least two days of theory and practice carrying out audits. To be approved, the auditor must have completed the training and passed the exam.

18.4.2 Work Experience

Before beginning to carry out audits, an auditor must have:

- participated as an observer with an experienced auditor or *lead auditor* during at least 10 audits of KRAV types of production,
- on the second-last observer occasion, independently carried out part of the audit,
- on the last observer occasion, independently carried out a complete *audit* including the accompanying initial and concluding meetings, as well as setting up an *audit* plan,
- knowledge about how to take representative samples of the products and inputs that may be relevant for the type of production the auditor is auditing.

Alternatively, the certification body must show in some other way that the auditor has the necessary competence.

18.4.3 Maintaining Qualifications

To maintain their qualification an auditor must carry out at least 15 audit-days within a three-year period, and at least three revision-days per calendar year. The certification body must have routines to monitor that their auditors maintain their competence.

18.4.4 Knowledge for Auditors about Crop Production

Auditors must have knowledge about the requirements for producing crops according to the KRAV standards. This means that the auditor must be informed about cultivation methods and techniques and how they affect crops and the surrounding environment. Concretely, this means that auditors must:

- understand the meaning of good *crop rotation* and what a crop production plan should look like,
- know how farmers can efficiently use plant nutrients in cultivation in order to minimize nutrient leaching,

- know about common plant pests and the methods available for counteracting them,
- know how an energy audit is carried out and how *key performance indicators* are calculated, as well as how these are followed up in order to result in obvious energy savings, and
- know how to take representative samples of soil and crops.

18.4.5 Knowledge for Auditors about Fungi Cultivation

Auditors must be informed about conditions for cultivating fungi according to the KRAV standards. This means amongst other things that auditors should:

- know about cultivation methods and cultivation substrates,
- know how farmers can avoid environmental disruptions and minimize nutrient leaching, and
- know about common pests and how farmers can prevent and combat attacks.

18.4.6 Knowledge for Auditors about Animal Husbandry

Auditors must be well-informed about the KRAV standards for animal production. This means, amongst other things, that auditors must be informed about what is required in order to keep and raise animals under good conditions so that animals are healthy and moreover have a good situation. Auditors must also be informed about how animal husbandry impacts the surrounding environment. Auditors should:

- know about the normal behaviour of animals and be able to determine if animals are not behaving normally,
- know practical measures farmers can take to prevent the most common diseases,
- know how infection spreads and how farmers can limit the spread of infection,
- be informed about the regulations for how farmers must handle veterinary medicinal products,
- know about appropriate feeding routines and recognize common feed,
- know about appropriate routines for loading and herding animals without exposing animals to unnecessary stress or suffering.

18.4.7 Knowledge for Auditors about Apiculture

Auditors must be informed about the KRAV standards for running apiculture. This means amongst other things that auditors should:

- know about the most common operating practises on an apiary,
- know about combating bee diseases, especially Varroa destructor,
- know which plants bees gather nectar from during different times of the season, and
- know about harvest amounts, and the handling and *processing* of honey and wax.

18.4.8 Knowledge for Auditors about Aquaculture

Auditors must know the KRAV standards for running aquaculture. This means amongst other things that auditors should:

- know how to farm various strains in freshwater, brackish water and salt water,
- know how transport and slaughter are carried out,
- know about the *biological processes* involved with aquaculture,
- know about feed, additives and equipment,
- have knowledge about health and animal protection including veterinary medicinal products, infectious diseases, how to combat diseases, population density and stress,
- know about algae toxins and food inspection regulations.

18.4.9 Knowledge for Auditors about Wild Harvest Production

Auditors must be aware of the conditions for sustainable use of wild plants by gathering or harvesting, as well as how it can affect the surrounding environment.

This means amongst other things that auditors should:

- know about common forestry practises,
- know which species are threatened and if there are any programs for protecting species in the area in question,
- know about the regulations in force regarding social conditions for pickers.

18.4.10 Knowledge for Auditors about Food Processing, Feed Production, Retail Shops, Restaurants and Caterers

Auditors must have completed training in HACCP (Hazard Analysis and Critical Control Points) and basic food hygiene in order to carry out *audits* according to the KRAV standards on Food Processing, Slaughter, Feed Production, Retail Shops, Restaurants and Caterers.

Auditors should also have the relevant education and/or experience within the area they work in. The certification body must be able to show how it determines which education and/or experience is relevant.

18.4.11 Knowledge for Auditors about Slaughter

In order to carry out *audits* according to the KRAV standards on slaughter, auditors must have completed training in HACCP and food hygiene as well as:

- know about appropriate routines for loading and herding animals without exposing them to unnecessary stress or suffering,
- know about the normal behaviour of animals and be able to determine if animals are not behaving normally.

18.4.12 Knowledge for Auditors about Production Aids

Auditors must have completed training in HACCP in order to carry out audits according to the KRAV standards on production aids.

To be able to carry out audits of production aids auditors must:

- be informed about laws regarding waste management and animal by-products,
- know how to take tests in heterogeneous material such as soils and manure.

18.4.13 Knowledge for Auditors about Import and Bringing In

In order to be able to carry out *audits of import and bringing in* an auditor must:

- know about the four ILO conventions 138, 118, 105 and 98,
- know about the *standards* recognized by KRAV which are available on the KRAV website.

18.4.14 Knowledge for Auditors about Fishing

Auditors must possess knowledge about *sustainable fishing*. This means, amongst other things, that auditors must:

- know about vessels, and operation and maintenance of vessels,
- know about fishing methods and fishing equipment,
- be knowledgeable about fisheries biology, know about fish species, fish populations, management and living environments (habitat) and marine ecology,
- be informed about current environmental, work environment and fisheries regulations,
- have an understanding of logbooks and legally required accounting systems.

18.4.15 Requirements for Lead Auditors

When several auditors make up an audit group, the role of the lead auditor is to lead that group in their *audit* of a specific customer. The lead auditor's tasks include planning the audit, coordinating the evaluations of the group, informing the audit team about the operation to be audited, and informing the KRAV-certified client about the conditions for the task and requirements that apply.

The *lead auditor* must meet the following minimum requirements:

- The lead auditor must have worked as an auditor for at least 12 months after having been approved as an auditor. During this time the auditor must have participated in at least five audits. If the auditor does not meet these requirements, previous experience and competence can compensate for this to some degree in exceptional cases. The degree to which previous experience and competence can compensate is determined by the certification body's audit directors.
- The lead auditor must have documented experience of managing staff or of having had decision making authority. Alternatively, the lead auditor must have documented experience as a chairperson or an equivalent position which included receiving various points of view, evaluating and coordinating them in order to reach appropriate decisions. The lead auditor must also be able to carry out a dialogue at all levels within an organization.

- If the auditor does not have enough experience in managing staff or making decisions, the requirement can be fulfilled by taking a course in staff or project management.
- To maintain authorization a lead auditor must work at least 15 audit-days as a lead auditor during a three-year period, as well as at least three revision-days per calendar year as a lead auditor.

A certification body is not obligated to offer audits with groups of auditors.

18.4.16 Change of Auditors

You cannot use the same auditor for more than four years in a row for the same KRAV-certified client. This also applies if the auditor changes certification body.

The certification body appoints the auditor. The KRAV-certified client can request that the auditor be changed and the certification body must have a routine for changing auditors.

18.5 Competence Requirements for Chain Certification

There are special competence requirements for certification bodies that carry out certification of chains according to Chapter 19 in the KRAV standards.

18.5.1 Support of the Certification Body Management for Chain Certification

The certification body management must be familiar with the basis for decisions made for *certificates* issued according to Chapter 19. The certification body management must determine the qualification requirements for the *lead auditor* and auditors who carry out the certification. The certification body must:

- regularly evaluate the qualification requirements to determine if they are relevant,
- maintain an updated list of people who meet the qualification requirements given below.

18.5.2 Qualifications and Authority of Lead Auditors

Lead auditors must have extensive knowledge of risk analysis, sampling methods and the relevant statistical models. The lead auditor must be well-informed about the ISO 2589-10:2006 and ISO 2589-4:2002 standards.

18.5.3 Competence of Auditors

Auditors who work with chain certification must have:

- independently carried out at least 50 audits according to the KRAV standards. At least 15 of them must have been carried out within the same type of production as the chain certification task.
- have experience with auditing *management systems*.

18.6 Calibration of Implementation of Standards

KRAV regularly has meetings of representatives from all the certification bodies to discuss how the KRAV standards are implemented, thus ensuring that all auditors implement the standards in a uniform manner for all *KRAV-certified* entities.

18.6.1 KRAV's Calibration Meetings

The certification body must appoint at least one representative to participate in the calibration meetings organised by KRAV. The meetings are held two days per year on two separate occasions. If necessary, KRAV can also convene additional calibration meetings. Both KRAV and one or more certification bodies can take the initiative to convene extra calibration meetings when there is an urgent need to determine how to implement a standard. Separate calibration meetings can be held for one type of production.

The most important purpose of calibration meetings is to provide an opportunity for accredited certification bodies and KRAV to discuss problems and fundamental interpretation issues as well as to propose clarifications. KRAV decides on the applications of the standards that result from the meetings. All certification bodies must comply with these new applications of the standards. Meetings can also be used to exchange information.

18.6.2 Internal Calibration

The certification body must have internal routines to, at least twice per year, calibrate their implementation of the standards. The purpose of these calibrations is to ensure that *audits* according to the KRAV standards are as uniform as possible regardless of the staff involved, and that the requirements for certification are equivalent everywhere in Sweden. A standing item on the agenda of these meetings must be information from KRAV's calibration meetings. Certification bodies must document their internal calibrations and the documentation must be handled according to the certification body's routine for report documentation. The documentation of the internal calibration must be filed for at least three years.



The standards for certification of chains are always applied together with the standards for Shops in Chapter 14 or with the standards for Restaurants and Catering in Chapter 15. The general standards in Chapters 2 and 3 as well as the standards in Chapter 20 must also be complied with.

Contents of this chapter:

- 19.1 Before a Chain can be Certified
- 19.2 The Chain Must Have Joint Accounting and Documentation
- 19.3 Chain Management
- 19.4 The Chain's Internal Audit
- 19.5 Tasks of the Certification Body

19.1 Before A Chain Can be Certified

Initially, you need to decide if all the places of operation will be included in the chain certification and if the sites need to be divided into groups. You should also have completed an internal audit of all the sites in accordance with these standards.

19.1.1 What Can Be Chain Certified

If you are a group of places of operation and have central management to make sure the standards are complied with and have central financial accounting, you can consider if chain certification is a better option than individual certification of each site.

Certification of chains is currently only possible in the following areas of the KRAV standards:

- Chapter 14 – Shops, and
- Chapter 15 – Restaurants and Catering

19.1.2 Certification Can Apply to Some or All Sites

It is up to you to decide which sites to include in the certification. If you choose to only include some of the sites in the chain, you must clearly indicate in marketing which sites are and are not included.

You can do this for example by clearly indicating that only a certain part of the chain's activity is KRAV-certified, or by otherwise making it clear so that customers understand which sites are included in the KRAV-certification.

19.1.3 It May Be Necessary to Divide the Chain Into Subgroups

Certification of chains is based on a certification body being able to **audit** fewer sites, while at the same time being certain that the activity is the same at the other sites. If the sites vary a lot with regard to routines and structure, you must together with the certification body create subgroups for sites with similar activity. Alternatively, subgroups can be made on the basis of organizational affinity.

19.1.4 All Nonconformities Must be Closed

All places of operation to be certified must be audited internally and all non-conformities must be closed before the *chain* can be certified according to this chapter.

19.2 The Chain Must Have Joint Accounting and Documentation

Your certification body must be able to analyse the balance between bought and sold volumes without having to visit every *place of operation*. This is especially important to consider with regard to the handling of bulk goods in shops.

19.2.1 Purchases and Sales Must be Traceable

The chain's joint accounting system must show:

- Shops: Purchases and sales of KRAV-certified products.
- Restaurants and caterers: Purchase of KRAV-certified, organic and MSC-certified food, as well as total purchases.

19.2.2 Centrally Stored Information Must Match Information at Places of Operation

There should be documented procedures for verifying that the information the *chain* has about bought and sold volumes is the same as the information at the place of operation. There must also be procedures for verifying that the information the chain has about inventories is the same as the inventory information at the place of operation.

19.3 Chain Management

The *chain* must supervise all the sites included in the chain certification to make sure they comply with the KRAV standards. The chain must have a well-defined and documented structure with functioning routines and clear division of responsibility. The chain must also clearly document which sites are certified, and be responsible for excluding sites from the certification that do not comply with the KRAV standards.

19.3.1 Certificate First, Then Marketing

You must not start marketing the *chain* as KRAV-certified until the certification body has issued a *certificate* for the chain.

19.3.2 Clear Responsibility and Authority

There must be a person at each *place of operation* who has the job of ensuring that the site complies with the KRAV standards and who has the authority to close *nonconformities* with the KRAV standards.

There must be a person in the central management of the chain assigned the task by the management of ensuring that the standards are complied with.

19.3.3 There Must be a List of Sites that are Included

The *chain* must have an up-to-date list of the sites included in the KRAV certification. This list must include the names and contact information of a contact person at each location.

There must be procedures to ensure that no place of operation can be included in the list without the certification body first having issued a certificate for it.

A new *place of operation* can receive a certificate when the certification body has received confirmation that the new place of operation has been approved by an internal audit, and that all *nonconformities* have been closed. The chain shows this by providing a copy of the audit report.

19.3.4 Special Standards when all Places of Operation are Not Certified

A *chain* that has both places of operation that are and are not certified must comply with special requirements. In such cases there must be documented routines that:

- ensure consumers clearly understand which places of operation are and are not certified, and
- prevent that under normal circumstances both certified and non-certified units within the same subgroup, brand or graphic profile are present.

19.3.5 The Chain Must Have an Internal System for Dealing with Nonconformities

The *chain* must have a functioning system to deal with situations when places of operation do not comply with the KRAV standards. The internal auditors must determine if a nonconformity is considered major or minor, in accordance with standard 2.5, in Chapter 2. The chain must also ensure both that *nonconformities* are closed and that repetition of nonconformities is prevented.

19.3.6 Places of Operation with Nonconformities Must Receive Support

The *chain* must have procedures to support activities that receive *nonconformities* and to ensure that the nonconformity is not found at other *chain* locations. The support must minimise the risk of repeated nonconformities from the KRAV standards.

19.3.7 The Chain Must Suspend Places of Operation When Necessary

Places of operation that do not comply with the KRAV standards may no longer use the KRAV certification. The *chain* must have procedures for suspending the certificate of a site and immediately inform the certification body that the location has been suspended. The certification body must then send a new attachment listing the locations covered by the certification, see standard 19.5.5.

19.3.8 Policies When a Place of Operation is Suspended by the Chain

There must be functioning and documented routines for how the places of

operation and the *chain* must act if the chain suspends one of its locations. The chain must have routines to remove such sites from the list of sites included in the KRAV certification.

The routines must at least describe how the places of operation:

- must ensure that KRAV-labelling of products ceases immediately,
- must remove all signs that the site is covered by KRAV certification,
- must ensure that marketing stating that the site is KRAV certified ceases immediately.

The routines must also include how the chain must inform the certification body that a place of operation has been suspended.

If the chain in their marketing claims that all places of operation are certified, then the chain must have functioning routines for informing customers that a particular site is no longer included in the certification. In such a case, the chain must cease all marketing that claims all places of operation are certified as quickly as possible.

19.3.9 Places of Operation can Regain Their Certificate

A *place of operation* that has lost its certificate can get a new *certificate*. In order for a place of operation to get a new certificate, the certification body must determine that the site fulfils the requirements to comply with the KRAV standards in the long term.

Places of operation cannot be removed and returned to chain certification on a regular basis.

Places of operation that have left the chain's certification three times cannot get a new certificate for three years.

19.3.10 Management Must Ensure the Quality of the Chain's Practices

The management of the *chain* must at least once per year ensure that the documented routines comply with the KRAV standards. "Management" in this context means at least:

- the person or group that has responsibility for maintaining the chain's KRAV-certification, and
- the person or group that has overall responsibility to make sure routines are followed at the places of operation.

The procedures for the annual review must make it clear who will organise the review, who will be present and when the review will be carried out. It must also be clear who is responsible for making sure that measures decided upon are also implemented.

The chain must have a set agenda for the annual review. The following points can be appropriate to have on the agenda:

- Do the routines for KRAV certification work well?
- Reports from the chain's certification body.
- Results of internal audits.
- Overall review of *nonconformities*, customer feedback and complaints.
- Completed and planned preventive measures.

- The need for resources.
- The need for skills development.
- Action plan for the coming year.
- Establishment of the internal audit plan for the coming year.

19.4 The Chain's Internal Audit

The *chain's* internal audit must maintain a quality such that there is a high probability that all major *nonconformities* will be quickly detected and all minor nonconformities will be detected within a year at the most. The internal audit must have the authority to immediately suspend a *place of operation*.

19.4.1 The Internal Audit Must Check that the KRAV Standards are Complied With

The chain's internal audit must have documented routines to annually inspect all *places of operation* included in the chain's KRAV-certification. During the annual inspection, the chain must audit all applicable KRAV standards at all places of operation.

The internal audit must also check the extent to which preventive measures are carried out by the chain after *nonconformities* actually have an effect and result in improvements.

19.4.2 Internal Auditors Must Have Competence, Authority and Resources

Internal audits must be carried out by people with adequate competence. The *chain* must have documented requirements for internal auditors' competence. The competence requirements must include that the internal auditor must have relevant experience and education.

Internal auditors must have the authority to audit any *place of operation* anytime, without giving notice to anyone or asking permission from anyone. Internal auditors must have access to adequate resources in order to carry out their work according to these standards. Each internal auditor must audit several sites. An internal auditor must not audit their own site.

19.4.3 Standards for How an Internal Audit Deals With Nonconformities

Nonconformities in an internal audit must be handled in a manner that corresponds to the KRAV standards. This can mean that nonconformities are handled in exactly the same way as in section 2.5, with division into minor nonconformities, major nonconformities and grounds for suspension. The chain's certification body can however approve other systems that fulfil the same function.

All nonconformities discovered in an internal audit must be:

- Documented.
- Closed. The place of operation must see to it that it once again complies with the KRAV standards.
- Prevented. The *place of operation* must understand why the

nonconformity occurred and take measures to prevent it from happening again. The *chain* must determine whether or not routines need to be changed so that the same nonconformity does not occur at any other place of operation.

- Approved by the internal audit or by another method defined by the chain.

19.4.4 Documentation of the Internal Audit

Reports from internal audits, including all *nonconformities*, must be available to the certification body when it checks the chain's activities that are common to all places of operation. Internal audit reports and nonconformity reports must be kept for at least two years.

19.5 Tasks of the Certification Body

An *audit* by a certification body is primarily focused on the chain's management in order to check compliance with the standards, as well as on the internal audit and management of nonconformities. Chain certification means that the places of operation have fewer than usual external audits. This is based on the certification body ensuring that the internal audit is carried out properly for all units.

To determine if this is the case, the certification body carries out random samples. For the random sample to be reliable, the group of places of operation must be so homogeneous that in principle one *place of operation* can be assumed to be representative of all the others.

19.5.1 Annual Audit

The chain's chain-wide management must be audited annually, with particular focus on the:

- chain's routines,
- internal audit, and
- internal management of nonconformities.

19.5.2 Initial/Preliminary Audit

The *chain's certification body* must ensure that the *places of operation* have adequately similar routines and structure. If necessary, the certification body together with the chain must divide up the places of operation into subgroups that are similar enough to comply with the stipulation.

Before the chain's certification bodies can make a decision on certification, 20% of the chain's places of operation must have been checked by the certification body. As well, everyone who is an internal auditor for KRAV certification at a place of operation must have participated in a complete external audit. Nonconformities can also be registered for places of operation that have not been visited.

The auditor must choose the places of operation to be audited completely at

random. Before the certification body can make a decision on certification of the chain, all systematic nonconformities (see standard 19.5.4) must be closed. Also before making a decision on certification, the certification body must ensure that all temporary nonconformities at the *places of operation* are taken care of by the chain's nonconformity system.

19.5.3 Ongoing Audits of Places of Operation

The *certification body* must establish an audit plan for each certified *chain*. The audit plan must ensure that all places of operation receive at least one full external audit during a six year period. The number of places of operation that are audited each year should be evenly divided over a six year period.

19.5.4 Management of Nonconformities

The *certification body* must determine if *nonconformities* made by the certification body at places of operation are systematic or temporary.

Systematic nonconformities are:

- those found at several places of operation, or
- those that can be expected to be repeated at the same *place of operation*, or
- major nonconformities, see 2.5.7.

Temporary nonconformities are single minor nonconformities that arise at a place of operation despite an essentially functioning inspection system.

Systematic nonconformities are dealt with according to KRAV's standards for nonconformities in section 2.5. Temporary nonconformities are documented and managed by the chain's internal nonconformity system.

19.5.5 Certificates

Certificates for a *chain* are made up of a main certificate and a site certificate for each *place of operation*. The main certificate as well as the site certificates must clearly indicate which parts of the activity are certified. The main certificate must have an attachment that lists the places of operation covered by chain certification.

When the chain informs the certification body that a place of operation has been suspended or withdrawn, the certification body must immediately send a new attachment listing the place of operation approved by the certification.

The KRAV label is a trademark registered with The Swedish Patent and Registration Office. The registration gives The KRAV Association sole and exclusive rights to the KRAV trademark.

Contents of this chapter:

- 20.1 General Standards
- 20.2 Use of the KRAV Name and Labels
- 20.3 Labelling with the “EU Organic” Symbol
- 20.4 Other Labelling on Packages
- 20.5 Labelling on Delivery Vouchers and Invoices
- 20.6 Marketing
- 20.7 Certifying Marketers
- 20.8 Marketing of Coffee, Draught Beer or Eggs Served by Another Actor
- 20.9 Standards for Voluntary Origin Labelling within Sweden
- 20.10 Labelling and Marketing for Restaurants and Caterers

20.1 General Standards

This section presents the KRAV labels, their use, who can use them and the products they can be used on. As KRAV has several labels for use on various types of products, you should read this entire section to understand which label is suitable for your operation.

20.1.1 A Contract is Required to Use the KRAV Label

You have the right to use the KRAV name and labels only if you have a contract for certification with an approved certification body and this **certification body** has issued a **certificate** for KRAV-certified production. (K)

20.1.2 Products that the Label Can be Used On

The KRAV name and label can be used for labelling and marketing products from production that complies with the KRAV standards. The KRAV name and label can also be used for labelling and marketing products and raw materials that comply with the standards in Chapter 16 that deals with **import** and **bringing in**. (K)

20.1.3 When it is Permitted to Use the KRAV Label for Labelling

The KRAV label can only be used:

- on products where the amount of KRAV-certified **ingredients** constitutes at least 95% of the total weight of all ingredients (EU/K),
- on production aids when 100% of the contents consist of products or raw materials from KRAV-certified production (K),
- on feed sacks and product brochures for products made up only of KRAV-certified feed raw materials when all feed additives and similar materials conform with the KRAV standards (K), or
- when KRAV-labelled ingredients are listed on a menu, for those certified according to Chapter 15 Restaurants and Caterers. (K)

Use of earlier versions of the KRAV label are prohibited.

The KRAV Label



20.1.4 The KRAV Label for Use Outside Sweden

The label below is designated for use outside Sweden. Conditions for its use are given in 20.1.3. Use of additional text in languages other than English requires consultation with and permission from KRAV. (K)



**Sustainability
label**

20.1.5 The KRAV Label for Production Aids

Only the KRAV special label for production aids can be used on production aids certified according to Chapter 12. If instead you want to use the regular KRAV label on a production aid, the contents of the product must be 100% products or raw materials from KRAV-certified production (see standard 20.1.3). (K)

The KRAV label for production aids must be printed in green PMS 342 or black, and the area inside the label should be white. It is permitted to print the label on a paper coloured background so that the area inside the KRAV label has the same colour as the paper. The label must in such cases be presented in contrast to the surrounding colour. While the KRAV label for production aids (*i.e. the entire arrow*) can be printed either positive or negative, the KRAV logo itself must be printed positive. (K)

The KRAV label for Production Aids



20.1.6 Third Party Contracts Can Include Labelling

You can give responsibility for labelling to another company if you, the farmer, have a contract with a subcontractor (standard 2.11) or if you have an agreement for labelling at a foreign packing plant with the company that labels your product (section 16.5.3). (K)

20.2 Use of the KRAV Name and Labels

This section covers in more detail how the KRAV name and labels can or must be used. In addition to complying with the KRAV standards, package design, marketing, etc. must comply with legal requirements on truthfulness.

The KRAV label can be downloaded from the KRAV website, www.krav.se. KRAV also has a graphic tool box to help those who want to use our label. Please contact us if you have difficulties with the use of our label.

20.2.1 KRAV is Written with Capital Letters

“KRAV” must always be written with capital letters. *It is prohibited to write, for example, “Krav”.*

20.2.2 Placement of the KRAV Label

You may choose where to place the KRAV label on packaging. The KRAV label must be used so that it is at least as prominent on packaging as the EU logo for organic production.

20.2.3 Size of the KRAV Label

The KRAV label must not be presented in a format smaller than 12 mm, measured from the left outer edge of the oval to the right outer edge. (K)

For very small packages there are special standards for the size of the label. In such cases also, the label must be at least as large as the EU logo, which for the KRAV label is a minimum of 9 mm from the left outer edge of the oval to the right outer edge. The smallest EU label may be used on packages which are smaller than 50 cm².

20.2.4 Clear Space Around the KRAV Label

A clear space of at least half the height of the “KRAV” text must be left around the entire KRAV label (see picture). This space must be free from any logos, symbols, numbers or text, including the code of the certification body.



20.2.5 Do Not Combine With or Overlap With Anything Else

The KRAV labels must not be combined or overlapped with other labels or text.

This means that the KRAV label cannot be placed together with another label, logo or symbol.

20.2.6 Use of KRAV in Designations and Names

The KRAV name must not be used in a product's designation or name, or be of a size that it can be interpreted as a product name.

Thus, combinations such as KRAV-bread or KRAVBREAD must not be used.

The correct terminology that can be used in this context is KRAV-labelled bread or KRAV-certified bread.

20.2.7 Print in Green or Black

The KRAV label must be printed in green PMS 342 or black, and the area inside the label should be white. It is permitted to print the label on the colour of the package with the surface inside the KRAV label the same colour as the package. In such cases, the colour of the label must be in contrast to the surrounding colour. The label must not be printed as a negative image.

If your company logo is printed in a shade of green very close to PMS 342 then the KRAV label may be printed in the same shade.

20.2.8 Do Not Crop the Label

The KRAV labels must not be cropped.

20.2.9 Use of the KRAV Label in Other Contexts

You may use the KRAV label to show that your company has KRAV-certified production. You must not use the KRAV label on signs on arable land which is not KRAV-certified. See also section 20.6 about marketing.

20.2.10 Use of the KRAV Label by Operators Who Are Not KRAV-certified

An operator who is not KRAV-certified can only use the KRAV label in a very restricted capacity. Buyers must not be misled into believing that a company or its products are KRAV-certified when that is not the case.

Those who are not certified must not label or re-label KRAV-certified products. However, it is permissible to place a KRAV-label in the vicinity of KRAV-certified products (*for example on a store shelf or website*) if the products have been labelled by a KRAV-certified operator. It is also permissible to specify in a list of products or in advertisements that other operators' KRAV-certified products are KRAV-certified.

20.3 Labelling with the EU-organic Symbol

20.3.1 Use the EU Logo

The EU logo must be used on KRAV-certified pre-packaged products that are covered by the regulation and are made in Sweden or imported into Sweden from an EU country. Products which are imported raw materials must also be labelled with the EU logo. (EU/K)

Use of the EU logo is optional on products from a country outside the EU that you import and label yourself.

20.3.2 Cite the Certification Body

When you use the EU logo, the code number of your **certification body** must be given in the same visual field as the logo.

For products which are sold "business to business", you may provide the code number and name of your certification body, *producer* or marketer as well as origin on the delivery voucher accompanying the product, as long as it is made absolutely clear for the reader that the delivery voucher goes with the product.

20.3.3 Specify the Production Unit

The *production unit* for *ingredients* of agricultural origin included in the product must be given directly under the code number. Use the following terminology:

- "EU agriculture", if the agricultural raw material has been produced within the EU
- "non-EU agriculture", if the agricultural raw material has been produced in countries outside the EU
- "EU/non-EU agriculture", if some of the agricultural raw materials have been produced within the EU and some outside the EU.

You may replace "EU" or "non-EU" with a specific country when all the agricultural raw materials in the product have been produced in that country.

The colour, font size and font type depicting the information above, "EU" or "non-EU", must not appear in a more prominent form than the trade name.

The production unit does not need to be given for small amounts providing that the total amount of such ingredients does not exceed 2% of the total weight of the raw materials of agricultural origin.

20.3.4 Do not use the EU-logo

It is prohibited to use the EU logo for products from fisheries (see Chapter 17 of the KRAV standards) as well as for pet food (see section 11.5 of the KRAV standards).

20.4 Other Labelling on Packaging

This section covers labelling information that must be included on consumer packages and outer packing that is in addition to the requirements specified in Regulation (EC)834/2007. This section also deals with how to specify the country of final manufacturing and the country of origin. Also described is the responsibility KRAV licensees have for information about the raw materials used, their origin and what may be stated about *GMOs*.

20.4.1 Cite the Producer or Marketer

The name of the producer or marketer responsible for the product must be given on the package.

The KRAV label cannot be used in a manner that gives the impression that KRAV is the producer, distributor, retailer or marketer of the product. This applies to both outer packaging and consumer packaging.

20.4.2 Labelling that Cites the Certification Body

The *certification body* that certified a product must be specified by one of the

following methods:

- The code of the certification body must be given for products that are produced, packed or labelled in Sweden and labelled with the KRAV label.
- The code of the certification body that certified the last manufacturing step as well as the name of the certification body that carried out the KRAV certification for products that are manufactured, packed or labelled outside Sweden and are labelled with the KRAV label must be given. *An example formulation is “KRAV-certification verified by XX” (where “XX” is the name of the importer’s certification body in Sweden).*
- For products that are manufactured, packed or labelled in a third country, use the code of the certification body that certified the last manufacturing step as well as the name of the KRAV certification body, regardless of whether or not the EU logo is used.
- For products certified according to Chapter 12 Production Aids or Chapter 17 Fishing, or according to section 11.5 Pet Food, use the name of the certification body.

If uncertain, contact the certification body for more information on the name or code that must be used.

20.4.3 Labelling of Outer Packaging

Outer packaging must be labelled so that KRAV-certified and non-KRAV-certified products are not mistaken for each other or mixed together (K). The KRAV name or label can be used in the design of the outer packaging’s labelling.

20.4.4 Origin in the List of Ingredients

Ingredients that are of KRAV-organic and **EU organic** origin must be identified in the list of ingredients. Ingredients from fish caught in the wild, and certified according to Chapter 17, must be designated as ”**KRAV-certified**”.

Make use of asterisks as in the following *examples for muesli*:

Ingredients: rolled oats, wheat bran*, sunflower seeds*, dried apricots***

**KRAV-organic ingredient **organic ingredient*

Even if a product only contains one raw material (for example milk), it must be stated that there is a KRAV-organic ingredient in the product.

For products containing more than 5% fish or seafood certified according to Chapter 17, the organic ingredients must not be specified in the list of ingredients and the product must not be presented as **organic**. As well, the ingredients in a multi-ingredient product containing any of the **additives** which can only be used for fish caught in the wild and shellfish in Appendix 2 of the KRAV standards cannot be presented as organic.

20.4.5 Food Additives in List of Ingredients

You must list food additives by name and functional class in the list of ingredients. (K)

You may also give the E-number in addition to the name if you wish.

Example: Thickener Pectin (E440).

20.4.6 Declaration that a Product is GMO-free

You must not write "GMO Free" or the equivalent when labelling or marketing KRAV-certified products. You may however specify that production or *processing* took place without the use of *GMOs*. (K)

20.4.7 Country of Final Manufacturing

When required by Swedish law, you must specify the country of final manufacturing on packaging. If the country of final manufacturing is Sweden, it is sufficient to provide a consumer contact in Sweden on the packaging. (SL)

The country of final manufacturing is the country where the final packaging and labelling with the KRAV label takes place.

20.4.8 Labelling of Country of Origin for Perishable Goods

You must give the country of origin for perishable products, i.e. the country the products come from. For perishable products from Sweden, it is sufficient to provide a consumer contact in Sweden on the packaging, if trade associations or legislation do not specify otherwise. (SL)

20.4.9 Responsibility for Information About the Geographic Origin of Raw Materials

You must be able to inform both final consumers and other buyers about the country of origin of the raw materials in a *product*, for example via a website. (K)

20.5 Labelling of Delivery Vouchers and Invoices

This section deals with labelling information that must be included on delivery vouchers and invoices.

20.5.1 Handling of Unopened Packages

Shops, wholesalers, etc., that handle KRAV-labelled products in unopened packages, can use the KRAV name on receipts, delivery vouchers, invoices, product catalogues, product lists, etc., without being certified according to the KRAV standards. (EU/K) Note that storing *organic* products is regulated in Regulation (EC) 834/2007. Usually, for example, wholesalers must be certified in order to store organic products. (EU)

20.5.2 Incoming Delivery Vouchers and Invoices

You must check that delivery vouchers and invoices clearly state that products or raw materials are KRAV-certified. If the KRAV certification is not clearly given, you are prohibited from further handling, refining, or selling the products as KRAV-certified. (K)

20.5.3 Outgoing Delivery Vouchers and Invoices

You must clearly specify on delivery vouchers and invoices which products are KRAV-certified. (K)

20.5.4 Delivery Vouchers for Products Certified According to Chapter 16

When you sell unpackaged products that can be KRAV labelled according to Chapter 16, the following must be included on delivery vouchers and invoices:

- country of origin (K),
- that the product has been certified according to the KRAV standards (K),
- the code number of the **certification body** that certified the company that carried out the final manufacturing of the product (EU), and
- the name of the certification body that KRAV-certified the production (though if it is the same certification body as in the previous point, the code is sufficient).

20.6 Marketing

KRAV-certified operators have the right to use the KRAV-label in their marketing of the operation and KRAV-certified products. More details follow.

20.6.1 Comply With the Law

You must comply with the Marketing Act. You must not design marketing so that it in any way is inappropriate or misleading or discredits KRAV or **organic** production. (K)

20.6.2 How Companies May Be Marketed

If you have a KRAV-certified company or **production units** with KRAV-certified activity you can market yourself as KRAV-certified or KRAV affiliated. This applies regardless of the medium you use for marketing.

You must not use the KRAV label in a manner that gives customers the impression that KRAV is the **producer**, marketer, distributor or retailer of the product.

If your company markets both KRAV-certified and non-KRAV-certified products, it is also important that consumers receive clear information regarding which products are KRAV-certified.

20.6.3 Advertisements and Signs

You can present a **product** as KRAV-certified in advertisements and on signs, *for example, by showing the KRAV label*. You do not need to contact KRAV before doing so. (K)

20.7 Certification for Marketers

20.7.1 Who Must Be Certified

If you only market KRAV-certified products and use your own name or trademark you must be certified according to this section.

20.7.2 Standards That Must Be Complied With

You must comply with the standards in Chapter 2 and 3, which are general

standards for certification and operations that apply to all KRAV-certified companies. You must also comply with the standards in Chapter 20. (K)

20.8 Marketing of Coffee, Draught Beer or Eggs Served by Others

The purpose of this section is to make it possible for a certified coffee, draught beer or egg supplier to market KRAV-certified coffee, draught beer or eggs via *vending companies* even if these are not KRAV-certified.

This section deals with the responsibilities that coffee, draught beer or egg suppliers have for ensuring that there is a supervisory system for the vendors that serve the supplier's coffee, draught beer or eggs.

20.8.1 Notification of Activity

Before you can start to implement this section of the standards, you must have a marketing contract with the actors responsible for marketing your coffee, draught beer or eggs, and notification must be given to your *certification body* of your intention to be certified according to this section of the standards. See standard 2.1.4.

20.8.2 Marketing Possibilities for Suppliers

Suppliers of coffee, draught beer or eggs can under certain conditions market these as KRAV-certified with the help of vending companies that are not KRAV-certified. In order to do so, you must do the following (K):

- Provide guidelines in accordance with the KRAV supplier guidelines (see Appendix 4) to the vending company.
- Keep an updated list of the vending companies that take part in such marketing.
- Inform the vending company marketing the KRAV-certified coffee, draught beer or eggs that the *certification body* has the right to check that the vending company complies with the supplier guidelines.
- Be able to demonstrate through a written contract with the vending company that it has been informed and agrees to comply with the supplier guidelines.

20.8.3 Conditions for Egg Suppliers to Apply Section 20.8

Egg suppliers can apply these standards if (K):

- the vendors where marketing takes place are part of a *chain* with centralized purchasing and record keeping of all purchases,
- you are the only supplier of eggs to the vendor,
- only KRAV-certified eggs are used by the chain,
- the chain has an internal supervision system that guarantees no other products can be received other than those centrally purchased, and
- auditors are given access to the central purchase records and the

opportunity to carry out random inspections of individual vendors.

+ 20.8.4 *The Standards are Cancelled*

The standards in section 20.8 are cancelled. It is not possible to be newly certified according to section 20.8 after December 31, 2015. Activities certified according to the standards in section 20.8 on December 31, 2015 may continue to be certified to December 31, 2016 at the latest.

20.9 Standards in Sweden for Voluntary Origin Labelling

The purpose of this section is to make it possible for KRAV-certified companies to complement the KRAV-label with origin labelling if they wish.

20.9.1 *Notification of Activity*

Before you can start to implement this section of the standards, you must notify your **certification body** of your intention to be certified according to this section of the standards.

The certification body must issue a certificate for voluntary origin labelling. See standard 2.1.4.

20.9.2 *Geographic Demarcation*

For your chosen origin designation, you must clearly define the geographic demarcation used and mark it on a map. The designation must, as much as possible, use established descriptions, e.g. a certain farm, district, municipality, region, lake, province or ocean.

20.9.3 *Products that Consist of Just One Raw Material*

You must use raw materials from KRAV-certified production from within the designated geographic area of origin.

20.9.4 *Primary and Characteristic Raw Materials*

One-hundred per cent by weight of the **primary raw material** and characteristic raw material must come from KRAV-certified production within the designated geographic area of origin.

The primary raw material is the one that comprises the greatest part of a multi-ingredient product.

The characteristic raw material in a multi-ingredient product is the raw material associated with the product name, even if it is not the primary component of the product. A raw material is always considered as a characteristic raw material if it is included in the product name. If the name is not associated with a specific ingredient, the characteristic raw material is the one that dominates by weight.

See the examples below:

Product name	Characteristic raw material
asparagus soup	asparagus
meatballs	the sum of all the different kinds of meat
queen jam	the sum of blueberries and raspberries together
sausage	the sum of all of the meat
strawberry yoghurt	strawberries and yoghurt
muesli	The dominating raw materials by weight. Those raw materials that make up the greatest portion of the product and combined add up to 80% of the product's weight.

20.9.5 Products Made up of Several Raw Materials

You must use at least 80% by weight of raw materials from KRAV-certified production from within the designated geographic area of origin. The rest of the *ingredients* must also comply with the standards in Chapter 9, Food Processing.

20.9.6 Processing Must Take Place Within the Designated Geographic Area of Origin

In order to use origin labelling, the products must be refined at a KRAV-certified facility within the boundaries of the geographic area of origin.

If there is not a suitable KRAV-certified facility within the geographic area of origin, you must use a facility that is as close as possible to the designated geographic area of origin.

20.9.7 Label Design

Write the geographic origin in text directly under the KRAV label. The text must specify the geographic origin as defined in standard 20.9.2.

This addition is an exception to the standard on clear space around the label (standard 20.2.4).

Example of Labelling:



20.10 Labelling and Marketing for Restaurants and Caterers

This section shows how restaurants and caterers certified according to Chapter 15 as well as single product certified products can be labelled and marketed.

20.10.1 Placement of the Certificate

The certificate showing that a restaurant is KRAV-certified must be placed in a location plainly visible to customers.

For service outside the premises of a restaurant, for example, for catering or meal grocery bag deliveries, a copy of the restaurant's KRAV certificate should be accessible for the customer, for example on the website or together with the food.

As well, you can present information on your own sign using the KRAV label according to standard 20.10.2.

20.10.2 KRAV's Labelling for Restaurants

You are only permitted to use the KRAV label together with information on the portion of your food product that is *approved* (see standard 15.2.1) when marketing the restaurant.

This extra information is an exception to the rule on clear space around the label (standard 20.2.4).

This is what KRAV's label should look like on certificates, signs and other restaurant marketing:



At least 25% approved foods. Alternatively, at least 15 foods completely replaced with approved foods.



At least 50% approved foods.



At least 90% approved foods.

KRAV is going to develop new labelling for restaurants. It can be used as soon as it has been introduced by KRAV. The new labelling will be required at the earliest from January 1, 2018. More information about the new design of the label and the date of introduction will be available on the KRAV website and the KRAV-certified businesses concerned will be notified of the change.

🕒 20.10.3 KRAV-labelled On Menus

You can indicate the day's KRAV-certified ingredients on the menu. Use the KRAV label in accordance with standard 20.1.3. If the food is not served in the restaurant, for example, it is catered or in a meal grocery bag, the menu must clearly indicate which ingredients are KRAV-labelled in each dish.

You must not use the KRAV label in such a way that it can be interpreted to mean that an entire dish is KRAV-labelled. In order to do this, you must be certified according to Chapter 9 Food Processing, and the dish must be registered as a product.

20.10.4 Other Approved Foods on the Menu

You can indicate which ingredients on the menu are *approved foods*. This can be done, for example, by using a star or an asterisk on the menu.

You must not write that ingredients and products are MSC or EU-organic certified. You can only mark these, for example, with a star or an asterisk, as "*approved foods*".

🕒 20.10.5 Self Service

Where there is self-service, *for example at a buffet*, you can place the KRAV label beside a product or raw material to indicate that it is KRAV-labelled. This applies to both ready-packaged products and products taken out of their packaging. If you do not indicate which products are KRAV-labelled, you must insure that the staff can explain which products are KRAV-labelled.

If the food is not served in the restaurant, *for example if it is catered*, the menu must clearly indicate which foods are KRAV-labelled.

+ 20.10.6 Labelling in Cafés, Etc.

You can indicate which products that are served on the establishment's premises are KRAV-labelled. This applies to both ready-packaged products as well as products taken out of their packaging.

For products that are prepared on the premises but are not KRAV-certified, you can indicate only the KRAV-certified ingredients. This must be done next to the product. However you must not indicate that the entire product is KRAV-labelled. In order to do so, you must be certified according to the KRAV standards for Processed Foods, Chapter 9, and the product must be registered.

+ 20.10.7 Labelling Meal Grocery Bags

If your restaurant is certified in accordance with Chapter 15 and you put together meal grocery bags with raw materials and recipes, you can market the bags by writing that the restaurant is KRAV-certified and mark the bag with the level of the restaurant's labelling in accordance with standard 20.10.2. The KRAV certificate should be accessible for customers, *for example on a website or as a copy attached to the meal bag*.

+ 20.10.8 Labelling Ready-Packaged Dishes

It is not permissible to indicate on ready-packaged dishes that the restaurant is

KRAV-certified or in any other way label the package with the KRAV label.

You can however attach information to the ready packaged dish, on a separate document, that the restaurant is KRAV-certified. In order to do so you must also attach a valid KRAV certificate or refer the customer to the website where the certificate is accessible.

+ 20.10.9 Labelling for Single-Product Certification

If you are certified according to section 15.5, Single Product Certification, you must only use the KRAV-label next to the certified product.



Appendices

- Appendix 1: Permitted Conventional Feed, Etc. (EU)
- Appendix 2: Food Additives
- Appendix 3: SIN List Substances in Food Packaging
- Appendix 4: Template for Supplier Guidelines

Appendix 1: Permitted Conventional Feed, Etc. (EU)

This Appendix presents permitted conventional feedstuffs, permitted feed of animal origin, permitted feed additives and fermentation by-products.

Salt (sodium chloride) is allowed.

Permitted Feed Raw Materials of Animal Origin

- Raw materials (dairy and egg products) from KRAV-certified production.
- Products from sustainable fisheries are permitted for poultry and pigs if:
 - they are produced or processed without chemical solvents, and
 - use of protein hydrolyzate from fish is restricted to young animals only.

Permitted Conventional Feed Raw Materials of Plant Origin

For poultry and pigs use of maximum 5% non-organic protein feed is permitted until the end of 2017. The portion must be calculated on an annual basis based on the dry-weight content of feed from agricultural products (EU).

If the conditions in Article 22.2 b of Regulation (EC) 834/2007 apply, a limited proportion of non-organic protein feed of plant and animal origin can be used for pigs and poultry if the keeper cannot obtain entirely organically produced protein feed.

You can also use conventional spices, herbs, and molasses, if:

- they are not available as KRAV-certified
- they are produced or processed without chemical solvents
- use by farmers is limited to 1% of the feed for a given species, calculated annually based on dry-weight content in feed of agricultural origin.

Permitted Raw Materials for Minerals

All raw materials in section 1 of annex V of Regulation (EC) 889/2008.

Approved technological additives

All technological additives in annex VI of Regulation (EC) 889/2008.

Fermentation (by-)products from microorganisms the cells of which have been inactivated or killed:

- *Saccharomyces cerevisiae*
- *Saccharomyces carlsbergiensis*

Only if produced or processed without chemical solvents.

Appendix 2: Food Additives

According to Standard 9.7

The following technological food additives (including carriers permitted in the KRAV standards), can be added to a KRAV-certified product. An X in a column means that the additive can be used.

Additive	Vegetable food products	Animal food products	Special conditions
Calcium carbonates (E 170)	X	X	Cannot be used for colouring or calcium enrichment
Tannic acid (E 181)	X		Only for wine.
Sulphur dioxide (E 220)	X		Only for wine. In fruit wines (that are defined as wine made from other fruit than grapes) without added sugar (including cider and perry) or in mead: 50 mg (total maximum level as SO ₂ in mg/l). For cider and perry made with added sugar or juice concentrate or fermentation: 100 mg/l
Potassium disulphite (E 224)	Only for wine.	Crustaceans and molluscs	
Lactic acid (E 270)	X	X	
Carbon dioxide (E 290)	X	X	
Malic acid (E 296)	X		
Ascorbic acid (E 300)	X	Only for meat products	
Tocopherol-rich extract (E 306) (mixed natural concentrate)	X	X	Only for anti-oxidants for fats and oils
Lecithin (E 322)	X	X	Only for milk products within products of animal origin
Citric acid (E 330)	X	Only for crustaceans and molluscs as well as wild-caught fish and shellfish	
Sodium citrates (E 331)		X	
Calcium citrate (E 333)	X		
Tartaric acid (E 334)	X		
Sodium tartrate (E 335)	X		

Potassium tartrate (E 336)	X		
Mono calcium phosphate (E 341)	X		Only as a leavening agent for flour
Meta-tartaric acid (E 353)	X	X	Only for wine.
Alginic acid (E 400)	X	Only for Milk-based products	Only for milk-based products for products of animal origin
Sodium alginate (E 401)	X	Only for Milk-based products	
Potassium alginate (E 402)	X	Only for Milk-based products	
Agar (E 406)	X	Only for milk-based products and meat products	
Carrageenan (E 407)	X	Only for milk-based products	
Locust bean gum (E 410)	X	X	
Guar gum (E 412)	X	X	
Acacia gum, gum arabic (E 414)	X	X	
Xanthan gum (E 415)	X	X	
Pectin (E 440 (i)) Amidated pectin is prohibited in all products	X	X	Only for dairy-based products for products of animal origin
Sodium carbonates (E 500)	X	X	Only for dulce de leche and cultured butter for products of animal origin
Potassium carbonates (E 501)	X		
Ammonium carbonates (E 503)	X	X	
Magnesium carbonates (E 504)	X		
Calcium chloride (E 509)		X	Only for milk products
Calcium sulphate (E 516)	X		
Sodium hydroxide (E 524)	X		
Silicon dioxide (E 551)	X		
Argon (E 938)	X	X	
Nitrogen (E 941)	X	X	
Oxygen (E 948)	X	X	
Acetic acid (E 260), sorbic acid/sorbates (E 200, E 202-203), and sodium benzoate/benzoates (E 211- 213), calcium hydroxide (E 526)		X	Only for wild-caught fish and shellfish

Note: continued on next page.

Appendix 2 - Food Additives

For products that contain both vegetable and animal raw materials an additive is permitted if it is permitted in one of the ingredients in the multi-ingredient food. When colours are used for stamping egg shells, the standards in directive 94/36/EG must be applied. Salt (sodium chloride) is not assessed by certification bodies and can contain the anti-caking agents normally used. KRAV recommends that salt without additives be used when possible.

Appendix 3: SIN List Substances in Food Packaging

A SIN (Substitute It Now!) substance is a substance in the International Chemical Secretariat's (ChemSec's) list of substances that fulfil the EU criteria for "substances of very high concern" (SVHC). Following is a list of SIN substances in food packaging.

CAS	SIN substance	PACKAGING MATERIAL					
		card-board/ paper	wood/ cork	coating	printing ink	rubber	plastic
117-81-7	bis(2-ethylhexyl) phthalate (DEHP)	X			X		X
28553-12-0, 68515-48-0	diisononyl phthalate (DINP)				X		X
84-61-7	dicyclohexyl phthalate (DCHP)	X		X	X		
84-69-5	diisobutyl phthalate (DIBP)	X		X			
84-74-2	dibutyl phthalate (DBP)	X					X
85-68-7	benzyl butyl phthalate (BBP)	X			X		X
107-13-1	acrylonitrile				X		X
108-46-3	1,3-Dihydroxybenzene (resorcinol)				X		X
109-86-4	ethylene glycol monomethyl ether				X		
110-80-5	ethylene glycol monoethyl ether (2-ethoxyethanol)				X		
111-41-1	2-(2-aminoethyl) ethanolamine				X		X
115-96-8	tris(2-chloroethyl)phosphate				X		X
119-61-9	benzophenone				X		X
1309-64-4	antimony trioxide				X		X
131-56-6	2,4-Dihydroxybenzophenon; benzophenone-1 (BP-1)				X		X
131-57-7	benzophenone-3; (BP-3), oxybenzone				X		X

CAS	SIN substance	PACKAGING MATERIAL					
		card-board / paper	wood / cork	coating	printing ink	rubber	plastic
1330-43-4	sodium tetraborate	X			X		X
137-26-8	thiram	X		X			
137-42-8	methylthiocarbamic acid, sodium salt	X					
140-66-9	4-(1,1,3,3-tetramethylbutyl) phenol				X		
151-56-4	aziridine				X		X
25013-16-5	2 and 3-tert-Butylhydroxyanisole (BHA)			X	X		X
26027-38-3	4-Nonylphenol, ethoxylated	X					
3380-34-5	triclosan				X		
50-00-0	formaldehyde	X	X		X		X
56-35-9	bis(tributyltin) oxide		X				
611-99-4	4,4'-dihydroxy-benzophenone				X		X
630-08-0	carbon monoxide						X
71-43-2	benzene			X			
75-21-8	ethylene oxide				X		X
75-56-9	methylloxirane				X		X
77-58-7	dibutyltin (dilaurate)			X			
78-79-5	isoprene				X		X
872-50-4	N-methyl-2-pyrrolidone				X		X
9016-45-9	nonylphenol, ethoxylated	X					
94-13-3	propylparaben; propyl 4-hydroxybenzoate				X		X
98-54-4	4-tert-Butylphenol				X		X
101-14-4	4,4'-methylenebis[2-chloroaniline]					X	
123-77-3	1,2-diazenedicarboxamide (C,C'-azodi(formamide))					X	
126-99-8	2-chlorobuta-1,3-diene					X	
96-45-7	ethylene thiourea					X	
95-80-7	4-methyl-m-phenylenediamine					X	
79-06-1	acrylamide						X
80-05-7	bisphenol A				X		X
75-01-4	chloroethylene					X	X

CAS	SIN substance	PACKAGING MATERIAL					
		card-board / paper	wood / cork	coating	printing ink	rubber	plastic
7632-04-4	sodium peroxometaborate	X					
8009-03-08	petrolatum			X			
100-42-5	styrene				X		X
10043-35-3	boric acid		X		X		
101-77-9	bis(4-aminophenyl)methane				X		
106-89-8	1-chloro-2,3-epoxypropane; epichlorohydrin	X			X		X
106-99-0	1,3-Butadiene				X		X

Appendix 4: Template for Supplier Guidelines

Supplier guidelines are for those who market coffee, beer, or eggs according to the standards in section 20.8. After December 31, 2015, it will no longer be possible to begin the certification process according to those standards, and after December 31, 2016 they can no longer be used.

Restaurant.....
 uses only KRAV-labelled coffee in its operations and therefore uses marketing materials from the vendor for KRAV-certified coffee.

Restaurant.....
 is informed that as long as the marketing material is used, only KRAV-certified coffee can be served. It must be clearly indicated which products are KRAV-certified. The restaurant must not otherwise give the impression of being KRAV-certified. This agreement applies as long as the restaurant uses the same coffee supplier.

Restaurant.....
 is aware that the supplier's KRAV auditors can check that the standards are complied with by carrying out random visits, and then have the authority to see sales statistics and other information they need.

Marketer:

Date Place:.....



Definitions

Definitions

The following definitions are used in the KRAV Standards.

A

additive

Sometimes called technological additives. Substances that have a technical purpose in the food product and for which government agencies have determined that a special safety test is required. These additives have an E number. For example, ascorbic acid (vitamin C) is a technological additive when used as an antioxidant and has E number E300.

agricultural holding/farm

A property or business comprised of one or more registered properties or parts of such properties with joint accounting. The concept is equivalent to the definition of “holding” in Regulation (EC) 834/2007. The terms “farm” and “agricultural holding” mean exactly the same thing here.

analgesia/analgesic

Long-term alleviation of pain after an operation. Many studies show a reduced frequency of pain related behaviour, however with little or no pain relief during the actual operation. Veterinary medicinal products with NSAID (non-steroid anti-inflammatory drugs) inhibit the enzyme cyclooxygenase (COX-1 and COX-2) and formation of prostaglandin (PG) in the damaged tissue. Without pain relief the PG activates an inflammation reaction resulting in, amongst other things, pain.

See also the definitions for “local anaesthetic” and “sedation.”

animal health

An animal’s physical well-being.

animal welfare

Animal health and other well-being.

animal welfare officer

The responsibilities, role and qualifications of this person are defined in European Council Regulation (EC) 1099/2009, Article 17. Note however that all KRAV-certified slaughterhouses must have an animal welfare officer (even if less than 1,000 livestock units are slaughtered per year). This person must have completed a course approved by The Swedish Board of Agriculture (which means that The Swedish Board of Agriculture’s “simplified procedure” is not acceptable).

artificial fertiliser

Synthetic fertiliser.

audit

An independent, systematic evaluation to determine if a KRAV-certified entity complies with the KRAV standards. An audit can be carried out using techniques such as inspections, audits, sampling, testing, mapping, etc. The certification body must always verify that those being certified understand the standards and have methods of operation and routines to comply with the standards, which is why an audit is the dominant technique used. Choice of inspection technique must be based on an individual risk assessment.

- ***Annual audit:*** at least one annual on-site audit is carried out for all KRAV-certified entities. All the relevant standards are reviewed during an annual on-site audit. Both documentation and facilities are reviewed (see standard 2.4.3).
- ***Extra audit:*** A certified entity can receive one or more extra audits in addition to the regular audit. For example, an extra audit can be carried out to follow-up on nonconformities if it is required by the standards. Extra audits can be announced or unannounced.
- ***Unannounced audit:*** An on-site audit of a certified entity with no notification or not more than 24 hours notification.

auditor

A person who can and is allowed to carry out inspections.



barn boarding

Keeping animals in a stable for a certain amount of time.

basic human rights

Rights regulated in the UN Universal Declaration Of Human Rights from 1948.

biocide

A chemical or biological pest control substance made to prevent or counteract animals, plants and micro-organisms, including viruses, from causing damage to, or problems for, human health or property.

biological process

Processes that take place with the help of living organisms, e.g. anaerobic digestion and composting, and fermentation.

bleeding

Draining blood from an animal's body.

bringing in

Purchasing a product from another country within the EU and EFTA. You can freely bring in organic products from other EU countries, but they cannot automatically be KRAV-labelled.



cage

An enclosure with greatly limited floor space for one animal or a small group of poultry or other small animals.

calf

A cow under six months of age.

catch crop

A crop that is sown in an existing crop to absorb an excess of plant nutrients during the fall and then is ploughed in. It often consists of grass.

certificate

Document indicating KRAV-certification for a special product, production or activity.

certification body

An organisation that can and is authorized to certify production or products according to a standard. Many certification bodies offer certification according to several standards.

chain

A chain is a group of places of operation that have a common management system, common economic accounting, and common trademark or graphic image.

cleaning

The process of removing dirt from, for example, floor surfaces and production equipment. This can take place through the use of dry or wet methods – mechanical or hydromechanical treatment. Aids include various tools such as brushes, rags or high-pressure washers. Cleaning agents are often used to dissolve grease and dirt. Chemically, these are often detergents.

colouring agent

Substances that have or can give colour. These can be natural or synthetic.

conversion

Transition from conventional to KRAV-certified production.

conversion feed/feed from cultivation under conversion

Feed cultivated on land under conversion and harvested, at the earliest, 12 months after the start of the conversion period. Some crops may be used earlier as feed for one's own animals, as given in the standards.

conversion period/withdrawal period

The set time period you must comply with the KRAV standards until the product is KRAV-certified. Production must be registered for inspection during the whole conversion period. If production is not approved, a new conversion period begins, providing nothing else is specified in the disapproval decision. During medication, the time from the last treatment to when the product can be sold as KRAV-certified is the withdrawal period.

conversion period cultivation

Cultivation on land under conversion.

core activity

An activity whose purpose is to produce a product or raw material that will be KRAV-certified or KRAV-labelled.

crop rotation

A planned sequence of crop changes on one specific parcel.



deep litter area/litter area

A litter area is cleaned out at intervals of one to several weeks up to a year. It is kept dry by spreading new layers of litter on the old litter. A deep litter area is a litter area that is cleaned out once or a couple times per year.

disinfection

Treatment of premises, material or staff using physical or chemical methods with the purpose of eliminating the risk of transferring infection. This does not mean that all micro-organisms are removed or killed (which occurs with sterilisation) but that the amount of potential pathogenic micro-organisms is reduced to the degree that the risk of infection is eliminated. Treatment of air and water to prevent spread of infection is also considered disinfection.

dissolvents and carriers of additives and flavourings

Substances used in quantities required as dissolvents or carriers of additives and flavourings are not considered ingredients. For example, corn starch can be used as a carrier for flavouring.

dry matter

That which remains when all the water has been removed from something, for example from feed. The concept is used, for example, for feed in order to compare products with widely varying water content.

E

ecolabelled product

A product labelled with the Nordic Ecolabel (Svanen) Good Environmental Choice (Bra Miljöval) or equivalent independent third-party ecolabelling.

employment

An agreed upon exchange between an employer and employee. It can be a permanent, probationary or temporary position.

endangered species

Included among endangered livestock are the species animal farmers can receive government compensation for, i.e. Swedish Mountain cattle, Rödkulla cattle, Ringamåla cattle, Väneko or Bohuskulla cattle, Linderödssvin pigs, Svensk Lantrasget goats, Jämtget goats, Göingeget goats, Lappget goats, Gutefår sheep, Svensk Finull sheep, Ryafår sheep, Roslagsfår sheep, Dala Pälfsfår sheep, Värmlandsfår sheep, Helsingefår sheep, Gestrikefår sheep, Klövsjöfår sheep, Åsenfår sheep and Svärdsjöfår sheep.

enrichment product

Enrichment products are substances (minerals, including trace elements, vitamins, amino acids and micronutrients), that are added for the purpose of marketing the product as extra vitamin or mineral rich or for replacing vitamins that were lost during manufacturing. Enrichment products are not allowed in KRAV products if there is not a legal requirement that they be used.

established animal group

An established animal group refers to a group of animals that have had the necessary time to establish social relationships amongst themselves.

EU organic

A product of production that is not KRAV-certified, but is only certified according to "Council Regulation (EC) No 834/2007."

F

farm/agricultural holding

See *agricultural holding/farm*

feed concentrate

All feed exclusive of roughage and vitamin and mineral additives. Potatoes are considered feed concentrate.

feed from conversion year cultivation/conversion feed

Feed cultivated on land in conversion and harvested at the earliest 12 months after the beginning of the conversion period. Some crops may be used earlier as feed for one's own animals, which is noted in the standards.

feed supplement

A product that contains specific nutrient substances that is used to complement other feed as needed, for example mineral feed.

fermentation

Oxygen-free breakdown of organic material.

flavouring

Flavouring, or aromas, are made up of aromatic substances or aromatic compounds and carriers or solvents.

G

genetically modified organism (GMO)

An organism in which the genetic material has been changed in such a way that does not exist in nature from mating or natural recombination. This definition includes the genetic modification that arises from the application of at least the following methods:

- Hybrid DNA methods with the vector system that is included in the European Council's recommendation 82/472/EEC.
- Methods that directly inject hereditary material into an organism that was prepared outside the organism using techniques such as micro-injection, macro-injection and micro-encapsulating.
- Cell fusion (including protoplast fusion) or methods of hybridization where living cells with new hereditary genetic codes are artificially created by fusing two or more cells.

The following methods are not considered to lead to genetic modification providing that hybrid DNA molecules or genetically modified organisms are not

used:

- in vitro fertilization,
- conjugation, transduction, transformation or other natural process,
- polyploidy induction.

genomic selection

The breeding value of an animal is determined with the help of DNA markers using a blood or tissue sample from an animal.

grazing period

The time the animal should be out grazing. For ruminants, the minimum time required by The Swedish Board of Agriculture applies for grazing in the respective part of the country, by county. These are:

- at least two months in Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, and Norrbotten;
- at least three months in Stockholm, Uppsala, Södermanland, Östergötland, Jönköping, Kronoberg, Kalmar, Gotland, Västra Götaland, Värmland, Örebro, and Västmanland;
- and at least four months in Blekinge, Skåne, and Halland.

For pigs and poultry, a minimum of 4 months is required.

green manure

A crop that is not harvested for feed or food, and is meant to be used as fertiliser, often on the same land that it is grown. It is usually made up of nitrogen fixing legumes.

greenhouse

A permanent building where plants are cultivated. The building is in the same location for several years. Thus, tunnel cultivation on open land is not included in the definition. Cultivation in separate beds is always considered as a greenhouse.



handling

Everything done with a product that does not change it. Included here is receiving the product, storage, sorting and packaging. Also included is drying one's own grains and washing one's own products with clean water.

hard herding

Hard herding is the illegal use of electric prods, herding by for example tail twisting (which is prohibited by Swedish law), hard kicks and blows or hard and/or repeated blows or pokes with a weapon, as well as careless herding with gates or similar equipment.

hazardous waste

Hazardous waste is, for example, explosive, flammable, oxidizing, poisonous and harmful to health. Examples of hazardous waste are used oil, creosote-treated wood, electric and electronic scrap, batteries, solvents, paint and lacquer.

health plan

A plan adapted to your herd oriented towards strategic preventive measures for animal health, including disease control, made together with a veterinarian.

health program

An established program with systematic follow-up of animal health, adapted to the respective livestock.

herding

Making animals move on their own in a desired direction.

humus soil

Topsoil containing at least 30% by weight organic material. A parcel is considered to be made up of humus if the humus soil covers more than half of the parcel's surface area.



ICES

International Council for the Exploration of the Sea.

IFOAM

International Federation of Organic Agriculture Movements. A worldwide collaborative federation for organic production. Develops international standards (IFOAM Norms for Organic Production and Processing) for organic production and criteria for accreditation of certification bodies (IFOAM Accreditation Requirements).

import

Purchase of products from a third country (a country outside the EU and EFTA). An import permit is required from The National Food Administration or Swedish Board of Agriculture to import organic products.

independent picker

A person who pick berries, plants or mushrooms for a few days and up to several months. As a private individual, the person sells the berries, plants or mushrooms picked. An independent picker does not work on behalf of an employer.

ingredients of different kinds

Ingredients are divided into the categories of raw materials, food additives and flavouring.

In this text raw material ingredients are also called raw materials. Such ingredients are the foundation of your recipe, for example milk, lactose, turmeric and lactic acid bacteria.

Food additives are enrichers or technological supplements.

The International Chemical Secretariat's SIN (Substitute It Now!) List

“ChemSec, the International Chemical Secretariat, is a non-profit organisation founded in 2002 by four environmental organisations”. They “strive to reach broad acceptance in society of the key principles of Precaution, Substitution, Polluter Pays and Right to Know.” (Source: www.chemsec.org/about-us). Their work includes the establishment of a list of chemical substances harmful to health and the environment that are especially important to phase-out, called the SIN List. A SIN substance meets the EU regulation criteria for “Substances of Very High Concern (SVHC)”. The list is available at www.sinlist.org.

K

key performance indicator

A comparative number calculated to analyse activity and used to follow-up an activity's quality improvement.

KRAV-certified/KRAV licensee

A producer or equivalent that has a contract with a certification body authorized to certify according to the standards for KRAV-certified production. The term “producer” in the standards means “KRAV-certified producer”.

L

landing

Delivery of a catch from a fishing vessel to a recipient on land.

lead auditor

An experienced auditor who acts as a leader for a team of auditors.

litter area/deep litter area

A litter area is cleaned out at intervals of one to several weeks up to a year. It is kept dry by spreading new layers of litter on the old litter. A deep litter area is a litter area that is cleaned out once or a couple times per year.

local anaesthetic

The relief of pain that occurs during an operation (for example, incision or branding). No long-lasting analgesia is received after the operation. The active substance in the drug blocks the nerve fibres from sending impulses causing the tissue to become numb - be frozen (anaesthetised). In order to extend the anaesthetic's presence in the tissue, adrenalin can be added to the drug.

See also the definitions for "*sedation*" and "*analgesia/analgesic*".

long-term ley

Ley not ploughed for at least five years.

M

main raw material

The dominating raw material by weight in a composite product.

management system

A management system is a documented system that includes organizational structure, planning, responsibilities, practices, routines, processes, and resources for development, implementing, performing, modifying and maintaining an activity. Management systems can be certified, but certification is not required for this definition. Examples of standards for certifiable management systems are ISO 9001 and ISO 14001.

maximum permissible ration

The maximum quantity of a fertiliser or soil improvement product (production aid) that a farmer can add to the soil without at the same time leading to too great a quantity of heavy metals or plant nutrients. The maximum amount used can be calculated over a period of five years at the most. You must state the period of time used in your calculation.

N

nanomaterial, technological

These are anthropogenic nanomaterials with the exception of those created during traditional food processes. Nanomaterials which are naturally present in the environment (e.g. volcanic ash), naturally present in food (e.g. monosaccharides, amino-acids and fatty acids) or created unintentionally (e.g. flour or homogenised milk) are not included.

national guidelines

The national guidelines are the trade's interpretation of the EU law for organic production. This can be found on the website of the Federation of Swedish Farmers (LRF), www.lrf.se. (In Swedish only.)

nonconformity

Departure from the KRAV standards.



organic

The word organic may be used when labelling and marketing products if regulations (EC) 834/2007 and (EC) 889/2008 are fulfilled.

outdoor period

The time before and after the grazing period, when ground and weather conditions allow animals to be outdoors.



packaging materials

Products for containing, protecting, handling and presenting goods regardless of material.

P-AL class

A division of soils according to the concentration of easily soluble phosphates.

parallel production

Within agriculture, the term parallel production is found both within plant and animal production.

Parallel production within animal production means that the same livestock is cared for both conventionally and according to the KRAV standards within the same agricultural holding/company. Parallel animal production is only permitted under very limited conditions.

Parallel production within crop cultivation is when the same type of crop is both cultivated conventionally and according to the KRAV standards within the same agricultural holding/company. Parallel cultivation is only permitted under very limited conditions.

perishable goods

Food that is not treated for the purpose of preservation by for example sterilization, salting, drying, smoking or deep freezing and that therefore can have a limited shelf life. Perishable goods can be prepared or not prepared. The

shelf life of certain perishable goods depends on their being handled in a certain manner, for example, by being refrigerated.

permitted feedstuffs

Non-KRAV-certified feed that has been assessed as permissible by a certification body for use in KRAV-certified production. These are not KRAV-labelled and are published on the KRAV website.

permitted production aid

A non-KRAV-certified production aid that has been assessed as permissible by a certification body for use in KRAV-certified production. These are not KRAV-labelled and are published on the KRAV website.

pest control

Use of physical, biological or chemical methods (with biocides) to prevent damage to, for example, food or property.

pest control substance

A pest control substance can be either a biocide or a plant protectant. A pest control substance is defined in The Environmental Code (a set of Swedish laws) as a chemical or biological product intended to prevent or counteract animals, plants and micro-organisms from causing damage to or problems for human health and/or property. Only pest control substances that have been approved by the Swedish Chemicals Agency may be sold and used.

physical process

A process using physical methods, e.g. milling, freezing and drying.

place of operation

A place of operation is a physically delimited location where KRAV certified production is carried out. Examples of places of operation are a store or restaurant.

plant nutrient balance

The relation between added plant nutrients (e.g. in purchased fertilisers) and the plant nutrients removed in the products that leave the farm.

plant protectant

These are mainly used to protect plants and plant products in agriculture, forestry and gardening. Their purpose is to protect plants or parts of plants from pests, fungi or competing plants, etc.

precautionary principle

If the environmental impacts of a substance, product or activity are unknown or uncertain, then it is better to err on the side of caution to minimize possible risks. The “general rules of consideration” in the Environmental Code means that

anyone planning an activity should take protective measures, observe boundaries and otherwise take the amount of precaution necessary so the activity will not harm health or the environment.

process aid

Substances used in production but not considered as ingredients and that do not have a technological influence on the finished food product. An example is vegetable oil used as a release agent.

processing

Processing is an overall concept for treatment of agricultural products and other raw food materials before they become food, feed and production aids. In the first phase, packaging and labelling of the product are not considered processing, but if the product is for example washed or peeled it is considered processed. Examples of processing are milling grain, juice production, processed meat production, dairy, bakery, slaughtering and cutting up operations, conserving, deep freezing, drying or other conserving treatment.

producer

The entity certified according to the KRAV standards and that cultivates, produces, handles, processes, distributes or imports a product. In the text, the term means the same as a KRAV licensee.

product

Everything from live or unprocessed agricultural products to processed, packaged agricultural products intended for use as food.

production

Manufacturing, management, storage and packaging of a product or raw material that will be KRAV-certified or KRAV-labelled.

production unit

A physically demarcated unit that is KRAV-certified. The concept corresponds to “production unit” in the EU regulation.



ranch operation

When animals are kept outside during all seasons without being in a stable.

ready-packaged dishes

A dish in unchanged form that is meant to be sold to end consumers and caterers and that consists of one dish and the packaging it is placed in prior to

being available for purchase. The dish must not be able to be altered unless the packaging is opened or changed.

Dishes that are packaged at a place of sale at the request of the consumer, for example at a catering company, or are ready-packaged for direct sale, *for example take-away food, must not be considered as ready-packaged dishes.*

reconstitution

Reconstitution is when the water content of a product is restored to its original level.

renewable energy/renewable energy sources

renewable energy sources are hydropower, wind power, solar collectors and solar cells, biofuels and waste heat. Electricity and heating and cooling that is ecolabelled according to “Good Environmental Choice (Bra Miljöval)” is considered renewable without further analysis.

roughage

By roughage is meant pasture, hay, silage, whole grain silage, green feed, straw, leaves, bark, brushwood, beet pulp and root crops (not potatoes).



sedation

Very short term analgesia (pain relief) (10-45 min. according to FASS, the Swedish medicines database). Lowers the animal's degree of consciousness by inhibiting the release of noradrenalin from the central nervous system. There is at the same time a general relaxation of the muscles and short term analgesia.

See also the definitions for “local anaesthetic” and “analgesia/analgesic.”

slaughter manual

The manual must contain the routines and instructions that the slaughterhouse needs to ensure that the KRAV standards are being met for the slaughterhouse's KRAV-certified activity. The manual must also contain report forms for the various steps in the process so that a certification body can check the slaughter operation during an audit. The manual must show that the KRAV standards are established in the organization and available to the staff.

slow-growing poultry breeds or lines

KRAV presently considers slow-growing poultry breeds or lines breeds of animals that grow on average a maximum of 45 grams per day. The Swedish Board of Agriculture will make a decision on what can be considered as a slow-growing breed. We define slow-growing in this way to make possible KRAV-certified production of table chickens.

small slaughterhouse

Slaughterhouses that slaughter less than 1,000 livestock units per year.

According to Council Regulation (EC) 1099/2009 small slaughterhouses are “... slaughterhouses slaughtering less than 1,000 livestock units of mammals or 150,000 birds or rabbits per year.” This makes it possible to combine the different animal categories:

- adult cattle and horses: one livestock unit
- other cattle: 0.5 livestock units
- pigs with a live weight exceeding 100kg.: 0.20 animal units
- other pigs: 0.15 livestock units
- sheep and goats: 0.10 livestock units
- lambs, kids, and piglets with a live weight under 15 kg.: 0.05 livestock units.

stable period

The period an animal is normally kept indoors every day, with or without access to being outside. The period of time when an animal is inside only for milking purposes is not included.

standard

“Standard” here means a legal text (law) or an established rule for (organic) production. The KRAV standards are a standard. The organisation that develops the standards is called the owner of the standards. The KRAV Association is the owner of the KRAV standards.

staple product

A staple product is a food or product that forms the backbone of the menu of the restaurant concerned.

stock

A biological unit that clearly defines a group of individuals of the same species that primarily live in the same area and have the same annual lifecycle.

The definition used in Chapter 17 is: a clearly defined group of fish of the same species with the same spawning area.

stress

Stress refers to both physical and psychological strain on animals. Animals can be stressed by reflective surfaces, noise and loud sounds, air currents, strong lights, odours, abrupt corners or dead ends, pain, rough handling with blows and prodding as well as stress and uneasiness of other animals. Slaughterhouses can reduce stress by taking advantage of animals’ natural behaviour: to move them,

for example by keeping a group together, allowing animals to go from dark to light and to follow a leader animal.

subcontractor

Contractors that deliver or supply products, raw materials or services to another supplier closer to the consumer.

sustainable fishery

Fisheries that comply with ICES or equivalent recommendations, which are based on scientific stock assessments.

supplier

An actor that delivers or provides products, raw materials or services to another actor.



targeted species (fisheries)

The species of fish desired to catch.

third party

A subcontractor who is not KRAV-certified and is hired by a KRAV-certified company to manage or process KRAV-certified products. A contract must be made between the KRAV-certified company and the subcontractor. The contract should ensure that a certain type of management or treatment of a KRAV-certified product that leaves the farm complies with the relevant KRAV standards. This is different than when a KRAV-certified company purchases a product for its activity.



Uddevalla system

A type of stable design system with single animal boxes for cattle, comprised of a number of rows with individual compartments. The system is built together with alleys.

unintentional catch

During fishing, the unintentional catch of mammals and birds or fish of a species or size that it was not planned to catch.

V***vending company***

A company that sells products from vending machines. The sales, service and replenishment of vending machines is normally taken care of by local vending companies.

veranda access

Used for poultry. A hard surface with a roof over it outside an insulated barn. It can be completely or partly covered with a windproof tarp or similar material.

W***withdrawal period***

See *conversion period*.



KRAV is Sweden's most well-known sustainability label for food. KRAV is based on principles of organic farming with especially rigorous requirements for animal care, health, social responsibility and climate impact.

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