

# COrAA Standards for Organic Production

---



Cambodian Organic Agriculture Association (COrAA)

#9AB, St. 446, Sangkat Toul Tompong 1, Khan Chamkarmon, Phnom Penh

■ Tel: 023 500 2565/085 886 139 ■ Email: [info@coraa-cambodia.org](mailto:info@coraa-cambodia.org) ■ Website: [coraa-cambodia.org](http://coraa-cambodia.org)



## Table of Contents

Appendixes .....	3
<b>1. Introduction .....</b>	<b>4</b>
1.1. Standards for Organic Crop Production in Cambodia .....	4
1.2. Scope and Objectives .....	5
1.3. Organic Farming and Sustainability .....	7
1.4. Normative Reference.....	4
1.5. Terms and Definitions .....	8
1.6. Acronyms.....	13
<b>2. General Requirements for Organic Crop Production .....</b>	<b>14</b>
2.1. Conversion/Transition.....	14
2.2. Maintenance of Organic Management.....	14
2.3. Split Production and Parallel Production.....	15
2.4. Avoiding Contamination .....	15
2.5. Land, Soil Fertility and Water Management .....	17
2.6. Choice of Crop and Varieties.....	19
2.7. Ecosystem Management and Diversity in Crop Production .....	20
2.8. Pest, Disease, Weed and Growth Management .....	21
<b>3. Requirements for Post-Harvest, Handling, Storage, Transport, Processing and Packaging .....</b>	<b>23</b>
3.1. Post-Harvest; Processing and Handling Management .....	23
3.2. Ingredients.....	24
3.3. Processing Methods.....	25
3.4. Packaging.....	25
3.5. Pest Control .....	26
3.6. Cleaning, Disinfecting and Sanitizing of Food Processing Facility.....	27
3.7. Storage and Transport.....	28
<b>4. Requirements for Labeling and Claims .....</b>	<b>30</b>
4.1. General .....	30
4.2. Use of Certification Mark .....	31
<b>5. Traceability and Record Keeping .....</b>	<b>33</b>
5.1. General .....	33
<b>6. Work Conditions, Employees' Welfare and Safety .....</b>	<b>35</b>
6.1. General .....	35
<b>7. Grower Group Certification .....</b>	<b>37</b>
7.1. Group Criteria .....	37
7.2. Responsibilities of Group Operators .....	37
7.3. Internal Control System .....	39
7.4. External Inspection.....	41
7.5. External Inspection Criteria .....	42
Appendixes .....	43

## Appendixes

**Appendix 1:** List of Permitted Fertilizers and Soil Conditioners for the Production of Organic Food

**Appendix 2:** List of Permitted Crop Protectants, Growth Regulators and Seed Treatments for the Production of Organic Food

**Appendix 3:** List of Permitted Additives, Processing Aids for the Production of Organic Food

**Appendix 4:** List of Permitted Equipment Cleansers and Disinfectants That May Come Into Direct Contact with Food for the Production of Organic Food

**Appendix 5:** Guideline for Evaluation Additional Inputs to Organic Agriculture

**Appendix 6:** Guideline for Evaluation Additive and Processing Aids for Organic Processing

# 1. Introduction

## 1.1. Standards for Organic Crop Production in Cambodia

These standards have been prepared for the purpose of providing an agreed approach to the requirements which underpin production of, and the labeling and claims for, organically produced foods.

The aims of these standards are:

- to protect consumers against deception and fraud in the market place and unsubstantiated product claims;
- to protect producers of organic produce against misrepresentation of other agricultural produce as being organic;
- to ensure that all stages of production, preparation, storage, transport and marketing are subject to an internal control scheme (of organization where the operator is member) and comply with these standards;
- to harmonize provisions for the production, verification scheme, identification and labeling have organically grown produce;
- to maintain and enhance organic agricultural systems in Cambodia so as to contribute to local and global preservation.

The standards do not prejudice the implementation of more restrictive arrangements and more detailed rules by member organizations of the Cambodian Organic Agriculture Association (COorAA) in order to maintain consumer credibility and prevent fraudulent practices.

This document needs regular improvement and updating in order to take into account technical progress and the experience with their implementation.

These standards set out the principles of organic crop production at farm, preparation, storage, transport, labeling and marketing stages, and provides an indication of accepted permitted inputs for soil fertilizing, conditioning, soil improvement, and plant pest and disease control.

For labeling purposes, the use of terms inferring that organic production methods have been used are restricted to products derived from operators under the supervision of a member organization (e.g. organic farmer/grower association,) or directly of COorAA (Company, etc.)

Organic agriculture is one among the broad spectrum of methodologies which are supportive of the environment. Organic production systems are based on

specific and precise principles of production which aim at achieving optimal agro-ecosystems which are socially, ecologically and economically sustainable. Requirements for organically produced foods differ from those for other agricultural products in that production procedures are an intrinsic part of the identification and labeling of, and claim for, such products.

“Organic” is a Labeling term that denotes products that have been produced in accordance with organic production standards and verified by an organic growers association or member organization of COrAA. Organic agriculture is based on minimizing the use of external inputs, avoiding the use of synthetic fertilizers and pesticides. Organic agriculture practices cannot ensure that products are completely free of residues, due to general environmental pollution. However, methods are used to minimize pollution of air, soil and water. Organic food handlers, processors and retailers adhere to standards to maintain the integrity of organic agriculture products. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.

Organic agriculture means holistic production management systems which promote and enhance agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. This is accomplished by using, where possible, cultural, biological and mechanical methods, as opposed to using synthetic materials, to fulfill any specific function within the system. Management practices may differ to achieve locally adapted systems.

The concept of close contact between the consumer and the producer is a long established practice and today is used in low income countries for supplying the domestic markets. For this type of markets and especially in the case of small-holder production, alternative control schemes have been developed. The Cambodian Organic Agriculture Association adopts this “alternative certification schemes” for local market development. Products of operators being certified by internationally recognized certifiers is also accepted within the COrAA scheme.

## 1.2. Scope and Objectives

These standards describe the requirements for organic production. It covers plant (including mushroom) production, commercial input and also the processing and labeling of products derived from these activities. This standard provides a mechanism to define the expectations for organic production. When complied with, it also enables producers to label their products as organic. The

standard does not cover procedures for verification, such as inspection or certification of products.

The development of this standard is guided by the following objectives established for organic farming;

- Employing long-term, ecological, systems-based organic management.
- Assuring long-term, biologically based soil fertility.
- Avoiding/minimizing synthetic inputs at all stages of the organic product chain and exposure of people and the environment to persistent, potentially harmful chemicals.
- Minimizing pollution and degradation of the production/processing unit and surrounding environment from production/processing activities.
- Excluding certain unproven, unnatural and harmful technologies from the system.
- Avoiding pollution from surrounding environment.
- Maintaining organic integrity throughout the supply chain.
- Providing organic identity in the supply chain.

Organic farming systems and standards are continually evolving in response to changing knowledge, production and market conditions. It is anticipated that in the future the scope of this standard may be broadened to include – livestock, aquaculture, textile and other types of production – and as well include additional requirements to enhance attainment of the above and possibly additional objectives established for organic farming.

### **1.3. Organic Farming and Sustainability**

Traditional approaches to farming in Cambodia align strongly with the values and objectives of organic farming. Organic production and processing systems are based on the use of natural, biological, renewable, and regenerative resources. Organic agriculture maintains soil fertility primarily through the recycling of organic matter. Nutrient availability is primarily dependent on the activity of soil organisms. Pests, diseases, and weeds are managed primarily through cultural practices. Organic foods and other products are made from organically produced ingredients that are processed primarily by biological, mechanical, and physical means.

COorAA sees a range of benefits associated with the increased adoption of organic production in addition to the enhancement of trading opportunities. These benefits include:

- Ecological Sustainability
  - Recycling nutrients instead of applying external inputs.
  - Preventing the chemical pollution of soil, water and air.
  - Promotion of biological diversity.
  - Improving soil fertility and the build-up of humus.
  - Preventing soil erosion and compaction.
  - Promoting the use of renewable energies
- Social Sustainability
  - Supporting sufficient production for subsistence and income earning for small farmers.
  - Providing safe and healthy food.
  - Supporting the adoption of good working conditions.
  - Building on local knowledge and traditions.
- Economic Sustainability
  - Helping farmers achieve satisfactory and reliable yields.
  - Providing a lower reliance on and associated cost for external inputs.
  - Promoting crop diversification to improve income security.
  - Promoting product value addition through quality improvement and on-farm processing.
  - Promoting the adoption of efficient farming systems to improve overall profitability and competitiveness.

#### 1.4. Normative References

This Asia Regional Organic Standard incorporates provisions from other publications. Undated references refer to the latest edition of the following publications:

- IFOAM Basic Standards for Organic Production and Processing. Version 2005.
- CAC/GL 32, Codex Alimentarius – Guidelines for the production, processing, labeling, and marketing of organically produced foods.

- EquiTool Annex 2 – Common Objectives and Requirements for Organic Standards (COROS), 2012.

It is noted that compliance with all relevant national and regional regulations such as food safety, takes precedence over the requirements of these organic standards

## 1.5. Terms and Definitions

<b>Additive</b>	A substance that is added to a processed product for a technological purpose and becomes a component of the final product and/or affects its characteristics.
<b>Barrier</b>	An obstruction that prevents or hinders the movement of prohibited substances from an adjacent area over it or through it.
<b>Biodegradable inputs</b>	Inputs composed of natural materials capable of being decomposed by bacteria or other biological means and includes – compost, green manures, plant and animal waste.
<b>Biodiversity</b>	The variety of life forms and ecosystem types on Earth. Includes genetic diversity (i.e. diversity within species), species diversity (i.e. the number and variety of species) and ecosystem diversity (total number of ecosystem types).
<b>Breeding</b>	Selection of plants or animals to reproduce and/or to further develop desired characteristics in succeeding generations.
<b>Buffer Zone</b>	A clearly defined and identifiable boundary area bordering an organic production site that is established to limit application of, or contact with, prohibited substances from an adjacent area.
<b>Carcinogen</b>	Any natural or artificial substance that can produce or trigger cancer.
<b>Certification</b>	The procedure by which an operator or a group of operators received written and reliably endorsed assurance that a clearly identified process has been methodically applied in order to assess that the operator is producing specified products according to specific requirements or standards.
<b>(Organic) Certification Body</b>	A body responsible for verifying that a product sold or labeled as organic was produced, processed, prepared and handled according to set standards or requirements.
<b>Contamination</b>	Contact of organic crops, animals, land or products with any



	substance that would compromise the organic integrity.
<b>Conventional</b>	Any production or processing practice or system that does not conform to organic production practices and standards.
<b>Conversion</b>	The time of transition from non-organic to organic farming.
<b>Conversion Period</b>	A period from the beginning of doing organic agriculture according to COrAA standards until the produce is certified as organic. Conversion period is a time for ecological rehabilitation and soil fertility improvement.
<b>Crop Rotation</b>	The practice of alternating the species or families of annual and/or perennial 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.
<b>Disinfecting</b>	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.
<b>Exception</b>	Permission granted to an operator by a certification body to be excluded from the need to comply with restricted requirements of the standards. Exceptions are granted on the basis of clear criteria, with clear justification and for a limited time period only.
<b>Factory Farming</b>	Industrial management systems that are heavily reliant on veterinary and feed inputs not permitted in organic agriculture.
<b>Farm Unit or Holding</b>	The total area of land under control of one farmer or collective of farmers, and including all the farming activities or enterprises. The farm holding may consist of one or more farm units.
<b>Food Additive</b>	An enrichment, supplement or other substance which can be added to a food- stuff to affect its keeping quality, consistency, color, taste, smell or other technical property (for full definition, see Codex Alimentarius).
<b>Genetic Diversity</b>	Genetic diversity means the variability among living organisms from agricultural, forest and aquatic ecosystems; this includes diversity within species and between species.
<b>Genetic Engineering</b>	Genetic engineering is a set of techniques from molecular biology (such as recombinant DNA) by which the genetic material of plants, animals, microorganisms, cells and other biological units are altered in ways or with results that could

	not be obtained by methods of natural mating and reproduction or natural recombination. Techniques of genetic modification include, but are not limited to: recombinant DNA, cell fusion, micro and macro injection, encapsulation, gene deletion and doubling. Genetically engineered organisms do not include organisms resulting from techniques such as conjugation, transduction and natural hybridization.
<b>Genetically Modified Organism (GMO)</b>	A plant, animal, or microbe that is transformed by genetic engineering.
<b>GMO Derivative</b>	A substance that is produced by or from a GMO. This is traced one step back from the substance to its source. 'Produced from GMO' means that it consists in whole or in part of a GMO. 'Produced by GMO' means that it is a GMO metabolite.
<b>Green Manure</b>	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.
<b>Habitat</b>	The area over which a plant or animal species naturally exists. Also used to indicate types of habitat, e.g. ocean, seashore, riverbank, woodland, grassland.
<b>Handling</b>	Manual or mechanical carrying, moving, delivering or working with something.
<b>High Conservation Value Areas</b>	Areas that have been identified as having outstanding and critical importance due to their environmental, cultural, socioeconomic, biodiversity or land- scape values.
<b>Homeopathic Treatment</b>	Treatment of disease based on administration of remedies prepared through successive dilutions of a substance that in higher concentration produces symptoms in healthy subjects similar to those of the disease itself.
<b>Hydroponic Systems</b>	Crop production systems in inert media or water using dissociated nutrients as the prime source of nutrient supply.
<b>Ingredient</b>	Any substance, including an additive, used in the manufacture or preparation of a product and present in the final product although possibly in a modified form.
<b>Irradiation</b>	Technology using high-energy emissions from radio-nucleotides, 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. (Also referred to as ionizing radiation although definitions of this term in technical and legal texts vary.) Irradiation does not include low-level radiation sources such as the use of X-rays for foreign body detection.
<b>Isolated Nutrients</b>	Individual and separate forms of nutrients.
<b>Label</b>	Any written, printed or graphic matter that is present on the label, accompanies the produce/product, or is displayed near the food, including that for the purpose of promoting its sale or disposal.
<b>Media (plural) or Medium (singular)</b>	The substance in which an organism, tissue, or organ exists.
<b>Mutagen</b>	A substance or agent that can induce genetic mutation.
<b>Neurotoxin</b>	A toxin that damages or destroys nerve tissue.
<b>Operation</b>	For the purposes of this document an operation is an individual or business enterprise producing, processing or handling agricultural products.
<b>Organic Agriculture</b>	A production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles 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.
<b>Organic Integrity</b>	Adherence to the principles, objectives and standards for organic production.
<b>Organic Product</b>	A product that has been produced, processed, or handled in compliance with organic standards.
<b>Organic Quality</b>	Produced according to organic standards.
<b>Parallel Production</b>	A situation where the same operation is producing visually indistinguishable produce/products in both an organic system and a non-organic system. A situation with “organic” and “in conversion” production of the same product also is parallel

	production. (Parallel production is a special instance of split production.)
<b>Plant Genetic Integrity</b>	Maintaining plant varieties to ensure that they remain pure, true to type and not contaminated by other varieties.
<b>Peat</b>	Partially carbonized vegetable matter, usually mosses, found in bogs and used as fertilizer and fuel
<b>Processing</b>	The handling, treatment, transformation or packaging of agricultural or wild collected products.
<b>Processing Aid</b>	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 technical purpose during treatment or processing and which may result in the non-intentional, but unavoidable presence of residues or derivatives in the final product.
<b>Restrict</b>	Limit a practice, generally to conditions under which it may be used.
<b>Sanitizing</b>	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.
<b>Soil Biodiversity</b>	The variety of all living organisms found within the soil system and includes micro-organisms such as bacteria and fungi as well as mega fauna such as earthworms and mites.
<b>Split Production</b>	Conventional, in conversion and/or organic production, breeding, handling or processing in the same operation.
<b>Synthetic</b>	A substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources. Substances created by naturally occurring biological processes are not considered synthetic.
<b>Standards</b>	Norms that specify how a product should be produced and processed. For the purposes of this document standards are used to define organic production practices.
<b>Supply Chain</b>	A system of organizations, people, technology, activities, information and re- sources involved in moving a product or service from a supplier to a customer.
<b>Sustainable</b>	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.

<b>Traditional agriculture</b>	An indigenous form of farming based on knowledge generated, pre- served and transmitted between generations and may exhibit a high level of understanding of local resources, social and environmental conditions.
<b>Teratogen</b>	Any agent that interferes with normal embryonic development
<b>Wild Harvest</b>	The collection, taking or gathering of products from a site that is not maintained under cultivation or other agricultural management.

## 1.6. Acronyms

**AROS** – Asia Regional Organic Standard

**FAO** – Food and Agriculture Organization of the United Nations

**IFOAM** – International Federation of Organic Agriculture Movements

**GSFA** – General Standard for Food Additives – as adopted by the Codex Alimentarius Commission.

**UNCTAD** - United Nations Conference on Trade and Development

## 2. General Requirements for Organic Crop Production

### 2.1. Conversion/Transition

#### Objectives

Conversion to organic production requires a period of time in which healthy soils, sustainable ecosystems are established and contaminants reduced before it can achieve certified organic status.

#### Requirements

2.1.1. Fields applying for organic certification are subject to a conversion period. They shall be managed according to applicable parts of these standards during the applicable conversion period. They shall be inspected during the conversion period. Produce grown during the conversion period shall not be sold as organic.

2.1.2. The minimum conversion period is twelve (12) months before crop sowing or planting for non-perennials.

2.1.3. The minimum conversion period is eighteen (18) months before harvesting for perennials.

2.1.4. The conversion period can be extended based on the identification and evaluation of previous land use, including the application of prohibited material.

2.1.5. **If prohibited material was applied before application, sale of harvest as organic is only permitted 36 months after the date of last use of prohibited material(s).**

2.1.6. A reduction of conversion period may be considered where there is verifiable evidence of no use of non-permitted material and farming practices according to the principles of organic agriculture for at least 12 months. Reduction (partial or full) is subject to field inspection. This is only applicable for non split production farms.

2.1.7. The start of the conversion period shall normally be calculated from the date of application for certification.

### 2.2. Maintenance of Organic Management

#### Objectives

Organic production systems require a commitment to the use of organic production practices.

#### Requirements

2.2.1. Changing or switching fields or lands between organic and non-organic production is prohibited.

2.2.2. Exception may only be made in cases where:

- a) previous registered organic fields are no longer under the management of the operator; or
- b) there are compelling reasons to cease organic management on the registered organic field/land in question; or
- c) the change or switching of fields will allow better management of the organic part of the holding.

## 2.3. Split Production and Parallel Production

### Objectives

The integrity of an organic farm unit is not compromised by the activities and management of non- organic operations undertaken on the same farm.

### Requirements

2.3.1. Partial conversion or Split Production shall only be permitted where the organic, in-conversion and non-organic fields can be kept continuously separated and clearly identified at all times and there is a production and handling management system in place that can ensure the integrity of the organic fields and products.

2.3.2. Similar crops shall not be cultivated in organic as well as non-organic fields unless the varieties differ in such a way that they are easily distinguished, e.g. different shape/form, colour, or different growth cycle and harvest time.

2.3.3. Exception may be made subject to the following criteria:

- a) The organic and non-organic crops are harvested at different times or dates and handled separately;
- b) Control measures to ensure no comingling is effectively implemented;
- c) Clear separate records and accounting for the organic and non-organic products are maintained. Additional conditions and inspection visits may be required.

2.3.4. Farms with split production shall not cultivate genetically modified organisms or use products thereof on any non-organic fields on the farm.

## 2.4. Avoiding Contamination

### Objectives

Organic management strictly limits the use of synthetic inputs at all stages of the organic production/supply chain and exposure of people and the environment to persistent, potentially harmful chemicals. It minimizes pollution and degradation of the production/processing unit and surrounding environment from production/processing activities. It also excludes certain unproven, unnatural and harmful technologies from the system.

## Requirements

2.4.1. Operators shall take action to prevent or minimize the risk of contamination of prohibited or undesired materials in production, handling and storage operations from adventitious contamination.

2.4.2. Where contamination of prohibited materials from an adjoining land is likely, the operator shall establish a buffer area or crop to prevent or mitigate contamination.

2.4.3. The buffer distance (width) between an organic field and non-organic field shall be established according to the following:

- a) the risk and nature of likely contamination;
- b) the nature of the life or built barrier, drainage and land terrain;
- c) location between the operator and a neighbor's boundary or within the operator's split production holding.

2.4.4. The minimum buffer distance between an operator and a neighbor's field is 1 meter. The minimum buffer distance between organic and non-organic fields within the operator's holding is also 1 meter. This applies for low risk situations or where the buffer crop/barrier is a permanent dense crop and/or a plastic barrier.

2.4.5. The buffer crop and/or area may be established by agreement on the neighbor's fields or within the operator's boundary.

2.4.6. Buffer areas within the operator's boundary shall be managed according to these standards. Buffer crops shall not be sold as organic.

2.4.7. Similar crops cultivated in buffer areas and an organic field shall be treated as parallel production.

2.4.8. Expansion of buffer area may be required according to contamination threat.

2.4.9. Where there is contamination by water, operators may be required to establish earth bunds or other appropriate drainage mitigation systems.

2.4.10. Prohibited inputs shall not be kept on organic areas of the farm. Storage of inputs for organic and non-organic production shall be separate and clearly identified.

2.4.11. Crop spraying equipment used in non-organic production shall not be used in organic production.



2.4.12. Equipment used for harvesting and post-harvest handling of non-organic products shall be thoroughly cleaned to prevent contamination and/or co-mingling before use in organic production.

2.4.13. The operator shall be watchful for and actively address risks of contamination by prohibited substances and environmental contaminants. This includes requesting for supplier's verification that inputs do not contain prohibited substances and/or contaminants.

2.4.14. Where there is reasonable suspicion of contamination, efforts shall be made to identify and address the source of contamination. Analysis should be done for chemical residues and heavy metals when probability of contamination is high. Soil, water and product sampling may be collected, during site inspection, for residue and contaminant testing at the operator's expense.

2.4.15. Use of genetically modified organisms (GMOs) and products thereof, in all aspects of organic crop production and processing, is prohibited.

2.4.16. Plant varieties and pollen from genetically modified organisms (GMOs) as well as transgene plants are prohibited.

2.4.17. Farm inputs, processing aids and ingredients shall be traced back one step in the biological chain to the source organism from which they are produced to verify that they are not derived from GMOs.

2.4.18. Certification may be rejected or withdrawn due to presence of prohibited substances in the land or product, e.g. residues of previously used chemical pesticides and herbicides, GMOs or heavy metals.

## 2.5. Land, Soil Fertility and Water Management

### Objectives

Organic production systems conserve and improve the soil, maintain both ground and surface water quality and use water efficiently and responsibly. Risks of environmental pollution are identified and minimized. Soil fertility management nourishes plants primarily through the soil ecosystem and achieves nutrient balance.

### Requirements

2.5.1. Land clearing and preparation through burning vegetation is prohibited except where it is a well managed traditional cultural practice, e.g. shifting cultivation, and restricted to the minimum when other alternative measures are not feasible.

2.5.2. Burning of crop residues is prohibited except in cases of need to control a serious insect, disease infestation or to stimulate seed germination.

2.5.3. Operators shall take defined and appropriate measures to prevent erosion and minimize loss of topsoil. Such measures may include, but are not

limited to, minimal tillage, contour plough, crop selection, maintenance of soil plant cover and other management practices that conserve soil.

2.5.4. Operators shall prevent or remedy soil and water salinization where these pose a problem.

2.5.5. Operators shall maximize the use of plant and animal organic matter produced within the farm and minimize the use of brought-in organic materials or mineral fertilizers.

2.5.6. Crop production systems shall return nutrients, organic matter and other resources removed from the soil through 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.

2.5.7. The use of brought in organic or mineral fertilizers shall only be allowed when measures to maximize the use of plant and animal organic matter produced within the farm have been taken, such as the use of nutrient recycling, leguminous crops and crop rotation. Maximum use rate of brought-in nutrients may be set taking in consideration production conditions and specific nature of crop(s).

2.5.8. Permitted organic materials and mineral fertilizers are listed in [Appendix 1](#).

2.5.9. Poultry manure from battery production system shall only be allowed if manure from non-battery based production system is not available.

2.5.10. Organic industrial by-products may be used. Sample laboratory tests may be required at the operator's expense to verify they are not contaminated with non-permitted substances or other contaminants exceeding applicable health and sanitary regulations.

2.5.11. Use of material from urban waste is prohibited, including for composting.

2.5.12. Animal manures without aging shall not be used directly on edible parts of crops, unless they have been heat treated, properly dried or mixed into the soil at least 30 days before planting.

2.5.13. Chilean nitrate and all synthetic growth stimulants and fertilizers, including urea, are prohibited.

2.5.14. Use of mineral fertilizers shall be in their natural form. Chemical treatment other than addition of water and mixing with other permitted material to render them more soluble is prohibited.

2.5.15. Manures containing human excrement on crop production for human consumption are prohibited.

2.5.16. Ingredients used for on-farm composting and brought-in composts shall comprise of permitted materials in Appendix X and comply with relevant parts of this standard.

2.5.17. Heavy metal content in brought-in fertilizers and soil conditioners, e.g. by products from industries, shall not exceed permitted levels. See Appendix 1. Where usage is high, operators may be required to have them tested to ensure that presence of heavy metals, if any, shall be within the maximum levels set.

2.5.18. Use of micro nutrients (listed in Appendix 3) shall only be allowed where measures to meet nutrient requirement from the use of plant and animal organic matter produced within the farm as well as brought-in organic materials have been taken.

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

2.5.20. Substrates for the cultivation of mushrooms shall not contain non-permitted substances in accordance with these standards.

2.5.21. Operators shall take measures to prevent excessive use of water.

2.5.22. Operators shall plan and design production and handling systems that use and recycle water resources responsibly and in a manner appropriate to local conditions.

2.5.23. Operators shall take reasonable and appropriate measures to prevent the pollution of ground and surface water.

2.5.24. Operators shall monitor water extraction and take preventive or remedy measures to ensure against use of polluted or contaminated water.

2.5.25. Excessive use of farm produced and brought in organic material and mineral fertilizers are prohibited if their production and use have negative impact on the ecosystem.

2.5.26. Operators keeping non-certified organic poultry and/or livestock on certified organic land shall manage them responsibly as not to degrade the land and/or pollute water resources therein.

## 2.6. Choice of Crop and Varieties

### Objectives

Appropriate crops and varieties are grown to suit local conditions (growing condition and market). The organic integrity of crops is maintained in production.

### Requirements

2.6.1. Use of genetically modified seeds, plants or other propagation material is prohibited.

2.6.2. Operators shall use organically produced seed and plant material.

2.6.3. Where organic seed or propagation material of the required type and quality is not sufficiently available, non-organic seed and plant material is allowed provided they have not been treated with non-permitted substances. Exception may only be allowed where treatment of seed or propagation material is a statutory requirement. In such situations any prohibited chemical treatment shall be removed from the seeds or planting materials before use. Exemptions are subject to review.

~~2.6.4. Non-organic propagation material is permitted for cultivation of perennial crops. However the produce for the first 12 months of perennial crops, grown from non-organic propagation material cannot be sold as organic.~~

2.6.5. Organic seeds shall be used in the production of organic sprouts.

2.6.6. Artificial light shall not serve as the sole source of light during the sprouting production cycle.

## 2.7. Ecosystem Management and Diversity in Crop Production

### Objectives

All farming systems ensure the long-term management and resilience of an organic farm holding by respecting, maintaining, improving and completing ecological cycles and the quality of ecosystems and the landscape. The selection of crop and varieties is based on an understanding of their adaptation to local conditions, pests and diseases and the broader ecological relationship present in healthy farming systems.

### Requirements

2.7.1. **Clearing and encroachment of gazetted forest reserve ecosystems or cultural heritage areas for organic agriculture production is prohibited.**

2.7.2. Cultivation shall not impose a negative impact to quality of land and ecosystem.

2.7.3. Measures to maintain natural habitats, improve landscape and enhance biodiversity quality shall be taken. Where appropriate operators shall set aside areas in the holding for habitats of diverse plants and animals.

2.7.4. Permanent conservation zones appropriate to the situation shall be established beside watercourses, wetlands and lakes.

2.7.5. Crop production shall demonstrate diversity and rotation planning to manage pests, weeds, diseases and maintenance of soil fertility.

2.7.6. Crop rotation for non-perennial crops shall include soil-improving plants such as green manure, legumes or deep rooting plants, unless the operator demonstrates sufficient fertility maintenance by other means.

2.7.7. Perennial crop production shall include ground cover, conservation areas or refuge plantings.

2.7.8. Hydroponic cultivation other than for aquatic plants and sprouts is prohibited.

2.7.9. Non-organic scrap material shall be well managed.

## 2.8. Pest, Disease, Weed and Growth Management

### Objectives

Crop production management systems promote and sustain the health of crops while maintaining productivity and the integrity of the agro-ecosystem.

### Requirements

2.8.1. Pest, disease and weed management shall be based on the following measures:

- a) Choice of appropriate varieties
- b) Appropriate rotation programme
- c) Provision of favorable habitats for predators and beneficial insects
- d) Cultivation of insect repellent plants
- e) Use of cultural and mechanical methods, e.g. mulching, mowing, grazing, traps, barriers, light and sound
- f) Thermal control
- g) Release of non GMO predators and parasites

2.8.2. Thermal sterilization of soils is prohibited except in instances of severe disease or pest infestation that cannot be remedied through other measures.

2.8.3. Use of organic material from conventional systems shall only be permitted for mulching where there organic material from organic systems is not sufficiently available.

2.8.4. For synthetic structure coverings, mulches, fleeces, insect netting and silage wrapping, only products based on polyethylene and polypropylene or other polycarbonates, and biodegradable materials (e.g. starch based) are permitted. These shall be removed from the soil after use and shall not be burned on the farmland.

2.8.5. Use of inputs for pest, disease and weed control shall only be allowed where measures as set out above have been taken and are ineffective under the production condition in question.

2.8.6. Only products, including inputs used in pest control products listed in Appendix 2 are permitted.

2.8.7. Co-formulants (e.g. inerts, synergists, carriers and wetting agents) in formulated farm input products shall not be carcinogens, mutagens, teratogens or neurotoxins.

2.8.8. Substances allowed under this standard shall not contain synthetic manufactured nanomaterials.

## 3. Requirements for Post-Harvest, Handling, Storage, Transport, Processing and Packaging

### 3.1. Post-Harvest; Processing and Handling Management General

#### Objectives

Post harvest, processing and handling management systems maintain the organic integrity of organic products.

#### Requirements

3.1.1. Operators are responsible and shall maintain the organic integrity of organic produce/products throughout all steps of post harvest handling and processing including storage and transportation activities under their management as long as the produce/product is in their custody.

3.1.2. All storage, handling and processing facilities including those storing, handling and processing non-organic produce/products under the operator's management are subject to inspection.

3.1.3. Operators shall provide written notification of changes in use of production facilities and sites; also changes in the handling/manufacturing process and organic handling/management plan in a timely fashion. Documented approval of change is required before products can be labeled and sold as organic.

3.1.4. Operators shall inform and train workers as well as related parties involved in storage, processing and handling activities on compliance to applicable standards and certification requirements.

3.1.5. Post harvest handling and processing of organic and non-organic produce and products shall only be permitted if the operator has a management system in place that can prevent contamination by non-permitted substances and co-mingling of organic produce/products with non-organic produce/products.

3.1.6. Operators shall ensure that all storage, processing and handling work done by others (service providers) on their behalf meet applicable standards.

3.1.7. A signed agreement/contract must be drawn requiring service provider(s), where applicable, to comply with applicable requirements, allow access to facilities, provide information and cooperate in general with the inspection process when requested.

3.1.8. Post harvest handling and processing management shall include good hygienic practices and/or good manufacturing practices. This should include

maintaining appropriate procedures based on identification of critical processing steps.

3.1.9. Waste from processing and handling shall be managed so as to have minimum effect on the environment. Waste handling shall comply with applicable national regulations. Where appropriate, organic waste shall be disposed of through established channels or systems for nutrient cycling.

## 3.2. Ingredients

### Objectives

Organic processed products are made from organic ingredients.

### Requirements

3.2.1. Processed organic products shall as far as possible contain only certified organic ingredients. Where certified organic ingredients are not available, non-organic ingredients may be allowed subject to labeling requirements. The operator shall demonstrate effort have been made to procure certified organic ingredients and their non-availability. Brought in ingredients shall possess a similar or equivalent certification (where applicable).

3.2.2. Non-organic ingredients may only be allowed if they are not genetically engineered or contain synthetic nanomaterials.

3.2.3. No ingredient, additive or processing aid shall originate from or contain genetically modified organisms and synthetic nano material.

3.2.4. Single ingredient products shall be made up of only certified organic ingredients.

3.2.5. Similar ingredients in a product shall not be both of certified organic and non-organic quality.

3.2.6. Use of additives and processing aids shall be limited to the minimum necessary. Only additives and processing aids listed in **Appendix 3** may be used subject to noted conditions.

3.2.7. Microorganisms and enzymes used in processing **should preferably be cultured or prepared from organic materials.**

3.2.8. Use of substances to compensate the loss of nutritional properties due to processing and storage is not allowed. Minerals (including trace elements), vitamins, essential fatty acids, essential amino acids and similar isolated nutrients shall not be used unless use is legally required for the food products which they are incorporated.

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



3.2.10. Water that is used as ingredient in the processing or comes in direct contact with organic products shall be of drinking standard. The equipment and materials used in water filtration shall contain no asbestos.

### 3.3. Processing Methods

#### Objectives

Organic food is processed by biological mechanical or physical processing techniques. The process should optimize preserving the nutritional properties of organic food, energy conservation and minimizing environmental impact.

#### Requirements

3.3.1. The following processing methods are allowed:

- a) Mechanical and physical processes such as heating, drying, evaporation, smoking, milling and pressing
- b) Biological processes such as fermentation.
- c) Extraction by water, ethanol, animal and plant oil, vinegar, carbon dioxide, nitrogen or carboxylic acids of food grade quality
- d) Precipitation
- e) Filtration
- f) Distillation
- g) Re-hydration or reconstitution by water

3.3.2. Use of additives and processing aids shall be limited to the minimum necessary. Only additives and processing aids approved for use in **Appendix 3** may be used.

3.3.3. Microwaving and ionizing radiation of ingredients, additives and finished products are not permitted.

3.3.4. Filtration substances or techniques that chemically react with or modify organic food at the molecular level are not allowed. Filtration equipment shall not contain asbestos or use techniques or substances that may contaminate the product. Filtration agents and adjuvants are considered as processing aids and must appear in **Appendix 3** to be used.

3.3.5. Equipment surfaces and utensils that come into contact with organic products shall be free of nanomaterials, unless there is verified absence of contamination risk.

3.3.6. Aluminum containers are not allowed for alkali food processing.

### 3.4. Packaging

#### Objectives

Packaging and storage/transportation containers do not contaminate the organic product they contain

### **Requirements**

3.4.1. Packing materials shall not be treated with fungicide, preservative or contain nano material.

3.4.2. Organic produce/products shall not be kept in containers in which non-organic produce/products have previously been kept, unless these have been carefully cleaned.

3.4.3. Packing materials used for food products shall be food grade quality, clean and hygienic.

3.4.4. Packing material for food shall not be re-used except for glass containers.

3.4.5. Recyclable, biodegradable and environmentally friendly packing material should be used where possible. Multi-layer packaging should not be used unless alternatives are unavailable.

3.4.6. Styrofoam is prohibited for use as packaging material unless alternatives are unavailable. Styrofoam shall not be used for packaging in direct contact with organic produce.

3.4.7. Packing material should be managed to create minimum waste. Waste packing material should be handled to have minimum impact on the environment. Where possible, they should be disposed of through established channels for recycling.

3.4.8. PVC and other chlorine based plastics are prohibited unless alternatives are unavailable

3.4.9. Labeled packing material and containers for organic produce/products shall not be reused for keeping non-organic substances prohibited for use in organic production and processing.

## **3.5. Pest Control**

### **Objectives**

During processing, storage and handling - organic products are protected from pests without compromising the organic integrity of the product.

### **Requirements**

3.5.1. Pest control shall be managed according to a hierarchy of practices starting with prevention, and then physical, mechanical, biological methods.

3.5.2. Preventative methods such as cleaning, disruption and elimination of pest habitats, etc. shall be the primary means to control pest.

3.5.3. Mechanical, physical, biological methods, e.g. use of physical barriers, sound, ultra-sound light, UV-light traps (including pheromone traps),

temperature control, controlled atmosphere and diatomaceous earth are allowed.

3.5.4. Use of carbon dioxide, nitrogen or oxygen to control atmosphere during storage is permitted.

3.5.5. Vacuum packing and carbon dioxide fumigation is permitted.

3.5.6. Cold storage and frozen storage is permitted.

3.5.7. Substances listed in **Appendix 2** may be used, if the above measures are not effective.

3.5.8. Where the above practices are not effective other pest control substances may be used.

3.5.9. Where synthetic chemical pest control substances are used, they shall not come into contact with organic products. Use of synthetic chemicals for pest control may only be allowed based on the following:

- a) The chemicals shall not be persistent, bioaccumulative, toxicants (PBTs).
- b) All organic products shall be removed from the facility before application.
- c) The operator shall take measures to ensure that there is no risk of contamination of organic produce/products.
- d) Use of pest control chemicals shall be documented.

3.5.10. Fumigation with chemicals e.g. ethylene oxide, methyl bromide, aluminum phosphide and dichlorvos is prohibited.

3.5.11. Ionising radiation is prohibited.

3.5.12. Where external contractors are used for pest control, the operator is responsible to provide documentation and/or records that the pest control is done in compliance to these requirements.

### **3.6. Cleaning, Disinfecting and Sanitizing of Food Processing Facility**

#### **Objectives**

Cleaning, disinfecting and sanitizing of food processing facilities do not contaminate organic products.

#### **Requirements**

3.6.1. All processing facilities, equipment, containers, storage and handling facilities shall be clean and hygienic. Measures to prevent contamination from undesired and prohibited substances shall be taken.

3.6.2. Where external contractors are used for cleaning, the operator is responsible to provide documentation and/or records that the cleaning are done in compliance to these requirements.

3.6.3. Cleaning of all food contact surfaces and storage areas must be scheduled regularly and recorded. Cleaning tasks should be managed with a checklist as appropriate.

3.6.4. A register of all substances used shall be kept, including labels and technical specifications.

3.6.5. Cleaning of handling and storage places should be primarily achieved by using steam, water, compressed air, vacuuming, scrubbing, brushing and other physical mechanical where applicable.

3.6.6. If the same facility and processing equipment are used for organic and non-organic handling and processing, the operator shall ensure the facility and equipment are clean of residues of undesired and prohibited substances before processing and handling organic products.

3.6.7. Only water and substances listed in **Appendix 4** may come in contact with food. In cases where these substances are ineffective and others must be used, these other substances shall not come into contact with any organic products.

3.6.8. Cleaning with chemical cleaning agents shall be limited to the minimum necessary. Detergent and sanitizers must be of food grade, where food products will come into contact with surfaces. Use of substances not listed in Appendix XXX on product contact surfaces shall be followed by an intervening event, e.g. a through rinse with clean potable water, sufficient to prevent residual contamination of product.

3.6.9. Where equipment cannot be washed, a flushing plug of organic material through the system prior to commencing organic processing shall be done. The organic material used as flushing plug shall not be classified as organic. The duration and amount of the flushing plug will be determined according to the situation on a case-by-case basis.

3.6.10. Chemical cleaning material shall be stored separately from organic products.

### **3.7. Storage and Transport**

#### **Objectives**

Organic integrity of produce/product is maintained during storage and transport.

#### **Requirements**

- 3.7.1. Measures shall be put in place to prevent stored organic produce/products from being contaminated by undesired and prohibited substances at all times.
- 3.7.2. Organic produce/products shall not be stored together with non-organic produce/products unless co-mingling and/or contamination is unlikely or measures are in place to prevent co-mingling and/or contamination.
- 3.7.3. Organic produce/products shall be clearly identified at all times during storage.
- 3.7.4. All permanent product packaging and storage sites shall have adequate pest control measures, particularly in areas of product handling and storage of packaging material
- 3.7.5. Transportation of organic products shall not be done together with non-organic products unless they can be clearly identified and measures are in place to prevent contamination and/or co-mingling.
- 3.7.6. **Operators shall ensure that all transportation work done by others on their behalf meet applicable requirements.**

## 4. Requirements for Labeling and Claims

### 4.1. General

#### Objectives

Labeling clearly identifies organic produce and products and provides relevant information for consumers to make conscious choices and avoid misleading them.

#### Requirements

4.1.1. Besides these requirements, labels shall also comply with all relevant applicable national regulations and statutory requirements.

4.1.2. Labels must fully disclose ingredients in the order of their weight percentages and whether or not they are organic. Where the total weight of a class of ingredients is less than 2% they may be listed as their respective classes instead of individual ingredients, e.g. if herbs and/or spices constitute less than 2% of the total weight of ingredients, they may be listed as “spices” or “herbs”.

4.1.3. Labels on finished packed produce/products shall include the following information:

- a) product/produce description & use of the term, 'organic' as part of the product/produce description
- b) ingredients/grade/size, where applicable
- c) net content in kilogramme or litres
- d) expiry date
- e) **country of origin**
- f) the applicable organic certification scheme mark(s)
- g) lot/batch number or traceability code
- h) name and address of the certified producer/processor and/or responsible importer/distributor, where relevant
- i) the applicable certification body. Identity of the certification body/agent shall be indicated close to the certified operator with the statement, 'certified organic by (name of certification agent or logo)'

4.1.4. Bulk packaging or non-retail containers shall at least have the lot/batch number or traceability code, if not the following:

- a) product/produce description including the term, 'organic'
- b) grade/size/amount, where applicable
- c) expiry date
- d) country of origin

- e) the applicable organic certification scheme mark(s)
- f) name and address of the certified operator
- g) the applicable certification body/agent or logo

4.1.5. Products shall only be labeled as 'ORGANIC' if a minimum of 95% of the ingredients (by weight for solids or by volume for liquids, excluding water and salt) in multi-ingredient products are of organic origin.

4.1.6. Ingredients of allowed non-organic origin shall not be more than 5% by weight excluding water and salt.

4.1.7. Non-organic ingredients from agricultural and non-agricultural origins shall not be genetically modified, irradiated or treated with processing aids not listed in **Appendix 3**.

4.1.8. Products may be labeled as 'MADE WITH ORGANIC INGREDIENTS' if less than 95% but not less than 70% of the ingredients (by weight for solids or by volume for liquids, excluding water and salt) in multi-ingredient products are of organic origin.

4.1.9. The label may include a percentage claim, e.g. "85% organic ingredients". The organic and non-organic ingredients shall be clearly identified in the ingredients list accordingly.

4.1.10. Labels shall not make "ORGANIC" or "MADE WITH ORGANIC INGREDIENTS" or similar terms, or make any organic certification claims on products with less than 70% organic ingredients (by weight for solids or by volume for liquids, excluding water and salt), although "organic" may be used to characterize ingredients on the ingredients list.

4.1.11. Labels shall clearly distinguish in-conversion products or similar terms from organic products.

4.1.12. Claiming GMO free based on compliance to this standard is prohibited, unless the product is additionally certified to be GMO free.

4.1.13. Operators shall submit label design to the certification body/agent for approval before use.

## 4.2. Use of Certification Mark

### Requirements

4.2.1. Organic scheme/certification mark(s) shall only be used on products certified to the applicable scheme(s).

4.2.2. Organic scheme/certification mark(s) and name shall not be used as product brand name or part of a product brand name or mark.

4.2.3. Organic scheme/certification mark(s) shall not be used in such a way as to mislead the public by giving the impression that the organic product has more properties such as GMO free or contain superior organoleptic,

nutritional or salubrious quality, without additional endorsements to that effect.

4.2.4. Operators shall inform the certification agent if sub-contractor(s) are employed to apply organic scheme/certification mark(s) and shall take responsibility of any non-compliance conducted by the sub-contractor(s).

4.2.5. An organic scheme/certification mark shall each not exceed  $\frac{3}{4}$  the size of the product brand name.

4.2.6. Change of wording, color and/or design of a organic scheme/certification mark format is prohibited except for size.

4.2.7. Use of an organic scheme/certification mark on product packaging shall be submitted for approval before use.

4.2.8. Non-conformity to any of these requirements is considered as abuse and/or misuse of the applicable organic scheme/certification mark. The responsible party shall be subject to sanction and legal action.



## 5. Traceability and Record Keeping

### 5.1. General

#### Objectives

Record keeping ensures traceability of organic integrity throughout the whole organic operation by following the production data (e.g. raw material data, production input) and quantity of every step of the supply chain, including sales. It must be transparent and enable easy retrieval of information.

#### Requirements

5.1.1. Operators shall maintain purchase, handling and processing records, also stock inventory of all material used for organic processing and handling as well as finished products.

5.1.2. Purchase records of ingredients and materials used for organic processing as well as finished products for sale shall include identity of supplier, date of transaction, items and quantities.

5.1.3. List of suppliers and contact information shall be updated regularly.

5.1.4. Documentation of organic certification for organic ingredients and finished products shall be valid for each purchased batch/lot.

5.1.5. Production/processing records shall include date and time of activity, type and amount of ingredients used along the production/processing chain as well as the quantity of finished product(s).

5.1.6. A production/processing traceability system, e.g. batch/lot code(s), shall be implemented for traceability of each production/processing run to the respective batch/lot of ingredients used.

5.1.7. Stock inventory of all ingredients (organic and non-organic) used, finished and sales of organic products shall be maintained.

5.1.8. Documentation and records shall clearly identify the source, movement, use and inventory of organic from non-organic materials at all stages of production/processing and handling.

5.1.9. Operators shall maintain an accounting system that account for all purchases and sales. The system should be able to provide summaries of purchases and sales of organic and non-organic products in any given calendar period on demand.

5.1.10. Records, documentation and accounts shall provide traceability and be made available to the inspector for audit trail and trace back verification at any time.

5.1.11. Records (including those related to use of sub-contractors) shall be retained for at least 5 years.

- 5.1.12. Operators shall keep a register of complaints and corrective action taken.
- 5.1.13. Operators shall maintain a recall procedure.
- 5.1.14. An internal audit shall be conducted at least once a year.

## 6. Work Conditions, Employees' Welfare and Safety

### 6.1. General

#### Requirements

6.1.1. Operators shall comply with applicable local and national regulations relating to labor welfare, employee's compensation scheme, terms and conditions of work, benefits and entitlements.

6.1.2. Operators shall not use forced or involuntary labor.

6.1.3. Employees who do the same work or hold similar positions shall receive equal treatment without discrimination to gender, race, religious or political beliefs.

6.1.4. Employees shall be subject to reasonable working conditions and receive fair compensation and benefits. Written terms and conditions must specify at least: wages and method of payment, location and type of work, hours of work and overtime, holiday pay, sick pay or sickness benefit and other benefits such as maternity and paternity leave.

6.1.5. Where child and youth labor is employed, operators shall provide opportunity to finish compulsory education or learning opportunity for vocational training and/or self-improvement.

6.1.6. If on-site living quarters are provided, they shall be habitable and have basic amenities and facilities.

6.1.7. Employee living premises should be kept clean at all times to avoid establishing a breeding ground for pests.

6.1.8. Training shall be given to workers operating dangerous or sophisticated equipment.

6.1.9. Workers and operators shall receive basic training in hygiene requirements for the handling of food products.

6.1.10. Employees shall be made aware of the requirement to notify management should they contract any transferable diseases, which may render them unfit to work with or near to produce/products destined for human consumption

6.1.11. Workers shall have access to clean toilet and washing facilities in the vicinity of their work station.

6.1.12. There shall be measures to promote safe and good working conditions.

6.1.13. First aid boxes shall be readily available for use on site.

6.1.14. Hazards should be clearly identified by warning signs where appropriate.

6.1.15. Accident and emergency procedures shall be developed with clear instructions to all workers. These procedures shall be displayed in a language understood by the workforce.

## 7. Grower Group Certification

### 7.1. Group Criteria

#### Objectives

These standards are applied only for the grower group certification. The organic certification scheme should limit the scope of group certification to groups that fulfill the following requirements.

#### Requirements

7.1.1. The group should be constituted of operations with similar production systems. Farmers and other operators organized collectively may qualify.

7.1.2. Large farming units, processing units and traders may be included as part of a group but should be inspected directly. Simple on-farm processing and storage units may be included as part of sample inspection arrangement.

7.1.3. Group members should be in geographic proximity.

7.1.4. The group should have a coordinated marketing.

7.1.5. Group members cannot use the organic certification independently i.e. marketing as separate individual member outside of the group's internal control.

7.1.6. The group should be large enough and have sufficient resources to support a viable internal control system (ICS) that assures compliance of individual members with production standards in an objective and transparent manner;

*NOTE: The requirement refers to the three factors that the size of the group should ensure sufficient resources, transparency, and impartiality. The CB must determine whether the group is large enough to satisfy these factors.*

### 7.2. Responsibilities of Group Operators

#### Requirements

7.2.1. The Group operator shall provide a general description of the Group and operation.

7.2.2. The Group operator shall prepare and maintain a signed written contract/agreement with all members.

7.2.3. The Contract/Agreement shall specify the responsibilities of the member and obligations to comply with applicable standard/s, relevant regulatory and certification requirements, also to permit on-site inspections.

7.2.4. The Group operator shall provide all group members with a copy of the applicable organic agriculture standard/s, relevant regulatory and

certification requirements or relevant sections of standards and requirements presented in a way adapted to their language and knowledge.

7.2.5. The Group operator shall provide training to members on organic agriculture, applicable organic standard(s) and certification requirements. Record of training shall be maintained.

7.2.6. The Group operator shall maintain an updated overview map of all members' farm/field locations.

7.2.7. The Group operator shall maintain an approved member list including the following information:

- Unit (producer/farm/facility) name
- Unit location (address)
- Unit code
- Field ID & status (organic; in-conversion; non-organic)
- Field acreage
- Date of entry (joining group)
- Date of last use & type of prohibited material
- Date of end of conversion (where applicable)
- Date of initial certification (where applicable)
- Field crop planted/Number of trees
- Planted acreage
- Propagation material (treated/untreated/organic)
- Estimated yield
- Last harvest & sales
- Date of last ICS inspection (where applicable)
- Date of last external inspection

7.2.8. The Group operator shall maintain updated information about each member's production/handling unit which shall be available for inspection at all times.

7.2.9. Individual members' documentation shall include:

- Signed agreement to join the Group
- Site map, including all fields owned and under management. Map shall indicate key landmarks, activity of neighboring lands and buffer zones
- Field history; acreage and last use of prohibited materials

- Cultivation plan: crop rotation; crop(s) to be certified
- Input purchase and use records
- Harvest and sale records
- Produce list; specifying the type organic, in-conversion, non-organic

### **7.3. Internal Control System (ICS)**

#### **Requirements**

7.3.1. The Group operator shall maintain an Internal Control System (ICS) manual, if operating one.

7.3.2. The ICS manual shall include the following:

- an organization/management flowchart
- job descriptions for all key ICS functions
- selection criteria for ICS manager, office & field staff
- training for ICS team
- conflict of interest management
- risk assessment, i.e. identification of potential hazard, risks, preventive and mitigating measures
- procedures for administration/registration of new members
- training of members
- on-going compliance surveillance protocol of members and organic integrity of product chain
- sanctions for non-conformance and procedures

7.3.3. Procedure for admission/registration of new members shall include:

- member submission of Farm (Unit) profile; Farm map; Field(s) history; acreage; last use of prohibited materials; cultivation plan, including type and amount of inputs used/planned to use and projected harvest(s)
- an assessment/verification visit by the ICS
- ICS report and recorded decision
- submission of a signed contract/agreement

7.3.4. The ICS shall conduct an assessment/surveillance visit to all member units (farm & handling) at least once a year. More visits should be conducted

for intensive year round productions, e.g. vegetables or multiple croppings in a year, depending on a risk assessment of the production scenario.

7.3.5. Protocol for ICS assessment/surveillance visits shall include:

- assessment of farm agro-ecological conditions, e.g. erosion, habitat conservation
- visiting non-organic fields to verify whether there is parallel production
- updating of farm profile; map(s); crops in the field;
- assessment of buffer zones
- verifying harvest estimates and sales
- reviewing type and amount of inputs used
- assessing risk of field/crop contamination from use of prohibited materials in neighboring fields (internal & external); from water source; from inputs used; shared use of equipment; handling
- verification of cleaning records (where applicable)

7.3.6. ICS visit (farm/handling) report should contain sufficient information to determine compliance to standard, including but not limited to:

- site location(s); fields and facilities visited
- assessment of farm agro-ecological conditions, e.g. erosion, habitat conservation
- changes to unit profile; map(s); buffer zones
- condition of crops in the field and buffer zones
- pest, disease infestation and measures taken;
- harvest estimates and sales
- type and amount of inputs used, including planting material
- risk assessment of field/crop contamination from use of prohibited materials in neighboring fields (internal & external); from water source; from inputs used; shared use of equipment; handling

7.3.7. Sanctions shall be commensurate with severity of non-compliance and implemented effectively and fairly.

7.3.8. The Group operator shall maintain case reports of all sanctions applied, including

- identity of sanctioned member/unit
- nature of non-conformance



- nature of sanction
- implementation date & duration (where applicable)
- member respond to sanction
- resolution of sanction and date of reinstatement (where applicable)

7.3.9. The Group operator shall compile an annual report including the following information:

- status update and changes to Group organization & management;
- status update and issues arising from production, handling, marketing and sales;
- status update and changes to group membership & units, including issues arising from membership handling and training;
- status update and changes to ICS management & procedures, including training, conflict of interest management and issues arising from ICS implementation;
- status update and changes to risk assessment, i.e. identification of potential hazard, risks, preventive and mitigating measures;
- status update on non-conformances and sanctions applied.

## 7.4. External Inspection

7.4.1. Inspection of the group is carried out by the CB at least annually.

7.4.2. The inspection visit shall include both inspection for conformance with applicable scheme requirements and an evaluation of the effectiveness of the ICS.

7.4.3. The inspection shall include review of a sample of group members.

7.4.4. The sample number of group members shall be based on the risk classification of the group taking into account the following aspects:

- Number of member units in the group;
- Degree of similarity of the production/handling systems under certification;
- Geographical spread of member units;
- Locality of production units, e.g. vicinity to contamination risks;
- Difference in price value offered for members' organic produce/products from non-organic produce/product;
- Difficulty in producing/handling the produce/product under organic management from non-organic management;

- Availability and cost of using commercial agro-chemicals;
- Existence of parallel production/handling;
- Nature of group organization, e.g. self organized with established communal leadership engaged in range of social, cultural & cooperative activities or just individual contract farming arrangement;
- Group membership experience and knowledge in organic production/handling of produce/product;
- Recent change in group management and turnover of members;
- ICS management setup and procedures, available resources and staff;
- Results of ICS risk assessment;

## 7.5. External Inspection Criteria

7.5.1. Minimum number of sample size shall be calculated by taking the square root of  $n$ , where  $n$  is the total number of group members or 10, whichever is higher.

7.5.2. Sample cases should be selected based on a combination of random and risk-based assessment, including but not limited to:

- mix of new and old members
- geographical coverage of group operations & ICS field staff areas of responsibility
- product chain coverage of crop type & handling operations
- follow up of specified corrective action
- identified risk

7.5.3. Documented ICS assessment visits are done at least once or more a year in accordance with procedure for all group members.

7.5.4. ICS assessment/surveillance visits shall be conducted at the time of harvesting/handling where parallel production takes place. (e.g. organic & in-conversion or different organic certification schemes) to determine separate harvesting and handling of products.

7.5.5. Sample external inspection results should reflect similar results to assessment/surveillance visits carried out with ICS case documents.

7.5.6. Instances of nonconformance have been dealt appropriately by the ICS according to documented policy and procedures.

7.5.7. ICS maintains sufficient records to facilitate mass balance of each member and traceback of products when required.

7.5.8. Witness audits ICS field staff should be carried out along with sample external inspections.

7.5.9. ICS staff shall have good knowledge of applicable standards and certification requirements.

7.5.10. Conflict of interests between ICS staff and group members are documented and managed effectively.

7.5.11. Group members understand applicable organic agriculture standard/s, relevant regulatory and certification requirements.

7.5.12. Relationship between Group operator/management and members are cordial and not contentious.

## Appendixes

**Appendix 1:** List of Permitted Fertilizers and Soil Conditioners for the Production of Organic Food

**Appendix 2:** List of Permitted Crop Protectants, Growth Regulators and Seed Treatments for the Production of Organic Food

**Appendix 3:** List of Permitted Additives, Processing Aids for the Production of Organic Food

**Appendix 4:** List of Permitted Equipment Cleansers and Disinfectants That May Come Into Direct Contact with Food for the Production of Organic Food

**Appendix 5:** Guideline for Evaluation Additional Inputs to Organic Agriculture

**Appendix 6:** Guideline for Evaluation Additive and Processing Aids for Organic Processing

## Appendix 1: List of Permitted Fertilizers and Soil Conditioners

Substances Description Compositional Requirements	Conditions for use
<b>i. Plant and Animal Origin</b>	
Animal manure (including dried), slurry, urine, compost	The use of factory farm manure is only permitted if it undergoes full decomposition (e.g. composting/fermentation) and needs recognition from the competent authority and/or certification body. However, the use of pig and poultry (raised in battery cages) manure shall be subjected to country's regulation.
Guano	Needs to be recognized by the competent authority
Blood meal, meat meal, bone, bone meal	Subject to country's regulations.
Hoof and horn meal, feather meal, fish and fish products, wool, fur, hair, dairy products	
Biodegradable processing by-products, plant or animal origin, e.g. by-products of food, feed, oilseed, brewery, distillery, sugar press mud/mud press or textile processing	By-products should not come from GM sources (Not treated with synthetic additives).
By-products from oil palm, coconut and coca (including empty fruit bunch, coir, husks, palm oil mill effluent (pome), cocoa peat and empty cocoa pods	
Crop and vegetable residues, mulch, green manure, straw, azolla	
Wood, bark, sawdust, wood shavings, wood ash, wood charcoal, wood/bamboo vinegar	Should not be treated by synthetic chemicals
Calcium lignosulfonate	Recognized by the competent authority
Seaweed and seaweed products and by-products, algae	
Peat	Excluding synthetic additives; permitted for seed, potting module composts. Not permitted as a soil conditioner.
Plant preparations and extracts	Should not come from GM crops
Compost made from ingredients listed in this appendix, spent mushroom waste, humus from worms and insects and vermiculture substrate	
Urban sorted fermented or composts (city compost) from separated sources which are monitored for contamination	Recognized by the competent authority.
Naturally occurring biological organisms e.g. worms	
<b>ii. Mineral Origin</b>	
Basic slag	
Calcareous and magnesium amendments	
Limestone, marl, maerl, chalk, sugar beet lime	Recognized by the competent authority

## COrAA Standards for Organic Production

Calcium chloride solution	Recognized by the competent authority
Chloride of Lime	Recognized by the competent authority
Gypsum (calcium sulphate)	Only from natural sources/origin
Magnesium rock, kieserite and Epsom salt (magnesium sulfate)	Only from natural sources/origin
Rock potash, mined potassium salts (e.g. kainite, sylvinitite)	Only from natural sources/origin
Sulphate of potash (e.g. patenkali)	Only from natural sources/origin
Sulfur	Less than 60% chlorine
Natural phosphates e.g. Rock Phosphate	Obtained by physical procedures but not enriched by chemical processes to increase its solution
Pulverized rock, stone meal	Allowed if from natural source
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	Cadmium should not exceed 90mg/kg P <sub>2</sub> O <sub>5</sub>
Sodium chloride	
Trace elements (e.g. boron, copper, iron, manganese, molybdenum, zinc)	
Stillage and stillage extract	Only mined salt
Aluminum calcium phosphate	Need recognized by the competent authority
	Ammonium stillage excluded
	Cadmium should not exceed 90mg/kg P <sub>2</sub> O <sub>5</sub>
iii. Microbiological Origin	
Biodegradable processing by-products of microbial origin, e.g. by-products of brewery or distillery processing	
Microbiological preparations based on naturally occurring organisms	
iv. others	
Biodynamic preparations	

## Appendix 2: List of Permitted Crop Protectants, Growth Regulators and Seed Treatments for the Production of Organic Food

Substances Description Compositional Requirements	Conditions for use
I. Crop Protectants	
Chitin nematicides	
Coffee grounds	
Corn gluten meal	
Natural acids (e.g. vinegar)	
Preparations/products from Neem ( <i>Azadirachta spp.</i> )	
Fermented product from <i>Aspergillus</i>	
Plant oils	
Natural plant preparations such as tea seed meal, Fishtail palm extracts.	
Plant based repellents such as fermented plant juice, marigold.	
Preparations of <i>Chrysanthemum cinerariaefolium</i> .	
Preparations from <i>Quassiaamara</i>	The addition of synthetic Piperonyl butoxide to <i>Chrysanthemum</i> preparation is prohibited.
Preparations of Rotenone from <i>Derris elliptica</i> , <i>Lonchocarpus</i> , <i>Thephrosia spp.</i> )	The substance should be used in such a way as to prevent its flowing into waterways.
Preparations from <i>Ryaniaspeciosa</i>	Need recognized by the certification body or authority.
Spinosad	Use only where measures are taken to minimize the risk to parasitoids and to minimize the risk of development of resistance. Need, prescription and application rates recognized by certification body or authority
Sabadilla <sup>1</sup>	
Tobacco tea (pure nicotine is forbidden)	Need to be recognized by the competent authority
Chloride of lime	
Copper salts (e.g. sulfate, hydroxide, oxychloride, octanoate, cuprous oxide, Bordeaux mixture and Burgundy mixture	Need, prescription and application rates recognized by certification body or authority. As a fungicide on condition that the substance is used in such a way as to minimise copper accumulation in the soil. Competent authority should set limits for the maximum application on a national level taking into account pedo-climatic conditions type of crops and periodic disease attacks.
Diatomaceous earth	Need be recognized by the competent authority

<sup>1</sup> Sabadilla is derived from the seeds of the Sabadilla lily – a native plant of South America.

Light mineral oils (paraffin)	Need to be recognized by the competent authority
Lime sulfur (Calcium polysulfide	
Sodium bicarbonate	
Calcium hydroxide (hydrated lime)	For application on aerial plant parts only
Potassium bicarbonate	
Potassium permanganate	Need to be recognized by the competent authority
Iron phosphates	Need to be recognized by the competent authority
Calcium Oxide (Quicklime)	
Sulfur (in elemental form)	Other forms need to be recognized by the competent authority
Fungal preparations (e.g. <i>Metarhizium anisopliae</i> , <i>Trichoderma harzianum</i> , <i>Beauveria bassiana</i> )	
Bacterial preparations (e.g. <i>Bacillus thuringiensis</i> , spinosad)	
Release of parasites (e.g. <i>Trichogramma sp.</i> ), predators (e.g. ladybird beetle, earwig and lacewing) and sterilized insects	
Viral preparations (e.g. <i>granulosis virus</i> , Nuclear Polyhedrosis Virus (NPV), etc.)	
Potassium soap (soft soap)	
Rodenticides	Should come from natural origin.
Sulfur dioxide	
Thermal controls	
Traditional preparations (of non synthesized chemical nature) based on natural products	
Physical methods (e.g. chromatic traps, mechanical traps)	
Mineral oils	Need to be recognized by the competent authority
Mulches (including plastic mulch), nets	
Pheromones and attractants	Use in traps and dispensers only
Preparations on the basis of metaldehyde containing a repellent to higher animal species	As far as applied in traps.
<b>II. Growth Regulators</b>	
Algal preparations e.g. ( <i>Chlorella</i> )	
Animal preparations and oils e.g. fish extracts	
Beeswax	
Dairy products (e.g. milk, casein)	
Seaweed, seaweed meal, seaweed extracts	
Gelatine	
Lecithin	
Extract from mushroom ( <i>Shiitake fungus</i> )	
Propolis	
Ethylene	For degreening of citrus for fruit fly prevention and as a flowering agent for pineapples.  As sprouting inhibitor for potatoes and onions: Need recognized by the certification body or authority for sprout inhibition of stored potatoes and onions where varieties that have long dormancy



	<p>characteristics are not available, or these varieties are not suited to local growing conditions.</p> <p>Must be used in a manner that minimizes exposure to operators and workers for ripening of kiwifruit, bananas and other tropical fruit.</p>
Potassium hydrogen carbonate	
III. SEED TREATMENTS	
Wood ash	
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	
Silicates (e.g. sodium silicates, quartz)	
Carbon dioxide and nitrogen gas	
Ethyl alcohol	
IV. GROWTH REGULATOR AND SEED TREATMENT	
Mineral powders (stone meal)	
V. CROP PROTECTANT AND SEED TREATMENT	
Sterilized insect males to be used transferred under crop protectant category	
Sea-salt and salty water	
VI. CROP PROTECTANT, GROWTH REGULATOR AND SEED TREATMENT	
Herbal and biodynamic preparations	
Soda	
Sterilized insect males	
Homeopathic and Ayurvedic preparations	

### Appendix 3: List of Permitted Additives, Processing Aids for the Production of Organic Food

INS		Application/Conditions
INS 170i	Calcium carbonate	
INS 181	Tannin	Wine
INS 184	Tannic acid	Wine, Filtration aids
INS 220	Sulphur dioxide	Wine
INS 224	Potassium metabisulphite	Wine
INS 270	Lactic acid	Fruit/Vegetable Concentrated fruitvegetable juice & fermented vegetable products
INS 290	Carbon dioxide	
INS 296	Malic Acid (DL-)	
INS 300	Ascorbic acid	Fruit/Vegetable
INS 306	Tocopherols	mixed natural concentrates
INS 322	Lecithin	Obtained without use of bleaches and organic solvents
INS 327		*only for animal products
INS 330	Citric acid	<b>Not more than 1 gram/liter.</b> Produced by microbial fermentation of carbohydrate substances
INS 331i		*only for animal products
INS 332i		*only for animal products
INS 333	Calcium Citrates	
INS 334	Tartaric acid	Wine
INS 335	Sodium tartrate	Cake/Biscuit/Confectionery
INS 335ii		*included in INS 335
INS 336	Potassium tartrate	Cereal/Cake/Biscuit/Confectionery
<b>E337</b>	Potassium sodium tartrate	
INS 341	Calcium phosphate, [monobasic; dibasic; tribasic]	Cereal, For raising flour only
INS 342	Ammonium phosphate	Wine, Restricted to 0.3 gm/l
INS 400	Alginic acid	
INS 401	Sodium alginate	
INS 402	Potassium alginate	
INS 406	Agar	
INS 407	Carrageenan	
INS 410	Locust bean gum	
INS 412	Guar gum	
INS 413	<b>Tragacanth gum</b>	<b>IFOAM accredited programme</b>
INS 414	Arabic gum	Confectionery/ Milk products/ Fat products/ Egg
INS 415	Xanthan gum	Fruit/Vegetable/Cake/Biscuit
INS 416	Karaya Gum	
<b>E418</b>	<b>Gellan gum</b>	
INS 422	Glycerol	obtained from plant origin; used as a carrier for plant extracts
INS 428	Gelatin	

COraA Standards for Organic Production

INS 440	Pectins	For jam production
INS 500	Sodium carbonates	Cake/Biscuit/Confectionery [Sugar]
INS 500iii		
INS 501i	Potassium carbonate	Cereal/Cake/Biscuit/Confectionery, [Fruit/Vegetable/Wine]
INS 503	Ammonium carbonates	Cereal/Cake/Biscuit/Confectionery, Used as leavening agent
INS 503ii	Ammonium carbonates	Cereal/Cake/Biscuit/Confectionery, Used as leavening agent
INS 504	Magnesium carbonates	Cereal/Cake/Biscuit/Confectionery
INS 504ii		
INS 508	Potassium chloride	only for frozen and canned fruit and vegetable, ketchup and mustard
INS 509	Calcium chloride	Soybean/Fruit/Vegetable
INS 511	Magnesium chloride	Derived from sea water, for soybean products
INS 513	Sulphuric acid	Sugar, pH adjustment of water
INS 516	Calcium sulphate	From mined source, coagulating agent
INS 517	Ammonium sulphate	Wine, Restricted to 0.3 mg/l
INS 524	Sodium hydroxide	
INS 526	Calcium hydroxide	
INS 551	Silicon dioxide (silica)	Fruit/Vegetable/Wine
INS 553	Talc	
INS 558	Bentonite	Fruit/Vegetable
E575	Glucono delta-lactone	Production by oxidation of D-glucose with bromine water is prohibited. *for verification
INS 901	Beeswax	
INS 903	Carnauba wax	
INS 938	Argon	
INS 941	Nitrogen	
INS 948	Oxygen	
	Activated carbon/Charcoal	Only from vegetative sources. For use only as filtering aid.
	Asbestos free filter materials	
	Attapulgate	Processing aid for plant and animal oils
	Casein	Wine
	Cellulose	Use in regenerative casings, as anti-caking agent (non-chlorine bleached) and filtering aid
	Diatomaceous earth	Sweetener/Wine , Food filtering aid only
	Egg white lysozyme/albumin	
	Enzyme [Rennet; Catalase; Lipase; Pancreatin; Pepsin Trypsin]	Must be from natural sources ( <i>edible, nontoxic plants, nonpathogenic fungi or nonpathogenic bacteria</i> ) and not produced from GMOs. [animal derived]
	Ethanol	Use as Solvent
	Ethylene	Fruit Used as ripening agent. Only non-synthetic source is allowed.
	Ferrous sulfate	For iron enrichment or fortification of foods when required by regulation.
	Food coloring (Natural	E.g. green from pandan leaf, red from hibiscus, yellow from turmeric

COorAA Standards for Organic Production

	sources)	
	Glycerides (mono and di)	For use only in drum frying of food
	Isinglass	Wine
	Kaolin	
	Nut shells	
	Magnesium stearate	
	Magnesium sulfate	
	Micro-organisms	Must not be from GMOs, food grade
	Natural flavour	
	Nutrients vitamins and minerals	According to regulatory requirements
	Perlite	Only as filter aid in food processing
	pH adjusters [e.g. citric acid, sodium bicarbonate, or vinegar]	Must be from natural sources
	Potassium hydroxide	pH adjustment
	Potassium iodide	for iodine supplementation according to regulatory requirements
		Only for 'made with organic ingredients' labeling.
	Preparations of bark	
	Salt	From clean sources without contamination.
	Sodium acid pyrophosphate	Only as leavening agent
	Vegetable oils	
	Wood resin	
	Yeast	Must be organic for human consumption. Non-organic may be used if organic is unavailable. Growth on petrochemical substrate and sulfite waste liquor is prohibited. For smoked yeast, non-synthetic smoke flavoring process must be documented

### Appendix 4: List of Permitted Equipment Cleansers and Disinfectants that may come into Direct Contact with Food for the Production of Organic Food

Substances	Application/Comditions
Acetic acid	Cleaning agent
Alcohol, ethyl (ethanol)	Disinfection
Alcohol, isopropyl (isopropanol)	
Calcium hydroxide (slaked lime)	Disinfection, maximum residual limit: 0.4% Cleaning agent
Calcium hypochlorite	
Calcium oxide (quicklime)	
Chloride of lime (calcium oxychloride, calcium chloride, and calcium hydroxide)	Disinfection Shall not exceed residual disinfectant limit of safe drinking water
Chlorine dioxide	
Citric acid	Disinfection Shall not exceed residual disinfectant limit of safe drinking water
Cyclohexylamine (BWA)	
Diethylaminoethanol (BWA)	Use only as boiler water additive for packing sterilization
Formic acid	
Hydrogen peroxide	
Lactic acid	Disinfection
Natural essences of plants	Only as boiler water additive for package sterilization
Octadecylamine (BWA)	
Oxalic acid	Use as sanitizer on food contact surfaces. Use according to FDA limitations. For dairy production equipment only Cleaning agent
Ozone	
Peracetic acid	
Phosphoric acid	
Plant extracts	
Sodium carbonate	

## Appendix 5: Guideline for Evaluation Additional Inputs to Organic Agriculture

### Rational

Inputs used in organic agriculture shall be clearly checked and evaluated whether they are in compliance with COorAA Standards, especially other inputs that are not listed in the standards or in the list of COorAA Approved Inputs but producers need to use them. Therefore, producers shall check and evaluate those inputs prior to use. Only inputs that are in line with this guideline can be permitted by COorAA.

### Definition

Input means product used in organic production such as fertilizer, pesticide and other effective substances that are natural origin.

### Method of Evaluation

#### 1. Information or Documentation

Producers shall collect document regarding to raw materials, component, processing and other relevant data of the inputs for examination by COorAA. If the document is not sufficient, COorAA may not allow using those inputs.

#### 2. Evaluation of on farm inputs

Inputs produced from residue of plant, animal and microorganism, both inside and outside the farm, may be approved if the following criteria are met:

- 2.1. The use of the input is necessary for protection the quality of produce.
- 2.2. The materials or ingredients are of natural origin and the process is in compliance with COorAA Standards.
- 2.3. The input is bio-degradable.
- 2.4. The use of the input shall not have negative effects on human, animal, beneficial insects, living organisms in the soil and the environment.
- 2.5. The use of the input shall not affect both quality and safety of organic products.

#### 3. Evaluation of commercial inputs

Commercial inputs may be approved if the following criteria are met:

- 3.1. The use of the input is necessary for protection the quality of produce.
- 3.2. The materials or ingredients are of natural origin, e.g. organic matters and natural minerals, and the organic matters shall not be genetically engineered.

- 3.3. The collection of raw materials of the input and its process shall not affect the sustainability and the balance of ecology.
- 3.4. The input is biodegradable.
- 3.5. The use of the input shall not have negative effects on human, animal, beneficial insects, living organisms in the soil and the environment.
- 3.6. The use of the input shall not affect both quality and safety of organic products.

In case the input is complex and difficult, COrAA may apply the IFOAM Criteria to Evaluate Additional Inputs to Organic Agriculture as a guideline for approval.

## Appendix 6: Guideline for Evaluation Additives and Processing Aids for Organic Processing

### Rational

In organic processing, processing methods should be chosen to, at the most, be able to maintain nutritional value in organic food products without use of additives and processing aids or use as necessary. If operator needs to use additives or processing aids, the additives or processing aids shall be clearly checked and evaluated whether they are in compliance with COorAA Standards, especially if they are not listed in the standards or the list of COorAA Approved Additives and Processing Aids. Only additives and processing aids that are in line with this guideline can be permitted by COorAA.

### Definition

Additives mean supplementary or improving quality substances or any substances which are added to a product to affect its keeping quality, smell color, taste, consistency or other qualities. Additives may affect a product's inherent qualities and be a part of the final product.

Processing aids mean substances which are added during processing and removed before being the final product. Processing aids are not consumed as an ingredient and normally are not left as residues in the final product or left in very small amount. The examples of processing are filtration aid, solvent, etc.

### Method of Evaluation

#### 1. Information or Documentation

Operators shall collect document regarding to source of raw materials, component, processing method and other relevant data in the production of additives and processing aids for examination by COorAA. If the document is insufficient, COorAA may not allow to use those additives and processing aids.

#### 2. Evaluation

Additives and processing aids may be approved if the following criteria are met:

- 2.1. The use of additives and processing aids is essential to the production. Some products cannot be processed or preserved without additives and processing aids as such.
- 2.2. Raw materials or ingredients are of natural origin.
- 2.3. Processing method is in compliance with COorAA Standards.
- 2.4. Additives and processing aids are not genetically engineered products.
- 2.5. Additives and processing aids are harmless for consumers.



- 2.6. Additives and processing aids do not lose the authentic quality of products.
- 2.7. Additives and processing aids do not have negative effect to the environment.

In case additives and processing aids are complex and difficult or are not natural origin because quality and quantity of natural substances are not sufficient to be substitute, COorAA may apply the IFOAM Criteria to Evaluate of Additives and processing aids for Organic Food Products as a guideline for approval.