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The goal of organic production

The basis for organic production are the care for nature’s fundamental functions and global solidarity. The aim is to produce high-quality products in a sustainable manner and to do so in a credible and reliable way. The striving should be to respect natural processes and behaviour through the entire chain from farm to the final customer.

Activities (farming, processing, distribution etc) should be designed with the following principles in mind:

- the long-term productivity of the soil and other parts of the eco-system should be preserved and enhanced
- the biological and genetical diversity of the agricultural environment should be protected and developed
- the use of fossil fuels and other non-renewable resources should be minimised, as well as pollution
- the use of synthetic substances should be avoided
- farm animals should be kept in a manner which promotes good health and dignity during the entire life, even at slaughter. It should especially give the animals opportunity to express their natural behaviour
- processing is done with selected processes which are kind to nature as well as products, and with a minimum of additives
- the farmer and others involved in the production should enjoy a reasonable income, a safe working environment and the opportunity to experience joy and satisfaction in his or her work
- organic foodstuffs should be available to all consumers
- trade with organic products promotes an environmental, social and economic sustainable development both where the product is produced and where it is consumed.

Organic production aims to strengthen the ties between town and country as well as between producer and consumer, among other things through openness around the operation. A diversified and geographically spread food production gives the possibility for maximised recirculation of nutrients and humus.
Revision of KRAV’s standards

Standards of KRAV exist to impel the aims of KRAV, which is organic production as defined in KRAV’s statutes and additionally to be an initial point to influence other rules and regulations. The objective of KRAV’s standard revisions is to create a comprehensive, functional, well-defined and stringent set of rules and regulations that reflect all of KRAV’s objectives concerning organic production as defined in KRAV’s statutes. In standard revisions we update and clarify written rules and regulations in line with our efforts to harmonise with IFOAM Basic Standards.

KRAV’s labour to improve standards is going on continually. Standard changes will be published at least two times per year. This means that certain rules in the printed book of standards could be changed before the next edition is printed. Nevertheless approved standards always are available on KRAV’s web site. There you will find information about which standard revision is in progress and who is working with it, when new standards take effect and how you can contribute with views about KRAV’s standards.

Influence on other rules and regulations

KRAV even works with influencing other, external rules and regulations, primarily IFOAM Basic Standards and EC-regulations of organic production, (EEG) no. 2092/91. KRAV’s standard committee deals with current questions that later will be handled nationally and in several international groups.

Read more

Read more about KRAV’s standard efforts, IFOAM and EU-organic at KRAV’s web site, www.krav.se.

About the KRAV mark and our four pillars

The credit value the KRAV-mark stands for can be summarised in the “four pillars of the KRAV-mark”:

– Sound, natural environment
– Solid care for animals
– Good health
– Social responsibility

Read more about “four pillars of the KRAV-mark” on KRAV’s web site, www.krav.se.

The KRAV-mark is a registered trademark with number 338 153. Registration gives KRAV economical association exclusive rights to use the name KRAV in capital letters.

Several certification bodies offer certification in compliance with KRAV standards

Since 1st of July 2007 several certification bodies may use these standards to provide certification. You will find which certification bodies that offer KRAV-certification and what type of production they certify on KRAV’s web site www.krav.se go to the English part and click the sidebar “Certification”. There is a link to “Accredited Certification Bodies”.

Chapter 18 “KRAV-certified ingredients”

The standards in chapter 18, KRAV-certified ingredients, has been applied on all types of production between 1st of January 2005 and 31st of August 2006. The interpretation of (EEG) no. 2092/91 by Uppsala regional court and Swedish National Food Administration (Livsmedelsverket) implies that standards of chapter 18 are applicable after 1st of September 2006, when the product comprises and fulfils (EEG) no. 2092/91. We are investigating the juridical requirements to imply these standards in the same manner as before. Contact KRAV or your certification body to get information about the possibilities to put these standards into practice.
Reading instructions

About different types of text

Objective (italic text)
All chapters start with an explanatory text that describes the purpose of the chapter and is linked to KRAV’s objectives. Even subchapters may begin in this same manner. The objective gives directions for continued work with standards and can be seen as a base of interpretation for certification bodies.

Text of Standards
This type of text holds binding requirements that the KRAV-licensee should fulfil and that a certification body is verifying.

Explanatory text (italic text)
Explanatory text should contain clarifications; give background information or examples for easier understanding the meaning of a standard text. It may also contain recommendations. Announcement of coming changes will be done as explanatory text.

About the different abbreviations

To make it possible to sell a product as “organic” within EU the production has, according to Swedish law, to comply with the EU-regulation (EEC) No 2092/91.

All KRAV-licensees has to comply with Swedish legislation, but as KRAV’s standards also are used outside Sweden, and as it in some cases simplifies when you underline what is required by law, some legal demands is also included in KRAV’s standards.

KRAVs standards has been developed during long time and in cooperation with other international organisations. The content of our standards therefore demands more than the EU—regulation. To make it evident which background a specific standard has, we have made the following marks in the text:

- (EU) – the standard is based on the EU-regulation
- (SL) – the standard is clarification of Swedish law
- (IBS) – the standard is based on IFOAM Basic Standards
- (IAC) – the standard is based on IFOAM Accreditation
- (K) – the standard is KRAV’s own

In the chapters 7, 12, 13, 16, 18, and 19 this adaption is not done. The chapters 14, 15 and 17 has no corresponding parts neither in the EU-regulation nor in the IFOAM Basic Standards.

If you want more information about the background for a specific KRAV standard, please contact us, for example by e-mail to regler@krav.se.
Following table gives a general view of chapters that concern businesses that are or will be KRAV-certified, depending on operation:

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<th>Chapter</th>
<th>Intr.</th>
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<td>Textiles (incl. leather, skins from KRAV-certified animal husbandry)</td>
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These standards were approved by KRAV’s Board of Directors the 29th of November 2007. Changes were introduced to following standards in comparison with previous edition October 2007:

Cancelled standards:
1.1.2.9 and 2.2.2. 13.10 - 13.13. 18.5. Following standards in the corresponding section have been re-numbered accordingly.

Changed standards:
1.1.2.4, 1.1.2.7, 1.1.2.8, 1.2.7.1, 1.2.8 (introduction), 1.1.2.8.3
2.2.1, 2.2.2, 2.12.1, 2.12.2
4.1.1, 4.1.2, 4.1.3, 4.3.3, 4.3.6, 4.6.2
5.1.2, 5.1.17, 5.3.3, 5.3.8
6.1.14
7.1 (introduction), 7.2.3.8, 7.3 (introduction), 7.3.1, 7.6.1.2, 7.7.6.1, 7.7.7.4
Introduction of chapter 9, 9.2.2, 9.1.7, 9.2.2
10.2.1, 10.4.1
Introduction of chapter 12, 12.1, 12.3.
Chapter 16
17.3.1.6, 17.5.2.8,
19.2.2, 19.2.3
Appendices: 3, 7, 8

Entry into force
The Standards apply from the 1st of January 2008.

DEFINITIONS

KRAV’s standards use the following terms:

**A-product**
A product, which contains at least 95 percent by weight KRAV certified source materials, is termed an A-product.

**Agricultural origin**
Raw materials or by-products that originate from cultivation or livestock production in agriculture.

**Artificial fertilizer**
A fertilizer produced using a chemical process or through a chemical process that changes the natural raw material, except in those cases when such a change occurs naturally through biological or physiological processes. Artificial fertilizer is also called synthetic commercial fertilizer.

**Authorized certification body**
Certification body accredited or approved to issue certification according to “Standards for KRAV-certified production”.

**B-product**
A product, which contains at least 70 percent and less than 95 percent by weight KRAV certified source materials, is termed a B-product.

**Base amount**
The base amount for 2008 is 41 000 SEK.

**Biological pesticides**
By biological pesticides is meant a biotechnical organism (microorganisms, nematodes, insects or arachnids that are produced for a technical objective) that is produced especially to prevent or counteracts that animal, plants or microorganisms including virus, cause damage or injury for people’s health or damage property.

**By-products**
The fish waste from processing industries including raw materials from fish species intended for human consumption but are classified as unfit because of quality. (This definition applies only to chapter 7, aquaculture.)

**Cage**
An enclosure with considerable limited floor space for poultry or other small animals.

**Certificate**
Document indicating KRAV certification for a special product, production or activity.

**Certification body**
Organization with authority to certify production or products according to some set of rules and regulations. The regulations are aimed most often at the accreditation or approval of the certification body to issue certification according to “Standards for KRAV-certified production”, and that it is designated as an authorized certification body.

In (EEC) 2092/91 the concept “inspection body,” is used with the same meaning that we use certification body. We consider the latter term more established and descriptive.

**Certification category**
A form of production that requires a separate licensee contract. A production form can include one or more of the standard areas (and a production may require several licensee contracts).
Certification program
The combination of a certain set of standards and a specific certification body.

Certification Committee
The Certification Committee is the committee in the different certification bodies that decide on appeals of certifications decisions.

Character raw material
With character raw material in a composed product is meant the raw material that the name of the product associate with even if this does not make up the main component in the product. When a raw material is included in the product name is this one always the character raw material. If the name does not associate to any particular ingredient, then it is the by weight most dominate raw material. Examples:

<table>
<thead>
<tr>
<th>Product name</th>
<th>Character raw material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soup of asparagus</td>
<td>Asparagus</td>
</tr>
<tr>
<td>Meatballs</td>
<td>Total meat of all kinds</td>
</tr>
<tr>
<td>“Queen’jam” (special blend in Sweden)</td>
<td>Total of blueberries and raspberries</td>
</tr>
<tr>
<td>Sausage</td>
<td>Total meat</td>
</tr>
<tr>
<td>Strawberry youghurt</td>
<td>Strawberries and youghurt</td>
</tr>
<tr>
<td>Müsli</td>
<td>By weight dominating raw materials. The raw materials constituting largest proportion in the product and together make up 80% of the weight of the product.</td>
</tr>
</tbody>
</table>

Chemical pesticides and herbicides
Chemical products intended to prevent or neutralize animals, plants or microorganisms, including virus, causing damage or discomfort to human health or damage to property.

Climate similar to outdoors conditions
When the air quality, light and temperature indoors in a building reflect the outdoor climate.

Colourings
Substances that have or can give colour. These can be natural or synthetic.

Concentrates
All fodder except roughage and addition of vitamins/minerals. Potatoes are included in concentrates.

Contamination
By contamination is meant transmission, contamination or infecting.

Conventional
In KRAV’s standards, the term conventional is used for production and products that are not certified or are KRAV-certified.

Conversion
Change-over from conventional to KRAV-certified production.

Conversion period
The interim period set from which KRAV standards are followed until the product is certified. The production must be registered to the KRAV inspection scheme during the entire period. For drug treatments, the time is set from the last treatment until the product may sold as KRAV-certified. If a product is rejected, a new conversion period commences if no other exceptions are stated in the decertification decision.

Conversion year cultivation
Cultivation that is carried out on land during the conversion period.

Degradable
According to OECD guidelines 301 A-F the limit for readily degradable is either more than 60 percent mineralization within 28 days measured as production of carbon dioxide/oxygen consumption (CO₂ /BOD) or more than 70 percent mineralization within 28 days measured as reduction of dissolved organic carbon (DOC). According to OECD guidelines 302 A-C substances are ultimately degradable if more than 70 percent of the degradability is measured as DOC or COD (chemical oxygen demand). This term applies only to Chapter 12.

Divergences
Deviation from KRAV’s standards.

Drugs and chemical pesticides for treating animals
According to KRAV’s standards, drug products apply to products that are administered to animals to indicate, prevent, relieve or cure diseases or symptoms caused by disease or use in similar situations. KRAV’s classification of substances for chemical means of control includes agents against vermin, fly tags and pour-on agents.

Eco-labelled
A product that is approved by the Nordic Swan label (Svanen), Bra Miljöval (Good Environmental Choice), EU flower, TCO 1999 and later, KRAV may be marketed as organic within the EU.

EN 45011
European Norm 45011 (in Sweden "EN A 45011," where SS stands for Swedish Standard). Identical to ISO 65

Environmentally-adapted products
An environmentally-adapted product is a good or service that causes less impact on the environment in relation to other products with same function. Products that are marked with the Nordic Swan label (Svanen), Bra Miljöval (Good Environmental Choice), EU flower, fulfill the established criteria that allow them to be marked with environmental marks and are examples of environmentally -adapted products.

Environmental aspects
Defined according to SS EN ISO 14 001.

Environmentally certified
A third party certificate that an operation complies with the stated standards or set of rules. The ISO 14000 series and EMAS (Eco Management and Audit Scheme) are examples of third party certification schemes.

Established animal group
By established animal group is meant a group of animals that have had the necessary time to establish an internal ranking order on the farm.

EU organic
Produced and inspected according to the "Council Regulation (EEC) no 2092/91 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs”, without being KRAV-certified.

Feed from conversion year cultivation (conversion year feed)
The harvest during the conversion year cultivation may be used as feed in the farm's own animal husbandry. The harvest from the second year's conversion cultivation may be sold to others if it is specially marked and the crops are harvested 12 months after the start of the conversion period at the earliest. (EEC) no. 2092/91 uses the term "produced under conversion to organic agriculture “if they are products from the second year's conversion cultivation.

Food additives
A substance that is not normally consumed as a foodstuff and is normally not used as a typical ingredient in food, regardless of its enrichment properties. The term also includes a substance added to a foodstuff for technological purposes when making, processing, preparing, treating, storing, packaging and transporting, which results in the substance becoming a component of the foodstuff whether or not the substance is altered.

Game
Game meat is considered meat from wild, living mammals and birds. The animals shall have been owned by anyone. Note: Reindeer is considered domesticated livestock.

Genetically modified organisms GMO
An organism, which carries genetic material, manipulated in such a way other than natural recombination or mating. This definition includes the genetic modification that arises from the application of the following methods:

- Hybrid DNA method with the vector system that is included in the Council’s recommendation 82/472/EEC
- Methods that directly inject hereditary material that was prepared outside the organism into an organism using techniques such as micro-injection, macro-injection or micro-encapsulating;
- Cell fusion (including protoplast infusion) 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;
- Induction of polyploids.

**Handling**

Handling is a collective concept for treatment of a product in such a way that no changes occur to the product such as, for example, receiving, and storage, sorting and packaging a product. Drying own cereals on the farm and the washing of own products with water on the farm are considered to be hatchling. Transport, storage, distribution and sales of KRAV-labelled products in unopened packaging are not considered to be handling.

**Hazardous waste**

With hazardous waste is meant, for example, explosive, flammable, oxidizing, poisonous and waste harmful to health. Examples of hazardous waste are used oil, creosote-treated wood, electric and electronic scrap, batteries, colour and lacquer.

**Heavy metal**

Metal with the density larger than 5 g/cm³.

Usually the following elements:

- Arsenic (As)
- Cadmium (Cd)
- Copper (Cu)
- Mercury (Hg)
- Tin (Sn)
- Zinc (Zn)
- Lead (Pb)
- Cobalt (Co)
- Chrome (Cr)
- Nickel (Ni)
- Vanadium (V)

Those metals with a density greater than 5 g per cubic centimetre are considered heavy metals. A large number of basic elements belong to this group, but in connection with the environment, the metals listed above are the most important. Other heavy metals only appear occasionally in such high levels that there can be harmful results. Arsenic is usually considered a hazardous heavy metal even though it is only a semimetallic element.

**Holding**

Property or business comprised of one or more registered properties or parts of such with joint accounting.

**IAC**

IFOAM Accreditation Criteria.

**IBS**

IFOAM Basic Standards,

**ICES**

International Council for the Exploration of the Sea.
IFOAM


Impact on the environment

A change in the environment - positive or negative - caused totally or partially by the producer's activities, products or services.

Ingredients (i.e. raw materials, additives, vitamins, flavourings and taste enhancers)

"Every substance, including additives, used in producing or processing of a foodstuff and that can be found in the final product even in another form. If an ingredient in a foodstuff consists of several ingredients, these shall be considered as ingredients in the foodstuff.

The following are not considered ingredients:

- Constituents of an ingredient which, during the manufacturing process, are temporarily separated but which are subsequently returned to a foodstuff in proportions that are not in excess of the original proportions;
- Additives, which occur in a foodstuff only as a result of their inclusion in one or more ingredients in the foodstuff, provided that the additives do not have any technological function in the finished product;
- Additives used as processing aids or,
- Substances used in quantities strictly necessary as solvents for or as carriers of, additives, including flavourings." (See National Food Administration Code of Statues (LIV/SFS) 1993:19)

Initial recipient

Auction establishment or other organ that is authorized by the Swedish National Board of Fisheries (according FIFS 1995:23) to mediate sale of fish or buy fish for further marketing as the initial recipient in the chain of custody. In other countries outside of Sweden, it is an organization with equivalent authorization.

ISO 65


KRAV

KRAV incorporated association that owns and creates "Standards for KRAV-certified production".

KRAV operator

Designates a producer or equivalent who has a contract with a certification body authorized to certify according to "Standards for KRAV-certified production" for the production in question.

Labelling agreement

This is the contract with a third party used when packing and KRAV-marking is carried out at a supplier that is not a KRAV operator (third party), but contracted by the KRAV-licensed operator (second party). Such a supplier (third party) shall be certified for organic production. The authorized certification body that certifies the KRAV-licensee (second party) shall have a contract with the third party's certification body for exchange of information and any extra inspection measures that may be necessary.

Licensed to KRAV inspection ändra text, KRAV-licensee

To be licensed to KRAV inspection requires a printed contract, in which the producer undertakes to fulfil KRAV's standards and to pay the established fees.

Litter bed

Deep litter bedding is cleaned after a few to several weeks up to a year. It is kept dry by spreading new layers of litter on the bed.

Main ingredient

The dominating ingredient, by weight, in a product.
Marketer
A KRAV licensee and responsible for use of KRAV’s name and/or mark in marketing of KRAV-certified goods.

Nature identical
A term used to identify a substance that is produced synthetically but also could be found in nature.

Nets or panels of degradable fibres
A part of the fishing tackle (usually cage or fyke nets) that degrade after time in the water. The nets or panels are placed so that either the tackle collapses or that degradation results in a large hole. In this way, lost tackle cannot continue to fish (ghost fish).

Organic
The word organic may be used when marking and marketing products if (EEC) no. 2092/91 is fulfilled. Outdoor period

The time before and after time on pasture.
Animals are to be kept outside when the ground and weather conditions so permit for the respective animal.

Packaging
A product’s inner and outer wrapping.

Packaging materials
Products for containing, protecting, handling and presenting goods regardless of material.

Period on pasture
The minimum time established by the Swedish Board of Agriculture for access to pasture in the different parts of the country.

Perishable goods
Foodstuffs that are not preserved by such processes as sterilization, salting, drying, smoking or freezing and therefore have limited shelf life. Perishable goods may or may not be ready to use. Shelf life for some goods may be dependent upon manner of storage, such as refrigeration. Some perishable goods require special storage procedures for durability such as cold storage.

Precautionary approach
The precautionary approach is a set of measures intended prevent injurious or irreversible effects caused by human activity (such as on fishing) on marine ecosystems. These measures require that fishery management must evaluate and consider effects of fishing on fish stocks and the marine environment when deciding on fishing.

Precautionary principle
If the environmental effects 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. This is the underlying principle in the Environmental Code and means that any planned activity should take into consideration protective measures, observing boundaries and take precautionary steps necessary so the activities will not endanger health or the environment.

Preservatives
Substances that extend the shelf life of foods by protecting against degradation by microorganisms. Salt (sodium chloride), however, is not considered a preservative.

Processing
Processing is the collective concept for all processing of agricultural products to food, feed, production inputs or textiles, furs, hides, leather and skins. The first level of custody does not cover packaging and labelling the product as part of processing but, for example, if a product is washed or peeled, it is considered to be processed. Examples of processing include grinding cereals, producing juice concentrates, meat processing, dairy-, bakery-, slaughter and butchering operations, bottling, canning, freezing, drying or other treatments for preservation, spinning and weaving of textiles.

Processing aids
A processing aid is a substance not consumed as an ingredient and used in food processing of source materials, food or ingredients to foods serving a technical function during treatment or preparation. The use may result in the avoidable or technically unavoidable presence of such a substance or its metabolites in the finished products. The presence may not create a danger to health or have any technological influence on the finished product.

**Producer**
A person who is licensed to be certified according to the KRAV standards, and who grows, produces, handles, processes, distributes or imports a product.

**Product**
A product is an article that is composed of a single raw material or a composition of several raw materials. A product can also be a substance or a preparation.

**Production**
A product, packaging, process, handling, production unit, or anything else which is connected to producing products.

**Production facility**
A physically limited unit that is licensed by KRAV.

**Production inputs**
Production inputs in agriculture (such as fertilizer, soil conditioners and plant protection substances), animal management agents, desinfection agents and in storage facilities.

**Products derived from genetically-modified organisms**
Products where the raw materials are GMO or products synthesized by a GMO.

**Quarantine**
Isolated housing for animals coming from abroad to prevent the spread of disease in the existing herd.

**Raw materials**
Raw materials are main ingredients in processed products.

**Recertification**
Recertification means that KRAV can approve and certify an organic product approved according to another standard for organic production, certified of an authorized certification body according to KRAV standards in Chapter 16.

**Reconstituting**
Reconstitution means that the initial water content of a product is restored.

**Review**
When named in the standards, a review (or subject to review) requires a written application in the individual matter.

**Roughage**
By roughage is meant pasture, hay, silage, whole grain silage, green fodder, hay, leaves, bark, brushwood, beet pulp and root crops (not potatoes).

**Sanction**
A measure taken for indicating a divergence from KRAV’s standards.

**Sanitized residues from abattoirs**
Products from slaughtering used as fertilizers i.e. blood meal, hoof meal, horn meal, bone char, meat meal, bone meal, feather meal, hair meal, wool, fur and hair.

**Set of standards**
A set of standards for organic production. In these standards it is most often referred to as a set of standards that is accepted according to (EEG) No 2092/91 and/or IFOAM-accredited.

**Sub-contracting**
The producer delivers raw materials for handling or processing to another business and then retrieves the processed goods. Slaughter is not covered in the standards for sub-contracting. Sub-contracting can be
exemplified with the following situation: A business licensed to agriculture certification sends its own produced raw material to another company (a sub-contractor) for handling or processing and then retrieves these back to sell. An alternative situation is: A business licensed to agriculture certification sends its own produced raw materials to another company (a sub-contractor) for handling or processing and sell this in his/her own name without physically retrieving these from the sub-contractor. If the KRAV licensee's raw materials/products are sold under another name/trademark, then the first indent in 2.5.1 is applicable. The KRAV licensee is responsible to ensure that the subcontractor complies with KRAV’s standards.

**SS 15 54 34 and SS 15 54 70**
The Swedish Standard Hydraulic Fluids -Requirements and Test Methods and the Swedish Standard Lubricating Grease -Requirements and Test Methods

**Stock**
Biological unit that limits individuals within a species that primarily have the same geographic and annual lifecycle.

**Synthetic substance**
A substance made by chemical means. If it is found in nature, it is nature identical. If not, it is artificial.

**Time indoors (animals)**
The time the animal is kept indoors daily, with or without and outdoor period. Milking time during pasture period is not included.

**Ultimate processing country**
The country where the product is finally packaged and labelled with the KRAV mark.

**Ultimate producer origin**
The company that finally packages and labels the product with the KRAV mark.

**Watercourse**
Any watercourse or lake that is indicated on the topographic map and/or is water bearing year round.

**Windproof shelter area for animals**
An area outside of the animal housing than may be wholly or partially protected with windproof materials or similar.

**Worthy of protection**
The concept of worthy of protection is used to describe areas, environments, and natural types etc. that have great importance for flora and fauna and/or a high cultural value. Examples of natural and cultural environments needing protection are meadows and natural pastureland, principal biotopes in forests as well as protected biotope areas on agricultural land such as stone walls, clearance cairns, field islets, avenues, open ditches, springs as well as small waterways and wetlands.
OBJECTIVE AND SCOPE

OBJECTIVE
Standards for KRAV-certified production, henceforth referred to as KRAV standards are a tool to implement “The goal of organic production” into the entire chain of custody from production of raw materials to the consumer (for food and other agricultural products).
Standards encompass many factors so that the entire production system and the surrounding environment are considered. Social justice and social rights are an integral part of the standards. Biological mechanisms and contexts comprise the basis for what is considered natural and therefore compatible with organic production. The objective is to attain scientific support for all standards. The precautionary principle is often used until research and experience can give a secure basis for the scope of the standards. If there is a conflict between different objectives, the holistic view is judged as more important than various sides of the conflict.
KRAV standards lay down the conditions for producing a product entitled to be labelled and marketed with the KRAV label and/or in other ways indicate that the product has been produced according to KRAV standards. Through this, KRAV creates a platform for uniform marketing of KRAV-certified production, and instils confidence in the chain of custody and on the market.

FRAMEWORK OF THE STANDARDS
National laws, such as animal protection and environmental laws, always form the basis for KRAV-certified production. In addition, other standards on the European as well as on the international level are considered in the formulation and content of KRAV standards. KRAV has adapted the standards to IFOAM Basic Standards and thus it is possible to be accredited according to the norms set by the global cooperative organization.
The EU has standards for organic production in the “Council regulation (EEC) No 2092/91 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs.” The regulation is law in Sweden and regulates the use of the word “organic.” The regulation includes crop production, apiculture, animal husbandry, wild production, food processing, slaughter and fodder production.
KRAV standards fulfill the EEC regulation and are in some cases stricter. KRAV standards encompass more areas than the EEC regulations, such as certification of restaurants and industrial kitchens, textiles and aquaculture.

SCOPE
Standards are drawn up based on what is considered practical and possible to achieve at present. KRAV’s Board of Directors approves the standards, which are valid until another decision is taken. KRAV standards set the limits the products and production or handling of organic products, which can be certified.
The KRAV label is primarily used as a label for food products but KRAV also certifies other raw materials from organic agriculture and aquaculture and fishing. KRAV reserves the right to ascertain whether the standards are applicable to specific types of production.

Standards and inspection include
- production conditions
- products and recipes
- documentation and
- labelling

In relation to
- primary production
- production inputs and additives
- handling, storage and packaging
- processing
- sales and marketing, and
- recertification
1. MARKING AND MARKETING

The standards for the approval of products have been changed since previous edition. The standards in chapter 1, 2, and 16 as of KRAV standards last edition translated to English, July 2007, are applicable until March 31, 2008. The July edition is available at www.krav.se. The standards for marking and marketing aim to increase and simplify sales of KRAV-certified products in the entire chain from production of raw material to consumption as well as protect the KRAV mark credibility. All information shall be clear and relevant. The standards in this chapter shall:

a) simplify for the producer/seller to use the mark and marketing of the KRAV-certified products and use the KRAV-mark's added value and, (K)
b) simplify for the buyer/the consumer to identify and choose KRAV-certified products. (K)

1.1 GENERAL STANDARDS

The KRAV mark is a registered trademark at the Swedish Patent and Registration Office with the number 338 153. The registration gives KRAV incorporated association the sole right to the name KRAV. (K)

1.1.1 KRAV's name and the mark

1.1.1.1 A KRAV-licensee has the right to use KRAV's name and the mark according to the standards below when a contract on certification according to "Standards for KRAV-certified production" has been signed with an authorized certification body and when that organization has issued a certificate for KRAV-certified production. (K)

1.1.1.2 KRAV's mark may not be cropped. KRAV must be written in capital letters in headings and text. (K)

KRAV's mark should be printed in positive, even if it against a dark background and then in a light oval. The colour should be green, (pms 342) or black. Other colours than green or black may be used.

Conscientiousness

1.1.1.3 Upon a request from a certification body, the licensee must be able to show the measures taken to fulfil the valid laws for marketing and regulations for marking. (K)

1.1.2 Marking

What may be marked?

1.1.2.1 KRAV's name or label may only be used on products from production certified according to these standards by an authorized certification body that can certify according to "Standards for KRAV-certified production". Included in this is also products and raw materials which may be KRAV-labeled when standards in chapter 16 are fulfilled. (K)

Calculating weight

1.1.2.2 When calculating the total weight of ingredients, salt and water are not included. Water added for reconstituting is added. (K) (IBS)

KRAV's mark

1.1.2.3 Basic mark
The basic mark may only be used on products where the portion of KRAV-certified ingredients compose at least 95 percent of the total weight of the ingredients. (K) (IBS)

A-marked products may be called organic. (EU)

The A-mark may only be used for production inputs when 100 percent of the product or raw materials come from KRAV-certified production. (K)

The KRAV standard 1.2.1.1 applies for fodder to animals in KRAV-certified production.

1.1.2.4

B-mark

The B-mark may only be used when the portion of KRAV-certified ingredients in the product constitutes at least 70 percent of the total weight of the ingredients. (K) (IBS)

The weight percent of organic content shall be given under the mark. (EU)

Restaurants and industrial kitchens may use B-mark lacking the percentage of KRAV-certified ingredients when they label their dishes or their registered KRAV-certified foods, also on production certified according to the standards in chapter 17, Fishing. (K)

According to (EEC) no. 2092/91, it is only permissible to name a product organic if at least 95 weight by percent [% (w/w)] of the ingredients originate from organic agriculture. On B-marked products, the term organic or equivalent can be used, for example, “produced with/contains organic ingredients”.

1.1.2.5

International

A-mark

B-mark

The above label may be used internationally. (K)
1.1.2.6
After concluding a contract with the certification body, KRAV’s mark may be used in combination with the mark for IFOAM-accredited certification. (K)

![KRAV and IFOAM logos]

1.1.2.7
Production inputs

![Godkänd för ekologisk odling and KRAV logos]

The mark for production inputs may only be used for production inputs certified according to chapter 12. (K)

The A-marks may only be used when there is a 100 percent KRAV-certified ingredients or raw materials from KRAV-certified production.

Who may use the KRAV mark?

1.1.2.8
The company certified according to “Standards for KRAV-certified production” may mark certified products with KRAV’s label. (K)

Other businesses working for a licensed business may also mark with the KRAV label if a contract with a third party applicable for sub-contracting or packing (packaging-or labelling agreement) exists in accordance with 2.5.1. (EU)

How may products, packaging and packaging materials be marked?

1.1.2.9
Name of the producer or the marketer responsible for the product shall be indicated on the packaging. (EU)

1.1.2.10
KRAV’s name may not be used in the description or in large typeface so that it is perceived as a product name. (K)

For example, coupling the KRAV mark and stating KRAV-loaf or KRAVLOAF is not permitted. The correct wording is KRAV-marked loaf or KRAV-certified loaf.

1.1.2.11
KRAV’s mark may not be coupled or overlapped with other marks or other text. (K)

On the other hand, KRAV’s mark may be placed next to other trademarks or logotypes.

1.1.2.12
Product packaging shall be labelled so that there is no possibility of mixing KRAV-certified and non KRAV-certified products. (K)
1.1.2.13
Labelling of a KRAV-certified product that is sold with reference to organic production shall indicate the certification body that has certified the product. (EU) (IBS)

Contact the certification body for more information about the name or code to use.

1.1.2.14
KRAV-certified products may not be marked with the text “free from GMO” or the equivalent. Every description concerning genetic modification on a product label shall be reviewed so that the production and processing has been carried out without the use of GMO. (K) (IBS)

Delivery notes and invoices

1.1.2.15
Shops, wholesalers and similar who have handled KRAV-marked products in unopened packaging may use KRAV’s name on the receipt, delivery notes, invoices, product catalogues/-lists and similar without a KRAV inspection according to KRAV’s standards. (EU)

Note that storage of organic products is regulated in the National Food Administration Code of Statues (LIVSFS) 1998:4), (LIVSFS 2005:12) (H 336) and (SJVS 2005:31) that is the Swedish application of article 8.1 (EEC) no. 2092/91.

1.1.2.17
Products from KRAV-certified production shall be indicated explicitly as KRAV-certified, both on the packaging and bill of sale, and/or invoices for the products to be sold and further handled as KRAV-certified. KRAV-certified products may be called KRAV or KRAV may be added to the product or article number.

1.1.2.16
Products from KRAV-certified production shall be indicated explicitly as KRAV-certified, both on the packaging and bill of sale, and/or invoices for the products to be sold and further handled as KRAV-certified. (EU)

KRAV-certified products may be called KRAV or KRAV may be added to the product or article number.

1.1.2.17
When selling unpackaged products that are certified according to other standards for organic production, the following shall be stated on invoice and delivery note:

– country of origin (K)
– that the product is KRAV certified. (K)

List of ingredients

1.1.2.18
It shall be evident in the list of ingredients which ingredients are organic, respective both organic and KRAV-certified origin. (K) (IBS)

The use of asterisks in the following is an example from müsli. Ingredients: oats*, bran*, sunflower seeds*, dried apricot**
*KRAV-certified/organic ingredients, **organic ingredients

1.1.2.19
Food additives shall be declared by name in the list of ingredients. (K) (IBS)

Food additives shall be indicated with the appropriate nomenclature and the common name. E-number can be indicated as an addition to the name if desired. Example: Thickening agent: pectin (E440).

Geographic origin

1.1.2.20
Ultimate processing country shall always be indicated on the packaging. The country of origin and origin of raw materials shall give the consumer/purchaser the opportunity to discern the origin of the product. This can be achieved through web sites, telephone services etc. Perishable goods shall always be marked with country of origin. (K)

Many consumers want to have labelling indicating the origin. KRAV’s Board of Directors decided to in the long term introduce a strengthening of the above standard according to the following suggestions for composition and explanatory text:
“Ultimate processing country shall always be indicated on the packaging. The consumer/buyer shall have the possibility to find out the country of origin for all ingredients in a product. This can be done through marking the product or through web sites, telephone service and similar. The following perishable goods shall always be marked with country of origin: meat, milk, eggs, berries, fruit, vegetables, potatoes and root crops. Other simple products as well as main ingredients and profile ingredients in composite products shall be marked with country of origin or part of the world. The information enhances identity, can be placed in a very visible place on the packaging, and indicate the farm level when this is possible. In meatballs, for example, the primary ingredient is ground meat and thereto both ground beef and ground pork. By profile ingredients is meant, for instance, strawberries in strawberry ice cream. Note that the contents in the individual packaging must come from the area indicated. Examples of text are: “Sweden,” “Europe,” “Europe and/or North America.”

1.1.3 Marketing
All Swedish legislation including the Marketing Act shall be followed with marketing of KRAV-marked products.

1.1.3.1
Marketing may not be in any way improper, misleading or discrediting for KRAV or organic production. (K)

1.1.3.2
A KRAV-marked product may be marketed by all operators in the product's marketing chain. (K)

For instance, in its marketing, a shop may state that it sells KRAV-marked products, even though the shop is not KRAV-certified. A condition is that the products are sold in their original packaging that is KRAV-marked. Otherwise, the following applies:

– Processing operations and restaurants, for instance, may market that they have KRAV-marked butter in the pancakes only if there is a valid contract with an authorized certification body that permits this.
– KRAV-certified meat that is dressed in the shop may be marketed as KRAV-certified only if the retail shop is KRAV-certified.
– It is permitted to indicate that meat comes from animals that have received KRAV-certified fodder only in those cases where an animal product is KRAV-certified.

1.1.3.3
Licensed businesses or production facilities with certified operations may market themselves as KRAV-certified or KRAV-licensed. KRAV’s A-mark may be used. (K)

An institution having one or more parts of the operation certified may only market those parts that are certified. (K)

The exception from this standard is business that only registered KRAV-certified ingredients. See section 1.2.9.

1.1.3.4
In advertising, displays or similar, it shall be evident which products are KRAV-certified. No advance approval is required from KRAV or the certification body. (K)

1.2 STANDARDS FOR MARKING AND MARKETING IN SPECIFIC AREAS

1.2.1 Feed to KRAV-certified animal husbandry

1.2.1.1
Feed may only be marked with KRAV’s label on sacks and product sheets if all feed raw materials are KRAV-certified and feed additives etc., comply with KRAV’s standards. (K)

Feed mixes that also contain non-KRAV-certified raw materials, but only permitted feed additives, may be marketed stating KRAV’s name directly followed by a similar clear statement of the share of KRAV-certified raw materials given as percentage by weight. The calculation shall be based on dry substances of raw materials and total weight. (EU)

According to the Council's regulation (EEC) 223/2003, feed may be marked and marketed as “organic agricultural product” when the share of organic raw materials of agricultural origin exceed 95 percent. Products/feeds where the organic share of raw materials originating from agriculture is lower than 95 percent may marked and marketed with the statement that “the product may be used in organic agriculture according to regulation (EEC) no. 2092/91.”
Feed from conversion year cultivation that was harvested 12 months after the start of the conversion period on the parcel at the earliest may be sold and marketed with labelling "conversion year feed produced during the second the year's conversion cultivation before the production can be KRAV-certified". (EU)

It may not be KRAV-marked (see above). (K)

Feed mixes that also contain KRAV-certified and/or conventional raw materials but only permitted feed additives, may be marketed stating KRAV's name directly followed by a similar clear statement of the share of KRAV-certified raw materials and the share of raw materials produced during the second conversion year. The portion of raw materials shall be given as percentage by weight and the calculation shall be based on dry substance of raw materials and total weight. (EU)

According to the Council's regulation (EEC) 223/2003, feeds containing raw materials from agricultural products under conversion to organic production and/or conventional raw materials in varying quantities marked and marketed with the statement "may be used in organic agriculture in accordance with Regulation (EEC) no. 2092/91. (EEC) no. 2092/91 uses the concept "produced under conversion to organic agriculture on products from “in-conversion year cultivation.”

1.2.2 Animal husbandry

1.2.2.1
KRAV-certified animals being delivered from the farm shall be individually marked and accompanied by documentation that corroborates that the animals are KRAV-certified. Smaller animals such as poultry that cannot be marked individually shall be delivered in marked crates. Labelling shall be such that no mixing between KRAV-certified and non-KRAV-certified animal can occur. (EU)

At slaughter, pigs may be marked with a well-cleaned tattooing hammer on the hindquarters or shoulder. See also 10.3.1
KRAV’s objective is that the most compassionate technique possible for animal marking be used.

1.2.3 Production inputs

1.2.3.1
The following information shall be declared on the packaging for KRAV-certified production inputs:
– Incoming raw materials. For agricultural products and residual products from the food industry, it shall be declared if the raw materials are from conventional or organic production.
– The nitrogen, phosphorous and potassium contents (applies to products marketed as fertilizer). The content may be indicated as an interval.
– A recommended dose or the highest permitted dose. See also Standard 4.2.5 and annexe 3. The recommended dose may not exceed the highest permitted application.
The operator producing products in bulk must include a product sheet with the corresponding information. Products shall be labelled in a manner so that it is possible to determine at what time and where the production (processing, packaging etc) has been carried out. The producer shall from this labelling be able to give details about what raw materials that has been used in the actual product. Labelling may be drawn up by the registered company in an appropriate way.

1.2.4 Textile raw materials and hides, leather and skins from KRAV-certified animal production.

As of 1 January 2007, KRAV's standards include only textile raw materials, such as cotton, wool, linen and hides, leather and skins from KRAV-certified animal husbandry, called KRAV-certified raw materials below

1.2.4.1
With marking or marketing of processed products, one of the following terms shall be used: "Contains KRAV-certified XX", "XX come from KRAV-certified animal husbandry/production” or the equivalent. In addition, on the product, packaging or similar, it shall be declared that the KRAV-certified raw materials are inspected according to KRAV’s standards. It shall be evident, which raw materials are KRAV-certified. When marking or marketing, it shall be evident also, the quantity in percent of total weight of the processed product is KRAV-certified.

1.2.4.2
The term KRAV shall be printed in capital letters but otherwise, marking or marketing in other respects may not indicate a connection in any way through typeface or colour with KRAV incorporated association, logotype or
mark for KRAV-certified production. The products may not be marked as KRAV-certified or marked with KRAV's label. Labelling or marketing may not mislead so that the product is perceived as KRAV certified.

1.2.4.3. The KRAV-certified raw materials in processed products shall be marked with country of origin. In actual cases, the marking shall state where the KRAV-certified animals were raised and where they were slaughtered.

1.2.4.4. Marking of processed products for the consumer market may be done with sewn label, with tags, with the labelling of the enclosing packaging or through stamping.

1.2.5. Retailers

1.2.5.1. A KRAV-certified shop has the right to mark and package KRAV-certified products with KRAV's label. The retailer's name shall be on the product with this type of marking. If a written agreement has been made with the supplier (distributor or the producer), the retail shop may mark KRAV-certified goods with the supplier's name. With any repackaging, for example, trimming vegetables, the retail shop may label the products as they were originally marked.

1.2.5.2. With displays, it shall be evident, which are the KRAV-certified products. At counters selling only KRAV-certified products, the display information may include all products. At counters selling both KRAV-certified and conventional single items by weight, every KRAV-certified product shall be clearly labelled or displayed. In addition to the KRAV mark, the signboard shall, indicate the ultimate responsible producer's name when possible. See also 1.1.2.17. If special packaging materials have been produced for KRAV-certified products, these must be placed near the products so that is clear the products for which the materials are intended.

1.2.6. Restaurants and industrial kitchens

Certifying

1.2.6.1. KRAV's B-mark shall be used for KRAV-certified meals. Food that is not mixed with other foodstuffs and is marked with KRAV's basic mark on the original packaging can continue to be marked with the basic mark.

1.2.6.2. It shall be clear, which ingredients come from KRAV-certified origin. If this is not possible, the staff must be able to give an account of the KRAV-certified ingredients in a dish when questioned.

1.2.6.3. The menu/bill of fare must clearly indicate the KRAV-certified dish. The KRAV-approved alternative must be clearly labelled on the buffet, breakfast and in cafes.

1.2.6.4. The certificate indicating that the industrial kitchen is KRAV certified must be placed in a highly visible location for the guests. The certificate indicated what the kitchen is certified for and who has issued the certification.

Registration of KRAV-certified foodstuffs

1.2.6.5. KRAV's B-mark shall be used for KRAV-certified foodstuffs. Food that is not mixed with other foodstuffs in the kitchen and is marked with KRAV's A-mark on the original packaging can continue to be marked with the A-mark.

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1.2.6.6
The certificate indicating that the industrial kitchen is KRAV certified must be placed in a highly visible location for the guests.

Temporary certification

1.2.6.7
Occasionally, permission can be given to use KRAV’s name and label when serving KRAV-certified dishes or foodstuffs. Examples of these occasions include exhibitions, festivals and “KRAV day” in schools.

1.2.7 Fishing

1.2.7.1
A certifying according to the standards for KRAV-certified fishing may be called “KRAV-certifying”, “KRAV-certified according to standards for KRAV-certified fishing”. A product that comes from a certified operation and fulfils all parts of the standards in chapter 17 may be marketed as “from a KRAV-certified fishing”. KRAV’s B-mark shall be used.

1.2.8 KRAV-certified ingredients

We are currently investigating the legal requirements to be able to apply these rules even for other products than those that fulfil (EEC) no. 2092/91. The company that registers KRAV-certified ingredients according to chapter 18 can state on the packaging and in marketing that a product contains KRAV-certified ingredients even if the product cannot be KRAV marked.

1.2.8.1
Licensees who register KRAV-certified ingredients, write this on the packaging and declare this in their marketing. It shall be evident, which ingredients are KRAV-certified. In the list of ingredients, it shall be clear which weight by percent the KRAV-approved ingredients represent.

1.2.8.2
Products with KRAV-certified ingredients may not be marked as organic, as KRAV-certified or marked with KRAV’s label. Labelling or marketing of products with KRAV-certified ingredients may not in any way mislead to be perceived as they regard a KRAV-certified product.

1.2.8.3
When labelling or marketing, any of the following expressions shall be used: "Contains KRAV-certified XX”, “XX comes from KRAV-certified production” or equivalent. The term KRAV shall be printed in capital letters but otherwise, marking or marketing in other respects may not indicate a connection in any way through typeface or colour with KRAV incorporated association, logotype or mark for KRAV-certified production. On the packaging, it shall also indicate which certification body that inspected the KRAV-certified ingredient.

1.3 STANDARDS FOR LABELLING OF ORIGIN

The purpose of this chapter is to give possibility for the KRAV-licensee who so wish to supplement the KRAV-label with information about origin. The marking is a way to show the extra values that is given by the traceability granted by KRAV certification. This can enhance both the licensees’ own brand and the KRAV-brand and hence contribute to higher volumes of available organic products.

1.3.1 Geographic demarcation of labelling of origin
KRAV-licensee or group of KRAV-licensee who wish to make use of KRAV’s labelling of origin shall clearly define the geographical demarcation for their chosen term of origin. This should as far as possible follow established terms as for a certain farm, a village, a municipality, a region, a lake, or a certain county, a sea etc. The licensee shall at audits provide a map where the demarcation is clearly drawn.

1.3.2 Products consisting of a raw material
The raw material shall come from KRAV-certified production within the declared area of origin.

1.3.3 Products consisting of several raw materials
All content of the main raw material and the character raw material (see definitions) shall come from KRAV-certified production within the declared area of origin.

1.3.4 Processed products
Processing shall if possible be carried out in a KRAV-certified plant within the declared area of origin. If there is no appropriate KRAV-certified plant within the area of origin, processing may be carried out in a KRAV-certified plant outside the area. It is then the obligation of the KRAV-licensee to actively search for a processing plant as close to the declared area of origin as possible.

1.3.5 Design of the marking
Product which fulfils standards 1.3.1-1.3.4 may be marked with origin. Marking is to be drawn up as text directly underneath the KRAV-label which tells the geographical origin as defined in standard 1.3.1 where the geographical demarcation is decided by the producer according to suggestions in the standard. Examples of marking:

Product from Jamtland
Sausage from Storgard
Cod from North of Norway
2. GENERAL STANDARDS

The standards for the approval of products have been changed since previous edition. The standards in chapter 1, 2, and 16 as of KRAV standards last edition translated to English, July 2007, are applicable until March 31, 2008. The July edition is available at www.krav.se.

2.1 REGISTERING

This section describes the general standards for registering to KRAV inspection and general standards for KRAV-certified production.

2.1.1

Producers, processors, marketers or those who otherwise handle products for which KRAV standards apply, can apply to an authorized certification body for registration with KRAV.

The applicant seeking to be a KRAV licensee agrees to:

- to comply with KRAV’s standards (EU)
- submit complete application documents to the certification body (EU)
- pay the application fees for the specified production to the certification body. (EU)

For applications for KRAV registration of wild production, the latest application date applies. (K)

The certification body processes the applications and information on the current standards and fees. A deadline for the last date for wild production applications is in the spring so the certification body can plan for and carry out timely inspections. The deadlines for applications are announced annually.

2.1.2

The Producer/Business is considered to be registered when the complete application has been processed and a registration contract has been signed. In addition, the registrant is bound by the information in the registration application and/or later information. (EU)

2.1.3

To be a KRAV licensee is a voluntary undertaking and is open for all who comply with KRAV standards and the certification body's contracts. (EU)

2.1.4

To preserve the benefits of the KRAV label for all registered producers, KRAV has the exclusive right to change these standards. This may mean that products with valid certificates are decertified in exceptional cases. (K)

2.1.5

Marketing of several KRAV certified products is covered by the “Council regulation (EEC)2092/91 on organic agricultural production and information on agricultural products and foods” and all related regulations and directives. KRAV standards are written so that marketing of KRAV-certified products shall fulfil the legal requirements or the regulations in force. (K)

2.2 CERTIFICATION

2.2.1

The operation is KRAV-certified when the certification body has received the signed operator’s contract and created a certificate for the production. A revision is required before the certificate can be issued (see section 2.4). (EU)

2.2.2

This requires a special/new certification decision for:

- new holding /cow shed /greenhouse (EU)
- new land parcel (EU)
- new animal species (EU)
- production facility (EU)
- new production line (EU)
- the certification body must be notified and certify new processes before the actual use (K)
2.3 COMMITMENT

2.3.1
The licensed operator using KRAV’s name or label in the marketing of products has the full responsibility towards the purchaser for compliance with KRAV standards in the certified production and must bear any financial consequences if non-certified products are delivered as KRAV certified. (K) (IAC)

2.3.2
The licensed operator shall follow KRAV standards and inform all involved in the operations. All personnel handling KRAV-certified products shall have knowledge of the requirements for standard compliance. (EU)

2.3.3
The licensed operators have the responsibility to comply with the latest version of KRAV standards. (See also 2.1.4). (EU)

KRAV-certified production strives to inform the operators of changes in the Standards for KRAV certified production within a reasonable time, at least three months before the standards come into force. The current standards are available at KRAV’s web site - www.krav.se - and may be ordered from the KRAV office in Uppsala, Sweden (in Swedish).

2.3.4
There shall be a contact person for every production unit included in the contract. This person must be well informed about KRAV standards and the operations at the production unit. KRAV must be informed of the name of the contact person. (K)

2.3.5
The licensed operator shall have documentation that shows compliance with KRAV standards and have this available to the certification body. The certification body has the authority to require documentation from the licensee that it deems necessary. The licensee shall continuously document the products and raw materials that are purchased for KRAV-certified production. This shall contain information on quantities, origin and content. The licensee shall also document quantity, content and receivers of sold KRAV-certified goods. (EU)

For purchased raw materials to be KRAV certified, it must be evident on the invoices or delivery notes that the licensee has available. (EU)

The documentation shall be stored for two years so the certification body can inspect. (K) (IAC)

The documentation may be stored as paper copies or electronically.

2.3.6
The licensee undertakes to inform the certification body of all important changes in the operations. (EU)
If a new inspection is required before the certification, the operator bears the costs. (K) (IAC)

Standard 2.2.2 indicates the type of changes that require a new written certification. The KRAV-licensee shall notify its certification body which KRAV-certified products she/he is intended to sell before marketing proceeds.

Important changes are, for example, relocation of a business or a change in ownership.

2.3.7
The operator shall immediately inform KRAV of all violations of standards for KRAV-certified production within the operations. This shall be done regardless of who has violated the standards and regardless of whether or not the violation was a mistake. (EU)

2.3.8
The applicable legislation and regulations shall be followed and are superior to KRAV’s standards for certified production. (EU)

2.3.9
KRAV licensees shall have a written policy on social justice. Operators who hire fewer than ten persons for labour and those who operate under a state system that enforces social laws are exempted from documenting their policy. Products will not be KRAV certified in cases where production is based on violations of basic human rights and clear cases of social injustice.
KRAV licensees may not use forced or involuntary labour. The operators shall provide their employees and contractors equal opportunity and treatment and not act in a discriminatory way. Furthermore, they shall enable children employed to attend basic education. Employees and contractors of organic operations shall have the freedom to associate, the right to organize and the right to bargain collectively. (K) (IBS)

For additional guidance about social conditions, see the relevant ILO conventions, www.ilo.org.

2.4 INSPECTION OF KRAV-CERTIFIED PRODUCTION

2.4.1
When certification body has received an application – or notification of major changes – then the certification body inspects the relevant part of the operations named in the application. After the initial inspection, the certification body is entitled to inspect the operation at any point during the duration of the contract. The certification body is entitled to inspect and receive documentation on other parts of the operations that the operator runs if it is deemed necessary to be able to certify the operation specified in the application. The certification body is also entitled to carry out spot checks of products and production. (EU)

2.4.2
KRAV wants to make it simpler for licensees to show how they comply with KRAV standards. In addition, KRAV appreciates the need to make KRAV inspections more effective. An implemented quality management system or the equivalent makes the inspections and the assessments simpler.

To simplify inspection and assessment that KRAV standards are complied with, the licensee agrees to:

- Implement existing quality management system or equivalent for the entire operation. (K)
- Submit all information concerning the operations that KRAV requests, such as different documents, certificates and accounts. (EU)
- Give the certification body access to fields, greenhouses, animal housing, stores, manufacturing and production premises, sales facilities, eating places and other places that are a part of the operations. (EU)
- Upon request, implement an analysis of land, source materials, products or anything else relevant that is included in the actual production. (EU)

By implementing an existing quality management system, the licensee agrees to comply with the quality management system that the licensee has decided to use in the operations. To implement an existing quality management system does not mean that all licensees must have a quality management system for their operations. The requirement for implementing only applies to the licensees that have decided to use a certain quality management system.

2.4.3
The certification body may issue a sanction to the licensee according to the section on sanctions if there are deviations from the standards and/or contract. (See Standard 2.9.1 -2.9.5.)

2.4.4
Even if the certification body does not discover shortcomings during the inspection, the operator is bound to ensure compliance with KRAV standards. The certification body may comment upon documented shortcomings at any time retroactively. (EU)

2.4.5
The licensee may appeal the certification body's decision. (EU)

The appeal must be in writing to the certification body's certification committee that decides appeals. See also standard 2.10.2 concerning appeal and review. (EU)
2.5 CONTRACT WITH THIRD PARTIES

2.5.1
In some cases, a non-KRAV operator third party can be called in by the KRAV-licensed operation. A follow-up contract shall be drawn up between the KRAV licensee and the third party. This shall be done before the third party handles the KRAV-certified products.

A contract with the third party shall be drawn up in the following cases: (EU)

- The third party markets products under own trademark and the KRAV operator produces the products. The marketer and the operator shall sign the contract. (EU)
- The producer delegates processing (of only own-produced raw materials), called sub-contracting, to a third party. The operator and the third party/sub-contractor are co-signers of the contract. (EU)
- The producer transfers storage/drying of grains or comparable raw materials to the third party. The operator and the person responsible for the drying facility/storage sign the contract. (EU)
- The producer delegates packing and KRAV marking to a supplier not certified by KRAV. The operator and the supplier shall sign the contract. The suppliers shall be certified by another certification body that carries out organic certification. (EU)

The contract between the operator and the third party shall include at the least the following items:

- The third party shall give the certification body the right to inspect the third party according to the conditions in these standards (for more, see section 2.4).
- The third party shall agree to apply the relevant parts of KRAV’s standards. (EU)
- Any eventual divergences that the certification body observes at the third party are the responsibility of the KRAV operator.

The third party does not have the right to use KRAV’s name and label, except with the marketing contract. (EU)

The operator shall have an easy-to-grasp list of the contracted agreements with third parties.

For a more detailed description of the term sub-contracting, see the chapter on definitions. The certification body should furnish a template for third-party contracts.

2.5.2
Sub-contracting contracts apply only to handling/preparation of products that include the producer’s own raw materials exclusively. A sub-contracting agreement is required in all cases regardless of the scale of exchange between the KRAV licensee and non-KRAV operator. If both the producer and the sub-contractor are KRAV licensees, there is no need for an agreement. The certification body must always be notified of sub-contractors. (EU)

2.6 ABOUT THE CONTRACT

Until now, the fees for KRAV certification have been composed partly the actual cost of the certification and partly costs for developing standards, promoting the KRAV mark and organic production. As of 2007, the fees paid to the certification body for the actual certification and to KRAV incorporated association for other work (license fees) are differentiated.

2.6.1
The license fees for the right to use KRAV standards and KRAV mark are listed in the annual price list. KRAV licensees will be invoiced through the certification body that carries out KRAV certification. Exceptions are made for KRAV licensees that have a sales turnover from organic products of more than 10 million SEK where the price list indicates the sales turnover as a basis for setting fees. These operators have a contract and receive invoices from KRAV. (K)

In addition to the license fees, there are fees for certification services established by the certification body. (K)

2.6.2
In the contract with the certification body at least these things are regulated: (K) (IAC)

- The operator’s reporting to the certification body
- Time period for termination
- Other conditions for contract termination
2.6.3
When the contract is terminated, the entire valid certificate, diplomas and similar items shall be immediately returned to the certification body. No product may be marked with KRAV’s label or in any manner of labelling refer to KRAV’s name. Other material that indicates that the operations are certified according to KRAV’s standards shall be destroyed or returned to the certification body. Products may no longer be marketed as KRAV certified. (K) (IAC)
The certification body has the right to ensure that KRAV’s name and mark are not used improperly up until six months after contract termination. This right includes access to accounting records, warehouse, storage and packaging facilities etc. (K)

If KRAV-certified products are no longer produced but the operator wishes to sell the remaining stock, the operator must continue to be a KRAV operator and have a valid contract with the certification body on certification according to “Standards for KRAV-certified production.”

Changing the certification body
The objective with the standards is to describe the process when a KRAV-accredited certification body takes over the responsibility for a KRAV-certified operation from a different accredited certification body.

2.6.4 Application to change the certification body
The KRAV-licensed operator applies to the new certification body to move the certification. While reviewing the contract, the certification body shall ensure that the applicant is not decertified by another accredited certification body with respect to KRAV’s standards. (EU)

2.6.5 Changing the certificate
The certification body taking over the responsibility requests the following documentation: (EU)
- Visit/audit reports from the latest audit
- All divergences and information on corrective measures from the last four audits
- Copy of valid KRAV certificate

The certification body taking over responsibility reviews the documents according to the standard procedure for certifying. The new certification body shall determine the extent to which an on-site visit is required before a new certificate can be issued. All of the existing divergences shall be corrected before a new certification is issued. (K) (IAC)

2.6.6 Reporting to KRAV
The certification body issuing the certificate reports the activity to KRAV according to point 19.2.3 under ”Standards for certification body.” (K)

2.7 CONFIDENTIALITY

2.7.1
The certification body and KRAV shall ensure that the information submitted to the two organizations concerning the business operations and production methods are not released to any third party – unless permitted to do so by the operator. The following standards indicate some exceptions. (EU)

2.7.2
Confidentiality does not apply to information that the certification body and KRAV can prove was in the public domain and not a result of violating the registration contract. (K)

2.7.3
The certification body and KRAV are entitled to make public any information demanded by a court of law or authority. The certification body and KRAV must immediately inform the operator of any information made public. (EU)
KRAV may also use information about and from the operator to develop the organic product market when e.g. publishing statistics. KRAV is entitled to do this even if the information otherwise would be covered by confidentiality. KRAV may only use the information in such a way that the operator cannot be identified. (K)

2.7.5
The certification body and KRAV are entitled to publish information about if and how an operator has transgressed KRAV standards. (EU)

2.8 HANDLING OF PERSONAL RECORDS

2.8.1
The certification body and KRAV have a directory of all KRAV licensees including information on name, address, contact person/s and the nature of operations. The directory helps the certification body and KRAV to work effectively. (EU)
The information may be released on the KRAV web site and/or the certification body’s web site. The web sites enable purchasers seeking to buy KRAV certified products to find KRAV-certified products and producers. (K) (IAC)
The signing of the registration contract implies that the licensee consents to the handling of the personal records. (K)

2.8.2
The licensee should contact the certification body and KRAV immediately to revoke consent or correct information in the certification body's and KRAV’s directory. (K) (IAC)

2.8.3
The certification body and KRAV will release an account of how personal records have been handled, to what purpose, the information registered, source of information and to whom information has been released to the licensee upon request. (K) (IAC)

2.9 DIVERGENCES AND SANCTIONS

The objective with divergence reporting and sanctions is to put improvements into action, to clearly show when KRAV’s standards are not fulfilled, to prevent products that do not comply with the requirement do not come to the market and to prevent damage to the KRAV mark's credibility. (IAC)

2.9.1 Definition of divergence

Less serious divergence

- Deviation from a single requirement in a KRAV standard

Larger divergence

- Divergence that include serious deviations from one more inclusive standard or a group of standards that are governed by closely-related issues.
- The operator has received at least 6 less serious divergences from the requirement in the same chapter or a total of at least 10 less serious divergences
- The operator operates production or operation that is illegal according to the current laws and regulations within the actual area (see standard 2.3.8).
- Working and/or social conditions are substandard (See standard 2.3.9)
- Less serious divergence that are not corrected.

Divergences as grounds for exclusion
• The production seriously conflicts with "The objective of organic production" presented first in these standards. Examples of these are
• Intentional use of chemicals not permitted in crop production
• Serious diversion from animal husbandry standards
• Intentional use of GMO or products from GMO
• Intentional mixing additives is not permitted in food preparation
• The operator slanders or spreads incorrect information about KRAV or acts in another way that endangers KRAV as an organization or the value of the KRAV mark
• Incorrect statement of non-KRAV-certified raw materials or that products are KRAV certified
• Larger divergence repeated for the third time within five years.

2.9.2 Sanctions

Less serious divergence

A written answer to the diversions is requested from the operator. The written answer shall be received within 28 days and include a description of the corrective measures, description of reason for the divergence and preventive measures to avoid a recurrence. In appropriate cases, the measures can be taken immediately and certified by the auditor while the audit is underway. The certification body shall notify the operator if the answer (certification decision) is acceptable or not within 5 working days. If the answer is not accepted, the uncorrected diversences are reclassified as a more serious divergence and are handled according to this procedure. The certification body has the possibility to request an additional answer if it assesses that the operator is close to a satisfactory solution. The certification body determines the time allowed for the response. The certification body reviews remedies and preventive measures at the next audit. Less serious diversences that are not corrected or prevented at the time of the next audit will automatically be classified as a more serious divergence.

Larger divergence

1 Divergence that can be corrected

• The certification body requests a written plan of action with the corrective measures, the reason for the divergence and preventive measures within 7 days. In appropriate cases, the measures can be taken immediately and certified by the auditor during the audit. A product and production can be decertified temporarily. The certification body shall notify the operator if the reply (certification decision) is acceptable or not within 5 working days. The plan of action relating to the reasons for the divergence and preventive measures shall be included also in these cases.
• If the plan is accepted, an extra inspection is called for follow-up within 28 days from the time of the audit. The operator pays for the inspection.

2 Divergences that cannot be corrected

• Product or production decertified (EU)
• If land or animals in continuous production are permanently affected, a new conversion period is started according to the standards. (EU)

Divergence as grounds for exclusion

The operator can be excluded for a period of 1–3 years and can then request registration on the same terms as a new operator. (K)

During the exclusion period, it is, of course, not possible to apply for registration with another certification body

Economic sanctions
Producers who act in such a way that KRAV must go in to a considerable extent and act to protect the trademark can be liable to pay damages for the additional costs that KRAV incurs. (K)
2.10 APPEAL

2.10.1
The certification body's decision may be appealed to the certification body's certification committee. Only the licensee may appeal a decision concerning an individual certification matter. The certification body must receive the appeal within three weeks after the licensee has been informed of the decision. (EU)
The certification body is entitled to review the decision without any right to appeal if new information becomes known.

2.11 ENVIRONMENT, NATURE AND CULTURAL PROTECTION

Food production shall add to the enrichment of the natural and cultural environment. This demands conscious decisions and commitments in the whole chain of custody, not in the least when choosing resources. The following is required to reach the objectives for organic agriculture to preserve and strengthen in the long-term, the ecosystems and to protect and develop the agricultural landscape nature and cultural values:
1. that consideration is given to the environment surrounding the production facility.
2. a well-developed protection and care for the natural and cultural environments
3. that a general consideration given to biodiversity is integrated in all of the operations
4. that processed products are produced with the least possible environmental impact on the surrounding environment and minimal damage has been done to the final product.

2.11.1
KRAV licensees shall care for the natural and cultural environment. Special consideration must be shown to natural and cultural environments needing protection.
KRAV licensees must observe KRAV recommendations found in annexe 1. (K)

2.11.2
Hazardous waste shall be minimized. See the definitions for the meaning of hazardous waste. Hazardous waste must be stored and handled so there is no danger that soil, air or water will be polluted. Different types of hazardous wastes may not be mixed. Neither may hazardous waste be mixed with other types of waste, substances or materials. (K)
Hazardous waste may only be transported by businesses that have special permission. KRAV licensees may transport some hazardous waste from their own operations without permission but only in smaller quantities. (K) (SL)
For more information, please see the Swedish Waste Regulation (SFS 2001:1063).

2.11.3
KRAV licensees must have an environmental policy and manage a systematic environmental effort. The operations should be documented using an environmental management system or similar, for example the Audit Scheme in Swedish Agriculture. Documentation must contain defined objectives that are followed up during the certification body's inspection. (K)

2.12 HANDLING KRAV-CERTIFIED PRODUCTS

2.12.1
KRAV licensees using the KRAV label on products sold to the consumer must be able to show that all steps in the chain of production and handling leading to the final product are KRAV certified. (EU)
KRAV licensees whose operations include processing and handling of products must have a special contract, a processing contract, with the certification body. (EU)
Exceptions to the requirement for a processing contract include
1. enterprises that only handle unopened KRAV certified products,
2. producer licensees registered with the agricultural certification programme that only handle their own raw materials
3. producer licensees registered with the agricultural certification programme that have a limited processing of their own raw materials
4. licensees registered with the agricultural certification programme that carry out sub-contracting according to standards 2.5.1 and 2.5.2,
5. processors that sub-contract according to standards 2.5.1 and 2.5.2 or
6. companies that bring in/import products and only package or repackage

With the limited scope according to point 3, it is meant that the sales net of the processed products is less than three basic amounts annually. At least 50 percent of the final product must consist of the producer's own products and it shall fulfil the standard for A products.

Processing according to point 3 must be reported to the certification body.

According to point 6, businesses shall be registered for recertification of introduced/imported products (see chapter 16). (EU)

2.12.2
Those excluded from the processing contract according to standard 2.12.1, point 4 and 5, shall have a subcontractor contract with the certification body according to 2.5.1 and 2.5.2.

Separation

2.12.3
All handling of KRAV-certified products shall occur in such in way that there is no danger of mixing with non-KRAV certified products. KRAV certified products shall be stored and handled so that separate handling is ensured and no contamination of the product can occur. Containers, packaging or other factors in the surroundings may not contaminate products. (EU)

2.12.4
When facilities, equipment etc. are used for both KRAV certified and non-KRAV-certified production, the danger of mixing shall be minimized through a clear differentiation in the production. Containers, equipment for transport, machinery, etc. shall be carefully cleaned before KRAV certified production is started. The procedures guaranteeing handling must be in writing. (EU)

Transport

2.12.5
Carriers without a special contract may transport KRAV certified products. The supplier must ensure that marking of the products, delivery notes and invoices are formulated according to chapter 1, Marking and marketing. Upon delivery, the purchaser shall ensure the products are properly labelled and packaged on delivery so that no substitution or mixing of products can occur.

KRAV certified products shall be transported and handled so that separate handling is ensured and no contamination is possible. Containers, packaging or other factors in the surroundings may not contaminate products. (EU)

Storage

2.12.6
During storage, KRAV certified products shall always be clearly labelled with the KRAV name or label in their respective units. Exceptions may be made only if all products in a certain storage area are KRAV certified. (EU)

2.12.7
KRAV-certified products shall be stored and handled so that separate handling is ensured and no contamination of the products can occur. Containers, packaging or other factors in the surroundings may not contaminate products. If there is a danger of contamination, KRAV-certified products may not be stored in the same warehouse with products that have been chemically treated after harvest. (EU)

Airtight storage or storage in a controlled atmosphere (carbon dioxide, nitrogen, argon or oxygen) is permitted.

2.12.8
KRAV certified products may not be stored in packaging or wrappings (such as reusable packaging or boxes) in which non-certified products have been stored unless the packaging and wrappings have been thoroughly cleaned. (EU)
Suppliers not KRAV certified may store KRAV certified products and raw materials in separate units, boxes, and containers or similar, without any sub-contractor contract. (EU)

**Cleaning, disinfection and pest control**

**Preventive measures**

*2.12.9* KRAV licensees shall work with preventive measures including risk assessment, sanitary and building measures, surveillance and cleaning. (EU)

KRAV licensees must be observant of the limits and take steps and other necessary precautions to forestall, prevent, or counteract the operations or measures bring about harm or nuisance to human health or the environment. KRAV licensees must also avoid using chemical products or biotechnical organisms that may possibly danger human health or the environment, if they can be replaced with products or organisms that are considered less harmful. For more information please see Chapter 2 §§ 3 and 6 in the Swedish Environmental Code (SFS 1998:808). (K) (SL)

*2.12.10* KRAV licensees shall consider the potential production problems in their risk assessment. Considering the risk assessment measures shall be taken to minimize potential problems.

In addition, KRAV licensees shall carry out sanitary and building measures such as proper waste disposal. Measures must be taken to correct deficiencies. In addition, licensees shall have a documented system for regular supervision of the operations. (K)

The licensees shall also perform appropriate and continuous cleaning. Cleaning agents must be eco-labelled. (K)

If eco-labelled cleaning products are not available, the precautionary principle described in standard 2.12.9 should determine the choice of product. (K)

**Measures**

*2.12.11* KRAV-certified products shall be stored and handled so that separate handling is ensured and no contamination possible. Containers, packaging or other factors in the surroundings may not contaminate the products. (EU)

Disinfection and pest control shall always be documented. The following agents and methods are permitted when carrying out pest control and disinfection in production facilities and storage areas where KRAV-certified products are stored or handled:

- mechanical methods
- physical methods,
- biotechnical methods or
- chemical methods

**Mechanical methods include**

- traps and catching devices
- rat and mousetraps
- pheromones and pheromone traps
- or insect bait with boric acid. (The Swedish National Chemicals Inspectorate is testing the use of boric acid in specific circumstances).

**Physical methods include**

- freezing
- light traps for capturing .winged insects
- ultrasound against rats and mice
- ultraviolet light
- heat or
- steam

**Biotechnical methods include**

- diatomaceous earth
- ethyl alcohol
- sulphur
• oxygen reduction with nitrogen gas
• soaps and vegetable oils or
• acetic acid,
Chemical methods include using naturally occurring, non-synthetic products or substances or eco-labelled chemicals.
Chemical methods may be used when other methods are considered impossible and after a review. When using chemical methods, the principle of the best available technique shall be used. For more information please see chapter 2 § 3 of the Swedish Environmental Code (Miljöbalken SFS 1998:808). (K) (SL)
Organisms/substances used in biotechnical methods stated in paragraph 4 may not be produced using genetic engineering or GMO. (K)
The Swedish National Chemicals Inspectorate must approve the pest control substances before sale and use (there are exceptions). Please also see the Swedish national rules on caution that include limits on using chemical products (or biotechnical organisms) Chapter 14 §17 of the Swedish Environmental Code (SFS 1998:808).

2.12.12
If there is pest control and disinfection in facilities where no KRAV certified products are handled or stored at the time, with substances other than those listed in 2.12.11, measures must be taken to ensure that KRAV-certified production will not be exposed to traces of the substances. A disinfection and pest control diary must be kept. Using pest control agents may be authorized in retailers, subject to review, even if KRAV-certified products remain at the retailer's premises. (EU)

Packaging

2.12.13
Environmentally-adapted packaging is the preferred choice. (K)
Minimizing packaging materials is an objective. KRAV’s goal is that no PVC and other chlorine-based plastics will be used in packaging KRAV-certified products.

2.12.14
Packaging materials may not be treated with preservatives or chemicals that can be a danger to health or the environment. For more information, please see the Swedish National Chemicals Inspectorate database describing limits governing use of chemicals and the Observation List for more information on environmental and health hazards of the chemicals. (K)

2.12.15
Only those processes listed in standard 9.2.4 are permitted for processing grains and feed. (EU) (K)

2.13 FOREIGN PRODUCTION DIRECTLY CERTIFIED ACCORDING TO KRAV STANDARDS
KRAV standards are developed for the conditions in the Nordic countries.

2.13.1
KRAV’s standards apply in all of the applicable parts. Exceptions can be made in those cases where these are not applicable because of different conditions if the exceptions fulfil IFOAM Basic Standards and the EU regulations for organic production. (K)
3. AGRICULTURE

The basis for organic production is a caring for nature's underlying functions and efforts for global solidarity. The efforts are directed at showing care for the natural course of events and behaviour. The objective with the standards in this chapter is that a greater consideration shall be taken of the environment, nature and cultural protection on farms driving organic production. Refuse shall be recycled and environmentally hazardous substances may not load the production or the surrounding environment. Cultivation and storage shall be implemented so that the value of the organic products as food and/or feed is not jeopardized. Extra thoroughness is necessary if the entire production on the farm is not organic so that the organic part of the production is protected from contamination of undesirable substances.

3.1 EXTENT

3.1.1
Inspections encompass the entire holding. The obligation to comply with KRAV’s standards applies to the production that is registered as KRAV certified. (EU)

3.1.2
In cases where only part of the total holding is KRAV-certified or in conversion, non-organic production shall be kept clearly separate from the KRAV-certified cultivation. KRAV-licensed animal husbandry shall be managed separately from conventional production. (EU)

3.1.3
When a producer has two or more KRAV–licensed farms at such a distance so that they cannot be inspected during the same inspection visit, or the producer has separate accounting for the units, the units shall be handled as separate businesses licensed to the certification body. (K)

3.1.4
If a producer has several production units, if there is extensive cooperation between two farm businesses or when a production unit is divided up in several units and in any case there is a danger of mixing KRAV-certified and conventional production, the certification body can require information from the entire original economic entity, or other holding in near cooperation and also implement extra inspections. (EU)

3.1.5
In the following cases, KRAV standards may apply to the entire holding:

- Chemical pesticides and herbicides//chemical agents may not be used on gravel paths, roads and farmyards with the exception of acetic acid. (K)
- Cultivation of genetically modified crops is not permitted on the conventional part of the holding or in the products that are marked indicating that they are rendered from genetic modified organisms. If the cooperation or risk of mixing exists as described in 3.1.4, then these holdings/agricultural businesses are included. (K)
- Eco-labelled products are the first choice in facilities where the drainage is connected to a manure tank or other drainage from which the final product can be used for cultivation purposes. When these products are not available, other environmentally-adapted products may be used and may not be classified with any of the risk phrases in annex 9. (K)
- The business running an economic entity shall apply a system for self-auditing, for example, the Federation of Swedish Farmers’ Environmental Audit Scheme or equivalent. See also 2.11.3 (K)
- The business shall document production annually in accordance with 2.3.5.
Practical handling standards for agriculture

3.1.6
KRAV-certified products, production inputs, fodder etc. shall be handled separately from non-KRAV-certified products. See section 2.12. (EU)

3.1.7
The general standards for storage and handling shall be followed even in cases where producers handle their own products exclusively. These also apply to handling of milk, harvesters, storage etc. See section 2.12. (EU)

3.1.8
Temporary storage or handling of products outside of the economic entity is covered in the standards for handling and processing. See section 2.5 and 2.12. Such handling shall be licensed through a processing contract or sub-contracting contract. Farm shops are governed by the standards for retailers in Chapter 14. (EU)

Storage and handling of products from other operators on the farm’s own holding shall be documented and there shall be procedures for separate storage.

3.2 NATURE AND CULTURAL PROTECTION

3.2.1
Great respect shall be shown to nature and cultural environments including biodiversity. A natural and cultural heritage management plan to ensure biodiversity must be in place and be implemented and followed. If there is no such plan for the farm yet, the Environmental Audit Scheme checklist on biotope protection as well as ancient monuments shall be implemented and followed. (K) (IBS)

- Pastures must be managed in such way so that negative effects on land and water are minimized. (K) (IBS)
- Field islets and other valuable landscape features as well as natural pasturelands shall be protected from rooting domestic animals. (K)
- Worth protecting meadows and pasturelands shall be well maintained. (K)
- Additional feeding on natural pasturelands shall be avoided. (K)
- Food-bearing trees and bushes (wild fruit tree, nut trees and similar) as well as topped tree and avenues shall be preserved or when not possible, replaced with new trees. (K)
- Compounds with non-degradable components, for example, avermectin shall be avoided for parasite control when animals are on natural pasturelands. (K)
- Cultivation or other permanent changes of primary ecosystems should be avoided. (K) (IBS)

Example of a compound that contains avermectin is Ivomec.

3.2.2
Preventive technical cultivation methods for weed control and harmful insects shall be used to the greatest possible extent. Cultivation shall be maintained well and be managed to avoid proliferation of weeds and harmful insects. (EU)
3.3 ENVIRONMENTAL PROTECTION

3.3.1
Vehicles and other kinds of scrap, paper, oils, batteries and other residual products or refuse that are not likely to be used for repairs shall be sorted and sent for reuse, recycling or energy recovery. (K) (SL)

Materials and spare parts required for repairs shall be neatly gathered and placed in the storage area, which shall be maintained so that materials are not covered with vegetation. Wire fencing not in use shall be removed. (K)

See 2.11.2 and the Federation of Swedish Farmers' Environmental Audit Scheme, General farm requirements: Checklist for impact on the environment, storage, cisterns for diesel, refrigeration/heat installation, hazardous refuse and other refuse.

3.3.2
Fibre cloths and plastics for soil and covering plants, insect net and silage plastic may not be produced from chlorinated plastics (such as polyvinyl chloride, PVC). The products shall be removed from the soil/earth after use and may not be burned in places where they are used. (K) (IBS)

It is not necessary to remove degradable materials from place of cultivation.

Buffer zone, pollutants

3.3.3
Arable land located within 25 metres from a road carrying more than 3 000 vehicles per 24 hours may not be used for crops destined for human consumption. (K) (IBS)

3.3.4
A cultivation site may be decertified because of residues of undesirable substances, e.g. residues from sources of contamination are found in the organic products in such concentrations that it affects the product's value as food or feed. (K)

According to the Environmental Code, the producer shall document known soil contamination.

3.3.5
In cases where the entire holding is not farmed according to KRAV’s standards, chemical pesticides and herbicides may not be used within 25 metres of KRAV-certified cultivation. Artificial fertilizers may not be spread within 10 metres of the KRAV-certified cultivation. If fertilizer is drilled in, this distance will be reduced to 1 metre. If the same person/business manages conventional cultivation in another business/on another holding where cultivation borders the organic cultivation, the buffer zone shall be according to the above. (K)

3.3.6
If chemical pesticides and herbicides and artificial fertilizers are used on land farmed by another producer adjacent to land with KRAV-certified organic cultivation, action should be taken to minimize the risk of contamination of the KRAV-licensed land or crops. Such action may include: an agreement with a neighbour on the establishment of a buffer zone, establishing a buffer zone of one’s own, or the planting of a windbreak. (K) (IBS)

3.3.7
Seed drills, manure spreaders, agricultural sprayers etc. shall be well cleaned if they have also been used for production inputs, seed etc. which are not permitted according to KRAV standards. (K)

3.3.8
The application of heavy metals to arable land is to be limited. The highest permitted average amounts of heavy metals applied (over a five-year period) are given in annexe 3.

Heavy metals application can be fertilizer, lime, soil conditioners, plant protectants as well fodder and feed minerals are applied. When there is reason to believe that the levels of heavy metals are excessive, the product is analyzed before use. See 4.3.2.
4. CROP PRODUCTION

The objective is to manage a long-term sustainable crop production that produces high quality products and is credible to consumers. Organic crop cultivation shall be designed so that:

– the soil and other ecosystem’s long-term capacity for production is preserved
– the biodiversity and genetic diversity in the cultural landscape and in the production are protected and developed
– the use of non-renewable fuel and other non-renewable resources are minimized
– the use of synthetic/unnatural substances is avoided and discharge of pollutants to the surrounding environment is minimized.
– preparation of the soil through burning vegetation may only occur in exceptional cases
– water resources may not be overutilized and water quality is preserved
– counteractive measures shall be taken if there is a danger of soil salinification.

4.1 GENERAL

Conversion period

4.1.1 Cultivation shall be KRAV-licensed and inspected during the conversion period. The land shall have undergone a conversion period of two years before sowing annual crops that will be KRAV-certified. For grasslands and pasture, the soil shall have undergone a 2-year conversion period before harvest of KRAV-certified crops. For other established perennial crops (fruit trees, berry bushes, etc.), the land shall have undergone a conversion period of three years before harvest of KRAV-certified produce. For land that has been exposed to intensive chemical control, the conversion period may be extended. (EU)

Cultivation in a separate sand filtration bed in soil consisting only of ingredients permitted according to these standards (see 4.7.1), can be certified without a conversion period. (K)

Feed from conversion year cultivation that is harvested at the earliest 12 months after the start of the conversion period on the parcel may be sold and marketed with special marking. See standard 1.2.1.2. (EU)

The certification body shall be notified of all included land. The conversion is begun on the date the land is reported. The 2-year conversion for annual crops is to be seen out of a seasonable perspective. This means that a field that has been registered to conversion period in springtime may be fully certified two years later even if it is not exactly 24 months after the start of conversion.

A separate sand filtration bed in paragraph 2 means that there is a barrier so that the crops cannot be exposed to the original soil. A barrier can be plastic, sheet metal, concrete, wood or other material that crop roots normally cannot penetrate.

4.1.2 Retroactive certification of the conversion period

Under certain circumstances those who have had their production in an organic production system for some time can use that time as a part of their conversion period to obtain a KRAV certification earlier. (EU)

No additional requirements are necessary for those who have had their organic production certified according to (EEC) no. 2092/91. (K)

For those who have had land with EU subsidies for organic cultivation comparable with conversion period, land that has been uncultivated, pasture or land withdrawn during three consecutive years before the application and where the production has complied with the KRAV standards, the conversion period can be acknowledged retroactively. (EU)

The written application on retroactive certification of the conversion period shall be sent to the certification body. The inspection of the land shall take place before the KRAV-certified product is harvested. The certification body establishes the deadline for the application and the fees for handling. Enclosed the application should be documentation which shows that the land had field-bound environment support for the actual years. If the land has been in uncultivated ley, pasture or fallow field a written statement is needed that KRAV standards were followed during a period of three years. The person giving such a written statement shall be well informed of the farm’s operations and shall be a crop cultivation advisor with knowledge of organic cultivation and KRAV’s standards or a farmer with KRAV-certified crop production. Stored harvests from land that first after harvest has been granted certification of the conversion period shall be considered as conventional products.

In cases when retroactive certification only can be made for one year, the year’s crops* can be certified as feed from cultivation under conversion. These may be sold with a special label as indicated in Standard 1.2.1.2. The last conventional
measure may not be taken later than 12 months before the harvest.

* The year's crops include in this case the crops that are harvested after the decision on the retroactive certification of a one-year conversion.

New cultivated land

4.1.3 KRAV-certified land may not be removed from the KRAV-certification to be added again later. It is not permitted to move the KRAV–certified cultivation. Therefore, new acreage may be certified only if all previously certified acreage is still certified. If new land is reported, KRAV–certified land may not be removed from the certification later during the same season.

An exception can be made when the producer lost land that was KRAV–certified earlier. An exception can also be made if the KRAV–licensed part of a holding would thereby create a more coherent geographical structure or if there are other compelling reasons to cease KRAV–certified cultivation on then actual land. It is permitted for neighbours to cooperate to utilize other's land for feed production during the conversion period. (K) (IBS) The producer shall document the measures taken, the land concerned and justify why an exception should be allowed. The standards apply also to greenhouses and greenhouse divisions.

Parallel production

4.1.4 A crop intended to be sold as KRAV-certified may not be cultivated in both a conventional and an organic system on the same holding (parallel cultivation), unless the varieties differ in such a way that they can easily be distinguished by the producer, the certification body and buyers during and after harvest. The certification body may grant exceptions to this only after receiving a written application on parallel production where the following criteria are met:

- The KRAV certified and non-certified crops are harvested at different times and dates, so that verification of the separate grain harvests is possible;
- With simultaneous harvest of KRAV–certified and non-KRAV–certified crops, a harvest diary shall be kept where information on every harvesting occasion and the quantity of the harvest per occasion is reported. The harvest diary shall be available for inspection.
- The products are handled after harvest in such a way that it can be guaranteed that certified and non-certified products have not been mixed. Procedures for separate storage shall be available for inspection.
- The harvested quantity of KRAV–certified and non-KRAV–certified crops shall be documented and be available for inspection. (EU)
- Parallel production inspection according to the above is required if the same crops intended for sale as feed from the second year conversion period and as KRAV-certified or conventional. (EU)

The certification body has the right to prepare separate instructions when granting an application as well as indicate the final date for the application and fees for handling of parallel production. The following cases do not require an application on parallel production:

If the KRAV-certified/organic part of the harvest will be sold as conventional, used as fodder for the farm's own animals, used for own seeds.
- It is winter and spring varieties of the same crops.
- Mixed crops with at least 10% of seeds of other crops contra pure stand (undersown of part of the field when outwintering does not mean "mixed crops")
- Pasture seed mixtures of totally different species.
- Potatoes with a skin colour or very characteristic form, for example, almond potatoes and asparagus potatoes compared with other varieties.
- Conventional chips/starch – potatoes and KRAV-certified/organic potatoes
- Cultivation of early KRAV–certified crops and late conventional, where at least six weeks between times of harvest for the KRAV–certified crops and the conventional and where the KRAV–certified crops cannot be stored but shall be sold directly as perishable goods. Note that the KRAV–certified crops shall be harvested first – the reverse does not apply. Example: KRAV–certified early baby carrots and late conventional for storage, KRAV–certified new potatoes and conventional winter potatoes or KRAV–certified canning peas and conventional table peas.

Assessment of production inputs
4.1.5

To determine whether a production input for crop production or greenhouse production, is allowed for use in KRAV-certified production, the certification body can make a special assessment of the product. If the product fulfil all standards regarding the process of production and the origin of raw material according to chapter 4, the product may be published at www.krav.se. In product information (however not displayed on packaging) it may be stated that the product is allowed for use in KRAV-certified production. These products may not be marked with KRAV’s label for production inputs which is for use only at production inputs certified according to chapter 12. KRAV’s label may neither be used in marketing of the product.

The assessment shall be done according to IFOAM’s accreditation criteria “Approval Systems for Brand Name Inputs”
4.2 PLANT NUTRIENTS

4.2.1 Certification depends on nutrient management, the inclusion of leys or green manure in the rotation system and the farmer’s endeavours to minimize the loss of plant nutrients. (EU)

Exceptions to crop rotation include cultivation of perennials with a rotation period of more than 5 years, bushes and trees, permanent pasture and greenhouse cultivation. (K)

4.2.2 Measures shall be taken to reduce the danger of erosion. Covered land during winter is an objective. Cultivation of catch crops is recommended when it is possible. Animal manure shall be handled to minimize nutrient losses. Leys rich in leguminous plants shall be ploughed-under at a time when the danger for plant nutrient leaching is minimized. (K)

The current legislation and regulations shall be followed in relation to the requirements for covering land during the winter and time for spreading manure in specific areas. See also Federation of Swedish Farmers' Environmental Audit Scheme, Crop production: checklist for autumn/winter covered soil, storage of animal manure, spreading of organic fertilizer, animal density and acreage for spreading.

4.2.3 The basic objective in organic cultivation is to minimize the negative affects on the land, the surrounding ecosystem and to minimize use of non-renewable resources. Therefore, it is important to minimize plant nutrient losses from organic cultivation. To help KRAV-licensed producers to have a good control of the plant nutrients and minimize the risk for losses, the following reporting system for plant nutrients is introduced. The system is based on a calculation of the balance of phosphorous, partially because phosphorous is a finite resource and partly so that the excess application of phosphorous class III–V indicates a successive increase of easily-soluble phosphorous on most soils with increased risk for plant nutrient runoff as a consequence. The balance sheet for phosphorous is easy to implement and interpret. KRAV-licensed producers can easily make their own balance sheet as well as compare the results with other KRAV-licensed producers. The reporting system for plant nutrients is voluntary until 2009 and then will include all KRAV-licensed producers.

All KRAV-licensed producers shall have a reporting system for plant nutrients after 2009. The balance report shall include:

1. An annual balance sheet of phosphorous at the farm level.

The balance of phosphorus based on the farm's annual production information and calculated as the difference between introduced and removed plant nutrients at the farm level for the organic land area. The pasture outside the field is included in the estimation of the basis of acreage but with a reduction factor of 0.5. The phosphorous balance shall be updated every year after the season and reported to certification body. (K)

2. This shall be an actual reporting of measures taken and are being taken to reduce plant nutrient losses, for example, manuring strategy, time for spreading and the technique for animal manure, time for breaking clover-rich pasture, handling of catch crops, and handling of nutrient solution and excess irrigation water (greenhouse). (K)

3. A more thorough review shall be implemented every 5 years on farms with:
   - more than 50 ha of fields (K)
   - or more than 25 animal units (K)
   - or more than a total of 5 ha cultivation of outdoor vegetables, potatoes, sugar beets, fruit and berry bushes. (K)

The more thorough review of the nutrient reporting means a nutrient balance carried out in STANK in MIND or equivalent that includes nitrogen fixing and a documented review of nitrogen strategy including a suggestion for measures. An approved advisor with qualifications in the area shall either carry out or review the work. The work shall be documented and include: (K)

- nitrogen balance at the farm level based on production during a normal year. The calculation shall include nitrogen fixing and fallout. (K)
- plan for manuring including calculations of leaching for the farm's different types of crop rotations when applicable, including pasture outside the fields. (K)
- suggestions for measures (K)
4. On farms with an excess of phosphorous (higher supply than removal over 1 kg), a soil map shall be available that correspond to standard mapping according to good soil mapping practice. This means that the soil map be no more than 10 years old. Older soil maps may be accepted if follow-up mapping is carried out. (K)

With a starting point in the reporting system for plant nutrients and possible soil maps, the delivery of plant nutrients is limited to reduce the danger for leaching to the surrounding environment. (K)

- For phosphorous, the aim shall be to achieve a balance between introduced and removed quantities in P–AL class III. A surplus may be permitted depending on the class of phosphorous. See annexe 10 (K)
- For nitrogen, the surplus shall be minimized. Measures must be taken if there is a large surplus to reduce the danger for nitrogen leaching to the surroundings. See annexe 10 for more information (K)
- For other nutrients, a large surplus and long-term deficiency shall be avoided. (K)

Greenhouses

For greenhouse cultivation, points 1, 3 and 4 above do not apply. Instead, an annual plant-nutrient balance for nitrogen, phosphorous and potassium is prepared for every house/department annually. When cultivating in a nutrient medium, separate reporting shall be prepared for every culture. The plant-nutrient balance shall be updated every year after season and reported to the certification body. (K)

When cultivated in a nutrient medium (such as a pot) the soil volume shall be more than 30 litres/plant for annual vegetable cultures with a long-growing season and 0.2 litre/pot for other cultures. The culture medium may only consist of biologically-inactive material. (K)

Animal units according to point 3 are defined according to the Swedish Code of Statutes 1998:899; see Federation of Swedish Farmers Environmental Audit Scheme.

For the definition of good soil mapping practice according to point 4, see Guidelines for fertilizing and liming: www.sjv.se

The last paragraph: example of vegetable cultures with a long-growing season include tomato, cucumber, peppers and eggplant. By other cultures is meant primarily herbs but also berry cultures such as strawberries can be included in this group.

The reduction for pasture outside of field according to point 1 means that when the parts resulting from the balance calculations with the farm's total organic area to arrive at a value per ha, only half of the pasture outside of the field shall be included with the area.

4.2.4

A permanent, unfertilized overgrown buffer zone at least 3 metres wide (measured horizontally from the edge of the water) is to be left beside watercourses, wetlands and lakes that have are water bearing year round. (K)

When spreading animal manure next to a waterway, a wider, unfertilized buffer zone is applied that stretches a bit into the field. KRAV recommends that the buffer zones besides waterways be designed within the environmental support program according to the standards included there.

4.3 FERTILIZER, SOIL CONDITIONERS

4.3.1

Fertilizer from crop production and animal husbandry residues shall be the basis in the manuring plan. Import of organic or non-organic fertilizer according to 4.3.3–4.3.7 is acceptable only when there is a need and after that, other technical cultivation measures and manure from the farm's own organic production do not fulfil the needs. (EU)

When choosing fertilizer, the ecosystem cycle principle shall weigh in heavily along with the use of finite resources. When supplying conventional animal manure, aspects on the ability of the feeding system to satisfy animals’ natural behaviour and other animal ethics shall be considered. (K)

Fertilizer may not consist of or be developed from or contain traces of genetically modified organisms (GMO), see 4.3.2. (EU)

Fertilizer applications may not lead to a concentration of heavy metals or other environmentally dangerous substances or infectious substances in soil, see 4.3.2 and annexe 3. (K)

Annex II of the Council Regulation (EEC) no 2092/91 indicates the kinds of fertilizer and soil conditioners that may be used in organic production are regulated. (This does not automatically allow the products to be used in KRAV-certified production).

For substances not included in 4.3.3 or 4.3.6, a KRAV-licensed producer may contact the certification body to request an immediate change in the standards at the standard owner (KRAV). If a special reason exists for the substance to be permitted

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in KRAV–certified cultivation, the certification body shall consider requesting the standard owner to infer an immediate change in the standards

4.3.2
Fertilizers and soil conditioners shall be analysed before spreading for heavy metal content and radioactive, contaminating or other undesirable substances where there is reason to expect high concentrations. This always applies in the case of by-products from industry, excluding food classed wastes, and large-scale incineration such as ash, sludge and industrial lime. (K)

If there is a danger the manure is made from, consists of or contains traces of genetically modified organisms (GMO), the product must be accompanied by a GMO–free affidavit or analysed for content of GMO before use. (EU)

Fertilizer can be decertified if the production and use results in an unacceptable impact on the environment. (K)
It is the responsibility of the KRAV–certified producer/business to furnish the actual analysis or GMO–free affidavit. The total supply of heavy metals is limited by annexe 3.
For assessment of the risk for GMO and guidelines for GMO–free affidavit, see KRAV’s risk list for GMO: www.krav.se

Organic fertilizer

4.3.3
Changes to this paragraph which are written in bold text below, must be applied at latest 1st of April 2008.

Permitted fertilizers:
- Animal manure, with the exceptions listed in 4.3.5, straw, plant residues, waste from green manure, leys and similar agricultural products from both KRAV–certified and conventional production. (EU) (K)
- Peat to plants, compost, litter, greenhouse cultivation and gardens; (EU)
- Algae and seaweed. (EU)
- Domestic wastes, refuse from parks and gardens, food retailers, restaurants, food, textile or forestry industries unless the processes have rendered the waste unsuitable for spreading. (EU)
  The product may not contain substances that are explicitly not permitted according to 4.3.3, 4.3.5 and 4.3.6 or levels of undesirable substances according to 4.3.2. (EU) (K)
  The waste must be handled and treated in accordance with the applicable legislation and regulations on refuse. In the first place, see the EU parliament and the Council's regulation (EC) no. 1774/2002 on (EG)
  In Annex II Council Regulation (EEC) no 2092/91 on organic production, the kinds of fertilizer and soil conditioners that may be used in organic production are regulated. (This does not automatically allow the products to be used in KRAV certified production). (K)
- Composted or fermented household refuse from a closed collection system explicitly approved by the certification body. (EU)
- Animal by-products according to the below that fulfil the requirements for category II or category III–material according to the EU parliament and the Council's regulation (EC) no. 1774/2002. (EU)
  The products below shall be KRAV-certified according to the standards for production inputs to permitted to be used. They may not be spread on leys, grasslands, pastures or green fodder crops. However if these products are properly ploughed under in connection with sowing of such a crop their use is permitted.(K)
  - Bone meal or bone meal free from gelatine. (EU)
  - Bone char. (EU)
  - Meat meal (EU)
  - Blood meal (EU)
  - Fish meal (EU)
  - Horn meal (EU)
  - Hoof meal (EU)
  - Hair meal (EU)
  - Wool, fur and hair. (EU) (continued on next page)
- Poultry and chiquette meal (EU)
- Milk products (EU)
- Fertilizer/-product which has been purified to have the nutrients mainly exists in inorganic form can only be certified if included in standard 4.3.6 or 4.7.4.

The above organic fertilizer may be used after composting or fermentation. They may undergo other biological or physical processes with the aim to extract or concentrate nutrients from organic waste products. The use of fertilizers/products which have been purified so far that the nutrients mainly are in inorganic form can only be allowed if they are mentioned in paragraph 4.3.6.

The fifth indent, composted or fermented household refuse: contact shall be taken with certification body for approval of the system before composted or fermented refuse may be used. The collection system shall be described in detail as well as the risks for contamination. The following aspects are included in the assessment for the facilities for composted or fermented household refuse.
- the ecosystem cycle question shall be weighed contra food safety
- the possibility to inspect the quality of the material in a credible manner
- the collection system shall be managed on a smaller scale with a limited number households.

**Fertilizers not permitted:**
- category I–material (risk material) according to the EU parliament and the Council's regulation (EC) no. 1774/2002 (EG)
- guano (K)
- soil bacteria or other microorganisms that have been genetically modified; (EU)
- manure from genetically-modified animals (K)
- other substances not listed as permitted. (EU)

4.3.4 Separate of urine collected from a closed collection system from households in an economic entity or in a few separate households in close cooperation with the economic entity, and the sewage slam from one's own three-chamber well or similar may be spread if the sewage is not connected to an operation where environmentally harmful substances are handled. The following conditions apply to be approved: (EU)
- The latest knowledge in the area shall be taken into consideration when using human urine and faeces
- The use shall comply with the Swedish and international guidelines in relation to sanitizing and handling of the fertilizer and the crops on which it can be spread.
- Cleaning agents shall be eco-labelled.
- The households participating in the system shall have information about the substances that may and may not be used.
- Fertilizer containing human urine and faeces may not be used for over fertilizing.

A certification body must certify the collection system before use if the system includes more than one household on an economic entity, if the farm has a small-scale visitors operation or if the systems include a few households outside of the economic entity which can only be certified in exceptional cases as pilot projects (see conditions below).

In those cases where special certification is required, the certification body responsible for approval of the system shall be contacted before spreading. The collection system shall be described in detail along with any dangers for contamination and preventive measures. If the system includes households outside of the economic entity, the cooperation between the farm and households shall be described with the justification for why these households are included in the system. Only with an extremely close interconnection between a few households and an economic entity (for example, a few households that buy a considerable amount of their food consumption from the farm) may the separated urine be used. The following aspects are included in the assessment of the collection system for urine:
- The recycling issue shall be weighed against the safety of food
- The possibility to inspect the material's quality in a credible manner
- The collection system shall be operated on a smaller scale with a limited number of households.


When spreading sludge, the Swedish Environment Protection Board's directive on spreading sludge shall be complied with (SNFS 1994:2). Note that some branches have separate rules for use of human urine and faeces to be able to sell the products.
4.3.5

The aim of organic agriculture is to protect animal health and offer the possibility for natural behaviours and to show great consideration to ethical animal production. KRAV-licensed cultivation thus cannot be dependent upon production forms that are markedly different from the aim concerning animal ethics, the possibility for animals to exhibit natural behaviour or where the production depends upon continuous preventive medication to maintain animal health.

Animal manure from following conventional animal husbandry is not permitted in KRAV-certified production
- intensive cattle production on slatted floor boxes (does not apply to manure from integrated production of cattle where young stock partly go on slats) (K)
- non-KRAV-certified fattening pig stock with more than 50 fattening pigs in annual production (does not apply to stock with litter beds in a large box system). (K)
- non-KRAV-certified broilers (and other poultry in intensive breeding systems). (K)
- battery hens or furred animals in cages (EU)

To stimulate conversion to organic production, producers with non-KRAV-certified fattening pigs, intensive cattle production on slatted floor boxes or conventional battery hen production and at the same time have KRAV-licensed animal husbandry of the same animal species, may use manure from the conventional animal husbandry. This requires that the extent of the KRAV-licensed production is at least 10 percent of the conventional the first 3 years. After that, the requirement is 20 percent of KRAV-licensed production. The long-term aim should be to have a complete conversion of animal husbandry. (K)

The prohibition against using conventional broiler manure enters into force on 1 January 2010.

Mixes of manure from permitted and not permitted animal manures may not be used.

Non-organic fertilizer

4.3.6

Changes to this paragraph which are written in bold text below, must be applied at latest 1st of April 2008.

The following non-organic fertilizer may be used in their natural forms:
- stone meal (e.g. silicon, basalt and granite meal) (EU)
- salt (NaCl) (EU)
- raw phosphate (EU)
- apatite (EU)
- lime from limestone (EU)
- calcified seaweed (EU)
- dolomitic limestone (EU)
- potassium salts (for example kainite) (EU)
- potash magnesia (EU)
- kieserite (EU)
- sulphur (mineral) (EU)

The products may not have been processed with the objective of making them more soluble with the exception of grinding. (EU)

In addition to these substances, the following residue products may be used:
- calcium silicates (EU)
- wood (EU)and peat ash and ashes from incinerating straw and grains (K)
- gypsum (EU)
- industrial lime/basic slag, if the production process has not made it inappropriate for spreading. The product may not contain substances that are explicitly not permitted according to 4.3.3, 4.3.5 and 4.3.6 or levels of undesirable substances according to 4.3.2. (K) (IBS)
- vinasse (EU)

Substances not permitted include:
- artificial fertilizer (synthetic commercial fertilizer) if not listed under 4.3.7 (EU)
- Chilean nitrate (EU)
- Other, not listed as being permitted. (EU)
• **salts of nitrogen or solutions of them** (IBS)

### 4.3.7

Micronutrients may be applied to the soil if the need for micronutrients cannot be met by reasonable amounts of other approved fertilizers and if there is a clear lack of such nutrients. Fertilizer that in addition to micronutrients contains nitrogen or other micronutrients, with the exception of sulphur, is not permitted. Fertilizers that contain more micronutrients are not permitted if the lack cannot be shown for all in-coming micronutrients. (EU)

In growing crops, micronutrients may only be supplied in exceptions and if the following criteria are fulfilled: (K)

- a documented need (results of analyses or written statement from an advisor),
- documented problems in earlier years,
- that the producer has taken other measures to prevent the problem from arising, and
- using the fertilizer in question cannot pose a risk to the environment, soil activity, or humans or animal welfare.

*Foliar manuring is permitted with the permitted fertilizers listed in 4.3.3 and 4.3.6*
4.4 PLANT PROTECTION

4.4.1 Preventive technical cultivation methods against weeds and harmful insects shall be used to the greatest possible extent. When cultivating perennial plants, the pressure from insects, weeds and diseases shall be minimized by striving after the greatest diversity. The plant protectants listed in 4.2.2 may only be used when there is a direct threat to the crops. Compounds listed under 4.4.2 may not consist of or be developed from genetically-modified organisms. If there is a danger the plant protectants are made from, consist of or contain traces of genetically-modified organisms (GMO), the product must be accompanied by GMO-free affidavit or analysed for content of GMO before use. (EU)

Acetic acid may be used for killing potato tops as a preventive plant protection measure.

Measures shall be taken to increase the diversity in fruit cultivation. Examples of such measures include mulching crops between rows, planting trees or other species. (K) (IBS)

It is the responsibility of the KRAV–certified producer/business to furnish the actual analysis or GMO-free affidavit. For assessment of GMO risk and guidelines for GMO-free affidavit. See KRAV’s risk list for GMO: www.krav.se

For substances not listed under 4.4.2, a KRAV–licensed producer may contact the certification body to request an immediate change in the standards from standard owner (KRAV).

If a special reason exists for the substance to be permitted in KRAV–certified cultivation, the certification body shall consider requesting the standard owner to infer an immediate change in the standards.

4.4.2 Permitted are:

- plant protectants consisting of or developed directly from non-GMO plants, animals, microorganisms, insects, etc. under the conditions that these are included in the Council's regulation (EEC) no. 2092/91 on organic production, Annexe II. Pyrethrum extracts with piperonyl butoxide as additive are not permitted (K) (IBS)
- pheromones and pheromone traps (EU)
- traps or other catching devices (EU)
- sulphur, pure (EU)
- lime sulphur spray (EU)
- calcium hydroxide (slaked (hydrated) lime) against cankers (Nectria galligena) on fruit trees (EU)
- iron (III)phosphate for controlling snails. (EU)

In addition to the plant protectants listed above, some products that have physical affect and/or are an additive to plant protectants may be used. Examples of such substances are:

- sodium (potassium) silicate (EU)
- sodium bicarbonate (EU)
- ethyl alcohol (ethanol) (EU)
- gelatine (EU)
- saponified fatty acids (soft soaps) (EU)
- vegetable oils; (EU) If these do not produce the desired results, pure paraffin oil can be used as a one-time measure. (K)
- thermal and electrical weed control (EU); thermal sterilizing of soil is not permitted. (K) (IBS)
- hot water and steam (EU)

The National Chemicals Inspectorate must approve of the plant protectants that are sold and used. There are also standards for the precautionary measures that indicate limitations on chemical products use (or biotechnical organisms) for control purposes, see Environmental code, chapter 14 . §17. According to KRAV’s standards, use may not lead to a concentration of heavy metals or other environmentally dangerous or infectious substances in soil, annexe 3.

4.4.3 Synthetic additives in the form of carriers, wetting agents or similar to products listed under 4.4.2 are reported in annexe 4. (K) (IBS)
4.5 MUSHROOM CULTIVATION

4.5.1
Culture medium for mushrooms shall contain KRAV-certified grain and straw or other agricultural products that compose the substrate. Other additives shall be approved according to the KRAV standards for crop production. At least 75 percent of the substrate shall be of KRAV-certified origin, estimated on the product’s weight before composting. (EU)

The Council’s regulation (EEC) no. 2092/91 on organic production requires 75 percent organic raw materials in the substrate.

4.6 SEEDS FOR PLANTING AND PLANTS

4.6.1
Organic propagation materials shall be used when possible. When no organic seeds are available, the Swedish Board of Agriculture regulates an exemption for use of conventional untreated seeds. The Swedish Board of Agriculture may approve individual exemptions in special cases. Seeds from KRAV licensed conversion year cultivation are classified as organic seed. Harvests downgraded from certified seed cultivation on conversion fields may be sold as KRAV-certified fodder. (K)

The requirement for organic plant propagation materials in 4.6.1 - 4.6.4, indicates that seed, plants and vegetative propagation materials shall be certified as organic products according to KRAV’s standards or the Council’s regulation (EEC) no. 2092/91 on organic production.

KRAV-licensed producers shall follow the Board of Agriculture’s requirement for organic seed and plant propagation materials, or have been given individual exemptions. Seeds for planting in organic seed-growing production may be conventional untreated seeds.

To have a harvest from a KRAV-licensed conversion year be considered organic, KRAV standards shall have been complied with on the parcel for 12 months prior to harvest.

The reason that a harvest from conversion year cultivation may be considered a KRAV-certified and downgraded harvest from certified grain cultivation may be sold as KRAV-certified fodder is to stimulate the production of organic crops and shall be seen as an exception. When the organic crop production fulfils the market demand, this exception will be removed.

4.6.2
Plants for annuals shall be KRAV certified. Plants and other propagation materials of perennials shall be organic if the harvest is to be KRAV certified in the same calendar year as the planting.

Conventional seedlings may be used in production of plant breeding material for perennial plants without limitations. Plant materials must have been cultivated in compliance with KRAV standards for at least two seasons to be sold as KRAV certified. (EU)

Organic propagation materials shall be used if possible, applying even for plants and other propagation materials used for perennials. KRAV-associated producers shall follow the standards of “Jordbruksverket” concerning organic seeds and propagation materials, or have their individual exemption granted.

4.6.3
Seed may not be treated (coated) with chemical pesticides or herbicides. Seed, plants or other propagation material may not originate from genetically modified organisms. (EU)

4.6.4
Seeds for sprouts shall be KRAV certified. (K)

4.7 GREENHOUSE

4.7.1
Ingredients in sowing and potting soils may only be those soil conditioners and fertilizers permitted according to paragraph 4.3 in this chapter. Vermiculite, sand, clay, light clinker and perlite are accepted as soil conditioners for seedling and potting soil. (K)

4.7.2
Artificial light may not serve as the sole source of light during the entire lifecycle of the plant. This does not apply to mushrooms. (K)
4.7.3
Hydroponics is only permitted for aquatic plants and sprouts. (K)

4.7.4
In greenhouse production it is allowed to make exception from use of salts of nitrogen in 4.3.6, under the following circumstances:
Exception shall lead to considerable improved status of soil in the culture.
Solutions of nitrate can never be approved
The solution of salts shall be a by-product from compost or fermentation which fulfil 4.3.3.
Greenhouse cultures will be classified as other cultures in standard 4.2.3
5. ANIMAL HUSBANDRY

Organic animal husbandry is based on agriculture where the land is used according to KRAV’s objective with organic production defined in KRAV’s bye-laws. Animal husbandry according to KRAV’s standards shall be characterized very good animal welfare and respect for the animal species specific distinctive character in relation to physiology, behaviour, fodder and immediate environment. The standards give the frameworks for the minimum level, i.e. what is permitted and what is required. The individual farm’s implementation shall give animals the prerequisites for a good environment in both the animal house and outdoors. Pasture is central in organic production. The interactions between animal species are most often advantageous, but it is not necessary that all animal species on the farm be registered for inspection.

5.1 GENERAL

5.1.1 All KRAV-certified animal husbandry shall be based on a good environment for animals and good animal husbandry that guarantees good health and welfare for the individual animal and a dignified existence. (K)

Application

5.1.2 The certification body shall have been notified of animal husbandry before the planned start of conversion. The Inspection visit shall always be carried out during the conversion period and ideally, carried out before start of conversion. The certification body assesses the need for a visit before start of conversion. Consideration shall be taken to which line of production the application concerns. The certification body establishes the time for start of conversion after the first inspection visit. The first inspection visit before start of conversion is made even if it is an addition of a new animal species or change of pattern of production. The certification body assesses the need for a visit before the actual start of conversion, therefore it is important that the animal production is registered in time before planned start of conversion.

Conversion periods at registration

5.1.3 Milk production must have followed KRAV’s standards for a 6-month conversion period before it can be KRAV certified. (EU) The above conversion periods apply also to conventional animals purchased according to 5.1.13 and 5.1.14. After 2 months, the milk may be used as fodder for the farm’s own KRAV-certified animals.

5.1.4 Poultry for egg production shall have complied with KRAV standards for at least a 6-week conversion before the eggs can be KRAV-certified. (EU)

5.1.5 Animals for meat, wool and hides production shall have been managed according to KRAV’s standards for 12 months from start of conversion before they can be KRAV-certified. Young born during the conversion period can be directly KRAV-certified if they are born during the time following the start of conversion at the earliest.

- ruminants and deer 2 months
- pigs 1 month (K)

With a simultaneous conversion of land and animals, and use of mainly the producer’s own conversion year feed (more than 60 percent), the animals can be certified after 24 months. Purchased fodder from the second year conversion may only amount to 30% at most. (EU) The above conversion periods apply to conventional animals purchased according to 5.1.13 and 5.1.14. Laying hens are certified for slaughter 12 months after entering into KRAV-certified egg production.

5.1.6 With the transition from organic production certified according to (EEC) no. 2092/91 to KRAV-certified production, the time when being certified according to (EEC) no. 2092/91 can be included in the conversion.
period if the certification body can verify that the following points have been fulfilled during the entire conversion period (6 weeks) for egg production, half of the conversion period for milk production (3 months) and meat production (6 months). The transition from poultry for slaughter can only be done in-between times. The actual points are the same in KRAV’s assessment list for "recertification.” (K)

Scope

5.1.7
All animals within each animal species shall be managed according to KRAV’s standards. (EU)
Rearing should be integrated, i.e. that the mother animal and offspring are on the same production unit. (K)
Even animals that cannot be KRAV-certified (within registered animal species), such as purchased, brought in or receiving medication, shall follow KRAV’s standards.

5.1.8
It is not permitted to rear animals exclusively in winter. (K)
Production normally managed continuously throughout the year and an operation with access to pasture is a part of the organic production. In a contractual cooperation with another KRAV-certified farm when raising lamb and calves, one of the farms may have animals exclusively during the winter.

5.1.9
Egg production may not be limited to the part of the year so that one batch of hens cannot be outside in the beginning or end of the laying period. Every poultry batch shall have at least a part of one season with access to outdoors and this may not be shortened through early slaughter for anything but reasons of health. (K)

Parallel production

5.1.10
Parallel production in separate operations (buildings or animal housing sections) may be approved after a special application. (EU)
The prerequisites for parallel production are that:
- The stocks are not kept together or KRAV-certified stock can easily be distinguished from non-KRAV-certified stock. External treatment of KRAV non-approved stock shall follow KRAV’s standards if the animals are kept together. (EU)
- The areas for storing feed for KRAV-certified and non-KRAV-certified animals are well separated. (EU)
- Common equipment for preparing fodder shall be cleaned and emptied between mixing batches. (EU)
- Accurate documentation is kept of stock, feed handling, with specified accounting for both of the productions. (EU)
- Animals from KRAV-certified production may not be regularly transferred to the producer's own conventional production (K)

Marking, documentation

5.1.11
All animals that can be individually marked shall be marked. The least harmful method of marking shall be used.
Fattening pigs and poultry that cannot be marked individually must be isolated during drug treatment. Ear clipping is limited in animals outdoors (the temperature shall be at least 5°C according to SJVFS 2000:116).

5.1.12
Documentation shall be kept on the following:
- feed, purchased, sold and dead animals, (EU)
- all injuries and diseases, (EU)
- all treatments, even when the producer administers them, with information on the treatment result and KRAV's extra conversion period, (EU)
- castration and dehorning, (K)
- prophylactic treatments, selenium injections, feed additives, or other compounds, (EU)
- when animal groups or individual animal are kept indoors during grazing or outdoor periods, (EU)
- the beginning and end of the outdoor period, (EU)
• taking out for exercise winter time, (EU)
• observations from slaughter, inspection before slaughter, milk scores or the equivalent, (K)
• other items indicated for specific cases in other standards. (K)

All animals and animal groups shall be identifiable in the documentation. When entire animal groups are concerned, the group shall be defined by the individuals making up the group. The documentation shall be clear, well compiled and kept on the farm so that the history of the farm conditions can be seen for a longer period. (EU)

The documentation can include, for example, existing animal house records including the information required according to 5.1.10 above. Product sheets on feed additives and other compounds shall be accessible during an inspection.

**Purchasing of animals**

The objective is a totally integrated production. Even so, the possibility for purchasing animals is included so that breeding or production is not impeded by the current prerequisites.

5.1.13

Purchases of KRAV-certified animal are permitted. Animals purchased should only come from one other herd. If purchases are regular, the breeder and purchaser shall have a contractual cooperation agreement. (EU)

Purchases of animals for continued breeding to slaughter shall be reviewed. The review shall ensure that the forms for cooperation maintain good animal health. The review includes an assessment of the number of stock, age at purchases, quarantine/receiving house, animal house system and registration in a health program. For purchases of piglets, lambs and calves, the contractual cooperation can be permitted for a total of 3 herds within a 12-month period. Older calves or young stock can be purchased from several herds under the condition that the production is registered in a health program. (K)

Piglets purchased from different stock or of different age shall be kept separately. (K)

Purchases of deer kids are not permitted. (K)

When there are suckling cows in the cooperating receiving herd, calves may be moved during the suckling period. The arrangement should be when calves are 4-weeks old and their immune system has become active at the earliest.

5.1.14

Purchased swine for replacement shall be kept in quarantine for at least three weeks. Other purchased animals should be kept separated from the farm's other animals for a time if possible. (K)

The quarantine operations are of great importance for infectious disease control in the herd. However, this may be impossible to do when it applies to individual flock animals.

5.1.15

If KRAV-certified animals are not available, purchases of individual non-KRAV-certified replacement and breeding animals are permitted with an observance of the conversion period that applies upon registration to inspection. Based on herd size, counted as the number of adult females, a total of 10 percent may be purchased annually. If there are fewer than 10 adult females, only one animal may be purchased. Purchased female animals should not have given birth. (EU)

A higher proportion of purchased gilts than that indicated above may be allowed after review if the producer's own replacement does not offer a sufficient genetic base for the actual breeding program. (EU)

The organic animal breeding population is so small at this time that effective organic breeding is often limited. It can be permitted to purchase a group of female animals including older animals to make possible taking the animals from a herd. In accordance with Council's regulation (EEC) no. 2092/91, the limit for purchases of gilts is set at 20 percent, which is what can be approved after review.

5.1.16

If KRAV-certified animals are not available when expanding the herd or when part of the herd shall be slaughtered because of illness or similar, the purchase of larger numbers of non-certified breeding females or breeding stock may be permitted after review that describes the need with a total of 40 percent of the herd's original mother animals. (EU)

According to the Council's regulation (EEC) no. 2092/91, in these cases, it is permitted to purchase 40 percent of the herd's original number of mother animals, which is the limit for what can be approved. The accompanying young cannot be KRAV-certified for meat production.
5.1.17
When the producer's own replacement of poultry is not possible, it is permitted to purchase day-old chicks. The first choice is to purchase KRAV-certified animals. Poultry reared for meat purchased from conventional operations must be at least 10 weeks old at slaughter to be KRAV certified.
Purchased laying hens shall be reared, starting from day 3 of age the latest, according to KRAV’s standards for fodder (see section 5.3 excluding pasture 5.3.13-5.3.15) and health– and medical care (see section 5.4).
Inclusion into the organic production shall be done at 18 weeks of age at the latest. (EU)
Replacement birds to laying hens stock shall come from a free-range system that is largely similar to the breeder’s own system. (SL)

There is no age limit for slaughter for broilers reared from organic parent birds. According to the Council's regulation (EEC) no. 2092/91 the inclusion of laying hens according to paragraph 2 above must be approved before hand by the Swedish Board of Agriculture. Rearing of chicks shall be registered with the certification body before rearing is begun according to the above.

5.2 ANIMAL ENVIRONMENT

General

5.2.1
Different animal species must be given outlet for their specific needs and behavioural patterns:

- The animals shall have an outlet for a normal social behaviour including a normal flock existence for the species, territorial behaviour, exercise, scratching or rooting, or for example, by their receiving sufficient space in suitable indoor and outdoor environments. (EU) (K)
- Animals shall be given the opportunity to be alone during birth or laying. Mother and young shall have the opportunity of close contact in the initial period of life of the offspring (K)
- The natural behavioural patterns of pigs should be provided for such as rooting and food searching behaviour e.g. through fallow land, forest or woodland and deep litter in the wintertime. Pigs should have access to a mud bath or other water bath during the warm season. (K)
- Hens and chickens should have access to a sand bath, perches and nest boxes so that these are freely available to all animals when needed. (EU) When introducing chicks, the new elements in the animal house should be introduced one at a time, the speed and extent should be adapted to how the birds acclimatize to the system. All facilities should offer the chick an environment where no direct disturbances occur at 25 weeks of age at the latest. The adaptation to roughage, outdoors, daylight shall be documented. (K)
- Turkeys shall have access to perches (K)
- Geese and ducks should have access to ponds during the warm season so that these can be used freely by all animals when needed. (EU)
- Deer should have an environment natural for the species containing the plants and foods they prefer. The enclosure should offer protection in the form of trees or protection from the wind and as far as possible in every grazing pen. Red deer should have access to mud holes during the vegetation period. (K)
- When handling deer, special consideration should be given to their sensitivity to stress. The animal owner should be able to document prophylactic measures. (K)
- The feeding station design should be such that all deer can feed simultaneously. This will minimize the risk of stress and butting injuries, and will facilitate low ranking animals to get enough to eat. (K) (IBS)

Birth

Cows and pigs instinctively isolate themselves from the flock to give birth in privacy.

5.2.2
Cows shall calve alone and may be tethered only in exceptional cases. Indoor calving shall take place in a calving box. All cowsheds must contain calving box that may be permanent or temporary. (K)

Access to boxes must be planned after the distribution of calving in the herd. Lack of space is not a reason for tethering during calving.
5.2.3
Sows shall farrow alone in a shelter e.g. in a farrowing hut. Farrowing may take place indoors if the sow has sufficient freedom and space to find a separate farrowing place and plenty of nesting materials. The sow may be moved to the farrowing place one week before farrowing at the earliest. After farrowing, the sow and piglets shall have access to the outdoors after two weeks at the latest. (K)

Procedures and other prerequisites in association with farrowing should make it possible for sows to remain in the flock until just days before farrowing.

Outdoors during grazing– and outdoor period

5.2.4
During the grazing period animals shall be able to be outdoors on grazing land for most of a 24-hour period. (k)
During the outdoor period, which may be considerably longer than the grazing period, animals should have the possibility of being outdoors for at least part of the day. Animals shall be kept outdoors when the ground and weather conditions so permit for the respective type of animal. (EU)
Animals may be kept indoors temporarily in the case of mating, insemination, giving birth, illness, insect attacks, extreme weather conditions or at most two weeks before slaughter. (K)

During the grazing period, cattle shall be able to be outside for a larger part of 24 hours. (K) (IBS)
Calves may be kept indoors during the suckling period, but no longer than 13 weeks. Calves that are three-months old in August may be kept indoors for the rest of the grazing and outdoor period. (K)
Young bulls that are registered for slaughter may be kept indoors until 15 June in Götaland and to 1 July in Svealand and Norrland. Other young bulls shall be let out to graze earlier in the season. (K)

For dairy cows, "the greater part of a 24-hour period" means at least two grazing periods. When cows are given complete feed rations in the cow shed, they should have a possibility also to go out in a grazing paddock. When cows are milked thrice daily, they must have at least two grazing periods during 24 hours. Suckled calves should have the possibility to go out with access to calf huts or on pasture together with suckling cows.

Swine shall have access to pasture or other covered land during at least a 4-month period. Fattening pigs that will be slaughtered in July or later during the grazing period shall be let on pasture by 1 June at the latest. Sows and gilts taken in for mating/insemination may be held without access to pasture up to 4 weeks after mating/insemination to determine pregnancy. The animals shall be offered an exercise yard if the indoor time exceeds 1 week. (K)

Pasture for swine should be rotated with at 4-year intervals at the least.
Poultry may be kept indoors during the night. (EU)
Exercise yards and pasture for poultry shall contain trees and other arrangements so the animals can seek protection. (K)
Feed, in addition to natural vegetation, or water should not be offered outdoors to avoid wild birds being drawn to the location.

5.2.5
All fences shall be well maintained. Barbed wire shall be avoided, and electrified barbed wire is prohibited. (K)

Hanging and collapsed fencing creates a risk for injury for both the animals in production and game. Barbed wire fencing and electricity are regulated by the animal protection authority regulations.

Outdoors during the indoor period

The purpose with the time outdoors during the indoor period is to give animals the possibility to move in a larger area than the animal house and to stimulate and give animals possibilities for activities, exercise and social activities. Reduction in the time outdoors can be accepted during parts of the year. See standard 5.1.11 on requirements for documentation.

5.2.6
Animals shall be outdoors if the land and weather conditions permit. In systems where animals do not have continuous access to the outdoors, the time outdoors shall be entered in the diary/be documented. (EU)
The outdoor period for cattle shall be at least 2 – 4 months longer than time on pasture. (EU)
Cattle may be kept tethered in buildings constructed before 24 August 2000 providing that the animals have access to regular exercise. For the time being, the maximal outdoor period is sufficient, though the recommendation is for more exercise during the indoor season.

Sheep and goats shall have access to the outdoors during the winter (periods when it is appropriate). (k)

During lambing/calving/ kidding, the group/s in the herd are kept indoors. (EU)

Winter lambs shall have access to an exercise yard regardless of the type of animal house. Lambs to be slaughtered before the grazing period shall have access to an exercise yard after the lambing period. Exceptions can be made for animal houses without an exercise yard if these fulfil the following conditions; climatic conditions similar to the outdoors, possibility to direct sun rays through doors or an open side and larger space per animal, for adult animals 1.5-fold the minimum floor space indoors, for lambs and kids, 2-fold the minimum floor space indoors. (K)

It should be possible to alternate or build and manage the exercise yard to maintain good hygiene.

Pigs shall have access to an exercise yard outdoors. (EU)

Poultry may be kept indoors during winter. Otherwise, outdoor periods shall be offered. (EU)

The possibility to go out in sheltered housing during winter enhances the possibility for exercise but does not fulfil the requirement for outdoor periods during other times of the year. According to SJVFS 2005:92, the exercise yard shall be left empty for at least 2 months between every batch of poultry. Broilers may be kept without an exercise yard until one month old.

5.2.7

Measures shall be taken with all outdoor areas to prevent significant leaching and nutrient runoff. KRAV recommends that animals be kept on hard surfaces. (K)

The surface of the exercise yards shall be covered by a roof up to 75 percent (EU), the front and gables shall be open. The floor-to-ceiling height shall be high enough so a machine can scrape the surface. (K)

The roof is for collecting rainwater and for good surroundings. It can be advantageous to spread the covered surfaced with straw. Other measures for example can be to alternate the areas, feeding places and placement of huts. It may be necessary to have the possibility to maintain temporarily animals indoors or on hard surfaces.

Housing conditions

Standards for animal housing shall be seen as indicating the minimum requirements. To meet the animals’ needs according to other standards can require more feeding places, as an example. The role of the manager is important to ensure smooth functioning. A good environment can be created in old cow houses that can fulfil the more stringent requirements for minimum space per animal. In accordance with the goal of organic agriculture, it is important that smaller farms can keep animals where the arable land limits the possibility for investing in new housing as this often requires an increase in production to enable financing. On farms with mostly smaller cattle herds, it can occur that the cows are tethered in the barns. This limits movement and the possibility for flock behaviour during the indoor period. These individuals are considered to receive good animal management because the system is directed more to care of the individual animal and good contact with the manager.

5.2.8

Specific measurements for space requirements are listed in annexe 2. (EU) (K) (SL)

No form of cage is acceptable in any form of animal management.

5.2.9

All animals shall be able to move freely and may not be tethered. (EU)

An exception is beef cattle over 20 months old, which may be tethered when indoors. Animals may be tethered temporarily for treatment and other handling. Animals may be tethered between 6-20 months for a total of three months to become accustomed to tethering. (K)

When tethering temporarily for supervision of handling or feeding there is no age limit.

5.2.10

When building or rebuilding cowsheds, solutions shall be found that guarantee daily exercise. (EU)

In buildings built before 24 August 2000 and on the condition that animals have access to regular exercise, the animals may be tethered. Until further notice, the maximum outdoor period is sufficient though more regular exercise is recommended. As of 31 December 2010, the ban of tied up cattle will apply according to Council regulation (EEC) no. 2092/91, with an exception for small cattle herds that exercise 2 times per week.
5.2.11 Electric wiring may not be used inside the sheds. (K)
There is a danger that animals are forced against electrical wiring because of a limited surface to move in compared to outdoors with electrical fencing.

5.2.12 Calves shall be kept in groups. As an exception, they may be held in a calving box for at the most one week according to the current animal protection regulations. (EU)
In some cases, they may be kept in a box longer but the size of the box should be comparable to two calving boxes (K)
Two calves can make up a group, where similar ages in the group are important for successful feeding.

5.2.13 Growing pigs and sows without piglets shall be held together in a group both indoors and outdoors. (EU)
Fattening pigs shall be kept in groups, both indoors and outdoors. Indoors they shall have access to a separate lying area with deep bedding and a separate manuring space. They shall also have a well-defined feeding place. The space shall be airy and large enough for all the animals to be able to rest or eat without aggressive competition. (K) (IBS)
Swine receiving free access to concentrates shall have at least one eating place for every three pigs.

5.2.14 Animals shall be kept clean. See standard 10.7.1. (K) (SL)

5.2.15 Lying areas shall be kept dry, clean, free of draughts and warm where necessary. Litter shall be used in ample amounts. (K) (SL) (IBS)
Bedding materials may be conventional but not straw treated with ammonia. Lying places should be comfortable for the animals. Care includes providing good hygiene and combating flies.

5.2.16 The floors for the animals should be a solid surface. Slatted floors are permitted if stock also has access to unslatted lying areas, such as cubicles, a bedded surface, or a well functioning deep litter bed. At least half of the animals' surface (minimum area according to annexe 2) shall be solid (the removal space in front of any cubicle included). (EU)
Rubber-covered slats are preferred but are still considered slatted floors.
At least one-third of the laying hens indoor area should be a littered area.
Other poultry shall go on the littered area. (K)
The litter bed for poultry includes a sandbath with sand that birds can use to clean their feathers. New sand should be provided even during the outdoor period.

5.2.17 Animals shall have adequate access to daylight. (EU)
The amount of daylight entering the indoor area should be at least 5 percent of the floor area. It should be possible to regulate the daylight in the coop as necessary. Windows may only be covered with opaque materials temporarily. Direct hours of sunlight shall be limited in another way through placement of the window, sun blinds or transparent film.

5.2.18 Laying hens (EU) and chickens (K) shall have at least 8 hours rest at night without artificial light. (EU) (K)

5.3 FEED
All feed indications are expressed as dry matter if not otherwise stated.

5.3.1 Feed shall be of a good hygienic quality and its composition shall be adapted to the different animals and production. (EU) (SL)
5.3.2
The objective is that 100 percent KRAV-certified feed be used. The exceptions below are permitted. However, when purchasing feed, KRAV-certified feed should be the first choice.
Feedstuffs from non-KRAV-certified production may be permitted and under the conditions below: (see the following table) (EU)
- For ruminants, this may be a maximum of 5 percent until 31 December 2007.
- For non-ruminants, a maximum of 15 percent until 31 December 2007. From 1 January 2008 the maximum is 10 percent and as of 1 January 2010, the maximum is 5 percent. From 1 January 2008, percentages are estimated on raw materials originating from agriculture (EU), however, the percent of conventional feed including fishmeal may be no more than 15 percent. (K) (IBS)
- As of 1 January 2012, 100 percent KRAV-certified fodder from agricultural origin must be used for all animal species. (EU)
- Deer shall be fed with 100 percent KRAV-certified fodder. (K) (IBS)
The calculation is made per animal and not herd. For animals with less than a one-year lifecycle, the consumption applies for the life of the animal.
Feed from conversion year cultivation may partially substitute KRAV-certified fodder. See standard 5.3.8 (EU)
Conventional feeds are permitted according to annexe 5. Dependent upon access to organic raw materials, the permitted conventional products may be revised according to (EEC) no. 2092/91. (EU)

5.3.3
In those cases conventional fodder is used according to 5.3.2, a maximum of 25 percent of the daily feed intake may be non-KRAV-certified. (EU)

<table>
<thead>
<tr>
<th>Animal</th>
<th>Daily share (according to 5.3.2)</th>
<th>Yearly share (according to 5.3.2) Until 31/12 2009</th>
<th>Yearly share (according to 5.3.2) Until 31/12 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deer</td>
<td>0 %</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Beef, sheep, goat</td>
<td>25% / 0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Pigs and poultry</td>
<td>25%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>

* Calculated on raw materials originating from agriculture. The percent of conventional feed including fishmeal may be no more than 15 percent.

5.3.4
Genetically modified organisms are not permitted as fodder or with feed production, or feed additives or feed preservatives. (EU)

5.3.5
Minerals, lime, seashells etc. are not included when calculating the percentages of KRAV-certified feed. (K)

Self-sufficiency
A high level of self-sufficiency for feeds on the farm aims at achieving better efficiency with plant nutrients.

5.3.6
The proportion of feed that is home-grown shall be at least 50 percent of the annual feed intake (per farm). The exception to this is herds with at most one of the following: (K) (IBS)
- 3 sows in integrated production
- 50 fattening pigs
- 20 adult lambs or goats with young
- 500 laying hens
- 500 broilers stations
Contractual cooperation between nearby KRAV-certified farms is permitted. There shall be a contractual agreement on cooperation between the farms. An exception can be made for larger herds (mostly with chickens and hens) if there is a special reason and the lower level of self-sufficiency is approved in connection with registration for inspection. A requirement is that spreading manure can be organized to avoid disturbing the environment. (EU)
The farm's own feed grains may be exchanged when preparing feeds away from the farm. Grains for sale may not be included in the exchange against the purchase of feed. When entering inspection, the farm's total area and possible spreading agreements are reported. (K)
Feed processing

5.3.7
All feed shall be produced using processes, which comply with KRAV’s processing standards. Such feeds are included on a list of processed feed permitted by KRAV. See chapter 11 and annexe 5. (EU)

Feed from conversion year cultivation**

Feed from the farmer’s own conversion year cultivation and purchased fodder from the second conversion year cultivation shall be handled separately and separately from KRAV-certified and conventional fodder (K)

5.3.8
An 80 percent*** upper limit of the annual feed intake may come from one’s own production under conversion. If purchased feeds from the second year’s conversion cultivation are used, the permitted quantities of feed from one’s own conversion cultivation are reduced.

The following applies to be able to use feed from one’s own conversion cultivation:

• Cultivation is KRAV licensed and KRAV’s standards have been followed since the actual crops were sown. Pasture can be exempted from this requirement if the other requirements below are fulfilled.
• No artificial fertilizers have been used during the autumn before conversion year,
• No chemical controls have been used during or after the harvest the autumn before conversion year.

A larger portion of conversion year feed may be used if the land and animals have been registered for inspection with simultaneous conversion of land and animals. This is to encourage the highest level of self-sufficiency.

The conversion time for animals will then be 24 months. See also standard 5.1.5.

Purchased fodder from the second year conversion cultivation may be used if the following points are followed:

• Feeds are cultivated on land where the conversion period began a least 12 months prior to harvest
• Purchased feeds may include 50 percentage points*** at most from the second year conversion
• The total of purchased feeds and the farm’s own second year conversion feeds may not exceed 80% of the annual feed intake***. (EU)

Products from conversion year cultivation shall be specially marked. See section 1.2.1 “Feed to KRAV-certified animal husbandry.” (EU)

With contractual cooperation* between farms, the plant-nutrient balance and feeding self-sufficiency on these farms are assessed as one unit. This allows conversion feeds and grazing animals to be moved between the farms. (K) (IBS)

*There shall be a contractual cooperation agreement

**(EEC) no. 2092/91 uses the concept “produced during conversion to organic agriculture on products from conversion year cultivation”

***As of 1 January 2009, the percentage is lowered to 60 and 30 percentage points.

Roughage

Browsing roughage is an activity for all animals. Ample access to roughage is an integral part of the ruminants’ welfare and the nourishment and structure are essential to the ruminants’ physiological functions, such as sufficiently long periods of rumination.

5.3.9
Animals shall have free access to roughage. (EU)

Tasty hay or silage shall be included. Root crops may replace roughage for poultry. Temporarily, as when cows are drying off, straw is sufficient. (K)

KRAV recommends access to thickets for goats and, during the winter, deer. Other animals should be offered this as a complement with an overconsumption of roughage. When necessary, roughage to hens may be limited before the end of egg-laying so that no other feed intake is affected. (K)

Concentrates

5.3.10
For ruminant slaughter stock and ruminant young stock, concentrates may constitute a maximum of 30 percent of the daily dry matter intake. With a transfer from suckling to normal roughage ration, the share of concentrate may be exceeded and may be 50 percent at most for a shorter period. This period may be up to one month at the most after weaning for lambs and 6 months for calves. (K)
For milk-producing animals, the percent of concentrates may be at most 40 percent of the daily dry matter intake but may be raised to 50 percent during the first three lactation months at most. (EU)
Deer may receive at most 30 percent of the daily dry matter intake as concentrates. (K)
The three-month period may be started earlier for pregnant ewes where the foetus growth does not allow for a high roughage intake. (K)

**Animal feeds**

**5.3.11**
Animal feed (milk and dairy products, as well as fish and other marine animals) shall be of high quality and are only permitted for swine and poultry. (K) Meat by-products are not permitted. (EU)
Whey, skim milk and other residual products from KRAV-certified milk processing may be given to ruminants. Standards 5.3.14 and 5.3.15. (K)

**Grazing period**

**5.3.12**
Grazing shall constitute at least 50 percent of the dry matter intake for ruminants. A somewhat lower proportion may be permitted during parts of the period for milking animals and bullocks. Grazing shall account, however, for at least half of the roughage intake.

The daily intake for dairy cows shall be at least 6 kg dry matter. If there is a shortage of pasture because of a dry period (not because of the allotted grazing area), a lower intake is acceptable and shall be documented. (K)
Increased feeding to young animals prior to slaughter or with weaning is permitted to control the need for nutrient intake. (EU)
The pasture for pigs should offer both fodder and many possibilities for activities.

If strip grazing is implemented, the pigs shall have new grazing so that they have continued access to fodder and a variety of activities. In other grazing systems, pigs should be moved as soon as the entire area is dug up. (K)
For poultry, the grazing area shall be covered with growth and provide both food and ample opportunity for activity. (K)
For poultry and bullocks, the grazing may be supplemented with fresh roughage. (EU)
For deer, the daily dry matter intake during the vegetation period can comprise grazing or other plants in the enclosure. The number of animals should be adjusted so that normal growth can be achieved without additional feeds. (K)

5.3.13
Bullocks, rams, bucks, and boars for breeding may be kept in bare outdoor runs/. (EU)
Fresh roughage shall be offered. (K) (IBS)

**Suckled animals**

**5.3.14**
Calves, lambs and kids shall suckle at least during the entire colostrum period and then mainly receive unprocessed KRAV-certified milk from their own species until 12 (calf), 8 (lamb), 6 (kids) weeks old. (EU)
Milk from purchased conventional mother animals may be used after 2 months from start of conversion. (K)
Deer kids shall suckle during the entire suckling period until a natural weaning. (K)
For milk-producing animals, the colostrum period is at least 3 days (72 hours). See standard 5.2.1 on mother and offspring. (K)
Concentrates and roughage should be available freely during the milking period. Calves may be adapted to other feeding one week before transfer to conventional rearing. (K)

5.3.15
When rearing supernumerary or motherless animals, KRAV-certified milk from other animal species may be used. If that is not possible, unprocessed conventional milk may be used. See standard 5.3.23 for acidification.
Milk substitutes may be used only in individual emergencies and for only one week without affecting the KRAV-certification. Otherwise, the standards apply for the conventional portion of feed and permitted feed additives for use of milk substitutes during the entire suckling period. The producer shall document all use of other types of animal milk, conventional milk and milk substitutes.
When treating illnesses, heating milk and using milk from another species may be permitted following the recommendation of a veterinarian. (K)

Conventional milk may be used when there is no KRAV-certified milk available within a reasonable distance. Lambs raised on conventional milk substitutes may not be KRAV-certified for slaughter. Individuals kept in the herd for replacement may be KRAV-certified after a new conversion. (K)

5.3.16
Offspring that do not have the possibility to suckle shall have the possibility to suck through an artificial teat placed in a natural position. (K)

So that the need for suckling is satisfied, the surrogate nipple equipment should remain for a time after the animal has finished drinking. (K)

5.3.17
Piglets may be weaned at 7 weeks at the earliest. When rearing in batches, the piglets are weaned after 40 days under the conditions that control of infectious disease and good health has been maintained and there is a clear differentiation of the animal batches and the implementation of a health plan. (K)

Many sows enter oestrus before the 7-week suckling period ends. Earlier weaning therefore may result in a better pregnancy rate, and in turn, will result in fewer sows being kept indoors for mating. This allows the groups to be kept together in a better way, which is advantageous for behaviour characteristics for breeding sows. There can also be health benefits gained from cooperating herds buying piglets. (K)

5.3.18
Milk from animals treated with drugs may not be used to feed other than the animal’s own suckling offspring during the withdrawal period laid down by the Swedish National Food Administration plus one day for the treated suckling cows and calves. (K)

Milk under conversion according to standard 5.4.10 may be used in the same manner.

Water

5.3.19
Animals shall always have access to good quality water. (K)

Feed additives

5.3.20
Supplementing feed with salt and seashells is permitted. See annexe 5. (EU)

5.3.21
Trace elements, vitamins and minerals shall preferably come from natural sources. Trace elements, vitamins and minerals are permitted according to annexe 5. (EU)

Synthetic feed additives such as enzymes are permitted for a limited time following the recommendation of a veterinarian if these are necessary for animal health and there is no natural alternative. (K)

Amino acids produced in pure form, and urea are not permitted. (EU)

Conventional feedstuffs and feed supplements are regulated in Council's regulation (EEC) no. 2092/91 annexe 2. (EU)

5.3.22
To satisfy piglets' requirements for iron, they should be given an iron paste within 24 hours after birth or have access to soil year round. Soil may be enriched with iron where necessary. (EU)

For example, soil can be enriched with iron sulphate. The iron supplement may not contain prohibited feed additives. (EU)

Feedstuff preservatives

5.3.23
Chemical preservatives are not permitted with the exception of formic, propionic and acetic acids.

Straw treated with ammonia is not permitted. (EU)
5.3.24
Permitted silage inoculants are:

- bacterial compounds (EU) (if sodium benzoate is an ingredient, these may only be used in milk production where spores cannot be avoided in any other way). (K)
- formic acid, propionic acid and acetic acid (EU)
- enzymes (EU)
- molasses in a sufficient amount for making silage (EU)
- Feed permitted under standard 5.3 may be used but is included in the percentages of KRAV-certified/non-certified feed. (K)

5.3.25
Bacteria cultures and acidification substances of plant origin may be used for acidification of milk. Chemical feed preservatives including formic, propionic and acetic acids are not permitted for milk acidification. (EU)

Acidified milk should be KRAV-certified; the various different bacterial cultures in sour milk etc. determine the choice. (K)

5.4 HEALTH AND MEDICAL CARE

5.4.1
Livestock should be kept in such a way that a good environment, care and feeding procedures promote good health and keep the level of illness low. (EU)

Overall good health of stock is a prerequisite for KRAV certification. Animal caretakers shall demonstrate proper care of all stock. (K)

Deer should be free from tuberculosis. (K)

Membership in an official control programme is recommended.

5.4.2
There shall be a health plan focussing on prophylactic animal health measures including infectious disease control. The plan shall be prepared in cooperation with a veterinarian and regularly updated with follow-up of indications for animal health and therapies. (K)

5.4.3
Animals showing signs of illness or injury shall be tended immediately and given the necessary care. If health disturbances arise, which may have been caused by a deficient environment, care or feeding, action shall be taken to remedy these deficiencies immediately. If appropriate actions are not taken the whole herd may be de-certified. In serious cases, the certification body may demand that the producer join an established animal welfare programme. (K) (SL)

5.4.4
Injections of vitamins and mineral preparations may be given as isolated measures. To avoid recurring problems, the feed shall subsequently be supplemented.

Where low selenium levels are documented, prophylactic injections may be given. (K)

Compounds for external treatment may contain ingredients based on mineral oil.

For compounds with a fixed withdrawal period the following applies:

For compounds with zero days conversion the following applies:

Twice the conversion period is always based on the stipulated conversion according to the treatment receipt.

Animals that receive more than two treatments with chemically synthesized drugs or animals with a lifecycle less than 12 months that are treated more than once during their lifetime, shall undergo a new conversion period.

The length of the conversion period:

Drugs and chemical pesticides

5.4.5
Routine prophylactic treatment with drugs or chemical disease control agents is not permitted.

Exceptions include:
• The use of vaccine in cases of clear need and where other methods of treatment are considered less effective. (EU) Vaccines made of or produced using genetically modified organisms are not permitted. (K) (IBS)
• The use of anaesthesia. (K) It is not permitted to use synthetic substances to stimulate or inhibit production or natural growth. (EU)

5.4.6
Drugs or chemical agents may be used only where there is a clear need and observance of the withdrawal periods set out below. (EU)

If an entire group must be treated, the producer shall be able to show the prophylactic measures taken for the future. Prophylactic treatments in specific cases may be permitted after review. This applies where the treatment is strategic, such as sanitizing a herd or with a temporary high load of harmful insects as a one-time measure. (K) With acute problems or obvious symptoms, the treatment may begin without a statement from a veterinarian. In spite of good prophylactic health care, there are cases when chemical controls must be permitted. The decision is then a weighing of good animal husbandry and the objective to be independent of chemical controls. Compounds with long-term effects such as fly tags and capsules that are placed in the rumen are equivalent to prophylactic treatment and are not permitted. Dry cow therapy may be given to cows with verified a raised cell counts.

5.4.7
Deworming with avermectines may only be done when other compounds are not expected to give the desired effect. Non-degradable substances, e.g. avermectins, should not be used when animals are on natural grazing land. This applies also according to 3.3.2. (K)

“Ivomec” is an example of a deworming compound that contains avermectines.

KRAV’s withdrawal periods after treatment

5.4.8
Assuming there is no fixed withdrawal period, the following compounds/ treatments are free from conversion:

• calcium treatment with milk fever (K)
• agents to increase blood sugar levels (e.g. propylene glycol) for appetite disorders (K)
• carbon preparations (K)
• natural medicines (EU)
• injections with vitamins and minerals (K)
• washing with disinfectants (EU)
• all external treatment except parasite treatment. For these treatments, the withdrawal periods apply as established for other compounds with zero days withdrawal period, i.e. 48 hours. (K)

5.4.9
• twice the conversion period compared to that fixed by the National Food Administration. (EU)
• 48 hours (K) (IBS)

5.4.10
• 12 months for cattle
• 6 months for pigs, sheep and goats
• 6 months for milk production
• 10 weeks for poultry for meat production
• 6 weeks for laying hens.

A treatment means all the treatments made to cure a disease. Use of vaccine, parasite treatments and compulsory treatments demanded by authorities are not included in the number of treatments. (EU)

The treatments are counted in separate 365-day periods starting with the first treatment. Milk from animals in a new conversion period can be used as fodder for the producer’s own KRAV-certified animals. See also standard 5.3.18. This standard is included in accordance with Council’s regulation (EEC) no. 2092/91 annexe 1.

5.5 MISCELLANEOUS

5.5.1
Medical hormonal heat synchronization, embryo transfer, or routinely inducing birth, are not permitted. Genetically modified organisms are not permitted in KRAV-certified production. (EU)
Surgical intervention

5.5.2
Mutilation is not permitted with the following exceptions:
• castration of young calves and pigs
• dehorning so that animals do not injure each another. (K) (IBS)

5.5.3
Castration of calves before 8 weeks of age is permitted. Calves shall be anaesthetised during castration. In some cases, a later castration may be permitted.
Castration of pigs is permitted before 7 days of age. Teeth grinding of piglets is permitted in the case of large litters and should be done before one week of age. (K) (IBS)
Anæsthetizing piglets is recommended. A great deal of research and development is on-going in this area in Europe. Appropriate anaesthesia methods should be available in the near future to achieve as painless handling as possible as long as castration is necessary.

5.5.4
Dehorning may only be done through burning before 8 weeks of age. In special circumstances, such as a later horn development or other, dehorning by burning may be done at a somewhat later age. Dehorning of older animal for reasons of animal protection of handling is permitted.
Deer may be dehorned for handling and transport in exceptional cases. In this case, dehorning entails sawing off horns after cleaning.
Requirements for documentation apply according to 5.1.11. (K) (IBS)
Anæsthetic shall be used according to Swedish animal protection regulations.

Breeding

5.5.5
Animal breeds that cannot mate or give birth without human assistance cannot be KRAV certified. The use of sperm from embryo transfer (ET) bulls is permitted for the time being. (K) (IBS)
Animal materials descending from ET should be avoided but are permitted as not to limit breeding animals to organic stock.

Age at slaughter

5.5.6
For poultry that is not slow-growing, the minimum age at slaughter shall be
• 81 days for chickens
• 140 days for turkey and geese. (EU)
See also standard 5.1.16
This standard is included in accordance with Council's regulation (EEC) no. 2092/91, annexe 1. The EU Commission will define slow-growing, but until further notice, KRAV has defined it to a maximum of 30 gram per day as an average. This definition has been made to make it possible to produce KRAV-certified chicken in the present situation, where the range of possible chicken races is very low, and with the regulation of quarantine when buying animals abroad. KRAV hopes that this will make a larger production of this type possible, which in turn will make a broader range of chicken races more suitable to organic production available on the market. The KRAV-certified chicken production already today has many advantages from an animal welfare perspective: no preventive medication with coccidiostatika, outdoor period in spring, summer and autumn and KRAV-certified feed.

Sales of live animals

5.5.7
With a change in ownership, the animals shall be accompanied with:
• extracts from the treatment diary for the last 12 months
• documentation of on-going conversion period (after change-over or treatment). (K)
Transport

5.5.8
The owner of the stock shall ensure (K) that loading, transport and unloading of livestock are carried out in a way that causes as little physical or mental stress as possible. (EU)

5.5.9
The owner of the stock shall allow and facilitate that the certification body is informed of the results of inspections before slaughter and slaughter reports. (K) (IBS)

5.5.10
Deer may only be transported in connection with purchase or sale of breeding stock or milch cattle. (K)
6. APICULTURE

Beekeeping promotes to a considerable extent care of the environment as well as agricultural and forest production through bees pollinating plants. *KRAV*-certified beekeeping is characterized mainly by organic treatment methods against diseases and harmful insects as well as the bees' surroundings.

Registration and conversion

6.1.1 Apiculture can be certified first when it has complied with KRAV's standards and been inspected by the certification body for one conversion year. Parallel production can be permitted after review, under the condition that all production and handling are conducted in a way where there is no danger of mixing certified and conventional products. KRAV-certified wax shall be used when entering the inspection. If KRAV-certified wax is not available in sufficient quantities upon registration, existing conventional wax may be used under the condition that the wax contains no traces of pesticides. (EU)

6.1.2 It shall be possible to identify beehives. (EU)

Purchasing bees

6.1.3 Bee colonies and queens may only be purchased from KRAV-certified producers. When there are no KRAV-certified bee colonies or queens available for purchase, conventional colonies and queens may be purchased after ensuring that the colony is healthy and no chemical pesticides or drugs have been used during the last year. When choosing breeds, consideration shall be taken to the ability of the breeds to adapt to the local conditions and their viability and resistance to disease. First choice is the European breeds of *Apis mellifera* and local ecotypes of these may be used. Genetically-modified organisms are not permitted. (EU)

6.1.4 When purchasing conventional bee colonies, the queen shall be placed on KRAV-certified wax. The conventional is removed successively as the brood begins to creep out of the wax. The conventional wax may remain at the producer's for 2 months at the most. (K)

Feed

6.1.5 Portable colonies and hives may not be situated close to fields where chemical pesticides and herbicides are used, i.e. near conventional cultivation of oil-producing plants, fruits and berries. Nectar and sources of pollen shall be primarily from KRAV-certified or natural origin. (EU)

6.1.6 Additional feeding of honey and sugar solution is permitted during hibernation and in early spring. (EU)

6.1.7 KRAV-certified sugar or a sugar solution shall be used as feed in winter. (EU)

Sources of contamination

6.1.8 The use of chemical agents around beehives is not permitted. (EU)

6.1.9 Beehives may not be placed close to sources of contamination, such as genetically modified crops, industrial areas and waste dumps that can cause contamination. (EU)
Drugs and chemical pesticides

6.1.10
Prevention of diseases shall be based on: (EU)
• Selection of appropriate hardy breeds
• Measures that promote resistance to disease and prevent infections such as regular replacement of the queens, regular supervision, inspection of male larvae, destruction of contaminated materials, sufficient feed

6.1.11
In addition to cold storage, the following are permitted for treating diseases and pests and for health control in beehives and when storing frames: oxalic acid, formic acid, acetic acid, lactic acid, soda and caustic soda.

Mutilation

6.1.12
Clipping of wings of queen bees is not permitted.

Handling

6.1.13
Smokers, water and vinegar are permitted to remove and calm bees. Only untreated natural wood products and non-fossil fuels of plant origin are permitted in smokers. No other agents to remove or calm bees are permitted. Destruction of bee colonies as a honey harvesting method or for other bee products is not permitted.

6.1.14
Smokers, water and vinegar are permitted to remove and calm bees. Only untreated natural wood products and non-fossil fuels of plant origin are permitted in smokers. No other agents to remove or calm bees are permitted. Destruction of bee colonies as a honey harvesting method or for other bee products is not permitted. It is not permitted to destroy larvae on the wax when harvesting. It is allowed to kill male larvae only to limit an attack of Varroa destructor. (EU)

Materials for hives etc.

6.1.15
Compartment wax walls may only consist of KRAV-certified wax or of plastic approved for use with food. (EU)

6.1.16
It is preferable that beehives are built with materials of natural origin. Construction materials that may contain substances with toxic effects are not permitted. (EU)
7 AQUACULTURE

7.1 SCOPE

KRAV-certified aquaculture covers cultivation of different species in fresh-, salt-, and brackish waters and transporting and slaughter of these species. Species allowed can be carnivorous, herbivorous or omnivorous (eating meat, plant or both) in all stages. These can be cultivated in all types of land-based or floating/submersible enclosures in seawater or freshwater or in a dam/lake with natural demarcation and where the activity can be controlled. Plant production in aquaculture may not be certified according to these standards.

These standards contain specific standards for salmonoid fish (Salmonidae), the perch family (Percidae), and blue mussels (common mussel) (Mytilus edulis)

General standards for all types of aquaculture

7.2 PRODUCTION SET-UP

General

The overall objective for the production shall be consideration for the environment and the thriving and health of the organisms. The production shall be adjusted so that the organisms live in a sustainable and renewable environment, which is established to secure their fundamental physiological and behavioural needs. The production shall be managed in such a way that the environment in surrounding water and land areas is preserved through:

- Impacting to the minimum possible extent on the local biological processes, which cover microorganisms, plants, and animals
- Preventing escape
- Marine foodstuffs used shall come from a sustainable stock, which is not normally used as human food and/or by-products from species used as human food.
- Managing production so that infections, parasites and drug residues do not affect wild organisms in the environment
- Not using synthetic fertilizers and impregnating agents that burdens the environment
- Providing for biodiversity in the production where this is possible (for example production of blue mussels or barnacles in connection with fish cultivation)

The production can consist of both KRAV-inspected and conventional production provided that these operating units are kept well separated and without danger for mixing (i.e. parallel production).

Recommendation

KRAV recommends that the entire management of the unit be converted to KRAV-certified production. To gain experience with this type of production, however, it may be appropriate to convert the production gradually. The consideration of the surrounding environment is crucial for the location and management of the KRAV-licensed unit. The total amount of discharge shall not load the surroundings so that the biodiversity is affected negatively or cause overfertilization of the water area. This applies also to wild salmon river mouths and openings to salmon watercourses. Considering the dangers of spreading disease, special caution should be taken with the mouth to salmon watercourses.

In accordance with the objectives for KRAV-certified aquaculture, it is important that the production is located at an appropriate distance from discharge sources and conventional units.

Feed wastage or faeces that are collected shall if possible be used as fertilizer in KRAV-certified agriculture or in other appropriate ways. Feed wastage and faeces can be approved for KRAV-certified production, see Chapter 12 Production inputs.
Standards

7.2.1 Conversion to KRAV-certified production

7.2.1.1 The KRAV-licensed production unit shall be clearly defined and demarcated so that confusion cannot arise with conventional feed, production inputs etc. It shall be possible to inspect the unit in respect to the documentation requirements laid down in the standards.

7.2.1.2 At the production unit, there shall be a production description stating how the requirements in the standards are complied with. The production description shall be adapted to annex 3 in (EEC) no 2092/91 and shall be approved the certification body. The production description shall be updated when needed.

7.2.1.3 A production manager shall keep a record of the operation and shall be able to show a documented systematic overview of the cultivation activity at any time. The record shall be available to the certification body.

7.2.2 Parallel production

7.2.2.1 If the whole production unit is not converted at the same time shall:

- the units not affect each other through feed wastage, medication, and use of cleaning agents or equivalent,
- in the sea and lakes, the distance between open KRAV-certified and conventional installations be at least 25 metres
- the KRAV-certified unit in .owing freshwater lay at least 10 metres upstream from the conventional unit.
- for land-based installations there be physical barriers between KRAV-certified and conventional units.
- areas for storing feed and production inputs between different types of production methods be kept well separated, feed and production inputs for KRAV-certified production be clearly marked.

7.2.2.2 Converted units cannot switch between KRAV-certified and non KRAV-certified management without this first having been agreed to with KRAV. A return to non KRAV-certified production without KRAV ’s approval means that KRAV can refuse a new agreement for up to .five years.

7.2.2.3 Both of the production methods shall be documented separately through keeping records, accounting etc. KRAV shall have access also to relevant documentation for the conventional management.

7.2.3 Environment and water quality

7.2.3.1 The water shall have such a low degree of pollution and such oxygen content that the cultivated organisms do not demonstrate physiological or behavioural symptoms. The unit may not be placed near to, or downstream from a significant source of pollution.

7.2.3.2 The unit shall be positioned in an area with a good water exchange and/or designed so that no significant sediment build-up occurs underneath the unit.

7.2.3.3 The producer must be able to show documentation that supports this, for example, through an in-house inspection programme or other third-party documentation.
7.2.3.4 The environment shall be loaded to the minimum possible extent with feed wastage and faeces that can cause over-fertilization or other disturbances. Depending on the available techniques, the certification body may require collection in or around the unit. In fresh and brackish waters that are loaded with nutritive salts over normal background levels, it is required to have sealed cages or similar systems for collecting faeces and feed wastage as of 2009. Normal background levels are defined in the Swedish Environmental Protection Agency Report 4913 for lakes and Report 4999 for coastal areas.

7.2.3.5 Material, equipment, paints, etc. used in the production shall be selected according to Chapter 2.

7.2.3.6 Growth on production equipment shall be removed using mechanical or biological methods. Impregnating agents containing environmental toxins are not permitted.

7.2.3.7 Installations for cultivating fish or other aquatic animals shall have a container or other device for satisfactory storage of dead aquatic animals. The capacity shall be dimensioned for the installation’s production and cleaning routines. Disposal shall be according to the regulations of the local or central authorities.

7.2.3.8 KRAV-certified aquaculture may not be fertilized. Pesticides may not be used.

7.3 CONVERSION PERIOD

General
Conversion to KRAV-certified production is a process to develop an environmentally adapted production system with special consideration for the thriving and health of the cultivated organisms. The time that runs from applying these standards in their entirety until the production is certified by the certification body is called the conversion period. The objective is that the cultivation complies with the standards for KRAV-certified production throughout the organism’s total life cycle. If organic raw material (fry for example) is not available, importation of organisms from conventional production with a subsequent conversion period is allowed. The organisms are considered KRAV-certified when conversion has been completed according to these standards. During the conversion period, the standards for KRAV-licensed management shall be applied and it is therefore necessary that inspections be performed during this period.

Recommendation
A conversion period should not be started until all of the conditions for a stable KRAV-certified production are fulfilled.

Standards

7.3.1 The conversion period is the time from when these standards are applied in their entirety until the production is certified by the certification body. The conversion time shall at least comprise whatever happens first of:
- one complete life cycle of the organism concerned, or
- one year.

7.3.2 For cultivation to be KRAV certified, it must be registered with the certification body inspection during the conversion period.
7.4 RAW MATERIALS AND ORIGIN

General
The breeding work shall be focussed on breeding goals such as health and environmental adaptation and good growth with the least possible use of input factors.
The production shall be arranged so that injury to individuals is avoided.

Recommendation
Preferably, the stock used should be adapted to the local conditions.
Breeding should be based on a large number of parents to avoid inbreeding, genetic aberrations and loss of genetic variation.
When purchasing breeding pairs, such should be obtained from the nearby area if possible so that transport time is minimized.

Standards

7.4.1
Breeding materials or roe taken into the unit shall be KRAV-certified. Triploid fish and genetically modified organisms are not permitted.

If KRAV-approved breeding material with the desired characteristics cannot be obtained, a full conversion period will be applied.

7.4.2
Artificially induced sexual manipulation is not permitted.

7.4.3
During hatching and the fry stage shall environmental factors be controlled so that malformations are avoided.

7.5 FEED AND FEEDING

General
In all contexts, consideration of the environment and effective use of feedstuffs are the overriding principles when choosing feed and feeding.
The feed in KRAV-certified aquaculture shall be of good quality with a nutritional composition adapted to the species.
The feed shall consist of organically produced feed products and/or feedstuffs originating from wild aquatic stock. For resource reasons, aquatic feedstuffs from stock that is not used for human food and from by-products shall be used. One all-embracing principle is that marine feedstuff raw materials originate in fishing operations managed in a sustainable way, take consideration of the total marine ecosystem function and are preferably environmentally certified. To ensure that these stocks are not overestimated, a suggestion is to adhere to the ICES recommended quotas.
Additives such as vitamins, minerals, antioxidants and dyes shall have a natural origin or shall be as close to their natural form as possible. Synthetic/unnatural additives are not allowed.
Feeding shall be performed in a way that allows natural food intake with minimal feed wastage. The feed type and feeding shall not have a negative impact on the biological diversity in the area.

Recommendation
Use of foodstuffs based on by-products and other materials of biological origin that are not intended directly for or are used only to a limited extent, for human consumption should be promoted. At the same time, the feed shall supply the organisms’ nutritional requirements and not contain any environmental toxins that can be injurious to the organism or humans. The fish-based feed raw materials should originate from an environmentally certified fishery, to the extent that such feed raw materials are available.
KRAV is aware of the conflicting goals between sustainable use of resources and natural feed for carnivores. From a sustainable point of view, producers should therefore consider the possibility to use KRAV-certified food ingredients of plant origin. Fish feed is normally comprised of 30 percent from plant origin and within the
international harmonisation of aquaculture standards there is a proposal with a requirement for 30 percent the feed be from plant origin.

**Standards**

7.5.1 Raw materials

7.5.1.1 Feed for aquaculture organisms shall consist of 100 percent KRAV-certified feed and/or feed which is approved for use in KRAV-certified production originating from wild aquatic stock. If such approved feed is not available, up to 5 percent of the feed (dry weight) may be from non KRAV-certified origin. The feed must have at least 45 percent dry matter.

7.5.1.2 If a KRAV-certified feed ingredient is available, but cannot be used in a justifiable way with regard to resources and/or with satisfactory quality, an exemption can be made for use of an equivalent ingredient of non-organic origin for a limited period.

7.5.1.3 Feedstuff raw materials from wildfish can be used in KRAV-certified production on the following conditions:

- Wildfish shall come from sustainable stock and shall be environmentally certified by a certification body as KRAV-certified or,
- Where feedstuffs from an environmentally certified aquatic stock are not available or only constitute a part of the feed mix, at least 50 percent of the aquatic protein in the remaining parts shall come from by-products. The remaining part shall consist of aquatic feedstuffs from species that are not normally used for human consumption and that come from biologically-safe stock according to the International Council for the Exploration of the Sea (ICES). This means that the feedstuff raw materials shall originate from a fish stock where the quota for catches does not exceed ICES recommendations for the current year.

7.5.1.4 Raw materials from the same species that the feed shall be used for are not permitted. Ingredients that are genetically modified or produced with the aid of genetic modification are not permitted.

7.5.2 Additives and miscellaneous

**Permitted additives**

7.5.2.1 The following additives are allowed:

- Shrimp peelings, algae, fungi and bacteria cultures as dyestuff in feeds
- Antioxidants, vitamins, minerals, emulsifiers, immune-stimulating substances of natural origins

7.5.2.2 Additives (minerals and vitamins) in a natural form shall be used when this is possible. If this is not possible, synthetic minerals and vitamins can be used after a review.

In addition to the additives named in paragraph 1, the additives according to the (EEC) no 2092/91 are permitted.

**Additives not permitted**

7.5.2.3 The following synthetic/artificial additives are not permitted:

- Growth regulating agents
- Appetite stimulants
- Antioxidants
- Amino acids
- Preservatives
- Dyestuffs
- Hormones
7.5.4.2
Neither are the following permitted in KRAV-certified aquaculture:

- Additives consisting of GMO
- Additives produced using GMO
- Ingredients that are genetically modified or produced with the aid of genetic modification
  Gelatine from ruminants
- Products/ingredients where chemical solvents are used

7.5.3 Record keeping

7.5.3.1
The production manager shall keep a monthly record of the feed type, feed producer and quantity fed.

7.6 HEATH AND ANIMAL WELFARE

General
KRAV certified aquaculture should make efforts to attend to the organisms’ health through prophylactic measures so that medication does not become necessary. If there are still signs of disease, suitable measures shall be taken immediately.

When cultivating fish, disease prevention work shall be pursued including effective vaccination against relevant infectious diseases, so that outbreaks of disease and use of drugs are avoided to the greatest possible extent. The production conditions within KRAV-certified aquaculture shall always be such that the danger of infection and outbreak of disease are minimized.

When there is a disease, the consideration of the environment and animals’ welfare shall be the deciding factors for choosing the method of treatment.

In KRAV-certified production, the objective is to maintain a low aggression level and to prevent fish from injuring each other. It is documented that a low stock density can entail increased aggression for certain species of fish. On the other hand, a high stock density can also cause discomfort. The stock density standards weigh these considerations against each other, compare with section 7.7.5.

The cultivation unit must be observed regularly so that distress and abnormal behaviour is noticed. When deviations are discovered, the cultivation conditions shall be changed so the individuals’ normal behaviour is reinstated.

Recommendation
The water quality should be maintained so the physiological needs of the species are not negatively affected.

The production should be aimed at prophylactic health work and be adapted to the needs of the organisms. There should be routines for hygiene and there should be regular checks for discovering latent disease and disturbances in production.

Biological combating of disease should be prioritized above use of chemicals where this is possible and adequately effective, for example, when “delousing” with wrasse (Labrus, Fam. Labridae). Drugs with the minimum possible environmentally harmful effect and with the minimum possible risk to the working environment and animal health should preferably be used. The risk for resistance to antibiotics in the natural environment should be given special consideration. The organisms shall be handled to the minimum possible extent and as carefully as possible.

Standards

7.6.1 Treatment/drugs

7.6.1.1
Organisms that show signs of disease shall be given suitable treatment immediately.
7.6.1.2
Drugs shall be used when no other treatment method can be justified from an animal protection viewpoint and/or when this is required according to national laws and standards. The routine use of prophylactic treatment with drugs is not permitted. Drugs and synthetic pesticides may not be used for invertebrates. Drugs containing GMO, or produced using GMO, may only be used when there are no alternatives. Vaccines containing GMO, or produced using GMO, are prohibited.

7.6.1.3
Drugs and additives in feed and water given to increase artificially growth/yield are not permitted. An artificial day length may not be longer than the longest natural daylight length in a year for the locality in question. In open installations, only underwater lighting may be provided.

7.6.1.4
When using drugs and disinfectants in the breeding installation, care shall be taken and active measures adopted to minimize discharges to the surrounding environment.

7.6.2 Conversion period when using drugs

7.6.2.1
The conversion period after use of drugs is doubled compared with national regulations. Drugs and control agents that do not have a conversion period according to national regulations have a conversion period of two weeks in KRAV-certified production.

7.6.2.2
During drug treatment with a conversion period in one unit, the same conversion period applies for all surrounding KRAV-certified production within 150 m in the sea and lakes and within 10 m when a treated unit lies downstream in flowing freshwater.

7.6.3 Record keeping

7.6.3.1
A record shall be kept of treatment of diseases. The record shall contain:
- Identification of the actual disease/infection
- Type and length of treatment
- The type of drugs used
- Implemented conversion period

Special standards for fish farming

7.7 SALMONOID FISH AND THE PERCH FAMILY

This section contains special standards for salmonoid fish and the perch family. These are based on the general standards for KRAV-certified aquaculture. The chapter covers the Salmonoid species including salmon (Salmo salar), rainbow trout (Salmo gairdneri), brown trout (Salmo trutta lacustris); arctic char (Salvenius alpinus), and fish from the perch family, Zander/perchpike (Stizostedion lucioperca) and perch (Perca fluviatilis). Standards for converting to KRAV-certified production, 7.2.1, Parallel production, 7.2.2, Conversion period 7.3, and Feeds and feedstuffs, 7.5 apply in their entirety. Otherwise, the following additional standards for salmonoid fish and the perch family apply:

Standards

7.7.1 Measures to prevent escape

7.7.1.1
The production shall focus on preventing escape in respect to both technical equipment, handling and internal control.
7.7.1.2
A cultivation production manager shall have a current contingency plan for all units for how escapees can be recaptured effectively. Escapes shall be reported immediately to the certification body. The contingency plan shall also cover governing principles to minimize danger for escape when moving breeding cages filter changes, emptying of cultivation trays, extreme weather conditions and for handling fish during sorting, loading or unloading.

7.7.1.3
KRAV can impose special conditions on the production manager to prevent escapes and for identifying the escaped fish. For example, these conditions can include individual marking and technical requirements for the design of the cultivation units. Visual inspection of the cultivation cages shall be regular at least monthly, for example, by diving or using camera surveillance.

7.7.1.4
If the farmer is judged in a court of law for irresponsible operation in regards to escapees, the cultivation shall be de-certified.

7.7.2 Environment and water quality (compare with section 7.2.3)

7.7.2.1
Daily-recorded measurements shall normally be performed in every production unit of:

- Temperature
- Salinity (in marine installations)
- Oxygen content
- Level of carbon dioxide (in land-based facilities)

All measures in cage cultivations shall be taken at a depth of three meters; in land-based cultivation, the measures shall be made in the outlet water. Excessively high temperatures can mean distress for the fish. The water temperature may not exceed during a period longer than one week:

- 19°C with cultivation of char
- 20°C with cultivation of salmon and trout
- 22°C with cultivation of rainbow trout
- 28°C with cultivation of zander/pikeperch and perch

Oxygen solubility is dependent on temperature and salinity and shall be maintained at an optimal level for the welfare of the fish. As a minimum level, the oxygen content in the water shall be at least 7 mg oxygen per litre. The water exchange shall be so great that harmful effects of carbon dioxide and ammoniac are avoided. When the danger of exceeding these levels is present, the cultivation shall be equipped with appropriate additional equipment such as pumping in of cold bottom water (cage cultivation) or ground water (land-based facilities) and increasing the oxygen content.

7.7.3 Record keeping

7.7.3.1
The following information shall be recorded every month for every production unit:

- Releasing and stocking of fish: The number of individuals, species, origin, time when put out and average weight (live weight).
- Volume per cultivation unit
- Number of kilos of fish per cubic meter
- Removed quantity of dead/dying fish: Information about the quantity shall be specified as the number of individuals and total weight in kilograms.
- Production result (slaughter weight): Information about the quantity shall be specified as the number of individuals and total weight in kilograms.
- Consumption of cleaning agents and disinfectants: Chemical type, product name, quantity and consumption period.
7.7.3.2 Information about the following conditions shall be recorded every calendar month for the KRAV-certified cultivation unit:

- Fish health status: In the event of disease, a diagnosis shall be specified, who has made the diagnosis (fish health inspector/veterinary surgeon), diagnostic investigations carried out (public/private laboratory), treatment implemented or treatment method, conversion periods
- Treatment and handling of dead fish: Treatment method, quantity supplied, time of delivery and recipient
- Oxygen content, temperature, salinity (in sea facilities), carbon dioxide (in land-based facilities)
- Inspection of cultivation cages (net condition and fish behaviour)
- Possible escapees

7.7.4 Brought-in aquatic organisms and origin (compare with section 7.4)

7.7.4.1 Brought-in aquatic organisms (such as roe and breeding fish) taken into the production unit shall come from cultivation that is subject to health checks (for example, fish health).

7.7.4.2 Salmonoid breeding fish shall originate from domesticated fish. Roe and breeding fish from fish in the perch family may originate from wild captured parents. The starting stock shall be captured with equipment that in the least possible way can damage the fish, such as with a fyke net. Nets may not be used to capture starting stock.

7.7.4.3 The origin of the breeding fish shall be recorded.

7.7.5 Health and animal protection (compare with section 7.6)

7.7.5.1 When adjusting the stock density, consideration must be given to

- That the fish have a low aggression level and low frequency of fin biting and other fin damage
- That the fish can form shoals
- That the normal behaviour of the fish can be maintained as long as possible
- The stock unit density does not cause behaviour that indicates distress
- The oxygen levels in the water (compare with environment/water quality 7.7.2.1)

7.7.5.2 The cultivation unit shall be affiliated with an organized health inspection scheme.

7.7.5.3 Abnormal behaviour and/or mortality exceeding 0.05 percent per day shall be reported to the fish health control programme and to the certification body and immediate measures shall be taken that solve the problem and ensure the welfare of the animals. Emergency slaughter shall be considered as an alternative to drug treatment.

7.7.5.4 Dumping of dead/dying fish or fish parts/residues is not permitted. Neither is release of fish from the cultivation unit allowed. Dead or diseased fish, waste that comes from the cultivation, and used packaging shall be considered infectious and shall be treated correctly so that it cannot entail a danger of spreading infection. If possible, packaging should be recycled. This means that dead or dying fish should be removed from the production unit daily to the greatest possible extent. Dying fish shall be immediately slaughtered. Dead fish shall immediately be ground down and be conserved in acid or handled according to other approved treatment methods.

7.7.5.5 In the event of salmon lice, the first most natural choice is to use wrasse (Libras, Fam.Labridae) for controlling the problem when there are no weighty reasons not to do this. Such reasons can be that the facility is located in
too fast-flowing water or exposed, or that the facility is in Troms or Finmark. Even if wrasse does not solve the whole problem with salmon lice, these can be very helpful in reducing the remaining lice after a drug treatment or maintaining lice control in the slaughter cages. When using wrasse, consideration shall be taken to their natural needs, such as feed and hiding places.

7.7.5.6
With a treatment bath for salmon lice all of the units shall be treated in isolation to ensure there is effective control over the concentration of the treatment, minimize use of chemicals, reduces discharge in nature, obtain an effective treatment and prevent resistance to the drug in use.

7.7.5.7
Vaccinating is allowed if it is certain that the disease is found in the area and cannot be controlled through prophylactic production methods. KRAV-certification is not affected by vaccination that is ordered by an authority. Vaccinations shall be carried out with the least possible suffering for the fish and as few as possible side effects.

7.7.5.8
When aberrations in the animals’ physiology and/or behaviour is observed, shall the necessary measures be immediately taken to return to the optimal conditions.

7.7.5.9
Fish shall be sorted with the least possible distress.

7.7.6 Transport

7.7.6.1
Live fish may be transported for a maximum of 6 hours. After review, the certification body can give exemption from this standard for a limited time. The oxygen level during transport may not fall below 7 mg oxygen per litre of water. The closeness during transport shall be adapted to the fish species and its age.

7.7.6.2
A person shall be designated as responsible for animal welfare during transport. It shall be reported immediately to the certification body if the transportation caused physical injury to the fish due to distress and handling.

7.7.6.3
Transport equipment and materials shall have no possibility of causing poisoning. When transporting, the transport equipment shall be disinfected.

7.7.6.4
Synthetic stimuli and/or tranquilizers may not be administered in connection with transport. Sodium chloride may be given in connection with transport.

7.7.6.5
Transport time, number of fish and any divergences from the standards during transportation shall be recorded.

7.7.7 Slaughter

7.7.7.1
All handling in connection with slaughter shall entail the minimum possible suffering and distress for the fish.

7.7.7.2
Fish may not be starved in connection with slaughter more than in a maximum of 100 day degrees (water temperature x day).

7.7.7.3
Capture methods for salmonoid fish can be a dense landing net, a vacuum pump, a seine and fyke net. Fish caught using a hook and line cannot be KRAV certified.
7.7.7.4
Fish shall be fully stunned before they are killed. Stunning methods that are approved by the authorities shall be used. A blow to the fish’s head is recommended for stunning. All fish that are stunned shall be killed immediately. Killing shall be done by bleeding.

7.7.7.5
Salmonoid fish and the perch family may not be prepared for slaughter in water temperatures that exceeds the limits in standard 7.7.2.1.

7.7.7.6
Slaughtering and subsequent handling of KRAV-approved and conventional fish shall be clearly separated in time or place so that no mixing of the fish can occur.

7.8 SPECIAL STANDARDS FOR CULTIVATING MUSSELS

General
Aquaculture of common mussels has been a subject of many scientific studies. The resources are renewable and there is no danger for over-exploitation. Blue mussels lie lower in the food chain and feed directly on primary production. This means that nutrient salts that are taken up by phytoplankton are carried away indirectly from the marine environment when mussels are harvested. Aquaculture of blue mussels could thus contribute to a necessary reduction of the problems with filamentous algae in bays, oxygen depletion in deep waters, dead sea floors, etcetera, that have come about in the wake of over-fertilization. Mussel cultivation thus brings about a cyclical adaptation of food production at the same time the marine environment is improved. Mussel cultivation can be a good growing area for young fish and form protection for the fish.

The following section contains the special standards for cultivating blue mussels. These are built upon the general standards for KRAV-certified aquaculture. No feed additives and no chemicals are used. Standards for converting to KRAV-certified production 7.2.1.1, Environment and water quality 7.2.3.1 and 7.2.3.2 as well as Conversion period 7.3 are also applicable to blue mussels.

Food inspection
Based on the EC Directive 91/492/EEC, the Swedish National Food Administration (SLV), has developed regulations governing the sale of mussels for human consumption. The mussels are tested both in regards to the level of toxins and bacteria. SLV is responsible accordingly for opening or closing specific seawaters for harvesting of shellfish as well as classifying according to the same regulations. In this respect the EC law requires biological testing. As of now, the testing is conducted on mice. As soon as SLV’s regulations allow, all testing for toxins will be carried out using chemical methods. The testing for bacteria is carried out according to established methods.

KRAV welcomes a development of KRAV-certified mussel production. Though, as KRAV does not permit animal testing within KRAV-certified production makes it for the time being hard to use KRAV-approved mussels for human consumption.

Standards
7.8.1 Environment and water quality
The cultivation unit shall be located in an area with good water flow to meet the nutritional needs of the mussels. The unit shall be located at an appropriate distance from a larger point of discharge (purification facility, industry).

7.8.2 Record keeping
Every other month, the following information shall be recorded for every cultivation unit:
- Initial needs and measures taken
- Regular stock estimations
- Possible losses and measures taken
• Register the occurrence of settling, of mussels as well as other organisms, during the first 20 weeks after setting out the ropes.
• Possible predation by starfish and eider

7.8.3 Health and animal welfare
Scarecrows may be used with the conditions that they send noise at irregular intervals and that they mainly imitate predatory birds’ calls. The scarecrow may not be used at the cultivation when then mussels have grown to an average length of 5 cm or more.

7.8.4 Aesthetics
The design of the installation may only be made with homogenous materials. Barrels and other floating items shall have a neutral and same colour and size.
The heterogeneous materials in existing cultivation units shall be successively exchanged within three years.

7.8.5 Harvest
During the harvest, the growth on the collecting materials shall be gathered in. The only materials that may be returned to the sea are undersized mussels that have been sorted out and re-socked and later placed out in shallow sea areas for further growth.

7.8.6 Preparation
Mussels shall be prepared and sorted without chemical additives. Still, if the portion intended as food for human consumption must be treated to reduce the level of microorganisms in accordance with the EU-issued regulations, shall this be done in running water for at least 42 hours, where the newly added water or the circulating water can be UV treated. Chemical additives may not be used.
The additional preparation shall be carried out quickly in temperature-controlled conditions and the final product shall be kept refrigerated at less than 8°C.
With preparation and sorting, the waste products shall preferably be used either as animal feed or as soil conditioners and thereby enter the aqua-agro cycle.

7.8.7 Transport
During transport, mussels shall be kept moist and handled carefully. Mussels shall be brushed clean before transport. When cleaning the mussels, waste products may not be thrown back into the sea. Live mussels that are taken up out of the water may be transported no longer than 72 hours in temperature-controlled conditions.
Without any cooling agents, mussels may be transported for 4 hours at the most.
*Excessive growth of other organisms can generate warmth. Therefore, mussels shall be brushed clean.*

7.8.8 Cultivation material
Rope, metal and other materials may not be impregnated with chemical additives nor painted with toxic paint.
Plastic trays shall be recyclable. The vessel may not be painted under the waterline with paint containing tin.
Preferably, rust-resistant materials or elox aluminium (anodized aluminium finish) shall be used.
When equipment is replaced, an environmentally approved receiver for destruction shall dispose of the used items.
Handling the waste shall be done with the highest possible requirement for sorting and recycling.
See also section 2.11-12.

7.8.9 Cleaning agents
When cleaning the vessels, facilities or equipment in connection with harvest and working with the mussels or waste products, the cleaning agents and the hand- and dish washing agents shall be eco-labelled when it is available. Disinfecting may be done with steam or acetic acid.
See also 2.12.9-12.
7.8.10 Food inspection

The farmer is responsible to see that a harvested group of mussels do not contain for example bacterial or toxin levels exceeding the nationally prescribed limits. Tests on living animals, including so-called mice tests, are not permitted.
8. WILD HARVESTED PRODUCTION

Wild harvested production is such that can be harvested or collected in nature without any actual cultivation measures.

KRAV’s standards for wild harvested production are intended to promote and define a sustainable use of plants that can be harvested in nature. Consideration is taken of the soil’s and other ecosystem's long-term capacity for production.

For the production to be KRAV-certified, the licensee must report an analysis showing that collection is sustainable and that there is no negative impact on the environment, animal life or humans. The analysis shall also contain a risk assessment.

The area where collection shall take place may not have been exposed to forbidden chemical pest control agents or contamination. Consideration shall be taken of the local cultural traditions and people living in the area.

Inspection takes place through follow-up in the field and documentation requirements of the handling.

8.1 WILD HARVESTED CROP PRODUCTION

8.1.1

With wild harvested production is meant such production that is harvested or collected in an area that is not to any greater extent may be an object for cultivation measures. Wild crop production includes all wild plants. Some species grow without any special cultivation measures but require a specific plant environment, for instance grazed land. Wild production on natural pasture where KRAV’s standards for crop production have been followed is included in these standards. Certain species can be formerly cultivated plants that now grow in such a way that they can be classified as wild crops. Wild plants that spread naturally are included in these standards. In these cases, the certification body determines if the species are covered by these standards for wild harvested production.

These standards do not include animal wild harvested animal production. KRAV is working so that future standards may also include in wild harvested animal production.

8.1.2

Wild production shall come from a clearly defined area that is certified by the certification body. (EU)

8.2 PREREQUISITES THAT ARE REQUIRED FOR THE ENVIRONMENT, SOCIAL CONCERN, LAND AREAS AND THE SPECIES THAT SHALL BE GATHERED

8.2.1

For wild harvested production to be certified, the licensee shall report the analysis that the land area in the application fulfils the requirements listed in paragraph 8.2. The analysis shall also contain a risk assessment that assesses risks for contamination, a sustainable harvest and handling at harvest. (EU) All sources shall be stated.

Supporting documents may come from a national authorized authority, environmental- or humanitarian organizations or from the landowner. If supervision by the authorities for the actual matters in question is lacking and/or the landowner relationships are complex in the area, local information about the area and a landowner certificate are required.

8.2.2

The area may not have been treated with prohibited compounds during the last three years before harvest. Tree seedlings treated with chemical control agents may not have been planted during the previous three years. Liming is permitted. (EU)

By prohibited chemical agents are meant chemical agents that are not approved or permitted according to standards for KRAV-certified production, paragraphs 4.3 and 4.4

8.2.3

The area shall be situated so that contaminants do not decrease the value of the products as food for human consumption or animal feed. (EU)

Neither is it permitted that agents have been supplied to the soil in such quantities so that harvested plants risk having high levels of undesirable substances. (K)

Limit for undesirable substances in soil, see annex 6, standards for KRAV-certified production. (K)

An example of a permitted substance that may occur in forestry is the spreading of ashes. Ashes may not be spread in such amounts that there is a risk that harvest plants can take undesirable levels of, for instance heavy metals.
8.2.4
A buffer zone of 25 metres shall be provided beside roads where the volume of traffic exceeds on average 3,000 vehicles every twenty-four hours calculated on an annual basis, and other sources of contamination such as industries, refuse dumps, railroad and agricultural land. (K)

The licensee has the responsibility to find the sources of contamination in the area.

8.2.5
The licensee shall describe the way in which the harvest shall take place and indicate which harvest can be considered sustainable. Harvest/gathering may not involve a negative impact on the environment or endanger the existence of any plant or animal species. (EU)

8.2.6
Gathering may not have a negative impact in any discernible way on people's way of life or their possibility to pursue a livelihood. Consideration shall be taken of the local traditions and of the people who live in the area. (K)

8.2.7
Species that shall be collected shall not be objects for international conservation programmes or in any other way be subjects for restrictions indicating that harvesting is inappropriate. The licensee must follow the provisions of CITES for species included in their register. (K)


8.2.8
Species that nationally, in the actual country, are listed as being endangered and designated as threatened species may not be gathered. (K)

Species whose survival is not ensured in the long-term and whose continued existence is threatened are termed "endangered species." Endangered species are categorized as highly endangered, threatened and vulnerable species. By compiling these lists of endangered plant and animal species, the national and international endangered species lists are prepared.

The standards, on the first hand, shall refer to the endangered species lists compiled by the competent national authority. If such are lacking, endangered species lists from other national environmental organizations may be used.

8.3 HARVEST

8.3.1
The licensee shall present a sequential documentation for the entire chain of handling and gathering up to sales or processing. This shall describe how the requirements that are listed in paragraph 8.3 shall be met. (EU)

8.3.2
The handling shall be conducted so that traceability in the entire chain of custody is possible until the product is sold or continues on to own processing. (EU)

The wild harvested crop production shall from the packaged raw materials as pallet/container/bags - as frozen, dried or as unprocessed product shall be traceable back to the agent, picker/group of pickers, picking locality/picking area. (EU)

8.3.3
All pickers shall be registered and affirm that they intend to comply with standards for KRAV-certified wild harvested production. (K)

8.3.4
All agents shall sign a contract with the licensee and affirm that they intend to comply with standards for KRAV-certified wild harvested production. (K)

8.3.5
The following information shall be in the form of a printed notice at every point of purchase and be posted in a clearly visible place.

- A map of the certified area, with possible non-certified areas indicated, on a scale of 1:100 000 or lower. (K)
Standards for KRAV-certified wild harvested production (K)

Instructions for how the picking shall be carried out. (K)

The agent shall also verbally inform the pickers according to the printed notice. (K)

All printed information including shopping lists shall be printed in languages that the registered pickers understand. (K)

8.3.6

Contracts, payments and agreements between the licensee and those who collect the wild the production shall be reported to certification body. (K)

KRAV’s social conditions for labour apply for wild harvested production, in all relevant parts, both for employees and freelance pickers. See KRAV’s standards 2.3.9.
9 FOOD PROCESSING

Food processing of raw materials from KRAV certified production shall occur in such a way that the objective of organic production, as it is defined in the byelaws of KRAV is fulfilled. This is done in the same way as in the other certification areas by taking responsibility for the environmental impact and by separate handling so the KRAV-certified products contain what the labelling indicates. Standards for contract, separation, labelling and environmental protection etc. can be found in chapter 2. In chapter 9 only includes standards applying to food processing.

Processing standards are also important for retailers and restaurants.

Please observe that it is an obligation of the KRAV-licensee to be able, at the revision, to verify that all relevant demands in the standards are fulfilled.

9.1 ORIGIN AND CONTENTS

9.1.1
The objective is that 100 percent of the ingredients in processed products shall come from a KRAV-certified origin. Below are the exceptions allowed. (EU)

9.1.2
Non-KRAV-certified ingredients may be used in a processed product if the actual KRAV-certified ingredients are unavailable in sufficient quantities or quality. The producer shall take measures to obtain KRAV-certified ingredients, alternatively, EU-organic ingredients. For a certified product, the producer shall replace conventional ingredients with KRAV-certified ingredients or EU-organic ingredients when available.

The National Food Administration must approve the conventional ingredients to be permitted in an organic product according to (EEC) no. 2092/91. (EU)

9.1.3
It is not permitted to use both KRAV-certified and non-KRAV certified ingredients of the same sort in the same product. (K) (IBS)

9.1.4
The following conventional ingredients are permitted and exempted from the requirements in 9.1.1 and 9.1.2:

- yeast (EU)
- common salt (sodium chloride) (EU)
- water (EU)
- game not reared in enclosures (reindeer are not considered game) (EU)

The exemption means that these products may be used as conventional ingredients. Common salt and water shall not be considered in the calculation of the portion of conventional ingredients in a product. See standard 1.1.2.2 on labelling for further information.

9.1.5
Ingredients (including raw materials, additives, vitamins, flavourings and taste enhancers), carriers, solvents and processing aids may not contain or be produced from genetically modified organisms. (EU)

9.1.6
Standards 9.1.5, 9.1.7, 9.2.1 and 9.2.4 also apply to conventional ingredients in a product. (EU)

9.1.7
Minerals (including trace substances), vitamins, amino acids and other nitrogen compounds are permitted only if it is specifically prescribed by an authority that one or more of the ingredients shall be used in the foodstuff in question. (EU)

9.1.8
KRAV does not permit synthetic and nature-identical colourings, flavourings and taste enhancers. Only natural substances are permitted. (K) (IBS)
9.2 FOOD ADDITIVES AND PROCESSING

9.2.1
Certification body must approve of food additives and processing aids for processed products. The list of permitted food additives and processing aids are in annexes 7 and 8. (K) (IBS 6.2.1, 6.2.4)
Food additives and processing aids produced with KRAV-certified raw materials shall be used when possible. (K) (IBS)

9.2.2
KRAV may approve food additives and processing aids after a review providing that the additives or processing aids:
• are produced with KRAV-certified raw materials, (K)
• are produced in processes permitted by KRAV, (K)
• are of natural origin, (K)
• are considered completely tried in the amounts in question, (K)
• do not negatively impact the product as a food, (K)
• are essential to produce a certain product using a specific process, (K)
• are not produced using genetically modified organisms, (K) (IBS)
• do not load the environment to a significant extent.
IFOAM’s standards for certification of food additives and processing aids are also used as a basis for the review. (K)

9.2.3
Preservatives (such as anti-fungal agents), pest control substances, and synthetic or nature-identical colouring agents may not be added to substances that come into contact with foodstuffs (such as cheese wax). (EU)

9.2.4
The following production processes are permitted:
• Mechanical and physical processes, (EU)
• Biological processes such as fermentation and brewing (such as using lactic acid cultures and mould cultures), (EU)
• Enzymatic processes where the effect is to coagulate (such as rennet) or cleaving substances (such as the enzyme amylase), (EU)
• Extraction. (EU) Only water, ethanol or fats may be used as solvents. (K) (IBS)
• Smoking (EU)
• Precipitation (EU)
Irradiation is not permitted. (EU)
KRAV does not permit processes that lead to the creation of foreign molecules.

9.2.5
Filtration techniques that lead to chemical changes at the molecular level are permitted only after a special review according to the relevant criteria in Standard 9.2.2. Filtration equipment may not contain asbestos or affect the product negatively in any other way. (K)

9.2.6
It is permitted to treat potatoes and vegetables with peat or soil if done with KRAV-certified soil or peat. (K)
10. SLAUGHTER

KRAV’s ambition is that all levels in the chain (production, processing, distribution etc.) show consideration for the natural course and behaviour, and to design the operation to promote good animal health and this creates the opportunity for natural behaviour, a high quality of life and an end without suffering and stress. KRAV’s principle is that slaughter of KRAV-certified animals shall be conducted in a calm environment for the animal where the abattoir is adapted to the animal’s biology. To minimize transportation, KRAV looks forward to the future where slaughter can take place either on one’s own farm or in a local abattoir. At present it is not possible so KRAV accepts slaughter at the closest possible KRAV-certified abattoir for slaughter of KRAV-certified animals. In addition, KRAV is striving to promote slaughter where the activity takes place according to KRAV’s standards. KRAV also sees an increased need for small and middle-sized abattoirs. The structure of the Swedish abattoir line of business is built upon large abattoirs however. Thus, KRAV believes that it is important that the large abattoirs take the decision to become KRAV-certified. To adapt a large facility is very expensive. KRAV therefore gives a number of standards a large room for leeway for abattoirs to diverge from the standard, on the condition that this occurs seldom and that the abattoir works systematically towards minimizing the problem.

Chapter 10 Slaughter begins with the requirements for the actual abattoir. This is followed by the general standards for how animals shall be handled. Sections 10.5 and 10.6 regulate the lairage and the actual slaughter. The chapter ends with the standards regarding remarks from live and meat inspections. In addition, the chapter contains standards on marking and transport of animals. In the revised version of Chapter 10 Slaughter, KRAV has tried to clarify and emphasize the areas that KRAV considers most important. For example, this includes regulating the established livestock groups, transport time and waiting time in the abattoir. KRAV has also tried to simplify the standard text and include KRAV’s interpretations. Clarifying texts have been added to some standards.

10.1.1. GENERAL

10.1.1.1 Slaughter shall be carried out at a KRAV-certified abattoir. For certifying it is required that the abattoir establishes and follows a plan of action, documented with routines and work instructions or the equivalent. The abattoir can show compliance with KRAV standards easily by enacting a procedural plan.

10.1.2 Licensed businesses that transport or slaughter animals shall have a person, a KRAV designate, charged with the responsibility for handling all live animals at every facility for slaughter. The KRAV designate shall see that animals are handled in compliance with KRAV standards and be responsible to inform continuously the relevant personnel about KRAV standards. See section 2.3 Commitment. (EUK

10.1.3 The KRAV-certified livestock stockman/caretaker shall have the opportunity to be present at slaughter until the moment of death. Each animal or group of animals shall be identifiable during each step in the transport and slaughter process. (K) (IBS)

10.2 HANDLING

10.2.1 All handling including transport in connection with slaughter shall be carried out calmly and gently and involve the minimum of physical and mental strain for the animal. (SL) (EU) Personnel experienced with animals shall carry out handling. Exposure of livestock to reflective surfaces, noise and other stressful factors shall be avoided during all stages of handling including transport in combination with slaughter. For driving animals, see also 10.6.1. (SL) Established livestock groups shall be kept together and apart from other strange individuals or groups so that they are not agitated by each other. It is the producer’s responsibility to compose the groups prior to transport, see also 5.2.1 and 5.5.8. (K) (IBS)

The expression “established animal groups” is defined in the section on Definitions. Animals are susceptible to olfactory signals for example those of stress and agitation from other animals. Animals are
distressed by for example strong light and agitation of and threats from other animals, noise and loud noise levels as well as pain. Rough handling with blows and shocks also stresses the animals.

10.2.2
Using electric prods is not compatible with the objective for KRAV-certified production. Electric prods may not be used.

Sheep may not be lifted/pulled by the wool. If the abattoir or the conveyer act in contrary to this standard, the animal is decertified. The certification body shall be informed. (SL)

For swine and sheep, corrective actions shall be taken that make the use of an electric prod unnecessary. Every single case is a larger divergence.

The corrective actions for cattle to minimize use of electric prods are at least as important as for other animal species. If a prod is used in a few exceptional cases, shall decertification and reporting be made to the certification body. Measures shall be reported to the certification board for ways to reduce the number of cases. If credible measures are taken and the number cases are reduced, operations can continue to be certified without the use of electric prod being seen as a divergence. (K) (IBS)

10.2.3
All spaces and passages where animals are handled shall be designed so that the animal’s instinct to proceed naturally is exploited. See also 10.6.1. (K)

10.3 MARKING, IDENTIFICATION AND SEPARATION

10.3.1
Animals arriving at the abattoir shall be individually marked. Smaller animals that cannot be individually marked shall be delivered in labelled boxes.

Labelling shall be such that traceability of their KRAV-certified origin is guaranteed. Upon arrival, documentation shall accompany the carcass that confirms KRAV-certified origin. (K)

The KRAV mark shall accompany the animal carcass from the time of arrival until butchering. See Chapter 1 for information about the mark.

The KRAV-certified animals' breeder/keeper is responsible for labelling until loading for transport from the farm. The abattoir is responsible for labelling during the remaining step of transport and the butchering. (K)

Labelling and documentation for identifying and separate storage is required throughout the entire chain of custody to guarantee traceability. KRAV’s objective is to use the most considerate technique possible for the animal.

10.4 TRANSPORT

10.4.1
When transporting to the abattoir, KRAV approved animals may be loaded in the same vehicle as other animals. Different established groups shall be kept apart with gates or similar. The KRAV designate must ensure that KRAV-certified animals are not mixed with other strange individuals or groups.

Only animals that have been tethered earlier may be bound during transport.

The vehicle must have satisfactory ventilation so that a good comfortable climate is maintained for the animals.

The transport driver shall have a smooth driving technique. The total time for transport, including rest stops, may not exceed 8 hours.

By other animals is meant other non KRAV-approved animals from the same farm. It is also understood that other animals shall also include other KRAV-certified or non KRAV-approved animals from another farm.

The relevant authority shall inspect the vehicle. The driver’s driving credentials can be certified through driver training in transport or the equivalent.

The requirements for a veterinary inspection prior to slaughter and strict hygienic standards can make it difficult for slaughter on the farm and therefore a certain amount of transport is necessary. The principle is still that transport of live animals shall be minimized.

For transport of live animals, see 5.5.8, 5.5.9 and 5.5.10

10.4.2
Animals may not be treated with synthetic stimulants or synthetic tranquillisers prior or during transport. (EU)
10.5 FACILITIES AND LAIRAGE

A new animal house environment is stressful to the animal because of for example new sounds and smells and therefore, time in the abattoir should be minimized. KRAV standards aim at making the barn environment as good as possible.

10.5.1
Animals shall normally be slaughtered the same day as they arrive to the abattoir. High-lactating animals shall be slaughtered within a maximum of 12 hours after the last milking. Poultry, including ostrich, shall be slaughtered the same day they come into the abattoir. (K)

The animals shall be handled in the lairage in the manner they are accustomed to. Only animals that are used to being tethered may be tethered or held in small, single animal pens during lairage (K)

Various circumstances may allow the operator to deviate from the main rule that animals shall normally be slaughtered the same day they arrive to the abattoir. The number of animals, number of occasions, and the reasons for the animals to stay overnight shall be documented at the abattoir and reported to the certification body.

10.5.2
During shorter lairage of cattle, the animals shall have free access to water. During a longer waiting period, the animals shall in addition receive feed regularly and have access to a dry, whole and bedded lying area. (K)

During shorter lairage of pigs, the animals shall have free access to water and hay or other activities. During a longer waiting period, in addition the animals shall have roughage in sufficient amounts and access to dry, whole and bedded lying areas. (K)

During shorter lairage of sheep, the animals shall have free access to water. During a longer waiting period, the animals shall in addition have roughage and access to dry, whole and bedded lying areas. (K)

By a shorter waiting period, is meant up to 4 hours. A longer waiting period is longer than 4 hours.

10.5.3
The number of animals in a lairage pen may not be more than that they can move freely. With a longer waiting period, single pens shall be at least 6m² per animal for cattle and at least 2m² per animal for pigs and sheep. Pigs and sheep, however, shall preferably not be accommodated in single pens. With lairage in a group pen the space afforded the animals shall be according to the following: (K)

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Weight</th>
<th>Space m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>&lt;100</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100-250</td>
<td>1,5</td>
</tr>
<tr>
<td></td>
<td>250-400</td>
<td>1,9</td>
</tr>
<tr>
<td></td>
<td>400-600</td>
<td>2,3</td>
</tr>
<tr>
<td></td>
<td>&gt;600</td>
<td>2,7</td>
</tr>
<tr>
<td>Sheep, goats</td>
<td>&lt;50</td>
<td>0,5</td>
</tr>
<tr>
<td></td>
<td>&gt;50</td>
<td>1</td>
</tr>
<tr>
<td>Fattening pig</td>
<td>&lt;120</td>
<td>0,75</td>
</tr>
<tr>
<td>Adult pig</td>
<td>&gt;120</td>
<td>1,5</td>
</tr>
</tbody>
</table>

A lairage pen includes all of the types of limited areas where the animal is held while awaiting slaughter. The drive chute is not considered a lairage.

10.6 SLAUGHTER

Driving and hanging

10.6.1
Driving shall above all be conducted in a calm pace and without harassment (EU). The animals may not be distressed. Driving shall be made easier by designing the driving chute and the surroundings (for example the airflow, light, temperature) minimizing the clanging/banging and smells. The animals’ natural behaviour shall be used when driving, such as through keeping the group together, that the animal may go from darkness into the light or that they follow a leader animal. Driving in a drive groove is not permitted. (K)

The drive chute shall be designed so that the driving runs smoothly without harassment and without distressing the animals. (K)
Abrupt corners and dead ends should be avoided. Waiting time in the drive chute shall be minimized and may not exceed 15 minutes. (K)
Collecting animals in the stunning pen shall occur calmly without harassment and without using physical violence. (K)
Sheep will willingly follow a leader animal and cattle wish to avoid dead ends and are easier to dive in a chute with slight curve where the end is not visible.

10.6.2
Hanging of chickens and broilers on slaughter hooks prior to stunning shall be carried out calmly. After hanging, each animal shall be held for an instant before the next bird is hung alongside. (K)
Poultry larger than chickens may not be slaughtered using slaughter hooks. (K)
Poultry larger than chickens are too heavy to be slaughtered using slaughter hooks.

Stunning and slaughter inspection

10.6.3
The number of animals in the stunning pen may not be so great that they agitate each other or are exposed to injurious crowding. Personnel shall supervise the remaining animals in the stunning pen when a cohesive group of sheep, pigs or lambs are stunned. (K)

10.6.4
When stunning, the established group of sheep, pigs or lambs shall be kept together as long as possible. Animals that are taken to slaughter shall be stunned as soon as possible and be bled immediately afterwards.

Cattle shall be stunned by a shot in the head without other animals noticing.
Pigs and sheep can be stunned in the flock. (K)
Pigs and sheep can be stunned in the flock to exploit their natural behaviour flock animals.

10.6.5
The effectiveness of the stunning procedure shall be checked for each individual animal. This shall be done immediately after stunning and before bleeding. For cattle, pigs and sheep, this shall be done by inspecting the dilation of the pupil or the eye reflex. In the gas chamber, there shall be observation windows and the effect of the stunning must be immediately inspected. There must be a control system for checking the carbon dioxin level and an alarm. (K)

A boltgun or a slaughtering mask must be available in case the stunning is not effective. The number of animals that have been stunned more than one time because of insufficient stunning shall be registered in a journal.

Bleeding (K)

10.6.6
Bleeding and subsequent processing of the carcass shall be carried out without the awareness of the non-stunned animals. Manual inspection that the animal is dead shall be done after bleeding before further handling may continue. (K) (SL)
Examples of manual inspection are plugging the sticking hole when scalding in a vat, rotary sticking knives inspection or other accepted method.

Deer

10.6.7
Deer shall be slaughtered in such a way so that stress is avoided as much as possible. The animal owner shall document the manner of slaughter. Slaughter of deer shall take place in an enclosure or in a handling installation adjacent to the enclosure. (K)
10.7 OTHER

Remarks during inspection

10.7.1
Meat or carcasses from animals that during live inspection and meat inspection have received remarks that point to inadequate animal care, i.e. animals covered with a considerable amount of manure (codes 96 and 97), emaciated animals (codes 47 and 48) or overgrown hooves may not be KRAV labelled. The abattoir is obliged to inform the certification body of remarks that indicate inadequate animal care. See also 5.5.8. (K)

*Within one week from the time of the inadequate animal care, the abattoir shall inform the certification body of actual criticisms.*
11. FEED PRODUCTION

11.1 GENERAL
The general feedstuffs legislation apply in addition to these and there it is regulated, for example, permitted levels of possible foreign substances that are not included in these standards.

11.1.1
Genetically-modified organisms are not permitted as feed or with feed production, or feed additives, binding agents or feed preservatives. (EU)

11.1.2
Feed raw materials of the same type from both KRAV-certified and conventional agriculture may not be mixed together in a feed mixture. Feed raw materials of the same type from both the second same conversion year cultivation and conventional agriculture may not be mixed in a feed mixture. (K) (IBS)

11.1.3
KRAV-certified raw materials shall be used when possible. (EU)

11.1.4
Minerals, lime, seashells etc. are not included when calculating the percentages of KRAV-certified feed. (EU)

11.2 FEED TO KRAV-CERTIFIED ANIMAL HUSBANDRY

Conventional raw materials and additives

11.2.1
Conventional feed raw materials, feed additives, and process engineering inputs that may be included in feed in KRAV-certified animal husbandry are listed in annexe 5. (EU)

Depending upon access to organic raw materials, the permitted conventional products may be revised according to (EEC) no. 2092/91.

Conventional molasses may be used as a binding agent even following the introduction of 100% KRAV-certified fodder. Other feed additives included in the product to fulfil a technical function such as binding or dust binding may be a maximum of 0.1 percent of the feed mix or the equivalent in the feed additive. Such additives may not be produced using GMO or chemical solvents.

Feed processing and analyses

11.2.2
Production and preparation of feeds may only be done without using chemical solvents or additives of other chemical substances. Only the production processes listed in standard 9.2.4 are permitted. (K)

11.2.3
Feed minerals and concentrates shall be accompanied by analyses in relation to the heavy metals regulated according to standard 3.3.8. (K)

Declaration of contents

11.2.4
It shall be evident from the text on the packaging, product sheet for feed or similar which organic raw materials are included in the product, as well as the raw materials' respective share of weight in dry matter. The same applies for raw materials from the second conversion year cultivation. The total content of the feed raw materials of agricultural origin shall also be evident from the product's declaration of contents. (EU)

*KRAV labelling of feed is regulated in standard 1.2.1.1*
11.2.5
Totally conventional feed products, mixtures or additives can be named as permitted in KRAV-certified animal husbandry if these have undergone a special assessment of the certification body and fulfil all standards concerning the raw materials origin and production processed etc. (K)

11.3 PET FEEDS

11.3.1
Feed to pets shall be produced according to KRAV’s standards for processing, see chapter 9. (K)

11.3.2
Vitamins and minerals may be added. (K)

11.3.3
Animal feedstuffs shall fulfil the same requirements as the feed to KRAV-certified animal husbandry, and in addition may contain meat products fit for human consumption. Feeds to pets shall be adapted to the animal species. (K)

12. PRODUCTION INPUTS

The main objective of labelling production inputs is to make it easier for KRAV licensed producers to determine the production inputs that are permitted in production.

These standards inform producers of production inputs what that can be KRAV-labelled and the criteria for KRAV-labelling.

Production input companies that are KRAV certified agree to comply with KRAV Standards for the licensed production and are inspected by the certification body annually.

Hence production inputs may be marketed with KRAV’s name and label. Other production inputs may also be used in organic production according to Chapters 4 and 5. They are called permitted inputs.

Examples of products that can be KRAV-labelled:

- animal care agents
- plant protection agents
- plant growth stimulants
- fertilizers
- sowing and potting soil
- pesticide and disinfection agents in storage areas

Scope

12.1
Products that are permitted for use in organic production according to KRAV Standards in Chapters 4 and 5 and Standard 2.12.1 can be KRAV-labelled as production inputs. Products packaged for consumers can be KRAV-labelled if these have an application area within organic production and comply with KRAV Standards.

Production inputs can only be certified if:

- they are permitted according to the Council Regulation (EEC) 2092/91 annex I and II and IFOAM Basic Standards
- the producer can substantiate that manufacturing, quarrying or collection does not cause serious environmental disruptions
- they are only marketed in the application area where they have documented effects
- they are not classed as hazardous for animal or human health or the environment according to the risk phrases listed in Appendix 9
- they neither include GMO nor are produced using GMO.

IFOAM’s guidelines for evaluation of additives and production inputs are used as a basis for certification.

The following may not be KRAV-labelled as production inputs:

- technical equipment
- products permitted only after a review
- copper compounds.
The Swedish National Chemicals Inspectorate must approve pest control substances for sale and use.

**12.2**
It is permitted to use the following for soil mixtures:
- Sand, clay and turf that are taken from an area where no chemical pest control or artificial fertilizers have been used 24 months prior to removal;
- Soil from KRAV approved/KRAV-certified land

**Analyses**

**12.3**
KRAV-labelled production inputs must be analyzed for content of heavy metals listed in Standard 4.2.5 and in annexe 3. Products marketed as fertilizer must be analyzed for nitrogen, phosphorous, and potassium levels. The frequency of analysis is established when certification of production is determined. The analysis methods for each substance can be found at KRAV’s web site, www.krav.se. The level of heavy metals may not be so high so that the highest permitted application will render the substance worthless for the production. Heavy metal levels in sowing and potting soils may not exceed levels given in annexe 3.

**Packaging**

**12.4**
The information that KRAV-certified production inputs must declare are listed in Chapter 1.

**12.5**
KRAV-labelled production inputs may contain conventional raw materials but only those with 100 weight by percent organic raw materials may be called organic.
13. TEXTILE RAW MATERIALS TOGETHER WITH HIDES, LEATHER AND SKIN FROM KRAV-CERTIFIED ANIMAL HUSBANDRY

While it is KRAV’s objective that the KRAV mark shall be mainly for foodstuffs, other raw materials from organic agriculture and aquaculture can be certified according to KRAV standards. In line with this, KRAV standards only cover raw materials for textiles such as cotton, wool, linen as well as hides, leather and skins from KRAV-certified animal husbandry, below designated KRAV-certified raw materials. KRAV cooperates with other standard organizations. KRAV is aware of and considers it important that no stage/step in the production chain is not inspected. Please contact KRAV for more information.

Scope

13.1 These standards cover textile raw materials such as cotton, wool, linen as well as hides, leather and skins, below called KRAV-certified raw materials. To be KRAV certified, the raw materials used in the final product must come from KRAV-certified crop production or animal husbandry or KRAV-certified wild crop production.

13.2 In addition to Chapter 12, there are relevant parts of KRAV standards covering handling, labelling, marketing agriculture, crop production, animal husbandry and wild crop production and re-certification that are applicable to KRAV-certified raw materials.

KRAV-certified raw materials

Cotton

13.3 The following compounds may be used for defoliation of cotton after review:
- Calcium chloride
- Magnesium chloride
- Sodium chloride

13.4 The producer must be able to show that water demand will not contribute to a decrease in the groundwater level in the long-term.

Silk

13.5 All products, including disinfectants, in the silkworm cultivation, egg production, reeling and de-gumming shall comply with KRAV standards for handling and processing. Mulberry cultivation for silk production and hormone and veterinarian treatments shall comply with the appropriate parts of KRAV standards for animal husbandry.

13.6 At de-gumming there shall be an appropriate wastewater treatment. Silk may not be treated with metallic salts. A satisfactory water purification treatment is that which fulfils requirements of Swedish legislation.

Wool

13.7 Chemical products used for scouring and degreasing and scouring of wool shall be readily degradable and there shall be satisfactory wastewater treatment. The oxygen demand in the wastewater from degreasing that is discharged into the wastewater system may not exceed 60g/kg raw wool. In addition, the wastewater shall be purified outside of the facility to reduce the chemical oxygen demand with at least an additional 75 percent, expressed as the yearly average.
The chemical oxygen demand in the wastewater from degreasing that is purified on site and is then discharged to the surface water may not exceed 5g/kg raw wool. The pH value of the wastewater discharged to the surface water shall be 6-9 (if the pH in the receiving body of is not higher or lower), and the temperature shall be less than 40°C (if the temperature in the receiving water is not higher).

See Definitions for what is considered easily degradable.

Retting

13.8
Field, water and steam retting of textile raw materials is permitted. When producing flax and other bast fibres through wet retting, the wastewater from wet retting shall be treated so that the chemical oxygen demand (COD) or the total quantity of organic carbon is reduced by at least 75 percent for hemp fibre and by at least 95 percent for flax and other bast fibres. When steam retting, there shall be satisfactory wastewater treatment.

By satisfactory wastewater treatment is meant such treatment that complies with Swedish legislation.

Hides

13.9
Salting of hides from KRAV-certified animal husbandry is permitted. For production located in areas where salt in wastewater can constitute a considerable problem, the certification body reserves the right to require other methods such as drying or cooling. Preservatives may not be added to the hides.

By considerable is meant a negative effect on the receiving water.

Processing

Regarding certification of processing of raw-materials KRAV cooperates with other standard-owners. Please contact KRAV for further information.

Standards for marking and marketing of textiles, hides, leather and skin, see chapter 1 part 1.2.4.
14. RETAIL HANDLING

14.1 GENERAL

The main objective is to contribute to an increased demand for, and sales of, KRAV-certified organic products. This will happen by:
- The consumer shall easily find clearly marked KRAV-certified shops. Here the consumer can count on finding a wide range of high-quality KRAV-certified products, besides skilled personnel who can handle the products well and answer to the consumer’s questions.
- Make parallel handling of KRAV-certified and conventional products by loose-weight possible.
- Simplify farm shops sales of products from other producers.
- Make packing and repackning of KRAV-certified products in shops possible.

14.1.1
A KRAV certified retail shop shall contribute to increased availability of KRAV-certified products through:
- A wide range of KRAV-certified products;
- Displaying KRAV’s name and mark;
- A staff well informed about KRAV and organic production.

Certification may take place either through a retailer contract according to the Standards in this Chapter or by a processing contract according to Chapter 9. In addition to the standards in this chapter, other standards also apply in the appropriate areas.

Farm shop

14.1.2
KRAV-licensed farmers selling KRAV-certified products from another producer must certify the shop according to the Standards in this chapter if:
- the value (at the consumer level) exceeds three base amounts annually of unpackaged KRAV approved products from another producer/supplier and/or,
- the KRAV-certified product from another producer/supplier is handled or packaged

The above does not apply to producers who only sell their own produced products in farm shops.

Occasional sales

14.1.3
The Standards in this chapter apply when appropriate to occasional sales of KRAV-certified products. All such sales shall be reported to the certification body unless it is solely own-produced products.

Examples of occasional sales can be open-air markets, factory outlet sales and markets.

14.2 ASSORTMENT AND HANDLING

KRAV-certified products may be sold prepacked (packaged by the producer or supplier), packed in the shop, processed and as single items over the counter or for self-service.

14.2.1
A certified retail shop shall offer KRAV-certified products in a quantity that reflects the availability on the market. The retailer shall strive for a continuous development of the breadth of the product range to include more products and product groups.

The objective is that a consumer shall be able to choose a KRAV alternative from all product groups for the shopping cart. A product group means items grouped together such as flour pasta or fruit concentrates.

Processing in a retail shop

14.2.2
Standards for processed KRAV-certified products can be found in Chapters 9.
Single items

14.2.3 Single item sales of KRAV-certified product may occur if there is no obvious danger of mixing with conventional product. When there is parallel handling of KRAV-certified and conventional products single items, and such products cannot be distinguished by their outer appearance, the following applies:

- KRAV-certified products must be clearly labelled while in storage (see 2.12.6-8)
- The handling shall occur in such a way that there is no danger of mixing or contamination (see 2.12.3).

In cases where single item products are individually marked it is not considered parallel handling.

14.2.4 Handling and sales as single items over the counter (e.g. cheese, meat) may take place if the packaging (the cheese, the meat etc.) from which the product is sold is properly labelled. The standards applying to handling are the same as in standards 14.2.5-7.

Packaged at the retailer

14.2.5 A certified retail shop has the right to pack and repack a KRAV-certified product. All such handling shall occur in such a way that there is no danger of mixing with, or contamination from conventional products.

14.2.6 When equipment, utensils, surfaces, etc. are used handling both KRAV-certified and conventional product, the danger of mixing shall be minimized through a clear differentiation in the processes. Equipment, utensils, surfaces, etc. shall be carefully cleaned before the handling of KRAV-certified products begins. There must be written routines to ensure this handling.

It is a good idea for the shop integrates the routines into their own control program.

14.2.7 For information on packaging material, see standards 2.12.13-14.

Cleaning, disinfection and pest control

14.2.8 For information on cleaning, disinfection, and pest control, see 2.12.9-12.

14.3 MARKING AND DISPLAY

14.3.1 For information on marking and display, see Chapter 1.

14.4 DISPLAY

The KRAV-certified products shall be easily accessible and visible for the customers.

14.4.1 The displays in the retail shop of both KRAV-certified and conventional products shall be constructed in such a way that there is no risk of mixing or contamination. KRAV-certified products shall be displayed so there is no risk of contamination from containers, packing materials or other factors in the surroundings.

14.5 DOCUMENTATION

14.5.1 For documentation of purchased and sold KRAV-certified products, see 2.3.5.
14.6 MARKETING

14.6.1
For information about marketing, see Chapter 1.

14.6.2
Information counter(s) for information about KRAV and organic production shall be accessible in the shop in a highly visible location for customers.
Customers must be able to easily find information about KRAV approved products.

14.7 WELL-INFORMED STAFF

14.7.1
The staff shall be well-informed about organic production and KRAV. The retailer shall try to have some staff in the shop during open hours that completed a course on KRAV and organic production.
Staff who have completed a course should be able to show a course certificate.
15. RESTAURANTS AND OTHER INDUSTRIAL KITCHENS
The standards in this chapter include all types of industrial kitchens, restaurants, and cafés. Even smaller production units such as sheltered housing and preschools are included. In the following text, industrial kitchen is used as a collective term.

15.1 GENERAL

15.1.1 A KRAV-certified industrial kitchen and industrial kitchen that has registered KRAV-certified food shall contribute to an increased availability of KRAV-certified meals and products through:

- A wide range of KRAV approved meals and products;
- Displaying the KRAV name and mark
- A staff well-informed about KRAV and organic production

15.2 CERTIFICATION OF INDUSTRIAL KITCHENS

15.2.1 An industrial kitchen can certify the entire operation or parts of it such as:

- à la carte
- lunch
- buffet
- breakfast
- cafés

À la carte

15.2.2 An à la carte menu shall offer at least two KRAV-certified main courses daily.

Lunch

15.2.3 A lunch menu shall have at least one KRAV-certified main course weekly.

A KRAV-certified main course may replace a KRAV-certified lunch course. A main course is the composition of the main dish ingredients and secondary components thereof.

KRAV-certified dish

15.2.4 A KRAV-certified dish shall contain 100 percent by weight KRAV-certified ingredients. If KRAV-certified ingredients cannot be obtained, KRAV permits a lower limit of 70 percent by weight KRAV-certified ingredients. This assumes that the main ingredients in the dish are KRAV-certified. Note that KRAV’s list of the permitted additives (Appendix 7) also applies to conventional ingredients in a KRAV-certified dish.

15.2.5 In fish and shellfish dishes, the first choice shall be products from KRAV-certified aquaculture and fisheries. When this is not possible, KRAV accepts a lower limit of KRAV-certified ingredients of 70 percent by weight in the dish. Conventionally farmed fish are not permitted. KRAV can supply a recipe template for those who wish it.

15.2.6 Game not reared in enclosures may be used in KRAV-certified dishes on the condition that 100% of the other ingredients in the dish are KRAV-certified. When KRAV approved ingredients are not available, KRAV permits a lower limit of 95 percent by weight for other ingredients. Reindeer is not considered game in Sweden.
15.2.7
As far as possible, the accompaniments to the KRAV-certified dish shall be KRAV-certified products. Accompaniments include for example beverage, bread, contents of sandwiches, salads, coffee, tea, ketchup and mustard. The objective is to offer the guest a complete KRAV-certified meal.

Buffet

15.2.8
In KRAV-certified lunch or supper buffets, there must be a complete meal (main course accompaniments, for example, beverage, salad and bread) composed of KRAV-certified products. The buffet shall reflect the availability on the market of KRAV-certified products. A significant portion of the offerings on a smorgasbord and holiday buffets shall be KRAV certified.

Breakfast

15.2.9
At least one KRAV-certified alternative must be offered in nine of the following product groups. The restaurant must document which product groups have been chosen.

- Coffee
- Tea
- Milk
- Juice/nectar
- Sugar/honey
- Sour milk/yogurt
- Bread
- Cheese
- Marmalade/jam
- Breakfast cereals müsli/bran
- Fruits/vegetables
- Eggs

The other product groups shall reflect the availability on the market.

KRAV’s objective is that KRAV-certified eggs shall be part of the KRAV-certified breakfast in the future.

Café

15.2.10
In the following product groups (in those product groups handled by the coffee bar) at least one KRAV-certified alternative shall be offered:

- Coffee
- Tea
- Milk
- Fruit concentrate/ juice/ nectar
- Sugar/honey
- Sandwiches (The objective is that these shall be made of 100 percent KRAV-certified ingredients).

When KRAV-certified ingredients are not available, KRAV may permit a lower limit of 70 percent by weight KRAV-certified ingredients in the sandwich).

- Buns/biscuits (cakes, confections, small biscuits)
- Fruit

The other product groups shall reflect the availability on the market.

Handling

15.2.11
When parallel handling of KRAV-certified and non-certified products as single items and when the products cannot be visually differentiated, the following conditions apply:

- products shall be clearly labelled during storage and when serving (2.12.6-8)
- products shall be handled so there is no danger of mixing or contamination (2.12.3).
15.2.12
When equipment, utensils, surfaces, etc. are used for handling both KRAV-certified and conventional products, the danger of mixing and contamination shall be minimized through a clear differentiation in the processes. Equipment, utensils, surfaces etc. shall be cleaned carefully before handling KRAV-certified products may begin. There must be written procedures to ensure this handling.

*It is a good idea to integrate the procedure into the industrial kitchen’s own control program.*

15.2.13
For information on packaging materials, see 2.12.13-14.

**Cleaning, disinfection and pest control**

15.2.14
For information on cleaning disinfection and pest control see 2.12.9-12.

**Marking and display**

15.2.15
For information on marking, see Chapter 1.

15.2.16
KRAV-certified product/dish must be displayed so that there is no mixing or contamination of the product/dish with conventional.

*The KRAV-certified products shall be easily accessible and highly visible for the guests.*

**Documentation**

15.2.17
For documentation of purchased, used and sold KRAV-certified products, see standard 2.3.5.

*KRAV can supply recipe templates for those who wish it.*

**Marketing**

15.2.18
For information on marketing, see Chapter 1.

**Well-informed staff**

15.2.19
Staff shall be well-informed about organic production and KRAV. Industrial kitchens shall try to have some staff in the kitchen during open hours that have completed a course on KRAV and organic production.

*Employees who have completed a course should be able to show a course certificate.*

**15.3 REGISTERING KRAV-CERTIFIED FOODS**

15.3.1
Industrial kitchens may register with the certification body if they use one or more KRAV-certified foods. The registered foods must be totally replaced with KRAV certified.

15.3.2
The certification body must be informed of any changes, expansions or reduction of the number of KRAV-certified registered foods.

15.3.3
If a KRAV-certified registered food is not available, both the guest and the certification body shall be notified immediately.
Seasonal food

15.3.4
KRAV-certified seasonal foods may be used without registration with the certification body. The purchases shall be documented.

15.3.5
The guests shall be informed of which KRAV-certified seasonal foods are used.

Cleaning, disinfection and pest control

15.3.6
For information on cleaning, disinfection and pest control, see 2.12.9-12.

Marking

15.3.7
For information on marking see Chapter 1.

Documentation

15.3.8
The quantities of purchased registered KRAV approved foods shall be documented. There must also be records of the quantities used. The documentation shall be saved for at least two years.

Marketing

15.3.9
For information on marketing, see Chapter 1.

Well-informed staff

15.3.10
Staff shall be well informed about organic production and KRAV.

15.4 TEMPORARY CERTIFICATION

15.4.1
In certain cases, permission may be granted to use KRAV’s name and mark when serving KRAV-certified dishes or foods.

Examples of these occasions include exhibitions, festivals and “KRAV day” in schools.

For information on labelling and marketing, see Chapter 1.

15.5 GROUP CERTIFICATION

15.5.1
A prerequisite for group certification is that the costumer has a system for common/centralised purchasing as well as for documentation.

An example of a costumer is a municipality, county council, administration or chain of restaurants. You can choose among group certification of cafés, breakfast, buffet and meal, and registering of KRAV-certified foods.

15.5.2
The costumer must have an internal system to follow up that the different units do follow ”standards for KRAV-certified production”. It is appropriate to implement the system together with an existing quality system or corresponding (see standard 2.4.2). From the system it must be clear when a divergence occurs, what actually happened and how it was solved. The internal documentation must be available at the external inspection made by the certification body.
15.5.3
The certified production must be the same within all the units for which the costumer has registered for certification. This is necessary, to make a trustworthy and efficient inspection possible.

As an example when registering KRAV-certified foods, the same foods has to be switched to KRAV-certified at all units, or, alternatively at units within one sector. (For example all schools within a municipality.) It is decisive that the internal organisation and documentation is organised in a controllable way.

15.5.4
The inspection is mainly performed at the costumers head office/ department of purchasing or similar. Sample inspections are made at the different units in the group.
16. PRODUCTS AND RAW MATERIAL CERTIFIED ACCORDING TO OTHER STANDARDS FOR ORGANIC PRODUCTION

KRAV endeavours to stimulate consumption and increase the supply of organic products. KRAV therefore strives to increase the volume of organic production by facilitating global trade with organic products. The KRAV standards for KRAV certification of products certified by other standards are based on that the product in question is produced according to the KRAV standards or equivalent. In the assessment KRAV take into consideration:
- IFOAM’s intention for organic production
- KRAV’s goal with organic production
- The quality management system of the certification body that carried out the certification

KRAV is of the opinion that organic standards may differ between different areas, due to different traditions, climate and situation, and that these differences can be accepted as to stimulate consumption and supply. Therefore, KRAV is of the opinion that a plant product certified according to the (EEC) no 2092/91 can on the whole be KRAV certified directly provided the supplier fulfils requirements according to the KRAV standard 2.3.9 on social justice. An animal product requires deeper analysis primarily because KRAV values animal welfare questions highly. However, within the same sphere it is illogical to accept differences in standards that KRAV judges to be essential. Hence the standard saying that Swedish production certified by other standards for organic production can not be KRAV certified.

Please note that it is incumbent upon the certified to verify that all essential KRAV standards are fulfilled.

Permitted additives and processing aids are those that are specified in the IFOAM Basic Standards. See list at www.krav.se.

For the definition of certification body, set of standards, and certification programme, see section Definitions.

16.1 GENERAL INFORMATION

16.1.1 Products and raw material certified by an IFOAM accredited certification programme or according to (EEC) no 2092/91 may be KRAV-labelled if the additional requirements in standard 16.3.2 for vegetable products and 16.3.3 for for animal products and standard 16.4.1 are fulfilled. Products produced in Sweden and certified according to another organic programme, may however not be KRAV-labelled according to these standards. KRAV is entitled to withdraw recognition of a specific certification programme despite fulfilling the requirements above, if major problems due to credibility is shown by the action of a certification programme. Such certification programmes are published in a special list at www.krav.se.

The KRAV-licensee is responsible for the documentation of an allowed origin of every product and/or ingredient from another certification programme.

Please observe that when a product is imported from a country outside the EU an application for import authorisation in most cases has to be handed in to the National Food Administration (processed products) or the Swedish Agricultural Board (unprocessed agricultural products). Information about this could be found at the web-site of these to governmental authorities.

16.1.2
KRAV-licensee who use the KRAV-mark on products or raw material according to standard 16.1.1 shall be certified for this by a certification body accredited for KRAV.

16.1.3

The KRAV-licensee is responsible to document that the origin is approved at each purchase of products/ingredients/raw materials certified according to another certification programme.

16.2 CERTIFICATION PROGRAMME

KRAV may recognise certification programmes and set of standards apart from the IFOAM-accredited and (EEC) no 2092/91. A list of these recognised certification programmes and set of standards is available at KRAV’s web-site www.krav.se.

16.2.1
KRAV may in some cases recognise certification programmes or other inspection systems that uses other quality systems than IFOAM Accreditation Criteria or ISO 65/EN 45011. If so, they are evaluated against KRAV’s criteria for recognition of certification programmes. Any KRAV-licensee may ask KRAV for the recognition of a certification programme, and of the subsequent inclusion in the list of recognised certification programmes.

16.3 SET OF STANDARDS

16.3.1
For the recognition of a set of standards, the same shall be IFOAM-accredited or approved according to the (EEC) no 2092/91. Standards within the scope of (EEC) no 2092/91 always have to fulfil the requirements in that regulation. Standards with another scope than (EEC) no 2092/91, but within the scope of IFOAM Basic Standards, always have to comply with the requirements in the later. When evaluating a not accredited/approved set of standards KRAV makes a comparison of these two standards with KRAV’s own standards. Any KRAV-licensee may ask for the recognition of a set of standards, and the subsequent publication in the list of recognised sets of standards.

In addition to what is said above, the KRAV-licensee has to be able to verify that a supplier has fulfilled the following to be allowed to use the KRAV-mark on products certified according to other sets of standards:

### Vegetable products

<table>
<thead>
<tr>
<th>Standard/program</th>
<th>Additional requirements</th>
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</thead>
<tbody>
<tr>
<td>Certified according to an IFOAM accredited program</td>
<td>No additional requirements</td>
</tr>
<tr>
<td>Certified according to the (EEC) no 2092/91</td>
<td>The supplier shall fulfil requirements corresponding to KRAV's standard 2.3.9</td>
</tr>
</tbody>
</table>

### Animal products

<table>
<thead>
<tr>
<th>Standard/program</th>
<th>Additional requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified according to an IFOAM accredited program</td>
<td>Parts of standard 5.2.4 regarding pigs.</td>
</tr>
<tr>
<td>Certified according to the (EEC) no 2092/91</td>
<td>The supplier shall fulfil requirements corresponding to KRAV's standard 2.3.9. Free-range for pigs according to standard 5.2.4. Possibilities for grazing when final fattening indoors</td>
</tr>
</tbody>
</table>
is practised during summer.
Transportation according to standard 10.4

Jumbo shrimps, meaning giant tropical shrimps, either cultivated or caught wild ones, are not allowed to be KRAV-labelled.

16.4 ADDITIVES AND PROCESSING AIDS

16.4.1
Permitted additives and processing aids are those which are listed in the IFOAM Basic Standards. A list of them is available on KRAVs web-site www.krav.se
17. FISHING

The standards include all parts of the chain of custody from the fishery to the retailers. Every section of the standards begins with a principle that describes the starting point for the standards in the section. The section describes what is hoped to be gained on a visionary level, even if this is not possible to realize at the present in the form of detailed standards. Principles are founded primarily on the objectives used in the development of these standards.

After the principles follows a rationale. This describes what the standards cover at the present and why the specific issues are considered. A list of the requirements that the certification organization must fulfil follows the rationale.

Definitions
See the section on definitions for terms used in this Chapter. The definition in ISO Guide 65 and IFOAM Accreditation Criteria are also applicable. KRAV may define additional terms based on the ISO Guide 65 or IFOAM Accreditation Criteria.

17.1 COMPETENCE REQUIREMENTS AT KRAV THE DIFFERENT CERTIFICATION BODIES AND APPLICATION OF THE STANDARDS

Principle
These standards are created to drive development in the fishing industry towards a sustainable fishing and processing. Standards have been developed during a long process involving experts in many areas. To ensure that the standards are actually complied with, the authorized certification body must be able to inspect that all standards are followed in the entire chain of custody with great certainty.

Consumers must be able to trust ecolabelling and the standards shall encourage and facilitate trade with KRAV-certified fish-and shellfish products. KRAV’s and the respective certification body procedures for where and how decisions are taken to certify fishing activities must be transparent. The identity of those taking the decision shall be transparent.

The standards shall facilitate trade with products produced in compliance with these standards. There must be room for standards to be further refined if this is necessary. Standards are developed for conditions in Scandinavia and are neither tested nor intended for other areas.

Those who wish to have their production KRAV certified are responsible to prove that they comply with the requirements. Therefore, businesses or organisations that wish to have a stock certified shall deliver the documentation and pay for the work for assessing the stock.

Rationale
The competency requirements in these standards ensure that KRAV and the different authorized certification bodies maintain a system that guarantees their independence and competence.

At present, the standards do not directly protect against bycatches of marine mammals. KRAV shall therefore gather knowledge and statistics of catches of marine mammals to collect sufficient documentation to consider changes in the standards if necessary.

The application of the standards is geographically limited because the work resulting in these standards could not take into consideration the conditions outside of the areas that have been defined. No one has investigated if this system leads to a more sustainable fishing outside of the defined areas.

Division of responsibility
KRAV takes the decision to certify a stock for fishing and fishing methods. The authorized certification body carries out and certifies the individual fishing vessels. This means that more vessels can fish in a certified stock and that those wishing to fish in a certified stock only need to contact the authorized certification body.
17.1.1 Quality assurance

17.1.1.1 Application of standards
Standards for KRAV-certified fishing shall be applied in their entirety. The standards can be applied together with other voluntary marking systems.

17.1.1.2 Where do the standards apply?
Standards in sections 17.2, 17.3 and 17.4 are applicable in fishing waters within 200 nautical miles from a Scandinavian country.

17.1.1.3 Statistics covering non-target species, bycatches
The certification body shall maintain statistics of bycatches of marine animals and birds, and publicize these every year.

17.1.1.4 Marking and marketing
For information on marking and marketing see Chapter 1.

17.1.2 Decision-making organizations

17.1.2.1 Task of the Fishing Committee
The KRAV Board of Directors appoints a Fishing Committee that shall have a documented term of reference according to IAC or ISO65. The Fishing Committee’s main task is to advise KRAV whether the fishing of the indicated stock using the stated methods shall be approved.

17.1.2.2 Working procedures of the Fishing Committee
A researcher with documented knowledge of marine ecology leads the Fishing Committee. The Fishing Committee shall be competent to jointly to judge fishing effects on the marine environment. Thus, there must be competence in the areas of marine ecology, fisheries biology, environmental preservation, ethology, fishing methods, and development of fishing gear. The Fishing Committee shall also have experience of fishing and have competence within ecolabelling of food products. The Fishing Committee contacts other experts as needed. The Fishing Committees’ decision shall be unanimous.

17.1.2.3 Opinions from stakeholders
Prior to KRAV taking a decision to permit or not permit KRAV certified fishing, the stakeholders shall be allowed to express their opinions concerning the suggested decision. The recommendation of the Fishing Committee shall accompany the suggested decision.

17.1.2.4 KRAV decisions
KRAV takes the decision on which stock shall be open for KRAV-certified fishing and the methods and gear that may be used in KRAV-certified fishing on the stocks.

17.1.2.5 Announcing the decision
KRAV shall put the decision to allow fishing on a stock in the public domain. The decision shall include answers to the following questions: What stock is approved? Where is fishing permitted? Which gear and methods are permitted? What size limits apply for captured fish? What other limits apply?

17.1.2.6 Time limits
The decision to permit a stock to be open for a KRAV-certified fishery is normally valid for three years. In special cases, the decision can be reconsidered within a shorter period. Examples of such cases include a scientific investigation showing that the stock is nearing exhaustion, that serious effects on the marine ecosystem accompany the methods and gear used, or that the fishery results in unacceptable bycatches.

17.1.3 Application for assessment

17.1.3.1 Information in the application
Those who wish to operate a certified fishery according to these standards, on a stock not assessed earlier, may apply a KRAV assessment. This also applies for a renewal of the assessment when the previous approval has
expired. It is the responsibility of the applicant to supply the information that the Fishing Committee deem necessary to make an accurate assessment of the stock. If necessary, the Fishing Committee also has the right to request supplemental information from the applicant about the stock and the suggested methods and gear.

17.1.3.2 Application fees
KRAV has the right to charge a fee to cover the costs in connection with estimating the stock. KRAV shall inform the applicant of the amount of the fees and an explanation of the costs before the work is begun.

17.1.3.3 Appeal of the decision
KRAV’s decision, see 17.1.2, to certify or deny certification for KRAV certified fishing may be appealed.

17.2 STOCK – BASIC PRINCIPLES AND STANDARDS FOR ASSESSING FISH AND SHELLFISH STOCKS

Principle
Certified fisheries are operated on stocks that are sustainable in the long-term and conducted in such a way that captures do not exceed the biological capacity. Consumers shall be able to eat KRAV approved fish safely. Gear shall be designed so that it does not endanger the stock’s tenability or cause long-lasting damage to the environment.

Rationale
At this time, we do not know everything about any fish stock. Neither do we believe that all stocks can be assessed using the same criteria because the biological conditions are too varied. The best we can do is convene a group with high competence, give them guidelines, and circulate their conclusions for comments. This section contains the guidelines for the Fishing Committee’s assessment of the stock’s status.

Environmental toxins are a complex problem in Scandinavian waters. This applies mainly to heavy metals and dioxins. An assessment of the stock’s load of environmental toxins shall be performed.

17.2.1 Assessment of the size of stock

17.2.1.1 Extent of fishing
The collective fishing pressure on a stock may not exceed its production capacity or endanger the balance in the marine ecosystem.

17.2.1.2 Precautionary principle
Assessments of the size of stock shall apply the precautionary approach. See the section on definitions section.

17.2.1.3 Ensure reproduction
The precautionary approach means that fishery may not endanger the stock’s future reproduction. A certified fishery can be permitted if the stock is assessed to be within safe biological limits. Safe biological limits means that the stock must contain the minimum critical spawning biomass and that the fishery is not allowed to exceed the critical mortality. Biological criteria shall provide the basis for assessing the ”spawning biomass” and fish mortality.

17.2.1.4 Basis for assessment
Assessment must be based on available data and relevant knowledge of the stock, methods, and gear. The Fishing Committee may recommend that the fishery be not approved, due to insufficient knowledge.

17.2.1.5 ICES advice
The Fishing Committee shall consider the ICES advice; if ICES has assessed the stock. The Fishing Committee shall demonstrate how it has considered the ICES advice its own recommended decision.

17.2.1.6 Gear and methods
The Fishing Committee shall determine what gear and methods are permitted when fishing a certain stock. Gear shall mainly catch sexually mature individuals of the target species but at the same time sort out inferior
individuals. Fishing methods that cause long-lasting or irreversible damage to the environment (such as damage to coral reefs or very sensitive biotopes) may not be approved.

17.2.1.7 Undesirable substances
Sweden’s and Finland’s exception in article 1 in the Commission Regulation 466/2001 does not apply when concerning unwanted substances in fish and shellfish from stocks approved for fishing according to these standards. The maximum permitted levels are defined the annexe to the regulation. The Fishing Committee may refuse to approve a stock because of high levels of unwanted substances. Liver and roe from fish from the Baltic Sea, Gulf of Bothnia, and Gulf of Finland may not be sold as KRAV certified.

17.3 FISHING VESSELS

Principle
The fishing vessel’s operations must be planned and run to result in the least possible environmental impact. Environmental impact results from the vessel’s operations (fuel, maintenance, etc.) and activities (fishing and transport). The environmental impact is to a great degree controlled by the competence of the crew and shipowner. These standards shall promote vessels exerting the least possible environmental burden.

Rationale
Consumers’ confidence in the products is essential for the standards. The emphasis is on the basic functions, such as compliance with current legislation, development of competence and other measures that are all considered to have positive effects on the environmental impact in the long run. Impure fuel and two-stroke engines cause considerable discharges that cannot be tolerated in KRAV certified fisheries. Some bottom paints are so toxic that they are also not permitted. The most toxic are legally prohibited in Sweden, but may be permitted in other countries -therefore these are mentioned here.

17.3.1 Requirements – fishing vessels

17.3.1.1 Certification of vessels
The authorized certification body certifies the fishery that occurs on an individual fishing vessel. Certification means that the vessel may land fish or shellfish as KRAV certified. The bearer of the vessel’s commercial registration is responsible for ensuring compliance of all standards when fishing according to these standards.

17.3.1.2 Documentation and procedures
There must be documentation and methods to show that vessel complies with the environmental, fishing and occupational safety legislation; see 2. 3. 8. There must be procedures to ensure that the responsible person is made aware of changes in legislation and pending fishing stops.

17.3.1.3 Developing competence
Fishing vessels that are certified according to these standards shall have a plan for employee competence development to ensure that personnel receive the appropriate continued education.

17.3.1.4 Diesel engine
Fishing vessels with diesel engines shall use diesel of quality E10 gas oil with a maximum of 0.05% sulphur.

17.3.1.5 Outboard motors
All outboard motors on fishing vessels certified according to these standards shall have a four-stroke engine.

17.3.1.6 Hydraulic oils and lubricating grease
Hydraulic oils used on-board shall be eco-labelled or approved according the standard ”Hydraulic fluids - Requirements and Testing Methods SS 15 54 34. ”
Lubricants used on-board shall be eco labelled or approved according the standard ”Lubricating greases - Requirements and Testing Methods SS 15 54 70 ”
An exemption from this standard can be granted if the vessel can show documentation that the oil or lubricating grease is not available for purchase on the market. See 2. 10. 1 on exemptions.
17.3.1.7 Cleaning agents
Heavy-duty cleaners used on-board may not contain ingredients classified as carcinogenic, causing mutations or disruptive of reproduction. Surfactants and other agents may not interfere with the separation of oil and water or cause the filtering tank to malfunction. Heavy-duty cleaners shall otherwise be as environmentally adapted as possible.

17.3.1.8 Waste
The vessel shall have clearly defined procedures for handling different type of waste. See also 2. 11. 2 on hazardous waste.

17.3.1.9 Bottom paints
Paints containing tin may not be used for painting the bottom of fishing vessels.

17.4 FISHING METHODS

Principle
Methods shall be adapted so that the fishing crew only capture the intended catch. Methods shall also be gentle to the surroundings. We should generally endeavour to use the catch method that causes the least suffering to the animals prior to death.
Catching and landing fish always results an environmental impact. If a part of the catch is lost due to inappropriate handling, the impact has become meaningless and is disrespectful to the catch. Therefore, the standards must also have measures to promote quality.
Consumers must always be able to trust that the catch is taken from the indicated location.

Rationale
Standards focus on traceability, to avoid ghost fishing and avoid bycatches of organisms that cannot or may not be sold. The requirements for equipment for ensuring traceability are reduced for small vessels with a limited range. The reason is that these vessels cannot cover such large areas so that they change stock.
At the present, vessels are permitted to fish both KRAV certified and non-KRAV certified -but only when these are of different species. In this way, more vessels have the financial possibility to convert to KRAV certified fishing.

17.4.1 Requirements for all fishing
17.4.1.1 Adherence to laws and standards
All fishing shall be carried out according to the applicable legislation, se 2. 3. 8. This means that if authorities close a fishing area, it is automatically closed for KRAV certified fishing.

17.4.1.2 Permitted stock, gear and methods
Certified fishing is only is permitted within the limits defined by KRAV according to standard 17. 2. 1. 6.

17.4.1.3 Other gear on-board
A vessel fishing KRAV-certified for a specific target species may not have forbidden gear on-board that is usually intended for the target species.

17.4.1.4 Fishing trip
A vessel may not fish on the same certified stock with both approved and unapproved gear and methods.
During a transitional period however, a certified vessel may carry out KRAV certified fishing on approved stock and with approved methods on one target species and non-approved fishing on another target species. The vessel, however, may not operate a fishery on a stock that is obviously threatened or with methods that are clearly environmentally inappropriate. methods.
17.4.1.5 Documentation of the fishing trip
The vessel shall document the fishing trip so that there is no doubt as to where the catch was taken. The accuracy of the information shall be 10 nautical miles or better. Both the setting location and lifting location for the trawl or other gear must be documented. The time of the catch must also be documented.

17.4.1.6 System for reporting of position
Vessels with the longest length greater than 12 metres shall be equipped with a VMS system or other system that cannot be manipulated.
Vessels with the longest length greater than 15 metres shall report information on the position, course and speed to an organization that gathers data at least once every hour. Vessels between 12 and 15 metres shall report information on the day’s trip at least once every fishing day. The certification body shall have access to the information from the organization gathering the data.
If the system ceases to function during a fishing trip, no portion of the catch may be sold as KRAV-certified.
Vessels returning to the home harbour within 24 hours from the beginning of the fishing trip are exempted from this standard.

17.4.1.7 Storing the catch
The catch shall be stored in fish boxes labelled to ensure complete traceability. Such labelling includes the KRAV name and/or mark, species, fishing area, time for catch and similar. See Chapter 1. Information on position shall be given according to 17.4.1.5.

17.4.1.8 Labelling of gear
All gear shall be clearly labelled directly on the gear. Marking shall make it possible to trace the gear to the owner.

17.4.1.9 Damaged gear
Damaged gear shall be taken ashore for repairs or destruction.

17.4.1.10 Bycatches of marine mammals, birds and invertebrates
All bycatches of non-target species of marine mammals, birds and invertebrates shall be reported in the logbook.
All bycatches of marine mammals shall be reported to the certification body within two weeks.
Catches of invertebrates may be reported in the logbook with an estimate of the weight, or in another appropriate way that describes the quantity.

17.4.1.11 Duration of fishing trip
The duration of the fishing trip from the harbour to the fishing area may not be longer than that the catch can be sold for human consumption.

17.4.2 Requirements - trawling

17.4.2.1 Limits
Trawling is permitted within the limits set by the environmental labelling body has adopted in accordance with 17.2.1.6.

17.4.2.2 Selecting devices - Cod (Gadus morhua) and bottom-feeding fish
Trawlers for Cod (Gadus morhua) and bottom-feeding species shall be equipped with a Bacoma window or other selective device with equivalent effects. The devices shall allow undersized fish to escape.

17.4.2.3 Selecting devices shellfish
Trawlers for fishing shellfish must be supplied with an appropriate selection grid or selecting device with equivalent effects.

17.4.2.4 Forbidden beam trawlers
Beam trawlers are not permitted in certified fishing.
17.4.3 Requirements – net fishing

17.4.3.1 Limits
Net fishing is permitted within the limits set by KRAV if according to 17.2.1.6.

17.4.3.2 Duration for nets in the water
Nets must be lifted so often so that the fish will never be caught in the net for more than 24 hours. KRAV may determine special restrictions in the question of specific fishing.

17.4.3.3 Drifting nets and marine mammals
All drifting nets shall be designed so that marine animals can avoid them.

17.4.3.4 Drifting nets in the Baltic Sea and the Gulf of Bothnia
Certified salmon fishing with drifting nets in the Baltic Sea and the Gulf of Bothnia are only permitted if the nets have a maximum length of 2.5 km.

17.4.4 Requirements - fishing with line and hooks

17.4.4.1
Fishing with line and hooks is permitted within the limits set by KRAV according to 17.2.1.6. KRAV can also decide on the duration for how long hooks can remain in the water.

17.4.5 Requirements - fishing with fishing traps and fyke nets

17.4.5.1 Limits
Fishing with fishing traps and fyke nets is permitted within the limits set by KRAV according to 17.2.1.6.

17.4.5.2 Time periods
Fishing traps and fyke nets shall be lifted at least twice per week.

17.4.5.3 Candling of crabs
Crabs shall be candled by transmitted light at sea during crab fishing. Non-meaty crabs shall be returned to the sea undamaged. There shall be documentation that the candling equipment or other handling does not damage the crabs.

17.4.5.4 Nets or panels of degradable.
Degradable panels, or an equivalent construction, must be a part of all traps and all fishing houses in fyke nets.

17.4.5.5 Selection
Fyke nets should be designed to select for the target species. Vessels that lift eel fyke nets shall have the best available equipment so that the boat can effectively select between eel and other fish. The other fish shall be returned undamaged to the sea.

17.5 LANDING AND PROCESSING

Principle
In connection with the landing, auction and further transport to the wholesalers and processing industry, KRAV-certified fish and shellfish shall be kept separately from non-KRAV-certified fish and shellfish. Additives and other raw materials not originating from the sea, processing aids, flavour enhancers and similar shall come from natural sources or be produced with environmentally-adapted methods. Disposal of waste must meet the highest possible requirements for sorting and recycling. Transport and processing shall use minimal amounts of energy by choosing the best available fuels and technologies and by choosing the shortest possible rout from the sea to the consumer. Using cheap fossil energy to make long detours to use cheap processing labour with unsatisfactory conditions is not consistent with KRAV certified processing.
Rationale
Consumers must be able to know that fish has been fished and handled in the manner that the KRAV certification indicates. Therefore, the standards prioritize traceability of the product.

17.5.1. Requirements - landing

17.5.1.1 Basic standards for handling and processing
The KRAV-certified fish shall be handled and processed according to Chapter 9 Food Processing.

17.5.1.2 Initial recipient’s responsibility
The initial recipient is responsible to ensure that the relevant parts of the standards are followed during landing and further sales, and shall be certified according to these standards to market the products as KRAV-certified.

17.5.1.3 Accounts
The initial recipient’s accounts shall be examined and approved by a certified accountant.

17.5.1.4 Boxes and packaging materials
Boxes or other packaging materials for products from KRAV certified fishing shall be labelled to ensure complete traceability. Such labelling includes the KRAV name and/or mark, species, fishing area, time for catch and similar information. See also Chapter 1. Information on positions shall be in accordance with 17. 4. 1. 5.

17.5.1.5 Handling and storage
The initial receiver shall handle and store the labelled fish and shellfish to ensure that catches from different vessels are not mixed. Catches from different vessels may be mixed if every individual is labelled with KRAV’s name and/or label and indicating which vessel has captured the individual. See Chapter 1.

17.5.1.6 Inspection
The initial receiver is responsible for ensuring that the KRAV-certified fish that the company has received are sourced from fisheries certified according to these standards.

17.5.2 Requirements - processing

17.5.2.1 The processor’s responsibility
The processor is responsible to ensure compliance with relevant portions of these standards during those parts of the chain of custody under processor’s control and shall be registered to KRAV to be able to market the processed products as KRAV-certified.

17.5.2.2 Requirements for the processing company
Processors shall have clear environmental targets, both in short and long terms as well an action plan to reach the targets. The processor shall also have an internal audit scheme or equivalent to follow up the targets and the action plans. See also 2.11.3.

17.5.2.3 Documentation and assessment of raw materials
The processor shall be informed of and document where the fish used as raw material was caught. The processor shall consider environmental aspects when choosing fish used as raw material.

17.5.2.4 Yield
The processor shall ensure the best possible yield of fish in relation to final product. This shall be accomplished by measures taken in the processors own production as well as by requirements directed at suppliers.

17.5.2.5 Handling of other raw materials
Handling of the KRAV-certified fish shall otherwise be carried out according to Chapter 9 Food Processing. This also applies to use of other raw materials than fish and shellfish in connection with processing of products that will be KRAV approved according to the standards.
17.5.2.6 Other additives
In addition to the additives approved according to Chapter 9 Food Processing, the following additives are approved for use in processing of KRAV-certified fish and shellfish. The additives may only be used in cool tins where the raw material comes from KRAV-certified fishing.

- acetic acid (E260)
- potassium and calcium sorbates/sorbic acid (E200, E202-203)
- benzoic acid/benzoates (E211-213)
- citric acid (E330)

The additives are needed due to food safety. KRAV endeavours to replace these after evaluation and discussion with the industry.

17.5.2.7 Other eco-labelling systems
KRAV may allow processors to use fish and shellfish source materials that are certified according to other eco-labelling systems. In such cases, KRAV applies the IAC’s criteria for “Acceptance of prior certification.”

17.5.2.8 Packaging
KRAV-certified fish and shellfish products may predominantly be packed in recyclable packaging. The packaging must be produced by a company affiliated with REPA - the Swedish company managing the producer responsibility for packaging recycling, Swedish reusable wood or comparable. Recyclable means that packaging is designed so that it can be recycled. Recycling by means of extracting energy is not approved, with the exception of burning paperboard boxes, wooden boxes and barrels in case they cannot be reused.
18. KRAV-CERTIFIED INGREDIENTS

The standards in Chapter 18, KRAV-certified ingredients were in force from 1 January 2005 until 31 August 2006. The EU interpretation (EEC) no. 2092/91 that the county administrative court and the National Food Administration have made means that the standards may only be applicable after 1 September 2006 if the product fulfils the EEC no. 2092/91. KRAV is researching the legal conditions to be able to apply these standards in the same way as earlier. Contact KRAV or the authorized certification body for the latest information.

KRAV observes changed food consumption among consumers -we eat out more often and when we eat at home, we increasingly choose totally or partially prepared meals.

KRAV chooses to prioritize larger volumes of KRAV-certified ingredients on the market in spite of a clear conflict with the goal of KRAV-certified products in their entirety. As a basis, KRAV notes those groups of consumers who can seldom or never buy KRAV-certified products because the products asked for are not possible or difficult to produce within the framework of KRAV’s current standards. For example, many persons with diabetes, gluten intolerance, lactose intolerance, and those who want products with low fat content or vitaminized or products fortified with minerals.

In addition, there are groups of products that are not possible to produce with the current KRAV standards, for example certain semi-finished products, cured products with nitrite and ice cream without egg, food with vitamins and mineral additives.

A licensee who has registered KRAV-certified ingredients may list this on the packaging and indicate this in their marketing. It shall be evident which ingredients are of KRAV-certified origin. The products may not be marked as organic, as KRAV-certified or labelled with KRAV’s mark.

Registration

18.1
A licensee may register that they use one or more KRAV-certified ingredients. For registration of ingredients, the relevant sections of Chapter 2 are also applicable.

After the certification body has approved a registration of a KRAV-certified ingredient, the licensee receives a certificate that confirms the registration.

Ingredients

18.2
It is not permitted to use both KRAV-certified and non-KRAV-certified ingredient of the same sort in the same product.

As an example, KRAV-certified and conventional potatoes may not be used in the same instant mashed potato mix.

18.3
Ingredients may not contain or have been produced by GMO. This also applies to the conventional ingredients in a product.

Documentation

18.4
The purchased quantity and the quantity used of the registered KRAV-certified ingredients shall be documented. The licensee shall also document the origin of the ingredients as well as the recipient of sold goods containing KRAV-certified ingredients. The documentation shall be kept for at least two years.

Any changes, increase or decrease, of the number of KRAV-certified registered ingredients shall be reported to the certification body.

Documentation may be on paper or digitally.
Handling and inspection

18.5
When handling KRAV-certified ingredients, standard 2.12.3 is applicable. See also 18.2.

Marking and marketing

18.6
Marking and marketing of a product containing KRAV-certified may only be on products where KRAV-certified ingredients are certified according to Standards for KRAV-certified production. Products shall also fulfil EEC 2092/91. For information on marking and marketing, see Chapter 1.
19. STANDARDS FOR CERTIFICATION BODIES

In these standards for certification bodies, KRAV outlines the additional requirements, excluding accreditation under EN 45 011 (ISO/IEC Guide 65:1996), that apply to certification bodies accredited for KRAV certification. A certification body is a competent, independent organization that confirms compliance with specified requirements (for instance KRAV’s standards) and prepares a certificate as proof that the standards are fulfilled. The certification body must be accredited to ensure competence, which means that the certification body has been reviewed by an accreditation body. In Sweden, SWEDAC (Swedish Board for Accreditation and Conformity Assessment) has been appointed as the national accreditation body.

Internationally, IOAS (International Organic Accreditation Service) accredits certification bodies according to IFOAM (International Federation of Organic Agriculture Movements) Accreditation Criteria.

The auditor is a person who has knowledge and skills to implement an audit i.e., an independent systematic review to determine if the audit criteria (for instance KRAV standards) are complied with. The Audit manager is an experienced auditor who functions as a leader in an audit team. The audit leader’s tasks include planning, coordinating the audit group’s assessments, informing the audit team about the operation that shall be audited and inform the KRAV operator about the prerequisites and provisions for the task.

19.1 GENERAL

19.1.1 Application of standards

In cases where there is any doubt when certifying according to KRAV’s standards, the certification body’s decision is taken with reference to and based on the objectives of organic production as these are formulated in KRAV’s bye-laws. The certification body shall note how the decision impacts the environment, animal husbandry and social conditions at the certified.

19.1.2 Which edition applies?

Interpretation of the standards and inquiries in a certification matter, it is always the KRAV standards edition posted at the website when the matter was reported that apply. The fees associated with the consequences are always determined based on the charges for the divergence applicable at that time of reporting. For issued divergences, the web edition of the standards at the actual time of the divergence applies. If the KRAV standards are revised and are interpreted more lenient during the time when the divergence is to be corrected, consideration of the changes will be taken when reviewing the corrective measures.

19.1.3 Reporting requirements when decertified

Cases in which the certification body decertifies production (totally or partially) and there is a danger that the products will be sold as KRAV-certified, shall be reported immediately to KRAV and in consultation with KRAV as to the continued processing of the matter. Usually this includes KRAV publishing the actual information via the website (see 2.4 on inspection of KRAV-certified production).

19.1.4 Obligation to report when serious standard divergences suspected

If the certification body obtains credible information about serious transgressions of KRAV’s standards at one of its KRAV-certified operators, an unannounced audit shall be carried out at that operator promptly. KRAV shall be informed of the results immediately after the audit.

19.2 REQUIREMENTS FOR THE CERTIFICATION BODY

19.2.1

The auditors/audit manager within the certification body who are accredited according to IFOAM's accreditation criteria fulfil KRAV's requirements for competence.

For a long time, KRAV has actively participated in IFOAM's work to formulate accreditation criteria. These criteria are developed specially for certification of organic production and tested in practice over a long period. This means that KRAV...
judges accreditation according to IFOAM as being competent to certify KRAV’s standards. As an alternative to this accreditation, KRAV has developed the following standards in Chapter 19.2.

19.2.1.1 Auditors

The individual appointed as auditor shall have had at least two years of high school education or the equivalent and at least 4 years of relevant work experience, or at least a 3-year university education in relevant subjects. In addition, the individual shall be trained in carrying out and leading system audits according to the requirements in SS-EN ISO 190 11 or equivalent standards. Education for auditors shall include at least 2 days with theory and practical exercises for auditing and conclude after passing a test.

For certification as an auditor, the student shall have participated in at least 20 days in total, on at least 4 separate occasions, as an observer together with an experienced auditor/audit manager.

At the second to last observation occasion, the student shall independently implement part of an audit. The aim of this occasion shall be that the student can independently carry out a complete audit with the associated start and concluding meetings as well as devising the audit plan.

Alternatively, the certification body shall in other ways prove that the auditors have the necessary competence.

To maintain auditor qualifications requires at least 15 audit days during a 3-year period, and at least 3 audit days per calendar year.

The certification body shall have procedures for monitoring the updating of auditor qualifications.

An auditor may not continue for longer than 4 consecutive years at the same KRAV operator.

The certification body appoints the auditor. The operator can request to change an auditor and the certification body shall have a procedure for this process.

Crop production

The auditor shall have knowledge of the prerequisites to be able to manage organic crop production. This includes knowledge about cultivation methods and techniques as well as the effects these have on crops and the surrounding environment. More concretely this means that the auditor should have

- knowledge about what a good crop rotation means and what a crop production plan should look like
- knowledge about the conditions for an effective exploiting of plant nutrients where leakage is minimized
- knowledge about common plant pests and methods for control.

Animal husbandry and slaughter

The auditor shall have knowledge about organic animal production. This include the prerequisites for managing and raising animals under good conditions, ensuring good animal health and animal care as well as how these affect the surrounding environment. More concretely this means that the auditor should have

- knowledge about animals’ normal behaviour and be able to discover if the animals diverge from the normal behaviour
- knowledge about how to practically prevent the most common diseases
- knowledge about transmission of infectious diseases and how to limit these
- knowledge about standards for handling drugs and vaccines
- knowledge about appropriate feeding procedures; be able to recognize the most common feeds
- knowledge about appropriate procedures for loading and driving of animals that avoid unnecessary stress or pain for the animals

Food processing

The auditor should have undergone a course in HACCP (Hazard Analysis and Critical Control Points), either as a part of the post-high school/academic education or as a completed specific course before an audit of KRAV’s standards chapters on food processing, slaughter, feed manufacturing, shops, restaurants and industrial kitchens and fishing.

Apiculture

The auditor shall have knowledge about the prerequisites for being able to manage organic apiculture. More concretely this means that the auditor should have
• knowledge about the most commonly used management techniques in the apiary
• knowledge about control of diseases, especially Varroa jacobsoni
• knowledge about the plants bees obtain nectar from and when during the season
• knowledge of quantities of harvest, handling and processing of honey and wax.

Aquaculture
The auditor shall have knowledge about sustainable aquaculture. More concretely this means the auditor should have
• knowledge about cultivation of different species in fresh water, brackish water and sea water
• knowledge about transport and slaughter
• knowledge about biological processes in association with aquaculture
• knowledge about infectious substances, parasites and traces of pharmaceuticals
• knowledge about feeds, additives and equipment
• knowledge about health and animal protection, drugs, infectious diseases, disease control, herd density and stress
• knowledge about food inspections and toxins from algae.

Fishing
The auditor shall have knowledge about sustainable fishing. More concretely this means the auditor should have
• knowledge about vessels, the operation and maintenance.
• knowledge about fishing methods and equipment
• knowledge fish biology, fish species, stocks, management, environment (habitat) and marine ecology
• knowledge of the actual environmental, work environment and fishing legislation
• knowledge pilot logbooks and auditing systems fixed by law.

Mushroom cultivation
The auditor shall have knowledge about the prerequisites for being able to manage organic mushroom cultivation. More concretely this means that the auditor should have
• knowledge about cultivation methods and cultivation substrates
• knowledge about how to avoid environmental disturbances how run-off of nutrients can be minimized
• knowledge about the common pests and methods to prevent and control attacks.

19.2.1.2 Audit manager

The audit manager's role is to lead the group that includes several auditors. The tasks include planning the audit, coordinating the audit group's assessments, informing the audit team about the operation that to be audited, and informing the operator about the prerequisites and provisions for the assignment. The audit manager shall fulfil the following minimum requirements:
• After being certified as an auditor, the auditor shall have worked in this capacity for at least 12 months and during this time participated in at least 5 audits as an auditor. In exceptional cases the auditor's earlier experience and competence can compensate to a certain extent for these requirements. The certification body's audit management makes this assessment.
• The individual shall have documented experience of leading staff or have had decision-making authority, alternatively have documented experience of being a chair or in a similar capacity experience of gathering viewpoints, evaluating these and incorporating these into an appropriate decision. In addition, the individual shall be able to conduct a dialogue at all levels within an organization.
• An individual lacking in some qualifications in relation to experience of leading staff and/or taking decisions can be said to fulfil the requirement when the person has undergone a course in human resource management.
• Maintaining qualifications as an audit manager requires at least 15 audit days as audit manager during a 3-year period, and at least 3 audit days per calendar year as audit manager
19.2.2 Application for KRAV certification

During the process of developing the agreement, the Certification body shall ensure that the applicant for KRAV certification has not been decertified by another accredited certification body with reference to KRAV’s standards.

19.2.3 Reporting to KRAV

The Certification body is responsible for reporting the status of KRAV operators and KRAV-certified products to KRAV according to a special agreement. The reporting always includes

- the operator's name and address
- facilities for production and, in some cases, properties (information from real estate register) where the operations are pursued
- operations' species and products

Complaints concerning KRAV's standards for certified production that come to the certification body shall be sent to the Standards Officer at KRAV.

19.2.4 Calibration of auditors

The Certification body shall appoint at least one representative to participate in the Calibration meeting that KRAV hosts. The meetings are held 2 days/year on 2 separate occasions. In addition, if necessary because of special circumstances, extra meetings called by KRAV and the certification body. The aim is to convey information from KRAV when there is something new, changed requirement etc., as well as to give the accredited the certification body the opportunity to take up problem areas, fundamental questions about interpretations and other issues to discussion.

The Certification body shall have a procedure for an annual calibration of their KRAV auditors. The calibration is carried out with the objective that KRAV auditors shall conduct audits to be as identical as possible regardless of the staff involved in the audit and that the demands for certification correspond to those at the national level.

A standing point at these meetings is information from the external KRAV calibrations.

The completed in-house calibrations shall be documented and handled according to the certification body's procedure for reported documentation; time for saving files shall be at least 3 years.

19.2.5 Accreditation and agreements

The Certification body wishing to certify according to KRAV’s standards shall be accredited according to ISO Guide 65/A 45 011 of SWEDAC or an equivalent accreditation body or according to IFOAM’s accreditation criteria. In addition, the certification body shall have a documented, structured environmental plan and be able to account for at least

- one environmental policy
- one annual environmental objective
- systematic follow-up of objectives.

The actual certification body applies for a certification agreement with KRAV and an accreditation agreement with SWEDAC or an equivalent accreditation body or according to IFOAM's accreditation criteria. A copy of the agreement with the actual accreditation body and the timetable for accreditation shall be attached to the application to KRAV. When accreditation is approved, the actual accreditation certificate is sent to KRAV.

19.2.6 Preparation and withdrawal of certificates

The accredited certification body shall have documented review and decision procedures for drawing up and withdrawing certificates. The procedures shall ensure that the audits have been conducted in accordance with KRAV’s standards and ensure that the review of KRAV audits is conducted identically and objectively.

All divergences found at a certification audit/first inspection visit shall be settled before a decision is taken for KRAV certification.

A KRAV certificate shall clearly describe the extent of the certification as well as the date it was drawn up, length of validity, the operator, the production facility (-ies), activities and reference to KRAV’s standards. The Certificate/certification decision shall be signed, on paper or electronically, by the authorized representative.
of the certification body.
The Certification body shall have documented procedures for withdrawing, terminating and other handling of incorrect use of the certificate.

19.2.7 Use of the KRAV mark

The Certification body shall have procedures that ensure that the KRAV operator is informed about the standards applying to the use of the KRAV name and label and marketing of KRAV-certified products and/or production.
ANNEXES

ANNEXE 1 RECOMMENDATIONS FOR ENVIRONMENTAL PROTECTION

According to 2.11.1
All KRAV-licensed producers shall protect the environment, and natural and cultural environments.

Environmental protection

- Environmentally adapted products shall be the first choice. If these are not available, the least harmful choice with regard to the environment shall be chosen
- Oils and fuels shall, if possible, be of non-fossil, plant or animal origin
- Cleaning products, rust-proofing agents and degreasers shall be environmentally adapted
- Environmentally-adapted paints and solvents shall be the first choice
- Impregnated wood (creosote, copper or arsenic) shall be avoided

Energy consumption

- Energy consumption shall be minimized
- Renewable energy shall be used where possible
- Providers of energy shall be environmentally labelled.

Documentation of environmental measures
The measures the business takes to protect the environment shall be documented. See 2.11.3.
ANNEXE 2 SPACE REQUIREMENTS FOR ANIMAL HOUSING

According to standard 5.2.8

The following standards in table 1a, 1b, 2a, 2b and 2c below apply to animal housing built after 24 August 1999 and after 31 December 2010 for older buildings. Those who use the transitional regulations for older building shall have a plan that includes the measures to fulfill the standards after 31 December 2010. (EU)

Smaller reconstructions can use the same standards during the transition period.

The space in the house is the minimum space continuously available for the animals. The space in boxes for several animals is based on the largest animals in a group.

The minimum measurements are according to the Swedish animal welfare standards for lying areas and other details not indicated in KRAV’s standards. (K)

1 A Beef cattle and sheep

For ruminants, see also 5.2.2-18. For mother animals with young, the least area per category is added, depending on the size of the young animals during the indoor period.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Minimum area m² per animal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>House with no or limited access to exercise yard</td>
</tr>
<tr>
<td></td>
<td>Indoor spaces</td>
</tr>
<tr>
<td>Calve, young stock, suckling cows</td>
<td></td>
</tr>
<tr>
<td>Live weight (kg);</td>
<td>&lt; 60</td>
</tr>
<tr>
<td></td>
<td>&lt; 90</td>
</tr>
<tr>
<td></td>
<td>&lt; 150</td>
</tr>
<tr>
<td></td>
<td>&lt; 250</td>
</tr>
<tr>
<td></td>
<td>&lt; 350</td>
</tr>
<tr>
<td></td>
<td>&gt; 350</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Milking / suckler cows in litter beds</td>
<td>8,5</td>
</tr>
<tr>
<td>Milking / suckler cows otherwise in free-range system</td>
<td>6,0</td>
</tr>
<tr>
<td>Dry cow</td>
<td>6,0</td>
</tr>
<tr>
<td>Breeding bulls</td>
<td>10,0</td>
</tr>
<tr>
<td>Adult sheep and goats</td>
<td>1,5</td>
</tr>
<tr>
<td>Gestating ewe</td>
<td>1,7</td>
</tr>
<tr>
<td>Lamb / kid; Live weight (kg);</td>
<td>&lt; 15</td>
</tr>
<tr>
<td></td>
<td>&lt; 30</td>
</tr>
<tr>
<td></td>
<td>&gt; 30</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1 B Pigs

The outdoor exercise yard may be partially covered by a roof. See 5.2.3-18

<table>
<thead>
<tr>
<th>Animal</th>
<th>Minimum indoor space</th>
<th>Minimum outdoor space</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Live weight (kg)</td>
<td>M² / animal</td>
</tr>
<tr>
<td>Dry sow, pregnant gilt</td>
<td></td>
<td>2,5</td>
</tr>
<tr>
<td>Breeding boar</td>
<td></td>
<td>7,0</td>
</tr>
<tr>
<td>Brood sows with up to 40-day old piglets</td>
<td></td>
<td>7,5</td>
</tr>
</tbody>
</table>
| Fattening pigs 
(weighing less than 30 kg) | < 30                 | 0,6                   | 0,4         |
|                                       | < 50                 | 0,9                   | 0,6         |
|                                       | < 85                 | 1,2                   | 0,8         |
|                                       | ≤ 110                | 1,5                   | 1,0         |

2 Poultry

The space requirements also apply to introduction of new groups in the poultry house. (K)

The sections may be divided with chicken wire when it is appropriate with regard to the floor plan and ventilation.

Equipment that stretching through several sections shall be delimited when possible so that the animals in one section do not come into contact with manure, etc. from another section unnecessarily.

Table 2a

<table>
<thead>
<tr>
<th>Max number of animals/ department of house</th>
<th>Max housing area/production unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laying hens</td>
<td>3 000</td>
</tr>
<tr>
<td>Chicken</td>
<td>4 800</td>
</tr>
<tr>
<td>Guinea fowl</td>
<td>5 200</td>
</tr>
<tr>
<td>Duck</td>
<td>3 200</td>
</tr>
<tr>
<td>Geese</td>
<td>2 500</td>
</tr>
<tr>
<td>Turkeys</td>
<td>2 500</td>
</tr>
<tr>
<td></td>
<td>1 600 m²</td>
</tr>
<tr>
<td></td>
<td>1 600 m²</td>
</tr>
<tr>
<td></td>
<td>1 600 m²</td>
</tr>
</tbody>
</table>

For laying hen flocks in buildings built before 24 August 1991, the maximum number of hens per m² of floor space is 7 (not including the nesting-box). (K)

However, the available floor space/space indoors is meant a floor plan, nesting-box footing (such as a cover over the egg belt) and litter area. (K)

With continuous access to a wind shelter during the daytime, this area can be included in the accessible housing area, however, the insulated part of the housing fulfil the Swedish animal protection regulations for free-range hens. Perches, roughage, etc. must be available in the insulated part. (K)
Table 2b

<table>
<thead>
<tr>
<th>Animal</th>
<th>Minimum indoor space</th>
<th>Minimum outdoor space (m² accessible in rotation/per animal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. animals/m²</td>
<td>cm perch/animal</td>
</tr>
<tr>
<td>Laying hens</td>
<td>6 including laying</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>nest</td>
<td></td>
</tr>
<tr>
<td>Poultry raised for meat</td>
<td>10 at no more live</td>
<td>20 (only for</td>
</tr>
<tr>
<td></td>
<td>weight/m²</td>
<td>guinea fowl)</td>
</tr>
<tr>
<td></td>
<td>16 kg (duck)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 kg (goose)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21 kg (turkey)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 kg (broilers)</td>
<td></td>
</tr>
<tr>
<td>Poultry raised for meat (in movable enclosures)</td>
<td>16(*) at no more live weight/m²</td>
<td>2,5</td>
</tr>
<tr>
<td></td>
<td>20 kg (duck)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 kg (goose)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 kg (turkey)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 kg (broilers)</td>
<td></td>
</tr>
</tbody>
</table>

(*) Only if the enclosure has no more than 150 m² floor space and is open during the night. The laying hens' space is measured as length × width excluding the egg belt.
For pullets, the animal protection regulations apply.

Table 2c

<table>
<thead>
<tr>
<th>Number of hens in group</th>
<th>Openings total length (meter)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in the house wall</td>
</tr>
<tr>
<td>Upp till 200</td>
<td>0,4</td>
</tr>
<tr>
<td>500</td>
<td>1</td>
</tr>
<tr>
<td>1000</td>
<td>2</td>
</tr>
<tr>
<td>2000</td>
<td>4</td>
</tr>
<tr>
<td>3000</td>
<td>6</td>
</tr>
</tbody>
</table>

The calculation of the opening’s length is based on the accessible floor space available to the hens. Openings in the barn shall be at least 2m per 1000 hens according to DFS 2004:17. According to the Council regulation (EEC) no. 2092/91, the opening between the exercise yard and building shall be a total length 4m/100 m surface accessible to the animals indoors.
ANNEXE 3 HEAVY METALS

Application of heavy metals to arable land

According to standards 3.3.8 and 12.3-4.
The net application of heavy metals to arable lands shall be limited. This highest permitted average applications (during a five-year period) of heavy metals are in the table below.

Applications of heavy metals can occur, for example, through application of fertilizer, lime, soil conditioners, plant protection agent and fodder and fodder minerals. When there is reason to believe that the heavy metal levels may be high, the product shall be analysed before use. See 4.3.2.

<table>
<thead>
<tr>
<th>Substance</th>
<th>g/ha and year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>50</td>
</tr>
<tr>
<td>Cadmium</td>
<td>0.75</td>
</tr>
<tr>
<td>Copper</td>
<td>500</td>
</tr>
<tr>
<td>Chromium</td>
<td>50</td>
</tr>
<tr>
<td>Mercury</td>
<td>1</td>
</tr>
<tr>
<td>Nickel</td>
<td>50</td>
</tr>
<tr>
<td>Zinc</td>
<td>700</td>
</tr>
</tbody>
</table>

Note
Application of 1 ton/ha/year of a product containing 1 ppm of certain substance means an application of 1 g/ha/year. When several different agents are applied, the amounts must be added together.

Application of heavy metals to sowing and potting soils

The limits for KRAV-certified production inputs marketed as sowing and potting soils must not have higher levels of heavy metals than the following:

<table>
<thead>
<tr>
<th>Substance</th>
<th>mg/kg dry matter in soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>40</td>
</tr>
<tr>
<td>Cadmium</td>
<td>0.4</td>
</tr>
<tr>
<td>Copper</td>
<td>40</td>
</tr>
<tr>
<td>Chromium</td>
<td>60</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.3</td>
</tr>
<tr>
<td>Nickel</td>
<td>30</td>
</tr>
<tr>
<td>Zinc</td>
<td>150</td>
</tr>
</tbody>
</table>
ANNEXE 4 APPROVED ADDITIVES IN PERMITTED CROP PROTECTION AGENTS

According to standards 4.4.3

<table>
<thead>
<tr>
<th>Substance</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Na Laureate ether sulphate</td>
<td>Anionic surfactant</td>
</tr>
<tr>
<td>Fatty acid ethoxilate EO 6</td>
<td>Non-ionic surfactant</td>
</tr>
<tr>
<td>Carboxy methyl cellulose</td>
<td>Thickener</td>
</tr>
<tr>
<td>Methyl parahydrobenzoate</td>
<td>Preservative</td>
</tr>
<tr>
<td>Propyl parabenzoate</td>
<td>Preservative</td>
</tr>
<tr>
<td>Citric acid</td>
<td>Preservative, pH adjustment</td>
</tr>
<tr>
<td>Polysorbate</td>
<td>Emulsifier</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>Disperger</td>
</tr>
<tr>
<td>Bitrex</td>
<td>Repellent for use in insect traps</td>
</tr>
<tr>
<td>Acid Blue Dye</td>
<td>For use in insect traps</td>
</tr>
<tr>
<td>Nipacide salt</td>
<td>Preservative</td>
</tr>
</tbody>
</table>
ANNEXE 5 PERMITTED CONVENTIONAL FEEDS AND FEED ADDITIVES

According to standards 5.3.2, 5.3.7, 5.3.20-21 and 11.2.1

Feed raw materials of plant origin:

- Grains, products and by-products that have undergone a permitted process.
- Waste and dregs
- Oil-rich seeds or fruits, products and by-products that have undergone a permitted process. (For example, rapeseed and soy meal are not included if these are produced using hexane extraction).
- Seeds from legumes, products and by-products.
- Tubers, root crops and roots, products and by-products. (Molasses is considered a concentrate).
- Other seeds and fruits, products and by-products.
- Pasture grass and roughage. (Roughage pellets are considered concentrates if they are given as more that 1/3 of the roughage ration).
- Seaweed meal (obtained after drying and crushing seaweed that is washed for reducing the iodine content).
- Powder, extract from plants, vegetable protein extract, spices and herbs.

According to standard 5.3.12

Feed raw materials of animal origin:

- Milk and dairy products.
- Fish and other marine animals, products and by-products. Only the following substances are included in this category: fish, not refined fish oils and or cod liver oil, and other marine animals, products and autolysates, hydrolysates and proteolysates from fish, molluscs or crustaceans that are obtained through an enzymatic process, in soluble or insoluble form.
- Egg and egg products for feeding poultry, preferably from the same holding.

According to standards 5.3.23 and 5.3.24

Raw materials for minerals and trace elements:

- Sodium:  sea salt (unrefined), rock salt (unprocessed from the mine), sodium sulphate, sodium carbonate, sodium bicarbonate, sodium chloride
- Potassium:  potassium chloride
- Calcium:  maerl, shells of marine animals (including cuttlefish bones), calcium carbonate, calcium lactate, calcium gluconate
- Phosphorus:  defluorinated dicalcium phosphate, defluorinated monosodium phosphate, monocalcium phosphate, calcium-magnesium phosphate, calcium-sodium phosphate
- Magnesium:  magnesium oxide (anhydrous magnesium), magnesium sulphate, magnesium chloride, magnesium carbonate, magnesium phosphate
- Sulphur:  sodium sulphate

Trace elements

E1 Iron:  ferrous (II) carbonate, ferrous (II) sulphate (monohydrate and/or heptahydrate), ferric (III) oxide
E2 Iodine:  calcium iodate, anhydrous, calcium iodate, hexahydrate, sodium iodine
E3 Cobalt:  cobaltous (II) sulphate (monohydrate and/or heptahydrate), basic cobalt (II) carbonate (monohydrate)
E4 Copper:  copper (II) oxide, basic copper (II) carbonate (monohydrate), copper (II) sulphate (pentahydrate)
E5 Manganese:  manganese (II) carbonate, manganese oxide and manganese (III) oxide, manganese (II) sulphate (mono– and/or tetrahydrate)
E6 Zinc:  zinc carbonate, zinc oxide, zinc sulphate (monohydrate and/or heptahydrate)
E7 Molybdenum:  ammonium molybdate, sodium molybdate
E8 Selenium:  sodium selenate, sodium selenite
ANNEXE 6 LIMITS FOR LEVELS OF UNDESIRED SUBSTANCES IN SOIL

According to standards 8.1.6

Limits for cesium levels in soil for de-certification of products:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Cesium in soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berries (not cloudberry)</td>
<td>60kBq/m²</td>
</tr>
<tr>
<td>Cloudberry</td>
<td>40 kBq/m²</td>
</tr>
<tr>
<td>Mushrooms</td>
<td>5 kBq/m²</td>
</tr>
</tbody>
</table>

ANNEXE 7 ABOUT FOOD ADDITIVES

According to standards 9.2.1

The following technological food additives including carriers, may be added to a KRAV certified products. A “x” in the column means that the additive may be used.

<table>
<thead>
<tr>
<th>Additive (substance)</th>
<th>Preparation of foodstuff of plant origin</th>
<th>Preparation of foodstuff of animal origin</th>
<th>Specific conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate (E 170)</td>
<td>X</td>
<td>X</td>
<td>Shall not be used for colouring or calcium enrichment of products</td>
</tr>
<tr>
<td>Sulphur dioxide (E 220)</td>
<td>X</td>
<td></td>
<td>Only for wine. In fruit wines (here defined as wine made from other fruits than grapes) without added sugar(including cider and perry) or in mead: 50 mg (summed maximum concentration expressed as mg SO₂/l). For cider and perry prepared with addition of sugars or juice concentrate after fermentation: 100 mg/l</td>
</tr>
<tr>
<td>Lactic acid (E 270)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Carbon dioxide (E 290)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Malic acid (E 296)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ascorbic acid (E 300)</td>
<td>X</td>
<td>X</td>
<td>Only for meat products, if products of animal origin</td>
</tr>
<tr>
<td>Tocopherol-rich extract (E306)</td>
<td>X</td>
<td>X</td>
<td>Anti-oxidant for fats and oils</td>
</tr>
<tr>
<td>Lecithins (E 322)</td>
<td>X</td>
<td>X</td>
<td>Only for milk products if products of animal origin</td>
</tr>
<tr>
<td>Citric acid (E 330)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sodium citrates (E 331)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Potassium citrates (E 333)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tartaric acid (E 334)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sodium tartrates (E335)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Potassium tartrates (E336)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Monocalcium-phosphate (E341)</td>
<td></td>
<td>X</td>
<td>Raising agent for self-raising flour</td>
</tr>
<tr>
<td>Alginic acid (E 400)</td>
<td>X</td>
<td>X</td>
<td>Only for milk products if products</td>
</tr>
<tr>
<td>Ingredient</td>
<td>X</td>
<td>X</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---</td>
<td>---</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sodium alginate (E 401)</td>
<td>X</td>
<td>X</td>
<td>Only for milk products if products of animal origin</td>
</tr>
<tr>
<td>Potassium alginate (E 402)</td>
<td>X</td>
<td>X</td>
<td>Only for milk products if products of animal origin</td>
</tr>
<tr>
<td>Agar (E 406)</td>
<td>X</td>
<td>X</td>
<td>Only for milk and meat products if products of animal origin</td>
</tr>
<tr>
<td>Carrageenan (E 407)</td>
<td>X</td>
<td>X</td>
<td>Only for milk products if products of animal origin</td>
</tr>
<tr>
<td>Locust bean gum (E 410)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Guar gum (E 412)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Arabic gum (E 414)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Xanthan gum (E 415)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Pectin (E 440 (i))</td>
<td>X</td>
<td>X</td>
<td>Amidated ? pectin is not allowed. Only for milk products if products of animal origin</td>
</tr>
<tr>
<td>Sodium carbonates (E 500)</td>
<td>X</td>
<td>X</td>
<td>Only for “dulche de leche” and soured- cream butter if products of animal origin</td>
</tr>
<tr>
<td>Potassium carbonates (E 501)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ammonium carbonates (E 503)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium carbonates (E 504)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium chloride (E 509)</td>
<td>X</td>
<td></td>
<td>Allowed for milk products</td>
</tr>
<tr>
<td>Argon (E 938)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Nitrogen (E 941)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Oxygen (948)</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

For products which contain foodstuff of both plant- and animal origin the additive is allowed if it is allowed in one of the ingredients in the mixed (?) food. There is however some exceptions. They are expressed in article 3 in Directive 95/2/EC.

In the case where colours are used for stamping eggshells, Article 2(9) of Directive 94/36/EC of the European Parliament and of the Council.

Certification body will not test common salt (sodium chloride) and therefore it may contain the commonly used blob prophylactic ingredients KRAV recommends to use common salt without additives whenever possible. It should be noted that in processing of KRAV-certified fish some additional additives are allowed, see standard 17.5.2.
## ANNEXE 8 PERMITTED PROCESSING AIDS

### Enligt regel 9.2.1

<table>
<thead>
<tr>
<th>Substance</th>
<th>Only for the following use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pectinase</td>
<td>Berry concentrates</td>
</tr>
<tr>
<td>Natriumhydroxid (E 524)</td>
<td>Oil production from rape seed (Brassica spp); Sugar(s) production</td>
</tr>
<tr>
<td>Citric acid (E 330)</td>
<td>Oil production and hydrolysis of starch</td>
</tr>
<tr>
<td>Sulphuric acid (E 513)</td>
<td>Sugar(s) production</td>
</tr>
<tr>
<td>Vegetable oil</td>
<td>Greasing, releasing or anti-foaming agent</td>
</tr>
<tr>
<td>Lactic acid (E 270)</td>
<td>Brewing beer</td>
</tr>
<tr>
<td>Calcium chloride (E 509)</td>
<td>Coagulation agent, only vegetal products</td>
</tr>
<tr>
<td>Diatomit kiselgur</td>
<td>Only vegetables?!!</td>
</tr>
<tr>
<td>Calcium sulphate (E 516)</td>
<td>Öl, soja, konfektyr, koagueleringsmedel</td>
</tr>
<tr>
<td>Bentonite (E 558)</td>
<td>Oil, vegetables</td>
</tr>
<tr>
<td>Perlite</td>
<td>Vegetables</td>
</tr>
<tr>
<td>Alcohol</td>
<td>Maturing process</td>
</tr>
<tr>
<td>Amylas (and other enzymes with similar function)</td>
<td>Bread</td>
</tr>
<tr>
<td>Protein</td>
<td>Bread</td>
</tr>
<tr>
<td>Rennet</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>Drinking water within the meaning of the regulation applied in the area</td>
</tr>
<tr>
<td>Calcium carbonate (E170)</td>
<td>Only vegetables?</td>
</tr>
<tr>
<td>Calcium hydroxide (E 526)</td>
<td>Sugar(s) production</td>
</tr>
<tr>
<td>Magnesium chloride (E 511)</td>
<td>Coagulation agent, only soy products</td>
</tr>
<tr>
<td>Potassium carbonate (E 501)</td>
<td>Drying of grapes</td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>Sugar(s) production</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td></td>
</tr>
<tr>
<td>Nitrogen</td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>Solvent</td>
</tr>
<tr>
<td>Egg white albumen</td>
<td>Wine</td>
</tr>
<tr>
<td>Casein</td>
<td>Wine</td>
</tr>
<tr>
<td>Gelatin</td>
<td>Vegetables, wine</td>
</tr>
<tr>
<td>Isinglass</td>
<td>Wine</td>
</tr>
<tr>
<td>Talc (E 533)</td>
<td>Vegetables products</td>
</tr>
<tr>
<td>Kaolin</td>
<td>Vegetables and propolis</td>
</tr>
<tr>
<td>Beeswax (E 901)</td>
<td>Releasing agent, for vegetables only</td>
</tr>
<tr>
<td>Carnauba wax (E 903)</td>
<td>Releasing agent, for vegetables only</td>
</tr>
</tbody>
</table>
ANNEXE 9 CRITERIA FOR THE ENVIRONMENTAL AND HEALTH HAZARDS OF CHEMICALS

General Standards for consideration

The precautionary principle, the principle of choice of product, and the principle of the best available technique is always in force, that is, the choice between two comparable methods or products is always guided by the practice of choosing the least hazardous product for human health and the environment.

Swedish laws governing chemical pest control agents and biotechnical organisms.

The Swedish National Chemicals Inspectorate must approve the pest control agents (plant protection substances and biocides) for sale and use. There are also standards for caution governing the use of chemical products or biotechnical organisms. For more information please see Chapter 14 §17 of the Swedish Environmental Code Miljöbalken (SFS 1998:808).

About safety datasheets for chemical products hazardous to health or the environment

The producer/importer of chemical products hazardous to health or the environment must provide Safety datasheet (earlier the declaration of contents) in Swedish. The health and environmental properties are described. For more information please see the Swedish National Chemicals Inspectorate regulations on chemical products and biotechnical organisms (KIFS 1998:8). The safety datasheet, in particular point 15 “Applicable regulations”, indicate the properties of the product that determine the type of labelling and risk phrases (R).

About labelling and classification

It is the responsibility of the producer/importer to obtain information about the properties of the chemicals and label the products with the symbols of danger and risk phrases (R) in effect. These are governed by the Swedish National Chemicals Inspectorate’s regulations on the classification and labelling of chemical products (KIFS 1994:12).

Standard 12.1

According to Standard 12.1.1, production inputs may not be certified if they are classified as hazardous to health or the environment according to the risk phrases below:

Risk phrases Dangerous to the environment

R 50 Very toxic to aquatic organisms
R 51 Toxic to aquatic organisms
R 52 Harmful to aquatic organisms
R 53 May cause long-term adverse effects in the aquatic environment
R 54 Toxic to flora
R 55 Toxic to fauna
R 56 Toxic to soil organisms
R 57 Toxic for bees
R 58 May cause long-term adverse effects in the environment
R 59 Dangerous for the ozone layer

Risk phrases Danger to health

R 28/27/26 Very toxic if swallowed, in contact with skin or by inhalation
R 25/24/23 Toxic if swallowed, in contact with skin, by inhalation
R 33 Danger of cumulative effects
R 39 Danger of very serious irreversible effects
R 40 Suspected risk for cancer
R 45 May cause cancer
R 46 May cause heritable genetic damage
R 49 May cause cancer by inhalation
R 60 May impair fertility
R 61 May cause harm to the unborn child
R 62 Possible risk of impaired fertility
R 63 Possible risk of harm to the foetus
R 68 Possible risk of irreversible effects
ANNEXE 10 CRITERIA FOR A REPORTING SYSTEM – PLANT NUTRIENTS

According to standard 4.2.3

Permitted surplus of phosphorus at the farm level (kg/ha) on average during one crop rotation cycle (6 years).

<table>
<thead>
<tr>
<th>P-AL-value</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+20</td>
<td>+10</td>
<td>+5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

While waiting for better documentation, a higher surplus that the values in the table in crop rotation are permitted based on vegetable production outdoors, in greenhouses as well as fruit and berry production. In P-AL class IV and V, a surplus of max 2 kg phosphorous/ha is permitted on farms with organic animal husbandry under the condition that no animal manure or other fertilizer containing phosphorous is purchased. For farms with existing organic swine production, a phosphorous surplus up to 5 kg is acceptable until 2011, under the condition that no animal manure or other fertilizer containing phosphorous is taken into the organic unit. This deadline is so that pig farms can gradually adapt. Measures must be taken to reduce the phosphorous surplus (greater than the values in the table) and with an excessive nitrogen surplus. The plan may need to be supplemented with an updated soil map and detailed crop production plan at the land parcel level. In these cases, the producer should contact an advisor.

KRAV is working to produce a system to compile key ratios from all of the in-going nutrient balances as documentation for the individual producer to compare own values with other KRAV-licensed producers with similar production. According to the current legislation, a maximum of 22 kg phosphorous per ha of spreading area and year may be applied with organic fertilizer. The application is calculated as an average over a five-year period.