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SLSI SRI LANKA STANDARDS INSTITUTION
GUARDIAN OF QUALITY

Draft Sri Lanka Standard
REQUIREMENTS FOR ORGANIC AGRICULTURE PRODUCTION AND PROCESSING
(Second Revision) (DSLS 1324:)

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මෙම කෙටුම්පත ශ්‍රී ලංකා ප්‍රමිතියක් ලෙස නොසැලකිය යුතු මෙන් ම භාවිතා නොකළ යුතු ද වේ.
இவ்வரைவு இலங்கைக் கட்டளையெனக் கருதப்படவோ அன்றிப் பிரயோகிக்கப்படவோ கூடாது
This draft should not be regarded or used as a Sri Lanka Standard.

අදහස් එවිය යුත්තේ : ශ්‍රී ලංකා ප්‍රමිති ආයතනය, 17, වික්ටෝරියා පෙදෙස, ඇල්විටිගල මාවත, කොළඹ 08.

Comments to be sent to: SRI LANKA STANDARDS INSTITUTION, 17, VICTORIA PLACE, ELVITIGALA MAWATHA, COLOMBO 08.

හැඳින්වීම

මෙම ශ්‍රී ලංකා ප්‍රමිති කෙටුම්පත , ශ්‍රී ලංකා ප්‍රමිති ආයතනය විසින් සකසන ලදුව, සියලුම උද්‍යෝගී අංශ වලට තාක්ෂණික විවේචනය සඳහා යවනු ලැබේ.

අදාල අංශ භාර කමිටු මාර්ගයෙන් ආයතනයේ මහා මණ්ඩල වෙත ඉදිරිපත් කිරීමට පෙර , ලැබෙන සියලුම විවේචන ශ්‍රී ලංකා ප්‍රමිති ආයතනය විසින් සලකා බලා අවශ්‍ය වෙතොත් කෙටුම්පත සංශෝධනය කරනු ලැබේ.

මෙම කෙටුම්පතට අදාල යෝජනා හා විවේචන නියමිත දිනට පෙර ලැබෙන්නට සැලැස්වුවහොත් අගය කොට සලකමු. තවද, මෙම කෙටුම්පත පිළිගත හැකි බැව් හැඟෙන අය ඒ බව දන්වන්නේ නම් එය ආයතනයට උපකාරී වනු ඇත.

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කොළඹ 08.

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Introduction

This Draft Sri Lanka Standard has been prepared by the Sri Lanka Standards Institution and is now being circulated for technical comments to all interested parties.

All comments received will be considered by the SLSI and the draft if necessary, before submission to the Council of the Institution through the relevant Divisional Committee for final approval.

The Institution would appreciate any views on this draft which should be sent before the specified date. It would also be helpful if those who find the draft generally acceptable could kindly notify us accordingly.

All Communications should be addressed to:

The Director General
Sri Lanka Standards Institution,
17, Victoria Place,
Elvitigala Mawatha,
Colombo 08.

Draft Sri Lanka Standard

REQUIREMENTS FOR ORGANIC AGRICULTURE PRODUCTION AND PROCESSING

(Second Revision)

DSLS 1324:

Gr.

SRI LANKA STANDARDS INSTITUTION
No. 17, Victoria Place,
Elvitigala Mawatha,
Colombo 8,
Sri Lanka.

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Sri Lanka Standard
REQUIREMENTS FOR ORGANIC AGRICULTURE PRODUCTION AND PROCESSING
(First Revision)

FOREWORD

This Standard was approved by the Sectoral Committee on Agriculture and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on ……..

Organic agriculture is based on the four principles of health, ecology, fairness and care which inspire the organic movement in its full diversity. These principles are to be used in holistic manner to optimize the productivity and fitness of diverse communities living within the agro-ecosystem and also to ensure social, ecological and economic sustainability. Organic agriculture promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. Organic production is an overall system of farm management and food production that combines best environmental practices, the preservation of natural resources, the application of high animal welfare standards and a production method in line with minimizing the use of external inputs and avoiding the use of synthetic drugs, fertilizers and pesticides. Organic agriculture in Sri Lanka could be built upon the rich heritage of indigenous knowledge combined with modern science, technologies and practices.

This Standard was first published in 2007 and revised in 2018. In the second revision, the sections on scope, general requirements, crop production, livestock production and aquaculture production have been revised to align with best practices. An Organic Management Plan, farming system diversity and breeding of organic varieties have been introduced.

This Standard is subjected to the restrictions imposed under the Food Act No. 26 of 1980, the Export Development Act No. 40 of 1979, the National Environmental Act No. 47 of 1980, the Soil Conservation Act No. 24 of 1996, the Fauna and Flora protection Act No. 44 of 1964, the Forest (Amendment) Act No. 65 of 2009, the Animal Act No. 29 of 1958 and 20 of 1964, the Animal Diseases Act No. 59 of 1992, the Plant Protection Act No. 35 of 1999, the Consumer Affairs Authority Act No. 09 of 2003, the Control of Pesticides Act No. 33 of 1980, the Fisheries and Aquatic Resources Act No. 2 of 1996 and the regulations framed thereunder, and any other regulatory and statutory requirements wherever applicable.

In the preparation of this Standard the valuable assistance derived from the publications of Association of Southeast Asian Nations, Codex Alimentarius Commission, Department of Standards Malaysia, European Council, Indian Ministry of Commerce and Industries, International Federation of Organic Agriculture Movement, Kenya Bureau of Standards, Standards Australia, Standard Council of Canada, *Japanese Ministry of Agriculture, Forestry, and Fisheries*, U.S. Department of Agriculture and State Administration of China is gratefully acknowledged.

1 SCOPE

1.1 This Standard prescribes requirements for production, wild harvest, post-harvest, handling, storage, processing, packaging, labeling, transportation and marketing of organic produce and products.

This also applies to the following:

a) Unprocessed agricultural crop, livestock, aquaculture and apiculture products, excluding tobacco and any other material restricted by government laws.

b) Processed agricultural crop, livestock, aquaculture and apiculture products intended for human consumption containing one or more ingredient(s) derived from (a) above.

c) Feed intended for livestock and aquaculture.

d) Vegetative propagating material and seed for cultivation.

1.2 This Standard also specifies the minimum requirements that shall be met by operators before any product is labeled as in-conversion or organic.

1.3 Products are not compatible with the principles of organic agriculture and are not permitted under this Standard if they are derived from genetic engineering practices or products, or are treated with ionizing radiation, or are from nanotechnology products and processes.

2 REFERENCES

SLS 1684	Specification for compost for organic agriculture
SLS 1702	Specification for liquid organic fertilizers
SLS 1777	Specification for biofertilizers
SLS 1798	Specification for vermicompost
DSLS	Specification for biopesticides

3 DEFINITIONS

For the purpose of this Standard the following definitions shall apply:

3.1 accreditation: Third party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks.

3.2 aeroponic: A soil free cultivation method whereby plants are suspended with their roots partially or even totally exposed to the air.

3.3 agricultural product: Any product or commodity (excluding water, salt, and additives) raw or processed, derived from primary production activities, that is marketed for food or feed.

3.4 agro-forestry: Collective name for land use systems where woody perennials are deliberately used on the same land management unit as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence.

3.5 agro-ecosystem: System consisting of the form, function, interaction and equilibrium of the biotic and abiotic elements present within the environment of a given agricultural operation.

3.6 allopathic veterinary drugs: Substances used to treat disease that produces a reaction or effects different from those caused by the disease itself.

3.7 analog forestry: System of land management that seeks to establish a tree dominated ecosystems analogous in architectural structure and ecological function to the original climax or sub climax vegetation community. Analog forestry moves beyond other current agro-forestry practices since it includes an explicit focus on the identification and incorporation of biological diversity.

3.8 ayurveda: Traditional system of medicine which originated in India in the sixth century BC. Literally, it means the 'science (Veda) of longevity'. Ayurveda is basically a humoural medical system that maintains that there are three essential humours which cause disease if they become imbalanced. These three humours are usually translated in English as Wind, Bile and Phlegm. Occasionally in the surgical tradition a fourth humour, blood was added.

3.9 antibiotic: Various substances that contain any quantity of any chemical substance produced by a microorganism, like penicillin, and that are used to inhibit or destroy the growth of microorganisms to prevent or treat disease.

3.10 annual crop: Crop produced by a plant whose entire life cycle is completed within one year

3.11 apiculture: Management and production of honeybees, queens and their products. Examples are honey, beeswax, pollen, royal jelly, propolis and bee venom.

3.12 aquaculture: Rearing or cultivation of aquatic organisms using techniques designed to increase the production of the organisms in question beyond the natural capacity of the environment, the organisms remain the property of a natural or legal person throughout the rearing or culture stage, up to and including harvesting.

3.13 barrier: An obstruction that prevents or hinders the movement of prohibited substances from an adjacent area over it or through it.

3.14 biodegradable: Natural materials capable of being decomposed by bacteria or other biological means and includes compost, green manures, plant and animal waste.

3.15 biodiversity: Variety of life forms and ecosystem types on Earth at a given point in time. Includes genetic diversity (diversity within species and between species), species diversity (the number and variety of species) and ecosystem diversity (total number of ecosystem types).

3.16 biodynamics: An agricultural system that introduces specific additional requirements to an organic system. These are based on principles and preparations established by Rudolf Steiner and subsequent developments for management derived from practical application, experience and research based on these preparations.

3.17 biosecurity: Strategic and integrated approach that encompasses the policy and regulatory frameworks (including instruments and activities) that analyze and manage risks in the sectors of food safety, animal life and health, and plant life and health, including associated environmental risk.

3.18 breeding: Selection of plants or animals (including hybridization) to reproduce and/or to further develop desired characteristics in succeeding generations.

3.19 buffer zone: Clearly defined and identifiable boundary area bordering an organic production site and adjacent area that is established to limit application or contact with substances which shall not be used according to this Standard.

3.20 can: Indicates a possibility or a capability

3.21 certification: Procedure which is performed by certification bodies to provide written or equivalent assurance that the produce/products or the control systems of produce/products are conformed to the requirements of this Standard.

3.22 certification body: An independent, accredited private third party organization responsible for inspection and certification whether produce/products are conforming to this Standard.

3.23 certification mark: Sign, symbol or logo that identifies product(s) as being certified according to the rules laid down in this Standard.

3.24 commingling: Mixing of or physical contact between unpackaged organically produced and conventionally produced agricultural products during production, processing**,** transportation, storage or handling, other than during the manufacture of a multi ingredient product containing both types of ingredients.

3.25 compost: The conversion of organic materials (e.g. decomposed vegetation, manure and waste products) into humus colloids by a combination of actions over time by microbes, invertebrates, temperature, and other elemental factors (e.g., moisture content, aeration). Composted material shows practically no substantive indication as to the original substrate(s) from which it was made but no chemical material has been used in the production or added to the finished product to affect the nutrient content. All raw materials used for composting should be organic in origin and production procedures are to be accordance to the Standard.

3.26 control body: A third party organization that has independent oversight of the organic status of an operation.

3.27 contamination: Contact of organic crops, animals, land or products with a substance that would compromise the organic integrity.

3.28 conventional: Any material, production or processing practice or system that does not conform to organic production practices and organic "in-conversion".

3.29 conversion (transition): The process of changing an agricultural production system from "conventional" to "organic".

3.30 conversion period (transition period): Time between the start of the organic management and the certification of crops, livestock and aquaculture produce and products as organic.

3.31 crop rotation: Practice of alternating the species or families of annual and/or biennial crops grown on a specific field in a planned pattern or sequence so as to break weed, pest and disease cycles and to maintain or improve soil fertility and organic matter content. However, diversity in cropping patterns in consequence to rainfall rhythm may be more appropriate for the tropics.

3.32 culture: Microorganism, cell, tissue or organ, growing on or in a medium and substrate.

3.33 damana: Grassy Park in forest.

3.34 de-beaking (beak trimming): Process by which parts of the beak of a poultry are trimmed.

3.35 disinfect: To reduce, by physical or chemical means, the number of potentially harmful microorganisms in the environment to a level that does not compromise food safety or suitability.

3.36 exception: Substance (product or ingredients) or process otherwise excluded by this Standard.

3.37 factory farming: Large-scale industrial management systems that are heavily reliant on veterinary and feed inputs not permitted in organic agriculture and intensive agriculture that is focused on profit with animals kept indoors and restricted in mobility.

3.38 farm unit: Sections of land distinguished physically and through records fully under the management control of one party or operator. There may be more than one farm unit owned and managed by a single party or operator.

3.39 feed (feeding stuff): Any single or multiple materials, whether processed, semi-processed or raw, which intended to be fed to livestock or aquaculture

3.40 feed additive: A Substance added to feed in small quantities to fulfill a specific nutritional need such as essential nutrients in the form of amino acids or vitamins and minerals, and non-nutritive additives such as anticaking agents and antioxidants.

3.41 feed supplement: A combination of feed nutrients added to livestock feed to improve the nutrient balance or performance of the total ration and intended to be:

a) Diluted with other feeds when fed to livestock;
b) Offered free choice with other parts of the ration if separately available; or
c) Further diluted and mixed to produce a complete feed.

3.42 food (food stuff): Any single or multiple materials, whether processed, semi-processed or raw, which is intended for human consumption, and includes drink, chewing gum and any substance which has been used in the manufacture preparation or treatment of "food" but does not include cosmetics or tobacco or substances used only as drugs.

3.43 food additive: Any substance not normally consumed as a food by itself and not normally used as a typical ingredient for 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 byproducts becoming a component of or otherwise affecting the characteristics of such foods. The term does not include substances added to food for maintaining or improving nutritional qualities

3.44 forage: Vegetative material in fresh, dried or ensiled state such as pasture, fodder, hay or silage which is fed to livestock

3.45 genetic engineering: 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 or magnification, doubling, introducing a foreign gene, and changing the positions of genes. Genetically engineered organisms do not include organisms resulting from techniques such as conjugation, transduction and natural hybridization and tissue culture.

3.46 genetically modified organisms (GMOs): All organisms and products thereof, transformed through techniques of genetic engineering

3.47 green manure: A crop that is grown and then incorporated into the soil for the purpose of soil improvement, prevention of erosion, prevention of nutrient loss, mobilization and accumulation of plant nutrients, and balancing soil organic matter. Green manure may include spontaneous crops, plants or weeds.

3.48 habitat: The area over which a plant or animal species may exist or the area where a species occurs. Also used to indicate types of habitats, e.g. ocean, seashore, riverbank, woodland, grassland.

3.49 herb: Plant that is not woody and with no persistent parts above ground level.

3.50 handling: Post harvest process includes but is not limited to cooling, sorting, cleaning, grading, packaging, labelling, storing and transporting without compromise to the organic integrity of their products.

3.51 high conservation value areas: Areas that have been identified as having outstanding and critical importance due to their environmental, cultural, socioeconomic, biodiversity or landscape values.

3.52 homeopathic: Treatment of disease based on administration of remedies prepared through successive dilutions of a substance that in larger amounts produces symptoms in healthy subjects similar to those of the disease itself.

3.53 hydroponic: Crop production systems in inert media and/or water solutions using dissociated nutrients (in suspension or solution) as prime source of nutrient supply. Growing crops in water only is not considered a hydroponic system.

3.54 in-conversion (transition to organic): Labelling term that denotes produce and products that are obtained through production and/or processing in accordance with organic agriculture in conversion period intended to market as food.

3.55 ingredient: Any substance, including a food additive, used in the manufacture or processing of a food and present in the final product although possibly in a modified form.

3.56 input: Any substance or materials used in the production, handling or processing organic agricultural produce or products such as seeds, planting materials, fertilizers, pesticides, soil amendments, feed additives, feed supplements, veterinary treatments, processing aids, sanitizing and cleaning materials.

3.57 inspection: Examination of food or systems for control of food and feed, raw materials, handling, processing, and distribution, including in-process and finished product testing, in order to verify that they conform to requirements. For organic food, inspection includes the examination of the production and processing system periodically.

3.58 internal control system: Part of a documented quality assurance system that allows the external Certification Body to delegate the annual inspection of individual group members to an identified body/unit within the certified operation.

3.59 irradiation (ionizing radiation): Technology using high energy emissions from radio-nucleotides such as gamma rays, X-rays, or accelerated electrons, capable of altering a product's molecular structure for the purpose of controlling microbial contaminants, pathogens, parasites and pests in products (generally food), preserving products or inhibiting physiological processes such as sprouting or ripening or for the purpose of inducing mutations for selection and breeding.

3.60 kandyan forest gardens: Traditional forms of crop cultivation where the gardens are dominated by trees and perennial shrubs that provide a variety of food, fuel wood, fodder, timber and medicinal crops. The species composition varies with climate and elevation and is a product of experimentation over generations as well as cultural and spiritual beliefs and economic necessity.

3.61 label: Any written, printed or graphic representation that is present on a product, accompanies the product, or is displayed near the product including that for the purpose of promoting its sale or dispatch.

3.62 livestock: Ruminant (e.g. cattle, buffalo, goat, and sheep) and non-ruminant (e.g. poultry, pigs and rabbit) animal raised for food purposes.

3.63 livestock production: Production of any domestic or domesticated terrestrial animal raised for food or in the production of food. The products of hunting or fishing of wild and aquatic animals are not included.

3.64 manure: Livestock feces, urine and other excrement, including bedding, used by livestock.

3.65 marketing: Holding for trade or displaying for sale, offering for sale, selling, delivering or placing on the market in any other form.

3.66 may: Indicates the existence of an option

3.67 mulch: The material applied to the surface of soil to protect plants from weed competition and to conserve soil moisture and moderate temperature.

3.68 multiplication: Proliferation of parent material (seed stock or plant material) to increase supply for future planting.

3.69 nano technology: The intentional production of particles with a size less than 300 nm in at least one dimension. These particles are called nanoparticles. For the purposes of this Standard, nano particles produced by nature, for example, products of forest fires, volcanoes, salt spray or incidentally produced as a result of accepted processing methods such as flour as a byproduct of traditional milling, are not excluded from an organic production or preparation system.

3.70 natural: Existing in or derived from nature.

3.71 operator: Person or persons, corporate entity or organization that produces, handles or processes with a view to subsequent marketing thereof, products referred to as organic, originally grown, originally raised, and originally produced or certified organic in accordance with this Standard.

3.72 organic: Farming system and products described in this Standard and not to organic chemistry. "Organic" is a labeling term that refers to an agricultural product produced in accordance with this Standard and certified by an accredited Certification Body. The term "organic" is synonymous in other languages to "biological" or "ecological".

3.73 organic agriculture: A holistic production management system that sustains the health of soils, ecosystems, plants, animals and people. It relies on the living ecological system, cycles and biodiversity adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.

3.74 organic farming: Farming system is designed to depend mostly or almost exclusively on the multitudes of organisms in situations that convert energy for human advantage rather than extraneous energy inputs such as chemical fertilizers, pesticides, etc. It can also refer to products from other technologies that use organic regimes of cultivation namely Kandyan garden forestry, analog forestry, permaculture and biodynamic agriculture etc.

3.75 organic integrity: Maintenance of the inherent organic qualities of a product from the receipt of ingredients through to the end consumer.

3.76 organic management plan (OMP): Management plan which outlines production plans to comply with this Standard and which has been agreed upon by both the operator and the Certification Body. This may include identification of key management personnel, potential risk, documented recording systems of transition, production, preparation, handling, marketing and future on site plans (increasing stock numbers, new crop types, longer term reduction of inputs, etc).

3.77 organic produce: Any agricultural or livestock or aquaculture produce that is produced according to this Standard.

3.78 organic product: Product that has been produced, processed, and/or handled in compliance with this Standard.

3.79 organic production: A production system that is managed in accordance with this Standard by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.

3.80 organic soil amendments (organic soil conditioner): Any substances that applied to the soil to improve the physical properties and biological activity of soil.

3.81 packaging material: Materials used to pack an object or objects.

3.82 parallel production: A situation where the same operation is growing, breeding, handling or processing the same visually indistinguishable products in both a certified organic system and a non-certified or non-organic system. A situation with "organic" and "in conversion" production of the same product may also be parallel production.

3.83 pathana: Grassy expanse almost of quite devoid of trees, mostly at high or medium elevations.

3.84 permaculture: Crop management system that was designed as an integrated, evolving system of perennial or self-perpetuating, plant and animal species useful to man.

3.85 perennial crop: Any crop, other than a biennial crop, that can be harvested from the same planting for more than one crop year, or that requires at least one year after planting before harvest.

3.86 processing: Operations which may consist of handling, altering, preserving, packaging and labelling of agricultural products.

3.87 processing aid: Any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, intentionally used in the processing of raw materials, foods or its ingredients, to fulfill a certain technological purpose during treatment or processing and which may result in the unintentional but technically unavoidable presence of residues of the substance or its derivatives in the final product, provided that these residues do not present any health risk and do not have any technological effect on the finished product.

3.88 production: Any primary production involved in producing an agricultural crop or livestock or aquaculture product.

3.89 production unit: Farm, processing or other commercial entity operated or managed for the purposes of food, feed or fiber production, handling or processing under specific organic management practices.

3.90 propagation: Reproduction of plants by sexually (i.e. seed) or asexually (vegetative propagation like cuttings, root division).

3.91 protected agriculture: The growing of crops under forms of constructed or man-made protection such as greenhouses, polytunnels, plastic roofs, nets, fleece, or cloches.

3.92 prohibited substance: A compound, input, or other agent whose use in any aspect of organic production, handling, processing or manufacturing that is prohibited or not provided for in the Permitted Substances List as specified in Appendices **A - E** of this Standard.

3.93 restrict: Limit a practice, generally to conditions under which it may be used.

3.94 sanitizing: Any treatment that is effective in destroying or substantially reducing the numbers of vegetative cells of microorganisms of public health concern, and other undesirable microorganisms, but without adversely affecting the product or its safety for the consumer.

3.95 sewage sludge: Solid, liquid or semisolid material formed as a precipitate from the treatment of liquid and solid human waste, among other compounds, accumulated predominantly in municipal and/or industrial sewage treatment facilities, sewers and drains.

3.96 shall: Indicates that a statement is mandatory

3.97 should: Indicates a recommendation

3.98 soil quality: The functional capacity of the soil, within ecosystem and land-use boundaries, to sustain biological productivity, maintain the quality of air and water environments and promote plant, animal, microbial and human health.

3.99 split production (partial conversion): Where only part of the farm or processing unit is certified as organic the remainder of the property can be (a) non-organic, (b) in-conversion or (c) organic but not certified. Also see parallel production.

3.100 synthetic: Products that are formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from a naturally occurring plant, animal or mineral source, except that such a term shall not apply to substances created by naturally occurring biological processes.

3.101 sustainable: Use of a resource in such a way that the resource is not depleted or permanently damaged, hence is not used faster than it can be regenerated.

3.102 traditional farming systems: close integration of livestock management, mixed home garden and upland/lowland farming of rice, grains and vegetables including shifting cultivation that incorporated a well-planned water management system.

3.103 veterinary drug: Any substance applied or administered to any food producing animal, such as meat or milk producing animals, aquatic organisms or bees, whether used for therapeutic, prophylactic or diagnostic purposes or for modification of physiological functions or behavior.

3.104 wild harvested products: Harvested, gathered or collected plants, aquatic organisms, plant products or parts of plants, bee products that grow in the wild (forests, rivers, lagoons, shallow costal area and reservoirs) or is not cultivated.

4 GENERAL REQUIREMENTS

4.1 The total operational system and/ or value chain of organic produce and product shall ensure social, ecological, economic and environmental stability and harmony.

4.2 The organic production system shall be developed towards an integrated and sustainable agricultural system that is suited to the local agro-ecosystem.

4.3 Organic production systems shall work in compatible with natural cycles and all other life systems.

4.4 Renewable and natural energy resources should be used as far as possible in organic production and processing systems so as to minimize pollution and waste.

4.5 Organic production and processing systems shall recognize the importance of indigenous knowledge and traditional farming systems.

4.6 Organic production systems shall improve and maintain soil quality for long term sustenance using locally adapted cultural, biological and mechanical methods as opposed to reliance on artificial, fossil energy dependent or off farm inputs.

4.7 Organic production systems shall seek to maintain and encourage natural biodiversity on the farm and its surroundings through the conservation and restoration of plant and wildlife habitats.

4.8 Organic production systems shall promote the responsible use of water.

4.9 The activities that cause environmental pollution shall be prevented and avoided.

4.10 Organic production systems shall seek to create a harmonious balance between crop and livestock production.

4.11 Organic production systems shall fulfill animal welfare requirements that focus on maintaining species specific natural behavior.

4. 12 Areas in conversion as well as areas converted to organic production shall not rely upon changing or switching back and forth between organic and conventional production methods.

4.13 Gene technology, Nano technology, ionizing radiation or mutation breeding shall not be used in organic production and processing.

4.14 Application of synthetic substances shall be avoided throughout the whole chain of production, handling, processing, storing, transporting and marketing.

4.15 Use of any input shall be based on an assessment of requirements to use and with knowledge of the origin and/or analyses of the material for contaminants.

4.16 Animals used for livestock production shall not be allowed to roam in wildlife parks and natural forests.

5 REQUIREMENTS FOR ORGANIC MANAGEMENT PLAN

5.1 The site map of production units and/or processing sites and surrounding boundaries shall be available.

5.2 The operator of an enterprise shall prepare an organic management plan in accordance with this Standard.

5.3 The organic management plan shall be updated annually and as when required to address changes to the plan or management system, problems encountered in executing the plan, and measures taken to overcome such problems.

5.4 The organic management plan shall include a description of the internal record keeping system, with documents sufficient to meet traceability requirements as specified in Clause **13** of this Standard.

5.5 When more than one operator functions, an individual organic management plan and/or internal control system shall be operated for group certification.

6 CROP PRODUCTION REQUIREMENTS

6.1 Total ecosystem management

6.1.1 The farm should be regarded in a holistic manner and its management should take the total ecosystem into consideration.

6.1.2 All areas of the farm should facilitate biodiversity. Hence, the biodiversity of the whole farm should be developed.

6.1.3 Operators should take measures to maintain natural habitats or establish them where to improve landscape and enhance farm biodiversity.

6.1.4 Where appropriate, operators should set aside areas to recreate habitat for biodiversity. The area to be set aside shall be expressed in this Standard as a percentage of the total land area under the control of the operator. This shall not include any adjacent forestland that is under

state control. In the case of small farmers, the area set aside shall be under the possession of the small farmers holding. The areas that may be included are:

a) Extensive grassland such as marsh lands, pathana and damana;
b) In general all areas that are not under rotation and are not heavily manured: extensive pastures, extensive grassland, extensive orchards, hedges, hedgerows, hedges between agriculture and forest land, groups of trees and/or bushes and forest and woodland;
c) Ecologically rich fallow land or arable land;
d) Ecologically diversified (extensive) field margins including riparian vegetation*;*
e) Waterways, pools, springs, ditches, floodplains, wetlands, especially eco units of tank villages (*wew gammana*), swamps and other water rich areas which are not used for intensive agriculture or aquaculture production;
f) Areas with forest corridors; and
g) Wildlife corridors that provide linkages and connectivity to native habitat.

6.1.5 Clearing or destruction of natural forests or high conservation value areas for any reason shall be strictly prohibited**.**

6.2 Farming system diversity

6.2.1 Crop rotation, intercropping, alley cropping, relay cropping, multistory cropping, agro-forestry, crop livestock integration and other appropriate measures may be encouraged to enhance diversity in plant production, organic matter, soil fertility, microbial activity and soil and plant health.

6.2.2 For annual crops, this includes the use of crop rotation, cover crops, green manures, integrated crop management, intercropping or other diverse plant production with mutual benefits.

6.2.3 For perennial crops, this includes the use of trees, ground cover and intercropping.

6.2.4 For perennial crops that are grown as monocultures where intercropping is not possible other means to secure diversity shall be applied to the growing system.

6.2.5 For pollinator management, operators should be aware of pollination requirements of all crops grown in organic farms. Proper evidence shall be seen that pollinating insects are either maintained or their existence is encouraged but not hindered in the area concerned.

6.3 Soil and water conservation

6.3.1 Organic production systems should conserve, maintain quality and promote the use of soil and water in a sustainable manner.

6.3.2 Burning as a method of crop residue disposal or land preparation by burning vegetation shall be prohibited except as a means to control the spread of pest or disease, to stimulate seed germination, to remove intractable residues, or other such exceptional cases.

6.3.3 Operator shall take measures appropriate to the specific local conditions such as climate, soil, slope and land use.

6.3.4 All operators shall take necessary measures to minimize soil erosion and minimize loss of topsoil. Such measures may include, but are not limited to minimal tillage, contour planting, mulching, terraces, crop selection, windbreaks, maintenance of soil plant cover, cover crops, diversion canals, catch/filtration ponds, grass waterways and other management practices that conserve soil.

6.3.5 All operators shall take adequate steps to prevent the contamination of surface and groundwater and shall not deplete or excessively exploit water resources.

6.3.6 The operators shall take measures to obtain necessary approvals for digging wells or extracting groundwater except for shallow wells and natural streams.

6.3.7 Any organic soil amendment including animal excreta shall be used crop specific and integrated manner. The total amount of livestock manure used in the in-conversion and organic production units shall not exceed 170 kg of nitrogen per year/hectare of agricultural area used. That limit shall only apply to the use of farmyard manure, composted animal manure and liquid animal excrement.

6.3.8 All operators shall take measures to prevent soil and water salination.

6.3.9 Organic production system shall conform to national laws for the prevention of pollution of waterways with effluents originating from their facilities.

6.3.10 Operators shall explore the possibility of harvesting rainwater and monitor water extraction without causing contamination.

6.4 Conversion to organic agriculture

6.4.1 Conversion to organic agriculture shall be done in accordance with techniques permitted in this Standard.

6.4.2 A conversion plan shall be prepared documented and maintained when converted to organic production.

6.5 Conversion period for plant and plant products

6.5.1 The Conversion period for annual and biennial crops a period of a minimum of 24 months shall lapse between the last applications of a prohibited substance and the first “Organic” sowing or planting.

6.5.2 The Conversion period for perennial crops other than grassland a period of a minimum of 36 months shall lapse between the last application of a prohibited substance and the first “organic” harvest.

6.5.3 The application date for certification shall be the starting date of the conversion period.

6.5.4 No conversion period is required in the case of non-cultivated land provided that these areas shall not be exposed to prohibited inputs for a minimum of 24 and 36 months for annual/biennial and perennial, respectively.

6.5.5 Crops harvested less than 24 months after the application of prohibited input either to crop or soil shall not be claimed or sold as organic.

6.5.6 Organic products of in-conversion shall be claimed or sold as "produce of organic agriculture in-conversion" or of a similar description, when the requirements prescribed under this Standard have been met for at least twelve months.

6.6 Retrospective approval of conversion period

6.6.1 The competent authority shall decide to reduce or extend the conversion period after considering relevant issues and risks for the retrospective approval of conversion period based on the report of the Certification Body.

6.6.2 The conversion period the operator shall do so in writing with documentation of previous land use and material application history. The competent authority shall consider a reduction only after verification.

6.6.3 Lands that have been extensively exposed with synthetic chemicals shall undergo conversion for a minimum of three years before the start of the production cycle. The Certification Body decides whether this rule applies on a specific site and the required test to confirm. In such cases, the farmer should be able to provide results of contaminant analysis, which include, among others, pesticides, heavy metals, and nitrate accumulation.

6.7 Split and parallel production

6.7.1 If the whole farm is not converted to organic (split or parallel production), in-conversion and conventional fields of the farm shall be continuously, completely, verifiably separated by physically, financially and operationally and clearly identified at all times that can ensure for integrity of the organic production systems and products.

6.7.2 An operator shall not run production units producing of same crop in conventional or in-conversion or organic field in same production unit except when the similar crops are clearly distinguished by varietal differences e.g. different shape/form, colour, or different growth cycle and harvest time.

6.7.3 Steps shall be taken to ensure a permanent verifiable separation of the harvest of each unit until such time that the whole operation reaches organic status.

6.7.4 All records and accounts shall be identifiable for each type of production, allowing the Certification Body for auditing.

6.8 Crop rotation

6.8.1 Diverse crop rotation options should be encouraged to include legumes, green manure crops and shrubs.

6.8.2 In an annual cropping system leguminous cover crops should be included in the crop rotation to improve soil fertility.

6.8.3 In a perennial cropping system cover crops should be used to hold soil in place, improve fertility and provide habitats for beneficial fauna.

6.8.4 In farms without livestock production, specific rotations including legumes should be employed.

6.8.5 A diversity of plant crops, hedgerows, wind breaks and multipurpose species should be grown to ensure that no single pest, disease or weed can throw the system off-balance.

6.9 Soil fertility and crop nutrient management

6.9.1 The operator shall develop and implement a long-term soil management program. The plan shall rely primarily on the use of compost, animal and green manures and other biodegradable inputs to enhance soil fertility, soil biodiversity**,** maintain humus content**,** correct nutrient deficiencies and stop soil erosion.

6.9.2 Fertility management should be decided based on the soil type and crops in the agro-ecosystem.

6.9.3 Farm residues should be re-used and recycled.

6.9.4 Soil organic matter content, crop nutrients and soil fertility should be maintained or improved, where appropriate.

6.9.5 Crop nutrient and soil fertility products shall be applied in a sustainable and responsible manner in a way that does not contaminate crops, soil, water, and biodiversity by plant nutrients, pathogenic organisms, heavy metals or residues of prohibited substances.

6.9.6 The operator should take measures to prevent accumulation of heavy metals and other pollutants in the soil and to minimize the loss of nutrients due to leaching.

6.9.7 Materials applied to the land or crop shall be in accordance with Appendix **A** and they should be regarded as only one component or as a supplement to the plant nutrition system, but not as a replacement for nutrient recycling. Operators shall keep documentary evidence of the need to use the product.

6.9.8 Mineral fertilizers shall only be used in a program addressing long term fertility and together with other techniques such as adding organic matter and green manures, cultivation of legumes, crop rotations with nitrogen fixing plants.

6.9.9 Operators shall take every effort to return nutrients, organic matter and other resources removed from the soil during harvesting by recycling, regeneration and addition of organic matter and nutrients with respect to the nutrient requirement of crops and the nutrient balance of the soil.

6.9.10 Raw or un-decomposed manure should not be used.

6.9.11 Storage places of manure and compost sites should be covered or sheltered in order to prevent leaching of nutrients and pollution of water.

6.9.12 Manures containing human feces and urine shall be prohibited.

6.9.13 Use of urban waste and sewage sludge shall not be permitted.

6.9.14 Reliance on inputs from outside the farm should be minimized.

6.9.15 When using off-farm inputs the operator shall obtain prior approval from the Certification Body.

6.9.16 The Certification Body shall have the right to request a report on soil and tissue analysis prior to use of off-farm inputs.

6.9.17 Organic production systems should care for the soil and surrounding eco-systems in support of an increased diversity of species, while encouraging nutrient re-cycling and soil mitigation and nutrient losses.

6.9.18 Tillage and cultivation equipment shall be selected and used in a manner that maintains or improves soil quality and minimizes erosion.

6.9.19 The production of terrestrial plants shall be soil-based. The production of such crops in hydroponic, aeroponic, nutrient rich plastic films and similar methods and techniques shall be prohibited. For herbs, flowers and ornamentals in pots that are sold directly to the final consumer, the Certification Body can allow production on soil.

6.9.20 The removal of soil from the farm shall be prohibited. Incidental removal of soil when harvesting crops shall be permitted.

6.9.21 Use of microorganisms for soil improvement, composting, water treatment and animal waste treatment is permitted, if they are not genetically modified or derived from genetic modified organisms.

6.10 Seeds, seedlings and propagation material

6.10.1 The operators shall use organically produced seeds and planting material. When organic seed and planting materials are not available, in-conversion materials should be used.

6.10.2 When none of these are available, the operator may use untreated conventional seed and planting material for a period of time limited to two growing seasons for annual crops and 36 months for perennial crops.

6.10.3 Permission shall be obtained in writing from the Certification Body prior to using untreated, conventional, seed and planting material.

6.10.4 The operator should decide to obtain organic seed and planting material from external sources, a record of the seller of such material and the quantity obtained shall be maintained. The operator shall also obtain a declaration from the seller that the propagules are treated or not treated. If treated, the nature of treatment shall be included in the declaration.
In case organic seed and planting material is purchased a copy of the sellers' organic certificate should be obtained.

6.10.5 When the use of treated seeds is required by government authorities or phytosanitary regulations necessary to prevent the spread of seed borne diseases, or when natural disasters like floods, drought, earthquake, pest outbreaks, or other unanticipated circumstances have occurred causing the destruction of organic seed supply, only then can treated seeds be used.

6.10.6 If treated, they are treated only with substances that are listed in Appendix **B**.

6.10.7 The operators are encouraged to preserve the genetic integrity of varieties and traditional ecotypes.

6.10.8 The use of genetically modified seeds, transgenic plants or planting materials shall be strictly prohibited. The applicant shall sign a declaration to this effect at the time of inspection.

6.10.9 Seeds and plant materials shall be propagated under organic management for one generation, in the case of annuals, and for perennials, two growing periods, or 18 months, whichever is the longer, before being certified as organic propagation materials.

6.10.10 Propagation should be based on generative propagation (seeds) as well as vegetative propagation derived from various plant organs.

6.10.11 All multiplication practices on the farm, except meristem culture, shall be conducted following organic management.

6.10.12 Propagation materials, bedding materials and substrates shall only consist of substances listed in Appendices A and B.

6.11 Breeding of organic varieties

6.11.1 To produce organic varieties, plant breeders shall select their varieties under organic conditions that comply with the requirements of this standard. All multiplication practices except meristem culture shall be under certified organic management.

6.11.2 Organic plant breeders shall develop organic varieties only on the basis of genetic material that has not been contaminated by products of genetic engineering.

6.11.3 Organic plant breeders shall disclose the applied breeding techniques used to develop an organic variety.

6.11.4 The genome is respected as an impartible entity. Technical interventions into the genome of plants shall not be allowed.

6.11.5 The cell is respected as an impartible entity. Technical interventions into an isolated cell on an artificial medium shall not be allowed.

6.11.6 The natural reproductive ability of a plant variety is respected and maintained. This excludes techniques that reduce or inhibit the germination capacities.

6.12 Pest, weed and disease management

6.12.1 Preventive methods such as disruption and elimination of pest habitats and access to facilities shall be the primary mean of pest management.

6.12.2 If preventive methods are inadequate, pests, weeds and diseases shall be controlled by one or in combination, of the following biological, cultural, physical and mechanical measures:

a) monitoring of pests and predators;
b) selection of appropriate species and varieties;
c) appropriate crop rotation programs, intercropping and companion planting;
d) hand weeding and mechanical cultivation;
e) protection of natural enemies of pests through provision of favorable habitat, such as hedges, nesting sites and ecological buffer zones that maintain the original vegetation to house pest predators or parasites;
f) adjusting the timing of cultivation;
g) natural enemies including release of predators and parasites;
h) flame weeding;
sanitation measures;
j) mulching and mowing;
k) grazing by animals;
m) mechanical controls such as traps, barriers, light and sound;
n) creating diverse habitats such as buffer zones, agro-forestry, mixed cropping, rotating crops etc;
p) establishing live fences/repellent crops using plant species with pesticidal properties;
q) solarization; and
r) steam sterilization in nursery

6.12.3 When the measures in Clause **6.12.2** are not sufficient, pest, weed and disease management substances permitted under Appendix **B**, may be used. The producer shall keep documentary evidences of the need to use the product.

6.12.4 Substances that do not appear on Appendix **B** shall be prohibited for use in organic production.

6.12.5 Physical methods for pest, weed and disease management are permitted, including the application of heat.

6.12.6 Thermal sterilization of soils shall be prohibited except under conditions specified in Clause **6.12.2**.

6.12.7 Any formulated input shall have only active ingredients listed in Appendix **B**.

6.12.8 For products used in traps and dispensers, except pheromone dispensers, the traps and/or dispensers, shall prevent the substances from being released into the environment and prevent contact between the substances and the crops being cultivated. The traps shall be collected after use and disposed off safely.

6.13 Mulching

6.13.1 All materials used for mulching should, as far as possible be obtained from the organic farm itself. In case sufficient mulch material of organic origin is not available, it may be brought

in from outside. However, the operator shall ensure that the material has been obtained from an organic source and that it has not been contaminated with substances not permitted in this Standard.

6.13.2 For synthetic structure coverings, mulches, fleeces, insect netting and silage wrapping, only products based on polyethylene and polypropylene or other polycarbonates, and biodegradable materials shall be permitted. These shall be removed from the soil after use and shall not be burnt on the farmland.

6.13.3 The use of polychloride based products shall be prohibited.

6.13.4 Any treated timber products shall not be permitted for use as mulch material.

6.14 Protected cropping

6.14.1 In a container system, soil shall be obtained from a source that fulfills the requirement of the conversion period with organically managed sources.

6.14.2 Soil used in a container system, with the exception of transplants, shall provide nutrients to plants continuously. The soil (growth media) shall contain a mineral fraction (sand, silt or clay) and an organic fraction.

6.14.3 Planting media (soil) shall be obtained from certified organic sources.

6.14.4 Artificial light is only allowed for plant propagation and as a complement to sunlight to extend the day length to a maximum of 16 hours.

6.14.5 Operators shall monitor, record and optimize any energy used for artificial light, heating, cooling, ventilation, humidity and other climate control.

6.14.6 The operator shall use reusable and recyclable pots and flats whenever possible.

6.14.7 Soil regeneration and recycling procedures shall be practiced.

6.15 Wild harvested products

6.15.1 Wild harvested products shall only be certified as organic, if they are derived from a stable and sustainable growing environment like a natural forest, wild or common public land or aquatic areas without active cultivation.

6.15.2 Wild collection can be exempted from the conversion period.

6.15.3 Operators shall only harvest specified non-protected or endangered products from within the boundaries of a clearly defined collection area where prohibited substances have not been applied.

6.15.4 The applicant seeking certification of wild crops from reserve forest areas shall have obtained the necessary permission in writing from the State authorities.

6.15.5 Collectors who harvest wild crops shall not gather at a rate that exceeds the sustainable yield of the ecosystem, nor shall it threaten its existence of plant, fungal or animal species, including those not directly exploited. Furthermore, collectors/gatherers of wild crops shall be adequately trained in harvesting practices that cause minimum impact.

6.15.6 The collections from which harvests have been made shall be allowed to grow and regenerate naturally without the use of agronomic practices.

6.15.7 The collection or harvest area shall be clearly defined and at an appropriate distance from conventional farming, pollution and possible contamination including the dumping of garbage.

6.15.8 All aspects of the collection of wild harvested products shall be under the control of the applicant seeking certification.

6.15.9 Operators shall take measures to ensure that wild, sedentary aquatic species are collected only from areas where the water is not contaminated by substances prohibited in this Standard.

7 APICULTURE (BEE-KEEPING) PRODUCTION

7.1 Bees shall be introduced to an operation and managed for production benefits, such as pollination of organic crops.

7.2 Introduced bees shall come from organic production units when available. Bee products shall be sold as organically produced when the requirements of this Standard have been complied with for at least 12 months.

7.3 Products from an organic apiculture operation shall be from colonies that have been under continuous organic management for not less than 12 months. During the conversion period, the wax shall be replaced by organically produced wax, except where no prohibited products have been previously used in the hive and where there is no risk of contamination of wax. In cases where all the wax cannot be replaced during 12 months period, the conversion period shall be extended to cover the full replacement of the wax.

7.4 Apiaries should be separated by a buffer zone of 3 km. The areas within a 3 km radius of the hives should consist of organically managed fields, uncultivated land and/or wild natural areas in a way that ensures access to sources of honeydew, nectar and pollen that meets organic crop production requirements sufficient to supply all of the bees' nutritional needs.

7.5 Bee colonies shall be provided with a continuous supply of clean water and sufficient forage throughout the season. The food source shall fulfill the nutritional needs and good health of the colony.

7.6 Operators shall demonstrate that the hive locations are in foraging areas more than 5 km distant from any prohibited substances that may be derived from, but not limited to:

a) flower-bearing crops that are treated with pesticides not permitted by this Standard, or gene-technology and/or nano technology modified organisms or their products;
b) urban or industrial activities; or
c) waste sites.

7.7 The hives shall consist primarily of natural materials and present no risk of contamination to the environment or the bee products. Particleboard and/or toxic wood preservatives and coatings shall not be used in hive construction or maintenance.

7.8 At the end of the production season, hives shall be left with reserves of honey and pollen sufficient for the colony to survive the dormancy period. Any supplementary feeding in response to unexpected need shall be carried out only between the last honey harvest and the start of the next nectar or honeydew flow period. In such cases, organic honey or organic sugar shall be used.

7.9 For pest control the following should be permitted:

a) lactic acid, formic acid;
b) oxalic acid, acetic acid;
c) sulfur;
d) natural essential oils (e.g. menthol, eucalyptol, camphor, lemongrass oil);
e) *Bacillus thuringiensis*; and
f) steam, direct flame and caustic soda for hive disinfection.

7.10 Botanical compounds may be introduced into the hive (e.g. menthol, vegetable oils, essential/ etheric oils, and herb). However, such remedies shall not be used within thirty days of honey flow, or whenever honey supers are on the hive.

7.11 The use of synthetic antibiotics in honey production shall not be permitted except where the imminent health of the colony is threatened. Before such treatments, the hive(s) shall be removed from the foraging area and taken out of organic production to prevent the spread of antibiotics within the remaining apiary. Bee products harvested for the next twelve months including two extractions following the use of such antibiotics shall not be labelled 'organic' and foundation wax shall be replaced.

7.12 When bees are placed in wild areas, impact on the indigenous insect population shall be considered.

7.13 The practice of destroying the male brood shall be permitted only to contain infestation with *Varroa* (mites).

7.14 The health and welfare of the hive shall be primarily achieved by hygiene and hive management.

7.15 The removal of honey or bee-product shall not deliberately killing bees or involve the destruction of the colony. Bees shall be removed from hives by the use of bee escape boards, shaking, brushing, forced air blowers, or smoker fuel derived from natural, unprocessed substances.

7.16 Mutilations, such as clipping of the wings of queen bees, shall be prohibited.

7.17 Artificial insemination of queen bees shall be permitted.

7.18 The use of synthetic bee repellents shall be prohibited. The use of smoke should be kept to a minimum. Acceptable smoking materials should be natural or from materials that meet the requirements of this Standard.

7.19 Honey temperatures shall be maintained as low as possible, and not exceed 45°C, during the extraction and processing of products derived from beekeeping.

7.20 All working surfaces during extraction & storage shall be constructed by food-grade materials in direct contact with honey.

7.21 The finished honey should be sealed and stored at a stable temperature to avoid honey deterioration.

7.22 The place to carry honey and store honey should prevent the invasion of insect pests and rodents.

7.23 No chemical compounds such as naphthalene for stored honey and bee products to control pests such as wax borer.

7.24 Honey shall be packaged in airtight containers.

8 MUSHROOM PRODUCTION REQUIREMENTS

8.1 Mushrooms grown in a natural environment shall comply with the requirements given in Clause **6.1**.

8.2 Buildings used for mushroom growing shall be dedicated to organic production.

8.3 Healthy growing environment shall be maintained by the use of preventative pest management, sanitation, proper airflow and removal of spent material.

8.4 Growing equipment and trays shall be new or thoroughly sanitized using only those products listed in Appendix **D**. No prohibited materials shall have been applied for 12 months prior to filling with the growing medium.

8.5 Cleaning and sterilisation using steam, heating, ethanol and hydrogen peroxide treatment of buildings and equipment is allowed. Other sterilisation or sanitation substances are allowed for buildings, growing containers or any other equipment provided that they are listed in Appendix **D**.

8.6 Only organically sourced spawns shall be used.

8.7 Where an operator can demonstrate that material satisfying Clause **8.6** is not available in sufficient quality and quantity, the operator shall seek written approval from the Certification Body prior to use spawn not produced in accordance with this Standard.

8.8 The culture substrate for mushrooms shall be of untreated sawdust, 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.

9 LIVESTOCK PRODUCTION REQUIREMENTS

9.1 Any livestock kept on an organic farm shall be managed according to this Standard.

9.2 Livestock and livestock products shall be identifiable at all stages of their production, handling, processing, storage, transport and marketing.

9.3 Where livestock for organic production are maintained, they should be an integral part of the organic farm unit.

9.4 Livestock management

9.4.1 Landless livestock systems and/or complete confinement of animal systems (e.g. battery-type, single pen) shall be prohibited.

9.4.2 Herd animals shall not be kept in isolation from other animals of the same species. This provision does not apply to small herds for mostly self sufficient production. Operators may isolate male animals, sick, injured, or disabled animals and those animals about to give birth or have just given birth should be separated from other animals.

9.4.3 The housing and day-to-day management of the animal, maintenance of sanitation, hygiene and environment shall be planned to ensure animal welfare conditions.

9.4.4 The animals should not be tied unless required for specific reasons, such as, at the time of milking or for some medical procedures.

9.4.5 Keeping the animals tethered shall be prohibited. However, the tethering of animals is allowed if this is necessary for safety, welfare or veterinary reasons, and that such tethering is for a limited time only during which 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.

NOTES:
Animals whose management system requires outdoor tethering to make use of grazing can still be managed in compliance with these requirements.
*On holdings where, due to their geographical location and structural constraints, it is not possible to allow free movement of animals, indoor tethering (stanchioning) of animals may be allowed for a limited period of the year or of the day. In such cases, animals may not be able to turn around freely but the tethering conditions should permit the other requirements of Clause **9.15.2** shall be fulfilled.*

9.4.6 All animals should have unrestricted space whenever applicable, should have access to open air area or run for grazing. Such areas may be partially covered.

9.4.7 The Certification Body may allow exceptions when the animals' physiological state, inclement weather conditions, and state of the land so permit, or the structure of certain `traditional` farming systems restrict access to pasture, providing the welfare of the animals can be guaranteed.

9.4.8 Stocking densities and grazing of livestock shall not contribute to soil erosion, degrade land, and pollute water resources.

9.4.9 Poultry shall have access to an open-air area for at least one third of their life.

9.4.10 Open air areas for poultry shall be mainly covered with vegetation and be provided with protective facilities and permit fowl to have easy access to adequate numbers of drinking and feeding troughs.

9.4.11 Where poultry is kept indoors, they shall permanently have access to sufficient quantities of roughage and suitable material in order to meet their ethological needs.

9.5 Livestock housing

9.5.1 When animals are housed, the operator shall ensure that:

a) where animals require bedding, adequate natural materials are provided. Bedding materials that are normally consumed by the animals shall be organic.
b) building construction provides for insulation, heating, cooling and ventilation of the building, ensuring that air circulation, dust levels, temperature, relative air humidity, and gas concentrations are kept within limits which are not harmful to the animals.
c) animals are protected from predation by wild and feral animals.
d) animals are regularly visited and monitored.
e) when welfare and health problems occur, appropriate management adjustments are implemented (e.g. reducing stocking density).

9.5.2 Housing for animals shall not be mandatory in areas with appropriate climatic conditions to enable animals to live outdoors without compromising their comfort, health and welfare. Conditions shall be inspected and permitted by the Certification Body on a producer and location- to- location basis.

9.5.3 The building shall permit plentiful natural ventilation and light to enter.

9.5.4 Animals may be temporarily confined during periods of unfavorable weather, when the health, reproduction, safety, and well-being of the animal could be jeopardized or to protect plant, soil, and water quality.

9.5.5 Lactation shall not be considered a valid condition for keeping animals indoors.

9.5.6 The stocking density should provide for the comfort, wellbeing and species specific needs of the animals depending on the species, breed, sex and age of the animals.

9.5.7 Livestock stocking rates shall correspond to local agri-climatic conditions and take into consideration feed production capacity, stock health, nutrient balance and environmental impact.

9.5.8 The outdoor stocking density of animals kept on pasture, grassland, or other natural or semi-natural habitats must be optimized to prevent overgrazing, soil degradation and erosion, and water pollution.

9.5.9 Appropriate facilities to cover emergencies such as fire, breakdown of essential mechanical services and disruption of supplies shall be available.

9.5.10 Construction materials and methods and production equipment that might significantly harm human or animal health shall not be used.

9.5.11 Potentially toxic materials shall not be used for constructions. Treatment with potentially toxic wood preservatives, paints etc. should be prohibited.

9.5.12 Housing, pens, equipment, and utensils should be properly cleaned and disinfected to prevent infection and contamination using the allowed cleaning materials, as listed in Appendix **E** Part **2**.

9.5.13 Operators shall manage pests and diseases in livestock housing and shall use the following methods according to these priorities:

a) preventative methods such as disruption, elimination of habitat and access to facilities;
b) mechanical, physical and biological methods;
c) substances (other than pesticides) used in traps; and
d) substances listed in Appendix **E** Part **2** of this Standard.

9.6 Specific housing conditions for mammals

9.6.1 Livestock housing shall have smooth, but not slippery floors. The floor shall not be entirely slated or grid construction.

9.6.2 The housing shall be provided with a comfortable, clean and dry laying/rest area of sufficient size, consisting of a solid construction which is not slatted. Ample dry bedding strewn with litter material shall be provided in the rest area. The litter shall comprise straw or other suitable natural material. The litter may be improved and enriched with any mineral product listed in Appendix **A,** whenever applicable.

9.6.3 Sows should be kept in groups, except in the last stages of pregnancy and during the suckling period. Piglets shall not be kept on flat decks or in piglet cages until weaning.

9.6.4 Exercise areas shall permit dunging and rooting by porcine animals. For the purposes of rooting different substrates can be used.

9.7 Specific housing conditions for poultry

9.7.1 One third of the floor area shall be solid at least, that is, not of slatted or of grid construction and covered with a litter material such as straw, wood shavings, sand or turf.

9.7.2 The maximum hours of artificial light used to prolong natural day length shall not exceed a maximum that respects the natural behavior, geographical conditions and general health of the animals. For laying hens, natural light may be supplemented by artificial means to provide a maximum of 16 hours light per day with a continuous nocturnal rest period without artificial light of at least eight hours.

9.8 Conversion Period for Livestock Production

9.8.1 Simultaneous conversion of livestock and land used for raising feed/fodder within the same unit should be a preferred approach. Land for production of feed, fodder, pasture shall be certified organic as per the provisions given in Clause **6** including conversion requirements.

9.8.2 When a livestock production unit, with entire herd, or flock of sheep/ goat or batch of poultry or small mammals, is in transition to organic production, pasture and feed produced on the land undergone a minimum period of 12 months of conversion period may be considered organic for feeding to organic livestock.

9.8.3 Animal used for organic products shall be born or hatched on farm unit that comply with this Standard. Such animal shall remain on organic farm or production unit for their products to be sold as organic.

9.8.4 Operators who have demonstrated the need to bring conventionally produced animals into the operation may be authorized by the Certification Body to do so, provided that the following conversion requirements listed in Table **1** shall be met.

TABLE 1 - Conversion Requirements for animal products

SI No. (1)	**Type of production** (2)	**Product** (3)	**Conversion Period** (4)
i)	Cattle and buffalo	Meat	should be organically reared at least 12 months before slaughter
ii)	Cattle and buffalo	Milk	Milk from lactating bovine will only be considered as organic after 6 months of organic rearing
iii)	Sheep and Goats	Mutton and Chevon	should be organically reared at least 6 months before slaughter
		Milk	Milk from lactating sheep and goat will only be considered as organic after 6 months of organic rearing
iv)	Pig	Meat	should be organically reared at least 6 months before slaughter
v)	Poultry/Laying Hens	Meat	from the second day of hatching to the entire lifespan as determined by the Certification Body
		Eggs	should be organically reared 6 weeks before laying and throughout the laying period
vi)	Small mammals	Meat	From the second week after their birth to the entire lifespan as determined by the Certification Body

9.8.5 Any introduced animal in accordance with Clause **9.8.4** shall be quarantined from organic stock and the organic production system for a minimum period of three weeks.

9.9 Parallel production

9.9.1 If a farm breeds the same breed or indistinguishable livestock breed, the following conditions shall be met before the organic livestock or its products can be sold as organic products:
a) The pens, fields and pastures of organic livestock are completely separated, or organic livestock and conventional livestock are easily distinguishable varieties;
b) The warehouse or area for feed storage shall be separated and clearly marked; and
c) Organic livestock cannot be exposed to conventional feed

9.10 Breeds and breeding

9.10.1 In the choice of breeds or strains, account shall be taken of the capacity of animals to adapt to local conditions, their vitality and their resistance to diseases. In addition, breeds or strains of animals shall be selected to avoid specific diseases or health problems associated with some breeds or strains used in intensive production, such as porcine stress syndrome, PSE Syndrome (pale-soft-exudative), sudden death, spontaneous abortion and difficult births requiring caesarean operations. Preference is to be given to indigenous breeds and strains.

9.10.2 Breeding goals should not interfere with natural animal behaviour or as little as possible. They should not include methods which make the farming system dependent on high technological inputs, use of synthetic material / substances, causing animal stress and capital intensive methods.

9.10.3 The operator shall use natural methods of reproduction. Breeding techniques to be used for natural mating with appropriate breeds shall suit local environmental and climatic conditions and natural feeds.

9.10.4 Limited artificial reproductive interventions are allowed only under problem situations.

9.10.5 No chemical or hormonal therapy should be used to improve or induce reproduction or reproductive activities, unless they are extremely required under veterinary supervision.

9.10.6 The operator shall ensure the breeding goals are such that livestock genetic diversity is maintained.

9.10.7 The operator shall endeavor to preserve and promote indigenous breeds, taking into account the following: adequate productivity in organic systems, adaptation to local circumstances, longevity, good temperament and health, quality traits of animal products and ability to reproduce naturally.

9.10.8 Breeding techniques that employ any of the activities listed below shall not be allowed:
a) Embryo transfer;
b) Cloning;
c) Genetic engineering;
d) Treatments with reproductive hormones; and
e) Semen sexing.

9.10.9 Artificial insemination shall be allowed. However, artificial insemination using segregated, separated, or otherwise modified sperm shall not be allowed.

9.10.10 Breeding stock may be brought in from conventional farms with a yearly maximum of 10 per cent of the breeder animals on the farm.

NOTE:
Exceptions of more than 10 per cent may be granted, limited to the following circumstances:

a) unforeseen severe natural or man-made events;
b) considerable enlargement of the farm;
c) establishment of a new type of animal production on the farm or a new breed is developed*;*
d) Farm holdings with less than 10 animals.

9.11 Livestock identification

9.11.1 The livestock shall be identified permanently using techniques adapted to each species, individually in the case of large mammals and individually or by batch in the case of poultry and small mammals.

9.11.2 Following methods of identification of animals shall be allowed:

a) Tattooing;
b) Ear notching;
c) Ear tagging;
d) Wing tagging; and
e) Electronic identification

9.11.3 Above these practices should be carried out at the most appropriate age and any suffering to the animals is reduced to a minimum.

9.12 Biosecurity

9.12.1 Mandatory biosecurity and quarantine procedures should be well implemented to prevent introduction of disease into the farm and/or to control its spread within the farm.

9.12.2 The farm should have a written protocol of biosecurity measures. Proper warning signage should be provided.

9.12.3 The implementation of biosecurity measures should be continuously monitored to assess the effectiveness of the program.

9.12.4 The farm should have the appropriate and functional layout and infrastructure to ensure effective implementation of the biosecurity measures.

9.13 Livestock nutrition

9.13.1 Animals shall be fed with organic feed.

NOTES :

Operators may feed a limited percentage of conventional feed under specific conditions in the following cases:

a) organic feed is of inadequate quantity or quality;
b) areas where organic agriculture is in early stages of development;
c) grazing of conventional grass or vegetation during seasonal migration.

In no such case may the percentage of conventional feed to a maximum of 15 per cent dry matter per animal on an annual basis.
Operators may feed a higher percentage of conventional feed for a limited time under specific conditions, following extreme and exceptional weather conditions or manmade or natural disasters beyond the control of the operator

9.13.2 The diet shall be balanced according to the nutritional requirements of the animals at various stages of their development.

9.13.3 In order to satisfy their nutritional requirements, livestock may have free access to mineral supplements where necessary (e.g. mineral licks, shell-grit, trace elements of mineral origin).

9.13.4 All ruminants shall have daily access to forage.

9.13.5 Poultry and pigs shall be given vegetable matter other than grain.

9.13.6 Poultry shall be fed daily. A "skip-a-day" feeding regime for breeding birds shall be prohibited.

9.13.7 Livestock of all ages shall be given clean, fresh water on demand.

9.13.8 Young stock from mammals shall be provided maternal milk or organic milk from their own species and shall be weaned only after a minimum time that takes into account the natural behavior of the relevant animal species.

9.13.9 However, in emergencies, the use of milk from conventional systems and dairy based milk substitutes are allowed, provided these do not contain antibiotics or synthetic additives.

9.13.10 More than 50 per cent of the feed may come from the farm unit itself, surrounding natural grazing areas, or be produced in co-operation with other organic farms in the region.

NOTE:
Exceptions may be permitted in regions where organic feed production is in an early stage of development or temporarily deficient, or in cases of unpredictably low crop production on the farm or in the region.

9.13.11 For the calculation of feeding allowances only, feed produced on the farm unit during the first year of organic management may be classed as organic. This refers only to feed for animals that are being produced within the farm unit. Such feed may not be sold or otherwise marketed as organic.

9.13.12 The following feed, feed additives and supplements shall be prohibited:

a) slaughter house waste and other deceased animal parts;
b) feed formulas that contain droppings, dung, manure or other animal excrements;
c) synthetic amino-acids and amino-acid isolates not listed in Appendix **E**;
d) urea and other synthetic nitrogen compounds;
e) synthetic growth promoters or stimulants;
f) genetically engineered microorganisms or products thereof;
g) synthetic and/or chemically isolated vitamins and minerals;
h) feed medications or veterinary drugs, including hormones and prophylactic antibiotics;
j) approved feed supplements or additives, used in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life;
k) feeds that are chemically extracted or defatted with prohibited substances;
m) synthetic preservatives;
n) synthetic appetite or flavor enhancers;
p) synthetic colouring agents; and
q) any other synthetic additives with functional properties, e.g. binding, anti-caking, emulsifying.

9.13.13 The diet shall be offered to the animals in a form allowing them to execute their natural feeding behavior. Forced feeding shall be prohibited.

9.13.14 Supplementation of vitamins and minerals shall be allowed for as long as these are obtained from natural sources and there is an established need for supplementation, as determined by the Certification Body.

9.13.15 However, if naturally sourced vitamins and minerals are not available in sufficient quantity or quality, synthetic sources may be used with the approval of the Certification Body.

9.13.16 Fodder preservatives such as the following should be used:
a) bacteria, fungi and enzymes;
b) natural products of food industry;
c) plant based products; and
d) vitamins and minerals subject to Clause **9.13.14**

NOTE:
Synthetic chemical feed preservatives such as acetic, formic and propionic acids are permitted in severe weather conditions.

9.14 Livestock health

9.14.1 The operator shall take all practical measures to ensure the health and well being of the animals through preventative livestock practices such as:
a) Selection of appropriate breeds or strains of animals, as specified in Clause **9.10.1**;
b) A feed ration sufficient to meet the nutritional requirements of the livestock, including vitamins, minerals, protein, fatty acids, energy sources, and fibre;
c) Housing, pasture conditions, space allowance and sanitation practices, that minimize crowding and the occurrence and spread of disease and parasites; and
d) Conditions appropriate to the species that allow for exercise, access to pasture and/or open-air runs, freedom of movement, and minimal stress;

9.14.2 Products listed in Appendix **E** Part **3**, which is intended for use in livestock health maintenance, shall be permitted only where the practices of Clause **9.14.1** are, or would be, insufficient.

9.14.3 If despite all preventative measures, an animal becomes sick or injured, that animal shall be treated promptly and adequately, if necessary in isolation and in suitable housing. Producers shall not withhold such medication where it will result in the unnecessary suffering of the animal.

9.14.4 The well-being of the animals is superior in the choice of treatment. However, treatment must not be withheld for economic reasons (for example, if the treatment jeopardizes the organic certification of the animal).

9.14.5 The use of medicinal remedies under organic management practices should comply with the following procedure:

a) In the first instance, the provision of phytotherapeutic (e.g. plant extracts/essences etc.) or aurvedic or homeopathic products (e.g. plant, animal or mineral substances);
b) If the above products are not successful or are unlikely to be effective in combating illness or injury and further treatment is essential to avoid suffering or distress to the animal, allopathic veterinary drugs or antibiotics may be used in accordance with veterinary direction.

9.14.6 Prophylactic use of any synthetic allopathic veterinary drug shall be prohibited.

9.14.7 Where specific disease or health problems occur and no alternative permissible treatment or management practice exists under this Standard, or where non permissible treatment is required by law, the following shall apply:

a) Therapeutic use of allopathic veterinary drugs or antibiotics is permitted. After such treatment, livestock cannot be sold as organic. Their products and/or progeny can be marketed as organic after a minimum management period as outlined in Table **1** of Clause **9.8.4**.
b) Livestock treated with substances not permitted in this Standard shall be identified and quarantined from other livestock for at least three times the withholding period or three weeks, whichever is the greater, specified for the treatment under relevant laws.
c) For a period of at least twelve months after quarantine, such areas shall only be used for livestock production.

9.14.8 The withdrawal period between the last administration of a restricted veterinary drug to an animal under organic management is to be twice the legal withdrawal period provided in the medical insert or, in a case in which this period is not specified, 144 hours (6 days), whichever is longer. Meat, eggs of laying hens, or milk from dairy cattle must not be sold as organic during the drug administration and withdrawal period.

9.14.9 Use of vaccines shall be permitted only in the following cases under the direct supervision of a veterinarian:

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

9.14.10 The use of the following substances shall be prohibited:

a) All steroids and other synthetic growth promoters or enhancers;
b) Substances of synthetic origin for production stimulation or suppression of natural growth; and
c) Hormones for heat and parturition induction, and heat synchronization.

9.14.11 However, such substances may be used in individual animals with reproductive disorders/conditions as prescribed by veterinarians.

9.14.12 Medication of livestock shall be recorded, with treated stock clearly identified.

9.14.13 This record shall contain details concerning all treatments, including, details of the treatment and its duration, as well as the commercial name of the product, generic name of the active ingredient(s), indications and contraindications, brand name, withdrawal period, batch number, and manufacturing and expiration date of drugs used.

9.14.14 The farm operator shall keep updated and complete records of animal health programs including disease monitoring, medicine purchased and administration and other biosafety measures.

9.15 Animal welfare

9.15.1 The operator shall ensure that the environment, the facilities, stocking density and flock/herd size provides for the behavioural needs of the animals.

9.15.2 In particular, the operator shall ensure the following animal welfare conditions:
a) sufficient space to ensure free movement and opportunity to express normal patterns of behavior, all natural postures and movements;
b) sufficient fresh air, water, feed, thermal comfort and natural daylight, to satisfy the needs of the animals;
c) access to resting areas, shelter and protection from sunlight, temperature, rain, mud and wind adequate to reduce animal stress;
d) provision of suitable materials and areas for exploratory and foraging behaviours; and
e) in addition to these general welfare conditions for all animal categories, provisions for specific animal groups also have to be taken into account.

9.15.3 The distinctive breed characteristics of animals should be respected and sustained.

9.15.4 Living conditions shall provided for the natural needs of the animal for free movement, including free ranging during daylight hours, food, water, shelter and shade.

9.15.5 Management interventions should be minimized and to prevent animal stress wherever if possible.

9.15.6 Mutilations shall be prohibited. However tail docking, teeth cutting, de-beaking, dehorning, de budding, sharp hook removing, wing banding, ringing, veterinarian surgery with the use of anaesthetic and shall not be carried out routinely in organic farming. However, some of these operations are exceptions in specific cases and should be authorized by the

Certification Body for reasons of safety or if they are intended to improve the health, welfare or hygiene of the animal.

9.15.7 Any suffering, stress or pain to the animals shall be reduced to a minimum by applying adequate anaesthesia and/or analgesia and by carrying out the operation only at the most appropriate age by qualified personnel.

9.15.8 Physical castration shall be allowed in order to maintain the quality of products and traditional production practices but only under the conditions set out in Clause **9.15.7.**

9.15.9 The use of anaesthetics shall not result in loss of organic status unless where necessary.

9.16 Livestock handling during transport and slaughter

9.16.1 Where slow-growing poultry strains are not used by the operator the following minimum age at slaughter should be:

a) 81 days for chickens;
b) 150 days for capons;
c) 49 days for peking ducks;
d) 70 days for female muscovy ducks;
e) 84 days for male muscovy ducks;
f) 92 days for mallard ducks;
g) 94 days for guinea fowl;
h) 140 days for male turkeys and roasting geese; and
j) 100 days for female turkeys.

9.16.2 Loading, transport and unloading shall be carried out so as to limit stress, suffering and injury to livestock.

9.16.3 During transportation and at the slaughterhouse, animals shall be provided adequate space, feed, water and rest. Animals shall also be protected from undue stress of temperatures, weather elements and turbulence.

9.16.4 Transport vehicles should be dedicated to the transport of organic stock and/or be cleaned before loading organic stock. Livestock that does not comply with this Standard shall be segregated from the stock that complies with this Standard.

9.16.5 Slaughterhouse journey times should not exceed eight hours.

NOTE:

When there is no certified organic slaughterhouse within eight hours travel time, an animal may be transported for a longer period if the animals are given a rest period and access to water.

9.16.6 Each animal shall be effectively stunned before being bled to death. The equipment used for stunning shall be in good working order.

NOTE:
Exceptions can be made according to religious practice. Where animals are bled without prior stunning this should take place in a calm environment. Slaughter techniques must prioritize animal welfare and aim to eliminate any stress, pain, or suffering endured by the animal.

9.16.7 Maximum comfort shall be provided during pre-slaughter period and transportation.

9.16.8 Contact of each live animal with dead animals or animals in the killing process shall be avoided.

9.16.9 Animals shall not be treated with synthetic tranquilizers or stimulants prior to or during transport.

9.16.10 The organic integrity of animals shall be maintained throughout the entire process of transport and slaughter. Each animal or group of animals shall be identifiable at each step in the transport and slaughter process.

9.16.11 Animals shall always be handled or restrained in a calm manner to protect them from fear, stress, pain, and injury. The use of electric prods and such instruments shall be restricted. However, these may be used for the worker's safety when handling aggressive animals.

9.16.12 Tools, facilities, and equipment shall be functional for efficient and effective animal management. The operators should acquire the skills and techniques to use the tools properly and appropriately.

9.16.13 Appropriate measures such as separate schedule of stocking during pre-slaughter and separate schedule or facility shall be implemented during slaughter to prevent commingling and contamination of organic with conventional animals.

9.17 Manure management

9.17.1 Animal manure produced on the operation shall be used first for forage or crop cultivation. When all available manure is used up, organic manure from other sources may be used. If organic manure is not commercially available, conventional manure is permitted.

9.17.2 All manure storage and handling facilities, including composting facilities, should be designed, constructed, and operated to prevent contamination of ground and/or surface water.

9.17.3 Manure production rates should be at levels that do not contribute to ground and/or surface water contamination. The Certification Body may establish maximum application rates for manure or stocking densities. The timing of application and application methods should not increase the potential for run-off into ponds, rivers, and streams.

9.17.4 Soil amendments including liquid manure, slurries, solid manure, raw manure, compost and other substances listed in Appendix **A**, shall be applied to land in accordance with good nutrient management practices.

9.17.5 Manure management practices used to maintain any area in which animals are housed, penned, or pastured should be implemented in a manner that:

a) minimizes soil and water degradation;
b) does not contribute to the contamination of water by nitrates and pathogenic bacteria;
c) optimizes recycling of nutrients; and
d) does not include burning or any practice inconsistent with organic practices.

9.17.6 Processing of animal manure using physical, biological or chemical treatment with substances listed in Appendix **A** shall be permitted. Loss of nutritional elements due to processing shall be minimized.

10 AQUACULTURE PRODUCTION REQUIREMENTS

10.1 Farm location

10.1.1 The farm shall not be located in prohibitive area for aquaculture production.

10.1.2 Aquatic ecosystems shall be managed to comply with relevant requirements given in Clause **6.1.4**.

10.1.3 Biodiversity should be maintained in farm by appropriate cultivation or natural vegetation.

10.1.4 In case of farm location nearby mangrove area, conservation and rehabilitation shall be planned and ensured.

10.1.5 Production units shall be located at an appropriate minimum distance from contamination sources and conventional aquaculture.

10.1.6 Operators shall take adequate measures to avoid the release of effluent and sediment into the aquatic ecosystem which are not conformed to the regulatory requirements.

10.2 Conversion to organic aquaculture

10.2.1 The conversion period of the aquaculture products shall be at least one life cycle of the organism or one year, before any products can be labelled as ‘organic’.

10.2.2 Operators shall ensure that conversion to organic aquaculture addresses environmental factors with respect to toxic substances, contaminants sediments and water quality.

10.2.3 Organic aquaculture shall be based on the rearing of young stock originating from organic brood stock and organic holding, when young stocks from organic brood stock or holding are not available nonorganically produced animals may be brought on to holding under specific conditions.

10.2.4 Breeds adapted to the local conditions shall be chosen. Natural breeding behaviours, settlements and hatching are desirable traits.

10.2.5 The husbandry practices including feeding, design of the installations, stocking densities and water quality shall ensure that the developmental, physiological and behavioural needs of the animal are met.

10.2.6 The husbandry practices shall minimize negative environmental impact from the holdings including the escape of the farmed stock.

10.2.7 Organic aquatic animals shall be kept separate from the conventional aquatic animals.

10.2.8 Personnel keeping aquatic animals shall possess the necessary knowledge and skills as regards the health and needs of the aquatic animals.

10.2.9 The conversion period for aquaculture production units shall apply for the following types of aquaculture facilities including the existing aquaculture animals:

a) for facilities that cannot be drained, cleaned and disinfected a conversion period of 24 months;
b) for facilities that have been drained or fallowed a conversion period of 12 months;
c) for facilities that have been drained, cleaned and disinfected a conversion period of 6 months; and
d) for open water facilities 3-month conversion period.

10.3 General aquaculture husbandry rules

10.3.1 The husbandry environment of the aquaculture animals shall be designed in such a way that it is in accordance with their species-specific needs.

10.3.2 The aquaculture animals shall:
a) have sufficient space for their wellbeing;
b) be kept in water of good quality with sufficient oxygen levels;
c) be kept in temperature and light conditions in accordance with the requirements of the species and having regard to the geographical location;
d) in case of freshwater the bottom type shall be as close as possible to natural conditions;
e) organic aquatic animals shall not be grown in both plastic and concrete tanks; and
f) in case of carp the bottom shall be natural earth.

10.3.3 The stocking density shall be species specific. In considering the effect of stocking density on the welfare of the farmed fish, the condition of the fish and the water quality shall be monitored.

10.3.4 The design and construction of the production systems shall provide flow rates and physiochemical parameters that safeguard animal health and welfare and provide for their behavioural needs.

10.3.5 Production systems shall be designed, located and operated to minimize the risk of escape incidents.

10.3.6 If fish or crustaceans escape, appropriate actions shall be taken to reduce the impact on the local ecosystem including recapture where appropriate. Documentary evidence shall be maintained.

10.3.7 Water quality shall be such that it limits the exposure of aquaculture products to heavy metals, chemical and undesirable microbial contaminations.

10.3.8 There shall be adequate space in enclosures for the stock to exhibit natural behaviour.

10.4 Specific rules for aquaculture containment systems

10.4.1 Closed recirculation aquaculture animal production systems facilities are prohibited with the exception of hatcheries and nurseries or production of species used for organic feed production.

10.4.2 Rearing units on land shall meet the following conditions:

a) for flow through systems it shall be possible to monitor and control the flow rate and the water quality of both inflowing and out flowing water; and
b) at least 5 % of the perimeter (land water interface) area shall be having natural vegetation.

10.4.3 Production systems shall:

a) be located where water flow, depth and water body exchanges rates are adequate to minimize the impact on the bed and the surrounding water body; and
b) have suitable cage design, construction and maintenance with regard to their exposure to the operating environment.

10.4.4 Artificial heating or cooling of water shall only be permitted in the hatcheries and nurseries, natural borehole water may be used to vary temperature of water at all stages of production.

10.5 Aquatic plants

10.5.1 Aquatic plant production shall be situated in locations that are not subject to contamination by products or substances not authorized for organic production or pollutants that would compromise the organic nature of the product.

10.5.2 Aquatic plants culture shall only utilize nutrients naturally occurring in the environment or from organic aquaculture animal production, preferably located nearby as part of polyculture system.

10.5.3 In facilities on land where external nutrients sources are used, the nutrients levels in the effluent water shall be verifiably the same or lower than the inflowing water, only nutrients of plant or animal origin shall be used.

10.5.4 Culture density or operational intensity shall maintain the integrity of the aquatic environment by ensuring that the maximum quantity of the aquatic plants which can be supported without negative effects on the environment is not exceeded.

10.5.5 Bi-fouling organisms shall be removed only by physical means or by hand and where appropriate returned to the lake or sea at distance from farm.

10.5.6 Cleaning of the equipment and facilities shall be carried out by physical or mechanical measures and permitted substances in Annex E.

10.5.7 Harvest of aquatic plants shall not disrupt the ecosystem or degrade the collection area or the surrounding aquatic and terrestrial environment.

10.5.8 Aquatic plant production shall comply with the relevant requirements of organic ecosystems and crop production specified in this Standard.

10.6 Breeds and breeding

10.6.1 Native species shall be used, and breeding shall aim to give strains which are more adapted to farming conditions, good health and good utilisation of feed resources (Documentary evidence of their origin and treatment shall be provided for the control body or control authority).

10.6.2 When organic aquatic animals are not available, for breeding purposes or genetic improvement of the stock wild caught or non-organic animals may be brought into holding, such animals shall be kept for under organic management for at least three months before they are used for breeding.

10.6.3 When organic aquaculture juvenile animals are not available for out-growing purpose non-organic aquaculture juveniles may be introduced into holding. At least the latter two thirds of the duration of the production cycle shall be maintained under organic management.

10.6.4 With regards to breeding of organic aquaculture animals the following shall not be allowed:

a) artificial induction of polyploidy.
b) artificial hybridisation;
c) cloning and
d) production of monosex strains except by hand sorting.

10.6.5 Appropriate strains shall be chosen and species-specific conditions for brood stock management breeding and juvenile production shall be established.

10.6.6 Aquatic animal production systems shall use breeds and breeding techniques suited to the region and the production method.

10.6.7 Aquatic animals should be raised organically from birth.

NOTE:
When organic aquatic animals are not available, brought-in conventional animals shall spend not less than two thirds of their life span in the organic system. When organic stock is not available, conventional sources may be used. To promote and establish the use of organic stock, the Certification Body shall set time limits for the selected use of conventional sources.

10.6.8 Breeds adapted to local conditions should be chosen with due consideration given to natural breeding behaviour, settlement and hatching.

10.6.9 Wild larvae of fish and crustacean shall be allowed for stocking when there is a passive in flow when the ponds or other aquaculture constructions are refilled.

10.6.10 Post larvae/juveniles of fish, mollusk and crustacean collected in the wild shall also be allowed for stocking and raising using organic production.

10.6.11 Polyploid and genetically engineered aquatic species shall be prohibited.

10.6.12 Breeding should reflect the natural environment as closely as possible, in terms of ambient conditions appropriate for the type of species. Eye ablation shall not be permitted for induced egg production.

10.7 Aquatic animal nutrition

10.7.1 Organic aquaculture animals shall be fed with feed that meets the animals' nutritional requirements at the various stages of development.

10.7.2 Plant fraction of the feed shall originate from organic production and feed fraction derived from aquatic animals shall originate from sustainable exploitation of fisheries.

10.7.3 In case of non-organic feed material from plant origin, feed material from animal and mineral origin, feed additives certain products used in animal nutrition and processing shall be used only if they have been authorized for use in organic production.

10.7.4 In the absence of organic feed fishmeal and fish oil from non-organic aquaculture animals' trimmings or trimmings as fish for human consumption may be used for transitional period, such feed should not exceed 30 % of the daily ration.

10.7.5 Growth promoters and synthetic amino acids shall not be used.

10.7.6 Use of water containing human excrement is prohibited.

10.7.7 The diet shall be suitable for the species and be from any of the following sources:

a) Plant and animal products produced according to this Standard; and/or
b) Phytoplankton and zooplankton grown in the organic aquaculture system; and/or
c) Nutrients contained within the water supply; and/or
d) Processed waste from different species of wild harvested marine organisms.

10.7.8 Where an operator can actively demonstrate that feed supplements satisfying in Clause **5.31.20** are unavailable, the use of feed supplements not complying with this Standard may be used provided that they are:

a) essential for the nutritional requirements of the organisms; and/or
b) not processed with prohibited products and constitute no more than 5 per cent of the feed ration.

10.7.9 Minerals and vitamins used as feed supplements shall be from a natural source.

10.8 Aquatic animal health and welfare

10.8.1 Disease shall be prevented based on keeping the animal in optimal conditions by appropriate siting, optimal design of the holdings, the application of good husbandry and management practices, including regular cleaning and disinfection of the premises, high quality feed, appropriate stocking densities and breed and strain selection.

10.8.2 Disease shall be treated immediately to avoid suffering to the animal; chemical synthesised allopathic veterinary medicinal products including antibiotics may be used where necessary and under strict conditions, when the use of phototherapeutics, homeopathic and other products is inappropriate.

10.8.3 Prophylactic use of veterinary drugs is prohibited.

10.8.4 Operators shall use natural methods and medicines, as the first choice, when treatment is necessary. Use of chemical allopathic veterinary drugs and antibiotics is prohibited for invertebrates.

10.8.5 Hormones and growth promoters are prohibited for use to artificially stimulate growth or reproduction.

10.8.6 Stocking densities shall not compromise animal welfare.

10.8.7 Operators shall routinely monitor water quality, stocking densities, health, and behaviour of each cohort (school) and manage the operation to maintain water quality, health, and natural behavior

10.8.8 The use of allopathic veterinary drugs shall not be permitted in the treatment of aquatic products. Where such a substance is required, the treated pond/tank area affected shall not be used for organic production for a minimum of 12 months. Treated species shall not be labelled as complying with this Standard.

10.9 Aquatic animal handling, transport and slaughter

10.9.1 Operators shall comply with relevant requirements of this standard.

10.9.2 The operator shall handle live organisms in ways that are compatible with their physiological requirements.

10.9.3 Operators shall implement defined measures to ensure that organic aquatic animals are provided with conditions during transportation and slaughter that meet animal specific needs and minimize the adverse effects of:

a) diminishing water quality.
b) time spent in transport.
c) stocking density.
d) toxic substances; and
e) escape.

10.9.4 Aquatic vertebrates shall be stunned before killing. Operators shall ensure that equipment used to stun animals is sufficient to remove sensate ability and/or kill the organism and is maintained and monitored.

10.9.5 Aquatic animals shall be handled, transported and slaughtered in a way that minimizes stress and suffering, and respects species specific needs.

10.9.6 Harvesting shall have minimal negative impact on other natural species.

10.9.7 Aquatic animals shall be handled, transported and slaughtered in a way that minimizes stress and suffering, and respects species-specific needs.

10.9.8 Synthetic chemical tranquillisers shall not be used.

10.9.9 Any sorting or moving of aquatic stock shall be recorded.

10.9.10 Organic and conventional aquaculture products shall be handled, stored, processed and transported in a manner which will safeguard organic integrity and traceability.

11 HANDLING PROCESSING STORAGE AND TRANSPORT REQUIREMENTS

11.1 Ingredients

11.1.1 All ingredients used in an organic processed product shall be organically produced except for those food additives and processing aids that appear in Appendix **C**.

11.1.2 The same ingredient in a single product shall not be derived from both organic and conventional origins.

11.1.3 The total weight of organic products, in the case of solids in a multi ingredient product, excluding water and salt, shall not be less than 95 per cent of the weight of the product.

11.1.4 In the case of liquids the volume of organically produced liquids in a multi ingredient product, other than salt and water, shall not be less than 95 per cent of the total volume of the product.

11.1.5 The remaining 5 per cent in weight or volume can be in the form of ingredients of those products listed in Appendix **C**.

11.1.6 Potable water and sea salt (common salt) shall be permitted for use in the processing of organic agricultural products as long as they conform to relevant Standards and are not included in the percentage calculations of organic ingredients.

11.1.7 Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used unless there's a need for supplementation or where severe dietary or nutritional deficiency can be demonstrated in the market to which the particular batch of product is destined.

11.1.8 Approved preparations of microorganisms and enzymes in food processing may be used, with the exception of genetically engineered microorganisms and their products. Cultures that are prepared or multiplied in-house shall comply with the requirements for the organic production of microorganisms.

11.1.9 Yeast shall be included in the percentage calculations of organic ingredients.

11.2 Processing methods

11.2.1 Techniques used to process organic products shall be biological, physical and mechanical in nature such as cooking, baking, curing, heating, drying, mixing, hulling, milling, grinding, pressing, churning, separating, distilling, filtering, extracting, precipitating, slaughtering, cutting, portioning, bonning, eviscerating, mincing, skinning, trimming, packaging and any other.

11.2.2 The following preservation methods shall be permitted under this Standard:

a) Chilling;
b) Freezing;
c) Fermenting;
d) Salting;
e) Sun drying or dehydration;
f) Flushing with inert gas (e.g. N_2, CO_2);
g) Canning;
h) Smoking, where materials used as the fuel source are not treated with substances that do not comply with this Standard;
j) Canning, bottling or otherwise enclosing food in a container;
k) Pasteurizing;
m) Ultra heat treatment (UHT);
n) Sterilization- High temperature short time (HTST) and Low temperature long time (LTLT); and
p) High pressure processing (HPP).

11.2.3 Any additives, processing aids, or other material that reacts chemically with organic products or modifies it shall appear in Appendix **C** and shall be used in accordance with noted restrictions.

11.2.4 Extraction shall only take place with water, ethanol, organic plant and animal oils, naturally occurring acids or bases, Carbon dioxide or Nitrogen. These shall be of food grade quality and appropriate for their purpose.

11.2.5 The final product or any of its ingredients and any food additives or processing aids, shall not have been subject to gene technology or nano technology or irradiation.

11.2.6 The handler or processor shall take all necessary measures to prevent organic products from being contaminated by pollutants and contaminants, including the cleaning, decontamination, or if necessary disinfection of facilities and equipment.

11.2.7 The handler or processor shall identify and minimize risks of pollution resulting from their activity.

11.2.8 Process should be managed following the principles of good hygienic or good manufacturing practices. This should include maintaining appropriate procedures based on identification of critical processing steps.

11.2.9 Equipment surfaces and utensils shall be of food grade quality and shall not contain nanomaterials.

11.2.10 For the purposes of consumption, natural products such as salt or water shall not be labelled as organic.

11.3 Pest control during storage, handling and processing

11.3.1 The operator of an organic processing facility should endeavour to control pests through sound management practices including but not limited to disruption, elimination of habitat and

access to facilities, management of environmental factors, such as temperature, light, humidity, atmosphere and air circulation, to prevent pest reproduction.

11.3.2 If preventive methods are inadequate, mechanical, physical and biological methods, including visual detection, sound, ultra sound, light, uv-light, traps, temperature control, controlled atmosphere (carbon dioxide, nitrogen or oxygen) and diatomaceous earth are allowed within storage areas and transport containers.

11.3.3 If the practices provided in Clause **11.3.2** are not effective to prevent or control facility pests, substance on Appendix **B** may be applied, provided that, the processor and Certifying Body agree on the substance, method of application, and measures to be taken to prevent contact with the organically produced products or ingredients.

11.3.4 The operator of an organic processing facility who applies a non-synthetic or synthetic substance to prevent or control pests shall update the processing facility's organic handling plan to reflect the use of such substance and methods of application. The updated organic handling plan shall include a list of all measures taken to prevent contact of the organic products or ingredients with the substance used.

11.3.5 Fumigation with chemicals e.g. ethylene oxide, methyl bromide, aluminium phosphide and dichlorvos shall be prohibited.

11.3.6 Vacuum packing and carbon dioxide fumigation shall be permitted.

11.4 Waste management

11.4.1 All organic processing operations shall take necessary steps to reduce solid and or liquid waste and air borne emissions from its operations.

11.4.2 All organic processing operations shall have a plan for the proper disposal and or recycling of solid and liquid wastes.

11.5 Cleaning, disinfecting and sanitizing of storage and processing facilities

11.5.1 Operators shall take all necessary precautions to protect organic products against contamination by substances prohibited in organic farming and handling, pests, disease-causing organisms, and foreign substances.

11.5.2 Disinfecting and sanitising substances that may come into contact with organic products are water and substances that are listed in Appendix **D**. In cases where these substances are ineffective and others should be used, such substances shall not come into contact with any organic products.

11.5.3 Operations that use other than the listed cleaners, sanitisers, and disinfectants on product contact surfaces shall use them in a way that does not contaminate the product. The operator shall perform an intervening event between the use of any cleaner, sanitiser, or disinfectant and the contact of organic product with that surface sufficient to prevent residual contamination of that organic product.

11.6 Storage and transport

11.6.1 Organic products shall be stored at ambient temperature. The special conditions of storage such as controlled atmosphere, cooling, freezing, drying and humidity shall be permitted.

11.6.2 Every measure shall be taken to ensure that the integrity of organic inputs, ingredients, produce and products is not compromised in transit. Physical segregation or other protection methods shall be used to avoid commingling with conventional inputs, ingredients, produce and products.

11.6.3 Where only part of the unit is certified and other products are conventional, the organic products shall be stored and handled separately to maintain their identity.

11.6.4 Bulk stores for organic product shall be separated from conventional product stores and clearly labelled to avoid commingling.

11.6.5 Storage areas and transport containers for organic produce and products should be cleaned and sanitized using methods and materials permitted in Appendix **D**.

12 SAFEGUARDING ORGANIC INTEGRITY

12.1 The operator shall monitor soil, water, air, inputs or ingredients for risks of contamination and efforts shall be made to identify potential risk and take relevant precautionary measures to avoid the contamination of organic sites and products.

12.2 Operators of organic enterprises shall inform operators of conventional areas and vacant plots that neighbor organic production areas of the risk of contamination from prohibited substances.

12.3 If there is the reasonable likelihood that an organic operation may be subject to contamination from soil, water or airborne substances that are not allowed in this Standard (such as when the production unit is located near a major source of pollution), the analysis for chemical residues and heavy metals by an accredited analytical laboratory to confirm organic integrity should be required, which cost shall have to be borne by the operator.

12.4 The operator shall set up barriers/buffer zone/buffer crop to avoid contamination that could affect the organic integrity. These may include, but are not limited to, multipurpose tree species of sufficient density and height, growing hedgerows or plant windbreaks, artificial windbreaks, runoff diversions, water filtration ponds and/or diversion systems, and open space.

12.5 Specific distances of the buffer zones/plants depend upon the risk of contamination to be addressed and agro-climatic conditions of the locality.

12.6 Buffer crops shall not be sold as organic.

12.7 Measures to mitigate contamination from irrigation water should be established if there are sources of contamination from substances not permitted in this Standard.

12.8 If contamination by water source, earth bund or drainage shall be established to prevent such contamination

12.9 Prohibited inputs shall not be kept in the organic farm. Organic and chemical inputs storage areas shall be clearly separated.

12.10 Having identified wastes and pollutants, a plan should be developed and implemented to avoid or reduce wastage and pollution by recycling the waste. Non-recyclable wastes such as batteries, foils, plastics, scrap metal, paper and others shall be properly disposed to avoid contaminating the organic farm.

12.11 Whenever possible, land filling or burning should be avoided

12.12 Farm tools, machines and equipments shall be used exclusively in organic farms and processing units. In cases that these are not dedicated for organic production and processing, these shall be thoroughly cleaned before they are used in organic production and processing.

12.13 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 minimized.

12.14 An identification system shall be implemented to designate the status of the product or produce as organic or conventional at all stages from receival to point of sale.

12.15 Operators shall handle, store, process, transport, display and sale organic produce and products separately in terms of both time and if possible the area from where conventional produce and products are never commingled.

12.16 Handlers and processors shall be adequately identified and avoid pollution and potential sources of contamination by contact with conventional products through the entire process.

13 TRACEABILITY AND RECORD KEEPING

13.1 The operators shall establish a sound traceability system and maintain traceable detailed records of the whole production process and a traceable production batch number system.

13.2 The operator shall maintain up-to-date records of inputs and details of their use, all operational activities and transactions, management actions and outputs which are appropriate for the scale of production or processing and the ability of the operator.

13.3 Records and documents shall make it possible to trace:

a) the origin, nature and quantity of organic produce or products that have been delivered to the production unit or operation;
b) the nature, quantity and consignees of products that have left the production unit;
c) any other information for the purposes of verification, such as the origin, nature and quantity of ingredients, additives and processing aids delivered to the unit, and the composition of processed products; and
d) activities or processes that demonstrate compliance with this Standard.

13.4 The operators shall keep records in accordance with this Standards on the different activities they engage in.

13.5 The records shall be accessible and audited.

13.6 All records (including those related to use of subcontractors) shall be maintained for at least six months and retained for a period not less than 5 years unless stipulated by any specific legislation.

13.7 Internal audit

13.7.1 Internal audit shall be carried out for internal control system in the entire value chain of the process once a year based on the requirements of this Standard. It shall be completed and documented. Corrective actions need to be implemented and documented.

14 SOCIAL JUSTICE

14.1 The Certification Body shall not certify production that is based on cases of clear social injustice or that involve any violations of basic human rights.

14.2 Children under the age of 14 shall not be employed.

NOTE:
Children are allowed to experience work on their family's farm or business or a neighboring farm provided that:

a) such work is not dangerous or hazardous to their health and safety;
b) it does not jeopardize the child's educational, moral, social, mental, spiritual and physical development;
c) *children are supervised by adults or have authorization from a legal guardian.*

14.3 Employees shall have equal opportunities, treatment and equal wages when performing the same level of work, regardless of colour, sex, religion, race, political opinion, nationality, extraction or origin.

14.4 The operator shall provide adequate health and safety measures for employees, casual workers and contractors to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimizing, so far as is reasonably practical, the causes of hazards inherent in the working environment.

14.5 Operators shall not violate indigenous land rights.

14.6 Operators shall not use forced or involuntary labor or apply any pressure such as retaining part of the workers' wages, property or documents.

14.7 Employees shall have the freedom to associate, the right to organize, and the right to bargain collectively.

14.8 Operators shall have a disciplinary procedure with a system of warning before any suspension or dismissal. Workers dismissed shall be given full details of reasons for dismissal.

14.9 Employees shall be granted the right to take at least one day off after six consecutive days of work. Operators shall not require workers to work more than the contracted hours and the national or regional sectorial legislation. Overtime shall be remunerated in the form of supplementary payments or time off in lieu.

14.10 Operators shall never require an employee to work who is ill or requiring medical attention and shall not sanction an employee for the sole fact of missing work due to illness.

14.11 Operators shall pay employees wages and benefits that meet legal minimum requirements of the operation's jurisdiction or, in the absence of this minimum, the sectorial benchmark.

14.12 Operators shall provide written terms and conditions of employment to both permanent and temporary employees, in a language and presentation understandable to the worker. The terms and conditions must specify at least:

a) wages;
b) frequency and method of payment;
c) location, type and hours of work;
d) recognition of workers' freedom of association;
e) disciplinary procedure;
f) health and safety procedure;
g) eligibility and terms of overtime, holiday pay, sickness benefit and other benefits such as maternity and paternity leave; and
h) worker's right to terminate employment.

14.13 Operators shall ensure that the workers understand the terms of their employment contract. Operators shall respect the terms of the contract in good faith, including timely payment of wages.

NOTE:
In cases where:
- the operator is unable to write, or
- workers are hired for periods of less than 6 days, or
- emergency labor is needed to address unpredictable problems
oral mutual agreements on the terms and conditions of employment are sufficient.

14.14 Operators shall ensure adequate access to potable water.

14.15 Operators shall provide appropriate safety training and equipment to protect workers from noise, dust, sunlight and exposure to chemicals or other hazards in all production and processing operations.

14.16 Operators shall provide residential employees with habitable housing and access to potable water; to sanitary and cooking facilities and to basic medical care. If families reside on the operation, the operator shall also enable access to basic medical care for family members and to school for children.

14.17 Operators shall comply with minimum national social requirements in the countries of operation.

14.18 Operators with more than 10 employees must have a written employment policy and maintain records to demonstrate full compliance with the requirements of this section. Workers will have access to their own files.

14.19 Requirements in Clause **9** apply equally to all workers on the operation regardless of how they are employed, except for subcontractors performing non-production core business functions such as plumbing, machine repair, or electrical work.

15 PACKAGING REQUIREMENTS

15.1 Operators shall not use packaging material that may contaminate organic produce or products. This includes reused bags or containers that have been in contact with any substance likely to compromise the organic integrity.

15.2 Operators shall demonstrate efforts to minimize packaging and/or choose packaging materials with minimum environmental impact. The total environmental impact of production, use and disposal of packaging shall be considered.

15.3 All material used for wrapping or packaging of organic produce and products shall conform to food grade.

15.4 Packaging materials, storage containers or bins that contain a synthetic fungicide, preservative, fumigant or nanomaterials shall be prohibited.

15.5 Organic produce and product shall be packed in reusable, recycled, recyclable and/or biodegradable material.

15.6 Packaging shall be clean, and if reused, be rendered as new through sterilization and sanitation processes as listed in Appendix **D**.

15.7 All identifying marks of the previous user (including operator details and organic status of the product) shall be removed prior to re-use.

15.8 In the case of printed packaging material**,** printing ink shall not come into direct contact with and penetrate into the product.

16 MARKING AND/OR LABELLING REQUIREMENTS

16.1 Produce or products that have been certified as conforming to this Standard shall be marked or labelled in accordance with national regulatory requirements.

16.2 Organically produced products shall be labelled as Organic "කාබනික" and "**සේතන**. In the case of prepacked product, words Organic "කාබනික" and "**සේතන**, the National Organic Logo, the operator's or clusters of farmer's registration number and code number of the control authority or control body certifying the product shall appear on the packaging. In any case, the reference to "organic" and the code number of the control authority or control body certifying the product registered body shall appear on all documents accompanying the organic product.

16.3 Mixed products where not all ingredients, including additives, are of organic origin but are entirely in compliance with this Standard, shall be labeled in the following way keeping in mind that percentages in this section refer to raw material weight:

a) Where a minimum of 95 per cent of the ingredients are of certified organic origin, products may be labeled “Certified Organic" or equivalent and should carry the certification mark of the Certification Body;

b) Where less than 95 per cent but not less than 70 per cent of the ingredients are of certified organic origin, products may not be labeled "organic", but phrases such as “made with organic ingredients” can be used, provided the proportion of organic ingredients is clearly stated. An indication that the Certification Body assures the product may be used, close to the indication of proportion of organic ingredients;

c) Where less than 70 per cent of the ingredients are of certified organic origin, the product may not be labeled "organic ", nor bear phrases such as “made with organic ingredients” on the package front, nor bear any Certification Body seal, national logo, or other identifying mark which represents organic certification of a product or product ingredients, but individual ingredients may be called “Organic” in the ingredients list.

16.4 All ingredients of a multi ingredient product shall be listed in the descending order of weight percentages. The weight percentage shall be indicated against the ingredient. It shall be apparent which ingredients are of organic, certified origin and conventional.

16.5 A multi ingredient product containing both certified organic agricultural and certified wild/natural origin may be labeled as organic.

16.6 Multi component products, live or unprocessed (such as vegetable boxes) may be sold or marketed as organic only if all the components are organic.

16.7 Organic products shall not be labelled as GMOs free in the context of this Standard.

16.8 In the case of wild picked, collected or harvested products, it shall be marked or labeled “wild”.

16.9 Natural products such as minerals, salt or water shall not be collected or harvested or processed and labeled as organic.

16.10 Labelling of product in conversion to organic

16.10.1 The label for in-conversion produce or products shall be clearly distinguishable from the label for organic produce or products.

16.10.2 Products of farms in transition to organic production methods may only be labelled as “in conversion to organic” only from second year of conversion and shall appear in a colour, size and style of lettering which is not more prominent than the sales description of the product.

16.10.3 “In-conversion” ingredients may be used in multi-ingredient feed. However the ingredient list must identify their status and the total percentages of “in-conversion”, organic and non-organic ingredients on a dry matter basis.

16.10.4 The following shall be marked or labelled legibly and indelibly on each package/container to cover organic and general labelling requirements:

a) Name of produce or product;
b) Name and address of the farmer or supplier or manufacturer or packer or distributor;
c) Certification status (organic or in-conversion)
d) Organic certification number and mark
e) Batch number or code number or a decipherable code marking;
f) Net content, in milliliters, liters, grams or kilograms;
g) Complete list of ingredients, in descending order of their proportions;
h) Name and INS number of food additives;
j) Date of Manufacture/Harvest;
k) Date of expiry; and
m) Storage condition.

17 MARKETING REQUIREMENTS

17.1 Operators shall ensure the produce or product are received, stored, handled, transported, displayed and sold in a manner that maintains the organic status of the produce or product in accordance with this Standard.

17.2 Cleaning and sanitizing of equipment and areas used for marketing of organic produce or product shall be carried out in accordance with Appendix **D**.

17.3 The training of staff to ensure the status of organic or in-conversion produce or product is maintained from product received to point of sale including appropriate handling practices for organic, in-conversion and conventional produce or product and a basic knowledge of organic procedures and practices.

APPENDIX A
PERMITTED SUBSTANCES FOR SOIL CONDITIONING AND CROP NUTRITION

SUBSTANCES DESCRIPTION, COMPOSITIONAL REQUIREMENTS	CONDITIONS FOR USE
I. PLANT AND ANIMAL ORIGIN	
Farmyard manure	Products comprising a mixture of animal excrement and animal bedding (crop residues) shall not be from factory farm manure
Composted animal manure, including poultry manure and composted farmyard manure included	shall not be from factory farm manure
Liquid animal excrements (slurry, urine etc.,)	Use after controlled fermentation and/or appropriate dilution shall not be from factory farm manure
Compost made from ingredients listed in this Appendix	
Commercial compost	Should be produced in accordance with SLS 1684 or recognised equivalent system

Liquid organic fertilizers, made from ingredients listed in this Appendix	
Commercial Liquid organic fertilizer	Should be produced in accordance with SLS 1702 or recognised equivalent system
Household wastes	Products obtained from source separated household waste, which are monitored for contamination and submitted to composting or to anaerobic fermentation for biogas production
Biogas digestate containing animal by-products co-digested with material of plant or animal origin as listed in this Appendix.	Not to be applied to edible parts of the crop
Mushroom culture wastes	The initial composition of the substrate must be limited to products of this Annex
Worm castings and vermiwash	Local earth worms
Vermicompost	
Commercial Vermicompost	Should be produced in accordance with **SLS 1798** or recognised equivalent system
Products or by-products of animal origin as Blood meal, meat meal, bone, bone meal, Hoof and horn meal, feather meal, shell products, wool, hide, fur, hair, dairy products, hydrolysed proteins	Origin of materials shall be disease-free
Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles	Without synthetic additives
Products and by-products of plant origin e.g. cover crops, green manures, crop residues, mulch, crop wastes, straw, by-products of oilseed, brewery, distillery, sugar, tea, coffee, cinnamon, cocoa, paddy husk, coconut husk	Composted before bringing onto organic land and confirmed free of significant contaminants
Wood, bark, sawdust, wood chips, wood shavings, wood charcoal, coir pith	Has not been treated with paint or prohibited substances.
Ash	Ash shall be from plant and animal sources. Ash from burning minerals, manure, coloured paper, plastics or other synthetic substances shall be prohibited. have not been treated with or combined with prohibited substances.
Agar	For use in initial mushroom spawn production.
Aquatic plants including seaweed, seaweed products, algae and by products of aquatic plants	As far as obtained by: (i) physical processes including dehydration, freezing and grinding; (ii) extraction

	with water or potassium hydroxide solutions or sodium hydroxide, provided that the minimum amount of solvent necessary is used for extraction; (iii) fermentation. Shall not contain synthetic preservatives, such as formaldehyde.
Peat	Excluding synthetic additives; Use limited to horticulture (floriculture, nursery plants, potting mixes).
Plant preparations and extracts	Collection of material of local origin and approval of the relevant national authority for commercial products.
Chitin (Polysaccharide obtained from the shell of crustaceans)	Only if obtained from sustainable fisheries or organic aquaculture
Naturally occurring biological organisms	Includes worms and their products.
II. MINERAL ORIGIN	
Calcareous and magnesium amendments:	From natural sources only. Use of Epsom salt supplied as a by-product prohibited.
Calcium carbonate, Limestone, gypsum (calcium sulphate), dolomite, lime, chalk,	
calcium chloride,	
Magnesium rock, kieserite and Epsom salt (magnesium sulfate)	
Other non-synthetic calcareous and magnesium amendments	
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	
Mineral potassium (e.g. sulfate of potash, muriate of potash, kainite, sylvanite, patenkali)	Shall be obtained by physical procedures but not enriched by chemical processes
Natural phosphates	Eppawala rock phosphate only. Imported rock phosphates not permitted.
Phosphates in non-synthetic form (e.g. rock phosphate, colloidal phosphate, apatite)	Shall not be fortified or processed with synthetic chemicals. Cadmium shall not exceed 90 mg/kg of P_2O_5
Pulverized rock, stone meal, crushed stone.	
Sodium chloride	Sea salt only
Sulfur	Chemical treatment shall be prohibited.

Trace elements, e.g.: boric acid, sodium borate, calcium borate, borethanolamin, cobalt acetate, cobalt sulphate, copper oxide, copper hydroxide, copper sulfate, copper oxysulphate, copper silicate, copper carbonate, copper citrate ferric oxide, ferric sulfate, ferrous sulfate, iron citrate, iron sulfate, iron tartrate manganous oxide, manganese sulfate, manganese carbonate, Molybdenum, sodiummolybdate, molybdic oxide selenic acid, selenous acid, zinc carbonate, zinc oxide, zinc silicate, and zinc sulfate	Use restricted to cases where soil/plant nutrient deficiency is documented by soil or tissue testing or diagnosed by an independent expert. Micronutrients in either chloride or nitrate forms shall be prohibited. Micronutrients may not be used as a defoliant, herbicide, or desiccant.
III. MICROBIOLOGICAL	
Biodegradable processing by-products of microbial origin	
Microbiological preparations based on naturally occurring organisms	
Biofertilizers	
Commercial Biofertilizers	Should be produced in accordance with **SLS 1777** or recognised equivalent system
IV. OTHERS	
Biodynamic preparations	
Calcium lignosulfonate	
Phosphoric acid	Approved to reduce pH value of preparations / preservation of liquid organic fertilizers

APPENDIX B
PERMITTED SUBSTANCES FOR CROP PROTECTANTS, GROWTH REGULATORS AND SEED TREATMENT

SUBSTANCES DESCRIPTION, COMPOSITIONAL REQUIREMENTS	**CONDITIONS FOR USE**
I. PLANT AND ANIMAL ORIGIN	
Algal preparations	As far as obtained by: (i) physical processes including dehydration, freezing and grinding; (ii) extraction with water or potassium hydroxide solutions, provided that the minimum amount of solvent

	necessary is used for extraction; (iii) fermentation. Shall not contain synthetic preservatives, such as formaldehyde.
Animal preparations and oils	
Beeswax	Only as pruning agent/wound protectant.
Oil cakes (Neem, coconut, rubber, karang poonac)	
Coffee grounds	
Corn gluten meal	
Dairy products (e.g. milk, casein)	
Gelatin	
Lecithin	
Natural acids (e.g. vinegar)	
Neem (*Azadirachta indica*)	
Plant oils (cinnamon, castor, coconut, citronella)	
Plant extracts and preparations	Extraction with synthetic solvents is prohibited except with, in order of preference: a) potassium hydroxide; b) or sodium hydroxide; provided the amount of solvent used does not exceed the amount necessary for extraction.
Plant based repellents	Shall be derived from a non-synthetic source, such as sterilized blood meal, rotten eggs, hair or predator scents. Shall not contain synthetic additives.
Pyrethrum (*Chrysanthemum cinerariaefolium*)	The synergist Piperonyl butoxide is prohibited.
Quassia (*Quassia amara*)	
Rotenone (*Derris elliptica*, *Lonchocarpus* spp. *Tephrosia* spp.)	Not near waterways. Subject to approval by the Certification Body
Ryania (*Ryania speciosa*)	
Seaweed, seaweed meal, seaweed extracts	
Wood ash	only if not chemically treated
Pesticidal plant (Artimisia ,Vetiver, Tithonia, Sapodilla, Marigold, Adathoda)	
II. MINERAL ORIGIN	
Chloride of lime (calcium chloride)	
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	
Borate, Boric acid	.

Copper salts (e.g. sulfate, hydroxide, oxychloride, octanoate, cuprous oxide, Bordeaux mixture)	Maximum of 6 kg Cu/ha per year
Diatomaceous earth	Limited for filtration
Light mineral oils (paraffin)	
Lime sulfur (Calcium polysulfide)	
Magnesium chloride	Non-synthetic sources.
Iron phosphates	As molluscicide
Potassium bicarbonate	
Calcium hydroxide (hydrated lime)	For application on aerial plant parts only
Silicates (e.g. sodium silicates, quartz)	
Sodium bicarbonate	
Sulfur	Permitted for foliar use only as an insecticide and fungicide. Direct application to soils discouraged. Post harvest treatment with Sulphur prohibited.
Mineral powders (stone meal, silicates)	
Ammonium carbonate	As an attractant in insect traps.
III. MICROORGANISMS	
Fungal preparations (e.g. spinosad)	Biological organisms (living, dead or as extracts), such as viruses, bacteria, protozoa, fungi, insects and nematodes.
Bacterial preparations (e.g. *Bacillus thuringiensis*)	
Release of parasites, predators and sterilized insects	
Viral preparations (e.g. *granulosis* virus)	
Biopesticide	
Commercial Biopesticide	Should be produced in accordance with DSLS…. or recognised equivalent system
IV. OTHERS	
Biodynamic preparations	
Ascorbic acid (vitamin C), citric acid	Non-synthetic sources.
Carbon dioxide	Shall not be the result of burning fuel solely to produce carbon dioxide; allowed only as a by-product of other processes.
Nitrogen, Oxygen	
Calcium hydroxide	
Ethyl alcohol	
Ethylene	Degreening of bananas. For fruit fly control in citrus and as an agent to control flowering in pineapples. Sprouting inhibition in potatoes and onions.
Homeopathic and Ayurvedic preparations	
Iron phosphates (for use as molluscicide)	

Seasalt and salty water	
Potassium soap (soft soap)	
Sulphur dioxide	
Growth regulators for plants	Non-synthetic plant hormones, such as gibberellic acid, indoleacetic acid and cytokinins, with approval.
V. TRAPS, BARRIERS, REPELLENTS	
Physical methods (e.g. chromatic traps, mechanical traps)	
Mulches, nets	
Mineral oils	
Pheromones	only in traps and dispensers

APPENDIX C
PERMITTED ADDITIVES, PROCESSING AND POST-HARVEST HANDLING AIDS

Substances of certified organic origin must be used if commercially available. If organic sources are not available, natural sources must be used if commercially available. Only if organic and natural sources are not available, synthetic forms of the substances below may be used.

INTERNATIONAL NUMBERING SYSTEM	**PRODUCT**	**ADDITIVE**	**PROCESSING & POST HARVEST HANDLING AID**	**CONDITIONS FOR USE**
E 170	Calcium carbonate	X	X	Not for coloring
E 184	Tannic acid		X	Filtration aid for wine
E 220	Sulfur dioxide	X		Only for wine
E 224	Potassium metabisulphite	X		Only for wine
E 250 or	Sodium nitrite	X		For meat products this can only be used, if it has been demonstrated to the satisfaction of the Certification Body that no technological alternative, giving the same guarantees and/or allowing to maintain the specific features of the product, is available
E 252	Potassium nitrate	X		
E 270	Lactic acid	X	X	
E 290	Carbon dioxide	X	X	
E 296	L-malic acid	X	X	

E 300	Ascorbic acid	X		
E 301	Sodium ascorbate	X		For meat products in connection with nitrates and nitrites
E 306	Tocopherols - rich extract	X		Anti-oxidant
E 322	Lecithin	X	X	Obtained without bleaches
E 325	Sodium lactate	X		Milk-based and meat products
E 330	Citric acid	X	X	
E 331	Sodium citrates	X		
E 332	Potassium citrates	X		
E 333	Calcium citrates	X		
E 334	Tartaric acid	X	X	Only for wine
E 335	Sodium tartrate	X	X	
E 336	Potassium tartrate	X	X	
E 341	Mono calcium phosphate	X		Only for “raising flour”
E 342	Ammonium phosphate	X		Restricted to 0.3 gm/l in wine
E 400	Alginic acid	X		
E 401	Sodium alginate	X		
E 402	Potassium alginate	X		
E 406	Agar	X		
E 407	Carrageenan	X		
E 410	Locust bean gum	X		
E 412	Guar gum	X		
E 413	Tragacanth gum	X		
E 414	Arabic gum	X		
E 415	Xanthan gum	X		
E 428	Gelatin		X	
E 440	Pectin	X		Unmodified
E 500	Sodium carbonates	X	X	
E 501	Potassium carbonates	X	X	
E 503	Ammonium carbonates	X		Only for cereal products, confectionery, cakes and biscuits
E 504	Magnesium carbonates	X		
E 508	Potassium chloride	X		
E 509	Calcium chloride	X	X	
E 511	Magnesium chloride	X	X	Only for soybean products
E 513	Sulfuric acid	X	X	As processing aid for pH adjustment of water during sugar processing.

				As additive for wine and apple cider production
E 516	Calcium sulfate	X		For soybean products, confectionery and in bakers' yeast
E 517	Ammonium sulfate	X		Only for wine, restricted to 0.3 mg/l
E 524	Sodium hydroxide	X	X	For sugar processing and for the surface treatment of traditional bakery products
E 526	Calcium hydroxide	X	X	Food additive for maize tortilla flour Processing aid for sugar
E 551	Silicon dioxide (amorphous)		X	
E 553	Talc		X	
E 558	Bentonite		X	Only for fruit and vegetable products
E 901	Beeswax		X	
E 903	Carnauba wax		X	
E 938	Argon	X		
E 941	Nitrogen	X	X	
E 948	Oxygen	X	X	
	Ethylene		X	De-greening of citrus and ripening
	Activated carbon		X	
	Casein		X	Only for wine
	Cellulose		X	
	Diatomaceous earth		X	
	Ethanol		X	
	Isinglass		X	Only for wine
	Kaolin		X	
	Perlite		X	
	Plant and animal oils		X	For extraction only
	Preparations of bark		X	Only for sugar

NOTE:
"X" means can be used as additives and/or processing and post-harvest handling aids

Flavoring Agents

Operators may use;

a) organic flavoring extracts (including volatile oils), and, if not available,

b) natural flavoring preparations approved by the Certification Body. Such approval shall include assessment that natural flavors shall meet the following criteria:
   I. the sources are plant, animal or mineral;
   II. the process of production is in accordance with a recognized organic standard;
   III. produced by means of solvents such as vegetal oils, water, ethanol, carbon dioxide and mechanical and physical processes.

Preparations of Microorganisms and Enzymes for use in food processing

These may be used as ingredient or processing aids with approval from the Certification Body:

I. Organic certified microorganisms
II. Preparations of microorganisms
III. Enzymes and enzyme preparations

APPENDIX D
PERMITTED EQUIPMENT CLEANSERS, SANITIZERS AND DISINFECTANTS

PRODUCT	LIMITATION/NOTE
Acetic acid	Non-synthetic sources are permitted
Alcohol, ethyl (ethanol)	
Alcohol, isopropyl (isopropanol)	
Ascorbic acid	
Calcium hydroxide (slaked lime)	
Chlorine compounds	The following chlorine compounds are permitted: a) calcium hypochlorite; b) chlorine dioxide; c) sodium hypochlorite. Shall not exceed maximum levels for safe drinking water.
Calcium oxide (quicklime)	
Chloride of lime (calcium oxychloride, calcium chloride, and calcium hydroxide)	
Chlorine dioxide	
Citric acid	
Formic acid	
Hydrogen peroxide	
Glycerol (glycerine, glycerin)	Shall be: a) sourced from vegetable or animal fats and/or oils; b) produced using fermentation or by hydrolysis.
Lactic acid	
Natural essences of plants	
Oxalic acid	
Ozone	
Peracetic (peroxyacetic) acid	

Iodine	Shall be non-elemental. Shall not exceed 5 per cent solution by volume
Phosphoric acid	Only for dairy equipment
Nitric acid	
Plant extracts	
Potassium bicarbonate	
Sodium carbonate (soda ash), Sodium bicarbonate (baking soda), Sodium citrate	
Sodium hydroxide (caustic soda)	
Sodium hypochlorite	
Sodium soap	
Vinegar	
Ash	
Salt water	

APPENDIX E
PERMITTED SUBSTANCES AND MATERIALS FOR LIVESTOCK PRODUCTION

Part 1: Permitted feed additives and feed supplements

Substance	Conditions for use
Antioxidants	Non-synthetic sources.
Diatomaceous earth	Approved as an anti-caking agent in feed to a maximum of 2 per cent of the total diet.
Energy feeds and forage concentrates (grains) and roughages (hay, silage, fodder, straw)	Shall be obtained from organic sources. May include silage preservation products.
Enzymes	Non-synthetic enzymes are permitted, including bromelain, catalase - bovine liver, ficin, animal lipase, malt, pancreatin, pepsin, trypsin, proteases and carbohydrases. Animal-derived enzymes shall be guaranteed free of specified risk materials.
Hay or silage preservation products	Preference should be given to bacterial or enzymatic additives derived from bacteria, fungi and plants and food by-products (such as molasses and whey).
Microorganisms and yeasts	If organic sources of yeast are not commercially available, non-synthetic yeast sources, including yeast autolysate, shall be used.
Milk replacer	Shall be organic if commercially available. Permitted for emergency use. Without antibiotics and animal fats or by-products.

Minerals, trace minerals, elements	Non-synthetic chelated or sulphated minerals such as Calcareous marine shells, Maerl, Lithotamn, Calcium gluconate, Calcium carbonate, calcium choride, Defluorinated monocalciumphosphate, Defluorinated dicalciumphosphate, Magnesium oxide (anhydrous magnesia), Magnesium sulphate, Magnesium chloride, Magnesium carbonate, Calcium magnesium phosphate, Magnesium phosphate, Monosodium phosphate, Calcium sodium phosphate, Sodium chloride, Sodium bicarbonate, Sodium carbonate, Sodium sulphate, Potassium chloride, ferrous (II) carbonate, ferrous (II) sulphate, monohydrate ferric (III) oxide, calcium iodate, anhydrous calcium iodate, hexahydrate potassium iodide, cobaltous (II) sulphate, monohydrate and/or heptahydrate basic cobaltous (II) carbonate, monohydrate, copper (II) oxide, basic copper (II) carbonate, monohydrate copper (II) sulphate, pentahydrate, zinc carbonate, zinc oxide, zinc sulphate mono- and/or heptahydrate, ammonium molybdate, sodium molybdate, sodium selenate, sodium selenite Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available.
Molasses	Shall be organic.
Pre-mixes	Concentrated mixture of minerals and vitamins. From organic sources if commercially available
Preservatives	only natural acids are allowed such as Sorbic acid, Formic acid, Sodium formate, Acetic acid, Lactic acid, Propionic acid, Citric acid
Probiotics	Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
Protein feeds	Shall be from organic sources.
Seaweed meal	
Vitamins	Permitted for enrichment or fortification. Preferably derived from raw materials occurring naturally in feeding stuffs. Synthetic vitamins identical to natural vitamins only for non-ruminant animals.

Part 2: SUBSTANCES FOR PEST AND DISEASE CONTROL AND DISINFECTION IN LIVESTOCK HOUSING AND EQUIPMENT

PRODUCT
Alkali carbonates
Calcium oxide (lime, quicklime)
Caustic potash (potassium hydroxide)
Caustic soda (sodium hydroxide)
Citric, peracetic acid, formic, lactic, oxalic and acetic acid
Cleaning and disinfection products for teats and milking facilities
Ethanol
Honey
Hydrogen peroxide

Iodine
Isopropanol
Milk of lime (=slack lime, cal, pickinglime, hydrated lime, slaked lime) = calcium hydroxide
Natural essences of plants
Nitric acid (dairy equipment)
Plant oils
Phosphoric acid (dairy equipment)
Potassium and sodium soap
Sodium carbonate
Sodium hypochlorite (e.g. as liquid bleach)
Water and steam

Part 3: Veterinary Medicines

Restricted Medications
Restricted veterinary medicines are defined as those whose use involves a withholding period which is double of the medical insert or 24 hours, whichever is longer and of which record keeping is required.

Unrestricted Medicines

Substance	Conditions for use
Acetylsalicylic acid	Aspirin.
Acids for water treatments	Non-synthetic acids may be used on farm to neutralize the pH of livestock drinking water.
Activated charcoal	Shall be of plant origin.
Alcohol, ethyl (ethanol)	Permitted as a disinfectant and sanitizer.
Alcohol, isopropyl	Permitted as a disinfectant.
Anti-inflammatories	Such as ketoprofen. Preference shall be given to non-synthetic alternatives. To reduce inflammation.
Biologics, including vaccines	
Botanical compounds	Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants shall be used according to label specifications.
Calcium borogluconate	For milk fever. No withdrawal period required.
Chlorohexidine	For surgical procedures conducted by a veterinarian. To be used as a post-milking teat dip when alternative germicidal agents and physical barriers have lost their effectiveness.
Colostral whey	Probiotic.
Colostrum	Shall be organic if commercially available.
Copper sulphate	As an essential nutrient (source of copper and sulphur) and for topical use (foot baths).

Diatomaceous earth	For use in control of external parasites.
Electrolytes	Including, but not limited to: CMPK (Calcium, Magnesium, Phosphorus, Potassium), calcium propionate and calcium sulphate. Shall not contain antibiotics.
Glucose	
Glycerol (glycerine, glycerin)	Shall be from organic sources if commercially available. Shall be from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
Homeopathy and biotherapies	From natural sources is permitted, as is acupuncture.
Honey	Shall be organic.
Hydrogen peroxide	Pharmaceutical grade hydrogen peroxide is permitted for external use (disinfectant). Food-grade hydrogen peroxide is permitted for internal use (for example, added to livestock drinking water).
Iodine	If used as a topical disinfectant: permitted iodine sources include potassium iodide and elemental iodine. If used as a cleaning agent: non-elemental iodine shall be used; iodine shall not exceed 5 per cent solution by volume (example: iodophors). Use shall be followed by a hot- water rinse.
Iron products	May be supplied by ferric phosphate, ferric pyrophosphate, ferrous lactate, ferrous sulphate, iron carbonate, iron gluconate, iron oxide, iron phosphate, iron sulphate or reduced iron.
Lime, hydrated	Shall not be used to deodorize animal wastes.
Local anesthetics	Such as lidocaine. Preference shall be given to non-synthetic alternatives. Use shall be followed by withdrawal periods of 90 days for livestock intended for slaughter, and seven days for dairy animals.
Magnesium sulphate	Mined sources. A source of magnesium and sulphur.
Mineral oil	For external use.
Minerals, trace minerals, elements	Non-synthetic chelated or sulphated minerals. Examples include oyster shell, calcium choride and magnesium oxide. Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available. Minerals from any source are permitted for medical use.
Microorganisms and yeasts	If organic sources of yeast are not commercially available, non-synthetic yeast sources, including yeast autolysate, shall be used.
Oxalic acid	For mite control in honeybee colonies.
Oxytocin	For post-parturition therapeutic use. Meat from treated animals will not lose its organic status.
Physical teat seals	Synthetic and non-synthetic ingredients are permitted. Shall be free from antibiotics. For post-lactation use. Shall be completely removed prior to nursing or milking. Shall be prescribed and administered under veterinary supervision.
Plant oils	To control external parasites.

Prebiotics	From organic sources if commercially available.
Probiotics	Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
Sedatives	Such as xylazine.
Selenium products	Derived from sodium selenate or sodium selenite. May be used to address documented deficiencies in the stock, soils or feed supplies.
Sodium hydroxide	For use in dehorning paste.
Sulphur	For control of external parasites.
Vitamins	All non synthetic. Orally, topically or by injection.

Annex A
(informative)
Principles of organic agriculture

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.1 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.

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.2 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.3 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.4 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.