

# **East African Organic Products Standard**



**Naturally Nurtured**

East Africa currently leads the continent in production and exports of certified organic products. Domestic markets are also growing rapidly, in part through the efforts of the Kenya Organic Agriculture Network (KOAN), the Tanzanian Organic Agriculture Movement (TOAM) and the National Organic Agricultural Movement of Uganda (NOGAMU). Organic agriculture offers a range of economic, environmental, health, social and cultural benefits.

At the beginning of 2005, there were five public or private standards for organic agricultural production in East Africa. Stakeholders were concerned that this multitude of standards could eventually become a technical barrier to trade within the region and place unneeded restrictions on regional collaboration. There was general consensus that the time was ripe for the development of a common East African organic products standard (EAOPS).

The EAOPS has been developed through an intensive, inclusive and transparent regional consultation process. Feedback from national consultations, field testing and technical comparisons with international organic standards were fed into the work of the Regional Standard Technical Working Group (RSTWG), the body tasked with writing the standard's text. The RSTWG is a unique regional public-private sector partnership, whose members comprise representatives of the national standards bodies, national organic movements and organic certifying bodies of Kenya, United Republic of Tanzania, Uganda, Burundi and Rwanda, and the East African Business Council. The RSTWG completed its work in four meetings between October 2005 and December 2006. The EAOPS was adopted by the East African Community in April 2007 and thereby became an official standard for Burundi, Kenya, Rwanda, Tanzania and Uganda. Its official name is EAS 456:2007, East African organic products standard (EAOPS)

The EAOPS is the second regional organic standard in the world after the European Union's and the first ever to have been developed in cooperation between the organic movements and the national standards bodies. The EAOPS is expected to boost organic trade and market development in the region, raise awareness about organic agriculture among farmers and consumers, and create a unified negotiating position that should help East African organic farmers win access to export markets and influence international organic standard setting processes.

Producers that follow the East African organic products standard and that are certified by recognized systems can get the right to use the East African Organic Mark as depicted on the front cover.

Within this cover the complete EAS 456:2007, East African organic products standard is presented.



**EAS 456:2007**  
**ICS 67.020**

## **EAST AFRICAN STANDARD**

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### **East African organic products standard**

**EAST AFRICAN COMMUNITY**

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# EAS 456:2007

## Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Partner States in the Community through their National Bureaux of Standards, have established an East African Standards Committee.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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## **Introduction**

The history, culture and community values of East Africans are embedded in agriculture. It is the most important source of livelihoods for millions of East Africans. The sustainable management of the agriculture production process is therefore crucial if livelihoods are to be sustained.

Organic agriculture is a holistic production management system, which promotes and enhances agro-ecosystem health, including bio-diversity, biological cycles and soil biological activity. It seeks to minimise the use of external inputs, avoiding the use of synthetic drugs, fertilizers and pesticides and aims at optimising the health and productivity of interdependent communities of soil life, plants, animals and people. It builds on East Africa's rich heritage of indigenous knowledge combined with modern science, technologies and practices.

The aims of organic agriculture are summarised in the four principles of health, ecology, fairness and care which inspire the worldwide organic movement. See Annex A.

The East African organic products standard has been written for organic production in East Africa and has been adapted to conditions in East Africa. The purpose is to have a single organic standard for organic agriculture production under East African conditions.

This East African organic products standard has been based on organic standards currently in place in the region as well as the IFOAM Basic Standards and the Codex Alimentarius guidelines for the production, processing, labelling and marketing of organically produced foods.

The East African organic products standard can be used for self-assessment by producers, declarations of conformity in the marketplace, certification by certification bodies in the region, or other kinds of verification. If the standard is used for the purposes of third-party certification, inspection and certification should be carried out in accordance to international norms, such as ISO Guide 65 or the IFOAM Accreditation Criteria. If adherence to the standard is verified through other mechanisms, those mechanisms shall adhere to the principles of competency, integrity and transparency.

The standard is intended for the development of organic production and trade in the East African region. The standards can be a platform for a common label for organic products in East Africa and for developing consumer trust. The standard also formulates standpoints which can be used in international negotiations on standards. Further, it can be a basis for equivalence agreements with other countries and regions.

The East African organic products standard has been written in a way to make it easy for the reader and user to access and understand. Because of the need for organic agriculture to be adapted to local conditions, the standard is not overly prescriptive. The standard covers plant production, animal husbandry, bee-keeping, wild production and processing, and products therefrom, regardless of their final use. In the future, other areas will be incorporated as the need arises.

Because organic agriculture is dynamic, and new knowledge is continuously being generated, this standard will be revised regularly to incorporate new knowledge. The revisions will involve consultations with the stakeholders.

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## East African organic products standard

### 1 Scope

This East African Standard provides requirements for organic production. It covers plant production, animal husbandry, bee-keeping, the collection of wild products, and the processing and labelling of the products therefrom. It does not cover procedures for verification such as inspection or certification of products.

### 2 Normative references

This East African Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this East African Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

CAC/GL 32, *Codex Alimentarius — Guidelines for the production, processing, labelling, and marketing of organically produced foods*

IFOAM *Basic Standards for Organic Production and Processing. Version 2005.*

### 3 Terms and definitions

For the purposes of this standard, the following definitions apply:

#### 3.1

##### **biodiversity**

the variety of life: it includes genetic diversity (i.e., diversity within and among species), species diversity (i.e., the number and variety of species), and ecosystem diversity (total number of ecosystem types)

#### 3.2

##### **breeding**

selection of plants or animals to reproduce or to further develop desired characteristics in succeeding generations

#### 3.3

##### **buffer zone**

a clearly defined and identifiable boundary area bordering an organic production site and adjacent areas that is established to avoid contact with substances which shall not be used according to this standard

#### 3.4

##### **child**

a person under the specified age in the respective national legislations. In cases involving employment in hazardous sectors, *child* denotes a person under the age of 18 years

#### 3.5

##### **child labour**

any employment that interferes with the legal rights of a child and culturally appropriate educational needs

#### 3.6

##### **contamination**

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pollution of organic product or land or contact with any material that would render the product unsuitable for organic production or as an organic product

### **3.7**

#### **conventional**

any material, production, or processing practice that is not organic or organic “in-conversion”

### **3.8**

#### **conversion period**

the time between the start of organic management and the time when crops and animal products qualify as organic

### **3.9**

#### **crop rotation**

the practice of alternating the species or families of annual and/or biennial crops grown in a certain field in a pattern or sequence so as to break weed, pest and disease cycles and to maintain or improve soil fertility and the content of organic matter

### **3.10**

#### **food additive**

any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result, (directly or indirectly) in it or its by-products becoming a component of or otherwise affecting the characteristics of such foods. The term does not include contaminants, or substances added to food for maintaining or improving nutritional qualities, or sodium chloride

### **3.11**

#### **food fortification**

the addition of one or more essential nutrients to a food, whether or not it is normally contained in the food, for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups

### **3.12**

#### **genetic engineering**

a set of techniques from molecular biology (such as recombinant DNA) by which the genetic material of plants, animals, microorganisms, cells and other biological units are altered in ways or with results that could not be obtained by methods of natural mating and reproduction or natural recombination. Techniques of genetic modification include, but are not limited to, recombinant DNA, cell fusion, micro and macro injection, encapsulation, gene deletion and doubling. Genetically engineered organisms do not include organisms resulting from techniques such as conjugation, transduction and natural hybridization

### **3.13**

#### **genetically modified organism (GMO)**

a plant, animal or microbe that has been transformed by genetic engineering

### **3.14**

#### **green manure**

a crop that is incorporated into the soil for the purpose of soil improvement and which may include spontaneous crops, plants or weeds

### **3.15**

#### **habitat**

the area over which a plant or animal species naturally exists; the area where a species occurs. It is also used to indicate types of habitat, e.g., seashore, riverbank, woodland, and grassland

### **3.16**

**ingredient**

any substance, including a food additive, used in the manufacture or preparation of food and non-food products and present in the final product (although possibly in a modified form)

**3.17**

**ionizing radiation**

processing of food products by gamma rays, X-rays or accelerated electrons capable of altering a food's molecular structure for the purpose of controlling microbial contaminants, pathogens, parasites and pests in food, preserving food or inhibiting physiological processes such as sprouting or ripening

**3.18**

**label**

any written, printed or graphic representation that is present on a product, accompanies the product or is displayed near the product

**3.19**

**operator**

an individual or organization responsible for ensuring that the production system and the products meet this standard

**3.20**

**organic**

refers to the farming system and products described in this standard. Organic does not refer to organic chemistry

**3.21**

**organic agriculture**

a farming system in compliance with this standard

**3.22**

**organic product**

a product which has been produced, processed and handled in compliance with this standard

**3.23**

**organic seed and planting material**

seed and planting material that is produced by organic agriculture

**3.24**

**parallel production**

any production in which the same unit is growing, breeding, handling or processing the same products in both an organic and a non-organic system. A situation with organic and in-conversion production of the same product is also parallel production

**3.25**

**processing aid**

any substance (not including apparatuses or utensils) not consumed as a food itself and which is used in the processing of raw materials, foods, or ingredients to fulfil a certain technical purpose during treatment or processing and which may result in the presence of residues or derivatives in the final product

**3.26**

**propagation**

the reproduction of plants sexually (i.e., seed) or asexually (i.e., cuttings, root division)

**3.27**

**shall**

a required state or action

**3.29**

**should**

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a recommended, desirable or expected state or action

### **3.30 synthetic**

manufactured by chemical and industrial processes. Includes products not found in nature or simulation of products from natural sources (but not extracted from natural raw materials)

### **3.31 synthetic pesticide**

synthetic product intended to prevent, eliminate or control a pest

### **3.32 traceability**

the ability to follow the movement of a food through specified stage(s) of production, processing and distribution

### **3.33 in-conversion**

a crop which is grown both as organic and non-organic (conventional or in-conversion) on the same farm

## **4 General requirements for organic production**

### **4.1 General**

The requirements of this clause shall apply to all categories of organic production and to all operators.

### **4.2 Documentation and transparency**

**4.2.1** The operator shall maintain records of the production, appropriate for the scale of production and the ability of the operator.

**4.2.2** The operator shall give interested parties relevant information about the production.

**4.2.3** The operator shall maintain a system for traceability of organic products.

### **4.3 Contamination**

**4.3.1** The operator shall avoid using chemical products that may endanger human health or the environment. Where there are products that are considered to be less harmful, they shall be used.

**4.3.2** The operator shall take relevant precautionary measures to avoid the contamination of organic sites and products. Where there is a reasonable suspicion of substantial contamination by, for example, soil, water, air, inputs or ingredients, appropriate actions shall be taken.

Litter and production waste, both on farms and in processing, shall be handled in such a way that they do not contaminate the organic products or the environment.

Chemical products shall be properly labelled and safely stored.

**4.3.3** Contamination of organic products that results from circumstances beyond the control of the operator may alter the organic status of the operation, the product or both.

### **4.4 Genetically Modified Organisms (GMOs)**

**4.4.1** Genetically modified organisms or their derivatives shall not be used or introduced through negligence or oversight. This includes animals, seed, propagation material, farm inputs such as fertilizers, soil conditioners and crop-protection materials.

**4.4.2** Ingredients, additives or processing aids derived from GMOs shall not be used in organic processing.

**4.4.3** Inputs, processing aids, and ingredients shall be traced back one step in the biological chain from which they are produced to verify that they are not derived from GMOs.

**4.4.4** Genetically modified organisms shall not be used in the conventional production on farms that are not fully converted to organic production.

## **4.5 Social justice**

**4.5.1** Employees and workers shall be guaranteed basic human rights and fair working conditions in accordance with national and international conventions and laws.

**4.5.2** The operator shall not use forced or involuntary labour.

**4.5.3** Employees, casual workers and contractors of organic operations shall have the freedom to associate, the right to organize, and the right to bargain collectively.

**4.5.4** Employees shall have equal opportunities and equal wages when performing the same level of work, regardless of colour, creed, ethnicity or gender.

**4.5.5** The operator shall not hire child labour. Children may work on their family's farm or a neighbouring farm provided that such work is not dangerous to their health and safety and does not jeopardize their educational, moral, social and physical development. Such work shall be supervised by adults and authorized by a legal guardian.

**4.5.6** The operator shall provide adequate health and safety measures for employees, casual workers and contractors.

**4.5.7** An operator employing five or more permanent workers shall have a documented policy covering the aspects of 4.5.

## **4.6 Adherence to relevant legislation**

The operator shall act in accordance with relevant legislation.

## **4.7 Knowledge about organic production**

The operator shall ensure that all persons involved in organic production have adequate knowledge of organic production and the relevant parts of this standard.

# **5 Crop production**

## **5.1 Conversion period and requirements**

**5.1.1** The conversion period for land shall be a minimum of one year of management according to this standard. If land that has been in fallow for at least one year is brought into production, no conversion period shall apply for that land.

**5.1.2** The conversion period may be extended depending on past land use (for example, heavy use of pesticides with a risk of contamination of products and the nature of contaminants).

## **5.2 Farm conversion and parallel production**

**5.2.1** If the whole farm is not converted, the organic, in-conversion and conventional parts of the farm shall be clearly and continuously separated.

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**5.2.2** Land converted to organic production shall not be alternated (switched back and forth) between organic and conventional production.

**5.2.3** A crop which is grown both as organic and non-organic (conventional or in-conversion) on the same farm shall not be sold as organic unless the production is managed in a way that allows clear and continuous separation of the organic and non-organic production (e.g., the varieties for the organic and non-organic crop differ in such a way that they can easily be distinguished from each other).

### **5.3 Biodiversity**

**5.3.1** The operator shall demonstrate care for biodiversity throughout the farm holding.

**5.3.2** Culturally or legally protected primary ecosystems, such as primary forests and wetlands, shall not be cleared or drained for the purpose of establishing production according to this standard.

**5.3.3** To the extent possible and appropriate to the crop and the conditions, trees shall be present in the fields.

NOTE Older, fruiting trees are especially important to insects and birds.

**5.3.4** Natural boundaries such as hedges, paths and ditches should be encouraged.

NOTE Hedges, paths and ditches act as important wildlife corridors through agricultural land, help to maintain a diverse ecology, and provide a habitat for many beneficial animals and insects and shelter for livestock.

### **5.4 Farming system diversity**

**5.4.1** Diversity in plant production, organic matter, soil fertility, microbial activity and soil and plant health shall be stimulated by crop rotation, intercropping, agro-forestry and other appropriate measures.

For annual crops, crop rotation shall be practised.

For perennial crops, other plants shall be intercropped. For perennial crops that are grown as monocultures where intercropping is not possible (e.g., sugarcane and tea), other means to secure diversity shall be applied to the growing system.

**5.4.2** The operator is encouraged to use and preserve indigenous breeds, varieties and species of plants and animals.

### **5.5 Soil and water conservation, including erosion control**

**5.5.1** Soil conservation shall be an integral part of the organic farming system. In order to prevent erosion by wind and water, the operator shall take measures appropriate to the specific local conditions of climate, soil, slope and land use. Examples are the use of windbreaks, soil cover, cover crops, minimum tillage, fallowing (with vegetation cover), mulching, terraces and contour planting.

**5.5.2** Relevant measures shall be taken to prevent or remedy the salinisation of soil and water.

**5.5.3** Burning of vegetation shall be restricted and controlled to protect organic matter and biodiversity.

**5.5.4** The operator shall not deplete or excessively exploit water resources and shall seek to conserve water resources and quality. Where necessary, the operator shall collect or harvest rainwater.

### **5.6 Soil fertility management**

**5.6.1** Appropriate use and recycling of nutrients, an appropriate crop rotation, and efforts to minimise nutrient losses shall be implemented by the operator.

**5.6.2** Material of microbial, plant or animal origin shall form the basis of the soil fertility programme.

Fertilizers of mineral origin shall be applied in the form which they are naturally composed and extracted. They shall not be rendered more soluble by chemical treatment, other than the addition of water. Mineral fertilizers may only be used for long-term fertility needs along with other techniques such as organic-matter additions, green manures, crop rotations and nitrogen fixation by plants.

**5.6.3** Fertilizers and soil conditioners approved for use in organic agriculture according to the IFOAM Basic Standards or CAC GL32 may be used.

Fertilizers and soil conditioners of natural origin may be used unless listed in Annex C.

Fertilizers and soil conditioners of synthetic origin may be used if listed in Annex B.

## **5.7 Pest, disease and weed management**

**5.7.1** Physical, cultural and biological methods for pest, disease and weed management, including the application of heat, may be used.

**5.7.2** Inputs for pest, disease, weed or growth management approved for use in organic agriculture according to the IFOAM Basic Standards and CAC/GL 32 may be used.

Active ingredients of natural origin in inputs for pest, disease, weed or growth management may be used unless listed in Annex C.

Active ingredients of synthetic origin may be used if listed in Annex B.

**5.7.3** Non-active ingredients, such as carriers and wetting agents, shall not be carcinogens, teratogens, mutagens or neurotoxins.

## **5.8 Seeds, seedlings, and planting materials**

**5.8.1** Seeds, seedlings and planting materials from organic production shall be used. If organic seeds, seedlings and planting materials are not commercially available, then conventional, chemically untreated seed, seedlings and planting material may be used.

Only if these are not commercially available may chemically treated seeds, seedlings and planting materials be used. The operator shall demonstrate the apparent need for such use.

All use of chemically treated seeds, seedlings and planting materials shall be documented.

## **5.9 Mushroom production**

**5.9.1** The culture substrate for mushrooms shall be constituted of organic ingredients such as organic grain, seed-cakes and straw.

Where organic substrates are not commercially available in sufficient quality and quantity, ingredients from conventional production or of natural origin which do not pose a risk of contamination may be used.

**5.9.2** Inputs used in mushroom production shall be in accordance with 5.6, 5.7 and 5.8.

## **5.10 Contamination**

**5.10.1** Where there is an apparent and substantial risk of contamination from adjacent farms, the operator shall implement measures, including barriers and buffer zones, to avoid or limit the contamination.

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**5.10.2** Machines, equipment and tools (e.g., seed drills, fertilizer spreaders and spraying equipment) used in non-organic production shall be cleaned before they are used in organic production.

**5.10.3** Treatment of animals against ticks and other ectoparasites shall be administered in such a way that the risk of the contamination of crop land is minimised.

### 5.11 Draught animals

Draught animals, when used in organic plant production, shall be treated according to the animal management standards (6.3). Working conditions for draught animals shall not be adverse to the health and development of the animal.

## 6 Animal husbandry

### 6.1 Conversion and brought-in animals

**6.1.1** The animal husbandry and individual animals brought into a herd shall undergo a conversion period according to the following:

Type of production	Species	Length of conversion period
Meat production	cows	12 months
	poultry	45 days
	sheep, goats, pigs	3 months
	rabbits	45 days
Dairy production	all species	3 months
Eggs	all species	45 days

**6.1.2** Animals shall be raised organically from birth. Where organic livestock is not available, conventional animals may be brought in, according to the following maximum age limits:

- 2-day-old chicks for meat production;
- 18-week-old hens for egg production;
- 2 weeks old for any other poultry;
- 3 months old for piglets;
- 3 months old for calves;
- 3 months for goats and sheep.

Older animals may be brought in for breeding only.

### 6.2 Parallel production

Products from the same type of animal and the same type of production which are both organic and non-organic (conventional or in-conversion) on the same farm shall not be sold as organic unless the production is done in a way that allows for the clear and continuous separation of the organic and non-organic productions.

### 6.3 Animal management

**6.3.1** Animals shall be kept in accordance with good animal-husbandry practices.

Animals shall have access to sufficient fresh air, water and feed.

Animals shall have access to protection from direct sunlight, excessive noise, heat, rain, mud and wind to reduce stress and ensure their well-being.

Animals shall not be mistreated or beaten.

**6.3.2** Animals shall have the living conditions and be managed according to their natural behavioural needs. For example:

- Pigs shall be provided with material to root.
- Goats shall have the possibility of climbing.
- Chickens shall have the possibility of scratching and of taking regular dust baths.

Animals shall have the living conditions and be managed in a way that prevents abnormal behaviour, injury and disease.

**6.3.3** Animals shall have sufficient space for free movement, according to their natural behaviour.

**6.3.4** Housing conditions shall ensure sufficient lying and resting areas that correspond to the natural needs of the animals. Animals shall have a dry resting area whenever possible. They shall also be provided with natural bedding where appropriate.

**6.3.5** Pens and holding areas shall be cleaned regularly.

**6.3.6** Tethering may be practised, provided it does not affect the well-being of the animal. The animal shall have access to adequate feed, shade and water. The method of tethering shall enable the animal to freely move within the grazing area without getting entangled or choked. The tethering shall not cause wounds or otherwise physically harm animals.

**6.3.7** Animals shall have the opportunity to feed according to their natural behaviour, e.g., grazing. However, where the bringing of fodder is a more sustainable way to use land resources than grazing, animals may be fed with brought fodder, provided that the animals have access to an outdoor run on a regular basis.

**6.3.8** Grazing management shall not degrade soil, pasture and water resources.

## **6.4 Breeding**

**6.4.1** Artificial insemination may be practised.

**6.4.2** Embryo-transfer techniques and cloning shall not be used.

## **6.5 Mutilations**

Mutilations may not be practised, except in the following cases:

- castration
- ringing
- dehorning (only of young animals)

Mutilations shall be done in such a way that the suffering of the animal is minimised. Anaesthetics shall be used where appropriate.

## **6.6 Animal feeds**

**6.6.1** Animals shall be fed 100 % organic feedstuff. Where the quantity or quality of commercially available organic feed is inadequate, the daily maximum percentage of non-organic feed shall be

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40 %, calculated on a dry-matter basis.

**6.6.2** All animals shall have access to fresh fodder. Ruminants shall get fresh fodder daily through grazing or feeding. Where such fodder is not available, preserved fodder may be used.

**6.6.3** To ensure a connection between plant production and animal husbandry, at least 60 % of feed shall come from the farm itself or be produced in cooperation with other organic farms.

**6.6.4** The following products shall not be included in the feed:

- meat, bone and other abattoir waste products to ruminants
- chicken manure or other animal manure to ruminants
- Feeds subjected to solvent extraction (e.g., hexane) or the addition of other chemical agents
- amino-acid isolates
- urea and other synthetic nitrogen compounds
- synthetic growth promoters or stimulants
- antibiotics
- synthetic appetizers
- artificial colouring agents
- genetically engineered organisms or products thereof

**6.6.5** Feed preservatives may not be used except for

- plant-based products,
- by-products from the food industry (e.g., molasses),
- bacteria, fungi and enzymes,

**6.6.6** Animals may be fed vitamins, trace elements and supplements from natural sources. Synthetic vitamins, minerals and supplements may be used where natural sources are lacking in quantity or quality.

**6.6.7** Young stock from mammals shall be raised on maternal milk or organic whole milk from their own species. Young animals shall be allowed to suckle.

Where organic whole milk is not available, conventional whole milk shall be used. Milk replacements may be used only in emergencies and shall not contain ingredients mentioned in 6.6.4.

Animals shall be weaned only after a minimum time that takes into account the natural behaviour and physical needs of the animal.

### **6.7 Parasite and disease management**

**6.7.1** Disease prevention in organic livestock production shall be based on the following:

- the choice of appropriate breeds or strains of animals;
- the application of animal-husbandry practices appropriate to each species, encouraging strong resistance to disease and the prevention of infections;
- the use of good quality organic feed, regular exercise, and access to pasture or runs in the open air;
- an appropriate density of livestock.

**6.7.2** If an animal becomes sick or injured despite preventative measures, it shall be treated promptly and adequately. As a first option, phytotherapeutic and other alternative treatments shall be used where they are proven to be effective in curing sickness or healing an injury.

An operator may use synthetic veterinary drugs, antibiotics or synthetic pesticides only if preventive and alternative practices are unlikely to be effective in curing sickness or healing an injury.

The operator shall not withhold medication from sick or injured animals, even if the use of such medication would cause the animal to lose its organic status.

**6.7.3** Treatments with synthetic pesticides or veterinary drugs against parasites shall be based on knowledge of the parasites and the chemical treatment used. All treatments with synthetic pesticides or veterinary drugs against parasites shall be documented.

**6.7.4** Withholding periods after treating animals with synthetic veterinary drugs, antibiotics or synthetic pesticides shall not be less than double the period required by legislation or a minimum of 48 hours, whichever is longer.

**6.7.5** Vaccinations may only be used when:

- an endemic disease is known or is expected to be a problem in the region of the farm; and where this disease cannot be controlled by other management techniques; or
- vaccination is legally required.

**6.7.6** Hormonal treatment may be used only for therapeutic reasons and under veterinary supervision.

**6.7.7** Synthetic growth promoters or substances used for the purpose of stimulating production shall not be used.

## **6.8 Transport and slaughter**

Handling, including transport and slaughter, shall be carried out calmly and gently and involve the minimum of physical and mental strain or stress for the animal.

The animals shall be provided with conditions that minimise stress and other adverse effects of

- hunger and thirst,
- extreme temperatures or relative humidity,
- mixing different groups, sexes, age, and health status.

## **7 Bee-keeping**

### **7.1 Conversion and brought-in bees and swarms**

**7.1.1** Bee colonies may be converted to organic production. The conversion period for a colony is one honey harvest cycle.

**7.1.2** If the wax has been contaminated with pesticides it shall be replaced by organic wax at the start of the conversion period.

**7.1.3** Introduced bees shall come from organic production units where available or otherwise from traditional bee-keeping.

Swarms from other areas can be used without a conversion time if there is no risk of contamination.

### **7.2 Location and construction**

**7.2.1** Hives shall be situated in organically managed fields and/or wild natural areas. Hives shall be placed in an area with sufficient forage, access to water, honeydew, nectar and pollen.

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**7.2.2** Organic wax shall be used for starter combs. Where organic wax is not available, conventional wax may be used. The conventional wax shall not be contaminated with synthetic pesticides.

**7.2.3** Hives shall consist of materials presenting no risk of toxic effects to the bees or the bee products.

### 7.3 Feed

**7.3.1** The honeydew, nectar and pollen shall mainly come from plants that are either wild or that fulfil organic crop requirements.

**7.3.2** Supplementary feeding of colonies can be undertaken to overcome temporary feed shortages due to climatic or other exceptional circumstances. In such cases, organically produced honey or sugars shall be used, where available.

### 7.4 Husbandry

**7.4.1** The health of bee colonies shall be maintained by good management practices, with emphasis on disease prevention through breed selection and hive management. This includes:

- the use of breeds that adapt well to local conditions;
- renewal of queen bees, where necessary;
- regular cleaning and disinfecting of equipment;
- regular renewal of beeswax;
- availability in hives of sufficient pollen and honey;
- placing of hives so that the temperature is favourable to the bees;
- inspection of hives to detect any anomalies;
- disinfection, isolation or destruction of contaminated hives and materials.

**7.4.2** For pest and disease control, the following may be used:

- lactic, oxalic, acetic acid;
- sulphur;
- natural etheric oils (e.g., menthol, eucalyptol, camphor, thymon, lemongrass oil);
- *Bacillus thuringiensis*;
- steam and direct flame;
- glycerol;
- phytotherapeutic treatment;
- wood ash.

Should these processes and substances fail, synthetic veterinary drugs, antibiotics or synthetic pesticides may be used. If they are used, the colony shall undergo a new conversion.

Used engine oil shall not be used for pest control.

### 7.5 Harvest

**7.5.1** At the harvest, colonies shall be left with reserves of honey, brood and pollen sufficient for the survival of the colony.

**7.5.2** Synthetic repellents shall not be used during the harvest of bee products. Smoking shall be kept to a minimum. Smoking materials shall be of natural origin.

## 8 Wild collection

**8.1** Wild harvested organic products shall originate from a stable and sustainable growing environment. The harvest shall not be at a rate that exceeds the sustainable yield of the species or the ecosystem, and it shall not threaten the existence of plant, fungal, or animal species, including those not directly exploited.

**8.2** The operator shall harvest products only from a clearly defined area where synthetic pesticides and other substances not allowed by this standard have not been applied for at least three years before harvest. The harvest area shall be at an appropriate distance from conventional farms and sources of contamination.

## 9 Handling, storage and processing

### 9.1 Separation

**9.1.1** The integrity of organic products shall be maintained throughout the phases of post-harvest handling, storage, processing and transport.

**9.1.2** All organic products shall be clearly identified as organic. Throughout the entire process of storage and transportation, the products shall be stored and transported in a way that prevents their contact or mixing with non-organic products.

### 9.2 Ingredients

**9.2.1** All ingredients used in organic products shall be organically produced where commercially available in sufficient quality and quantity.

NOTE The labelling requirements in Clause 10 apply.

Water and edible salt may be used as ingredients in the production of organic products and are not included in the percentage calculations of organic ingredients.

### 9.3 Technologies

**9.3.1** Technologies used to process and preserve organic products shall be biological, physical or mechanical. Ionizing radiation shall not be used.

**9.3.2** Only water, ethanol, plant and animal oils, vinegar, carbon dioxide, and nitrogen may be used as solvents for extraction.

**9.3.3** Equipment shall not contain substances that may negatively affect the product.

**9.3.4** Controlled atmosphere may be used for storage.

### 9.4 Additives and processing aids

**9.4.1** Preparations of enzymes and micro-organisms (with the exception of genetically engineered micro-organisms and their derivatives) may be used in food processing.

**9.4.2** Synthetic substances (including nature-identical colourings, flavourings, and taste-enhancing) shall not be used.

**9.4.3** Food additives and processing aids in accordance with IFOAM Basic Standards or CAC/GL 32 may be used. Annex D contains the food additives and processing additives that were accepted at the time of publication of this standard. If the substances listed in Annex D can be found in nature, natural sources are preferred. Substances of organic origin are preferred.

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## 9.5 Food fortification

Synthetically produced minerals (including trace substances), vitamins, amino acids and other nitrogen compounds may be used for food fortification purposes only where legally required or in cases in which dietary or nutritional deficiency can be demonstrated.

## 9.6 Packaging materials

**9.6.1** Packaging materials shall not contaminate the organic product.

**9.6.2** Organic products shall not be packaged in materials that have been used for or treated with chemical fertilizers or pesticides or other substances that may compromise the organic integrity of the product.

**9.6.3** Environmentally adapted packaging shall be preferred. Polyvinyl chloride (PVC) and other chlorine-based plastics shall be avoided if possible.

## 9.7 Hygiene and pest management

**9.7.1** Pest-management measures shall be established and maintained to ensure that areas used for the storing, handling and processing of organic products are effectively protected against pests.

**9.7.2** Management of pests shall be achieved mainly by means of scrupulous hygiene, cleaning and sanitation.

**9.7.3** To manage pests, the following methods may be used:

- preventive methods such as disruption, elimination of habitat, and access to facilities
- mechanical, physical and biological methods
- substances listed in Annex B

**9.7.4** If the methods listed above are unsuccessful, conventional pest control (e.g., fumigations) may be used, with maximum care, under the following conditions:

- Ethylene oxide, methyl bromide, aluminium phosphide or ionizing radiation may not be used.
- Organic products shall be moved out of the treated area.
- The operator shall take precautions to prevent contamination and include measures to decontaminate the equipment or facilities.
- The treatment shall be carried out under the supervision of a qualified person or organization.
- Records of date, substance and area treated shall be kept of all pest-control and fumigation measures taken.

## 10 Labelling

**10.1** A raw or processed product labelled as “organic” shall contain, by weight, excluding water and edible salt, no less than 95 % organic ingredients. The remaining ingredients may include non-organic ingredients fulfilling the relevant parts of this standard.

**10.2** A product labelled as “made with organic ingredient(s)” shall contain, by weight, excluding water and edible salt, at least 70 % organic ingredients. The remaining ingredients may include non-organic ingredients fulfilling the relevant parts of this standard.

**10.3** For a product in which less than 70 % of the ingredients are organic, the word *organic* may be stated in the ingredient panel or in conjunction with the organic ingredient.

**10.4** All ingredients of a multi-ingredient product shall be listed on the product label in order of their weight percentage. It shall be apparent which ingredients are of organic origin and which are not. All

additives shall be listed with their full name. Where herbs and/or spices constitute less than 2 % of the total weight of the product, they may be listed as “spices” or “herbs” without stating the percentage.

**10.5** The name and contact address of the responsible operator shall appear on the labelling for products in their final consumer packaging.

**10.6** Labelling shall follow the applicable legislation.

**10.7** A statement that the product is “produced according to the East Africa Organic Standard” may be made on the labels.

## **Annex A** (informative)

### **IFOAM principles of organic agriculture**

#### **A.1 Preamble**

These Principles are the roots from which organic agriculture grows and develops. They express the contribution that organic agriculture can make to the world and a vision to improve all agriculture in a global context.

Agriculture is one of humankind’s most basic activities because all people need to nourish themselves daily. History, culture and community values are embedded in agriculture. The Principles apply to agriculture in the broadest sense, including the way people tend soils, water, plants and animals in order to produce, prepare and distribute food and other goods. They concern the way people interact with living landscapes, relate to one another and shape the legacy of future generations.

The Principles of Organic Agriculture serve to inspire the organic movement in its full diversity. They guide IFOAMs development of positions, programs and standards. Furthermore, they are presented with a vision of their world-wide adoption.

Organic agriculture is based on:

- The Principle of Health
- The Principle of Ecology
- The Principle of Fairness
- The Principle of Care

Each principle is articulated through a statement followed by an explanation. The principles are to be used as a whole. They are composed as ethical principles to inspire action.

#### **A.2 The principle of health**

Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

This principle points out that the health of individuals and communities cannot be separated from the health of ecosystems — healthy soils produce healthy crops that foster the health of animals and people.

Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health.

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The role of organic agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being. In view of this it should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

### **A.3 The principle of ecology**

Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

This principle roots organic agriculture within living ecological systems. It states that production is to be based on ecological processes, and recycling. Nourishment and well-being are achieved through the ecology of the specific production environment. For example, in the case of crops this is the living soil; for animals it is the farm ecosystem; for fish and marine organisms, the aquatic environment.

Organic farming, pastoral and wild harvest systems should fit the cycles and ecological balances in nature. These cycles are universal but their operation is site-specific. Organic management must be adapted to local conditions, ecology, culture and scale. Inputs should be reduced by reuse, recycling and efficient management of materials and energy in order to maintain and improve environmental quality and conserve resources.

Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

### **A.4 The principle of fairness**

Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings.

This principle emphasizes that those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties – farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty. It aims to produce a sufficient supply of good quality food and other products.

This principle insists that animals should be provided with the conditions and opportunities of life that accord with their physiology, natural behaviour and well-being.

Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

### **A.5 The principle of care**

Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Organic agriculture is a living and dynamic system that responds to internal and external demands and conditions. Practitioners of organic agriculture can enhance efficiency and increase productivity, but this should not be at the risk of jeopardizing health and well-being. Consequently, new technologies need to be assessed and existing methods reviewed. Given the incomplete understanding of ecosystems and agriculture, care must be taken.

This principle states that precaution and responsibility are the key concerns in management, development and technology choices in organic agriculture. Science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound.

However, scientific knowledge alone is not sufficient. Practical experience, accumulated wisdom and traditional and indigenous knowledge offer valid solutions, tested by time. Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.

## Annex B (informative)

### List of substances which may be used in organic plant production [Clause 5.6, 5.7 and 9.7]

The list is indicative, i.e., there may be other substances that may be used in organic production according to this standard as long as they follow the criteria in the IFOAM Basic Standards or CAC/GL 32.

**Table B.1 — Fertilizers and soil conditioners**

Description, compositional requirements of substance	Conditions for use
<b>i) Plant and animal origin</b>	
Farmyard manure, slurry, and urine	
Guano	
Source-separated human excrement from separated sources which are monitored for contamination	Not to be directly applied on edible parts. Not to be applied later than six weeks before harvest.
Vermicastings	
Blood meal, meat meal, bone, bone meal	
Hoof and horn meal, feather meal, fish and fish products, wool, fur, hair, dairy products	
Biodegradable processing by-products, plant or animal origin (e.g., by-products of food, feed, oilseed, brewery, distillery or textile processing)	
Crop and vegetable residues, mulch, green manure, cover crops (leguminous crops such as lablab and mucona), straw	
Wood, bark, sawdust, wood shavings, wood ash, wood charcoal	
Seaweed and seaweed products	
Peat (prohibited for soil conditioning)	Excluding synthetic additives; only for inclusion in potting mixes
Plant preparations and extracts	
Compost made from ingredients listed in this annex, spent mushroom waste, humus from worms and insects, urban composts from separated sources which are monitored for contamination	
<b>ii) Mineral origin</b>	
Basic slag	
Calcareous and magnesium amendments	
Limestone, gypsum, marl, maerl, chalk, sugar beet lime, calcium chloride	
Magnesium rock, kieserite and Epsom salt (magnesium sulphate)	

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Description, compositional requirements of substance	Conditions for use
Mineral potassium (e.g., sulphate of potash, muriate of potash, kainite, sylvanite, patentkali)	Shall be obtained by physical procedures but not enriched by chemical processes
Natural phosphates	
Pulverized rock, stone meal	
Clay (e.g., bentonite, perlite, vermiculite, zeolite)	
Sodium chloride	
Trace elements, micronutrients	
Sulphur	

Description, compositional requirements of substance	Conditions for use
<b>iii) Microbiological</b>	
Biodegradable processing by-products of microbial origin (e.g., by-products of brewery or distillery processing)	
Microbiological preparations based on naturally occurring organisms	
<b>iv) Others</b>	
Biodynamic preparations	
Calcium lignosulfonate	

Table B.2 — Crop protectants and growth regulators

Description, Compositional Requirements of Substance	Conditions for use
<b>i) Plant and animal origin</b>	
Algal preparations	
Animal preparations and oils	
Beeswax	
Chitin nematicides (natural origin)	
Coffee grounds	
Corn gluten meal (weed control)	
Dairy products (e.g., milk, casein)	
Gelatine	
Lecithin	
Natural acids (e.g., vinegar)	
Neem ( <i>Azadirachta indica</i> )	
Plant oils (e.g., castor oil)	
Plant preparations and plant teas (e.g., chilli, tithonia (Africa sunflower), <i>Tagetes sp.</i> , Mexican marigold)	
Plant-based repellents	
Propolis	
Pyrethrum ( <i>Chrysanthemum cinerariaefolium</i> )	The synergist piperonyl butoxide shall not be used.
Quassia ( <i>Quassia amara</i> )	
Rotenone ( <i>Derris elliptica</i> , <i>Lonchocarpus spp.</i> , <i>Thephrosia spp.</i> )	Studies show a link between rotenone and Parkinson's disease; therefore, any use should be limited and include precautionary measures.
Ryania ( <i>Ryania speciosa</i> )	
Sabadilla	
Seaweed, seaweed meal, and seaweed extracts	
Tobacco tea (pure nicotine shall not be used)	
<b>ii) Mineral Origin</b>	
Chloride of lime	

Description, Compositional Requirements of Substance	Conditions for use
Clay (e.g., bentonite, perlite, vermiculite, zeolite)	
Copper salts (e.g., sulphate, hydroxide, oxychloride, octanoate)	Max 8 kg/ha per year (on a rolling average basis)
Diatomaceous earth	
Light mineral oils (paraffin)	
Lime sulphur (Calcium polysulfide)	
Potassium bicarbonate	
Potassium permanganate	
Quicklime	
Silicates (e.g., sodium silicates, quartz)	
Sodium bicarbonate	
Sulphur	
<b>iii) Micro-organisms</b>	
Fungal preparations	
Bacterial preparations (e.g., <i>Bacillus thuringiensis</i> )	
Release of parasites, predators, and sterilized insects	
Viral preparations (e.g., granulosis virus)	
<b>iv) Others</b>	
Biodynamic preparations	
Calcium hydroxide	
Carbon dioxide	
Ethyl alcohol	
Homeopathic and ayurvedic preparations	
Iron phosphates (for use as molluscicide)	
Sea salt and saltwater	
Soda	
Soft soap	
Sulphur dioxide	
<b>v) Traps, barriers, repellents</b>	
Physical methods (e.g., chromatic traps, mechanical traps)	
Mulches, nets	
Pheromones (in traps and dispensers only)	

**Annex C**  
(informative)

**List of natural substances which may not be used in organic plant production**

This list, which is normative, contains natural substances which may not be used in organic production according to this standard.

<b>Description, compositional requirements of substance</b>	<b>Comments</b>
Nicotine (pure)	Tobacco tea is allowed; however; safety measures shall be taken to reduce skin contact
Chilean nitrate	Chilean nitrate (sodium nitrate) may not be used on certified organic farms because it contains sodium which could build up and be harmful to the crop

**Annex D**  
(informative)

**List of additives and processing aids for organic food processing**

Reference clause 9.4

The list is indicative, i.e. there may be other substances that may be used in organic production according to this standard as long as they follow the criteria in the IFOAM Basic Standards or CAC/GL 32.

International Numbering System (INS)	Product	Additive	Processing aid	Limitation/note
INS 153	Wood ash	X		Traditional cheeses
INS 170	Calcium carbonate	X	X	
INS 181	Tannin		X	Only for wine
INS 184	Tannic acid		X	Filtration aid for wine
INS 220	Sulphur dioxide	X		Only for wine
INS 224	Potassium metabisulphite	X		Only for wine
INS 270	Lactic acid	X	X	
INS 290	Carbon dioxide	X	X	
INS 296	L-malic acid	X	X	
INS 300	Ascorbic acid	X		
INS 306	Tocopherols, mixed natural concentrates	X		
INS 322	Lecithin	X	X	
INS 330	Citric acid	X	X	
INS 331	Sodium citrates	X		
INS 332	Potassium citrates	X		
INS 333	Calcium citrates	X		
INS 334	Tartaric acid and salts	X	X	Only for wine
INS 335	Sodium tartrate	X	X	
INS 336	Potassium tartrate	X	X	
INS 341	Mono calcium phosphate	X		Only for "raising flour"
INS 342	Ammonium phosphate	X		Restricted to 0.3 gm/L in wine
INS 400	Alginic acid	X		
INS 401	Sodium alginate	X		
INS 402	Potassium alginate	X		
INS 406	Agar	X		
INS 407	Carrageenan	X		
INS 410	Locust bean gum	X		

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International Numbering System (INS)	Product	Additive	Processing aid	Limitation/note
INS 412	Guar gum	X		
INS 413	Tragacanth gum	X		
INS 414	Arabic gum	X		Only for milk products, fat products, confectionary, sweets, eggs
INS 415	Xanthan gum	X		Only fat, fruit and vegetable products and cakes and biscuits
INS 416	Karaya gum	X		
INS 440	Pectin	X		Unmodified
INS 500	Sodium carbonates	X	X	
INS 501	Potassium carbonates	X	X	
INS 503	Ammonium carbonates	X		Only for cereal products, confectionery, cakes and biscuits
INS 504	Magnesium carbonates	X		
INS 508	Potassium chloride	X		
INS 509	Calcium chloride	X	X	
INS 511	Magnesium chloride	X	X	Only for soybean products
INS 513	Sulphuric acid		X	pH adjustment of water during sugar processing
INS 516	Calcium sulphate	X		For soybean products, confectionery and in bakers' yeast
INS 517	Ammonium sulphate	X		Only for wine, restricted to 0.3 mg/l
INS 524	Sodium hydroxide	X	X	For sugar processing and for the surface treatment of traditional bakery products
INS 525	Potassium hydroxide		X	pH adjustment for sugar processing
INS 526	Calcium hydroxide	X	X	Food additive for maize and tortilla flour; processing aid for sugar
INS 551	Silicon dioxide (amorphous)		X	For wine, fruit and vegetable processing
INS 553	Talc		X	
INS 901	Beeswax		X	
INS 903	Carnauba wax		X	
INS 938	Argon	X		
INS 941	Nitrogen	X	X	
INS 948	Oxygen	X	X	
	Activated carbon		X	
	Bentonite		X	Only for fruit and vegetable products
	Casein		X	Only for wine
	Diatomaceous earth		X	Only for sweeteners and wine
	Egg-white albumen		X	Only for wine
	Ethanol		X	
	Gelatine		X	Only for wine, fruit, and vegetables

International Numbering System (INS)	Product	Additive	Processing aid	Limitation/note
	Hazelnut shells		X	
	Isinglass		X	Only for wine
	Kaolin		X	
	Perlite		X	
	Preparations of bark		X	
	Vegetable oil		X	Greasing or releasing agent
	Water		X	