



Global Organic Market Access

**ASIA REGIONAL ORGANIC STANDARD
(AROS)**



ASIA REGIONAL ORGANIC STANDARD (AROS)

An Initiative of the

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PREFACE

The Asia Regional Organic Standard (AROS) was developed by a public-private partnership of stakeholders in East, South-East and South Asia under the auspices of the GOMA project, led by the Food and Agriculture Program of the United Nations (FAO), the International Federation of Organic Agriculture Movements (IFOAM) and the United Nations Conference on Trade and Development (UNCTAD).

This standard is a major component of an initiative to develop regional cooperation on organic labeling and trade. AROS can facilitate assessment and agreement on equivalence among organic standards in the Region, serve as a basis for the development of new standards, and stimulate harmonization of existing standards. The purpose and development of this standard is further described in the AROS Introduction, Section 1.0 of the document.

ABOUT THE ITF AND GOMA PROJECTS

The Food and Agriculture Organization of the United Nations (FAO), International Federation of Organic Agriculture Movements (IFOAM) and United Nations Conference on Trade and Development (UNCTAD) began a partnership in 2002 to address barriers to organic trade arising from the proliferation of organic standards and technical regulations. From 2002 to 2008 the partnership organized and supported the International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF), which drew together participants from 28 governments, seven intergovernmental organizations and more than 25 civil society/private sector organizations to assess the situation and explore solutions to the problem. By the end of 2008, the ITF issued a set of recommendations for harmonization, equivalence and other forms of cooperation to reduce the barriers and create clearer pathways for organic trade. ITF also produced two practical tools to facilitate equivalence assessments. The *Guide for Assessing Equivalence of Organic Standards and Technical Regulations (EquiTool)* facilitates equivalence assessments of organic production and processing standards. The *International Requirements for Organic Certification Bodies (IROCB)* facilitates assessments of the equivalence of good-practice requirements for organic certification bodies.

From 2009 to 2012 the three partner organizations conducted a follow-up project to continue pursuing the aims of harmonization and equivalence. The approach of the Global Organic Market Access (GOMA) project was to increase awareness of the need and opportunity for harmonization and equivalence for organic trade, to facilitate regional initiatives for cooperation, to promote the ITF Tools and offer technical assistance for using them, and to follow up on other recommendations and results of the ITF. GOMA's work included the facilitation of regional initiatives for harmonization and trade, including in East, South-East and South Asia.

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1 INTRODUCTION

1.1 ASIA REGIONAL ORGANIC STANDARDS (AROS)

AROS VISION AND PURPOSE

The main purpose for the establishment of AROS is to facilitate equivalence between organic standards and certification programmes within and beyond the Asia region. It was also anticipated that AROS could be adapted to serve as the national standard for some of the individual countries in the region. The Global Organic Market Access (GOMA) Working Group for Cooperation on Organic Labeling and Trade for Asia agreed on a vision and objectives for AROS.

Vision

To be inclusive of all or most countries in the East, South-East and South Asia regions and be based on common regional requirements. The standard can be adopted or adapted as a national standard, particularly by countries that have not yet developed and promulgated their own standard.

Objectives

- *To facilitate intra and inter-regional market access of organic products in the Asian region;*
- *To promote regional cooperation and exchange of information and enhance private and public sector dialogues;*
- *To promote the global recognition of the regional standards as a long-term goal.*

AROS DEVELOPMENT

The GOMA project is a joint FAO, IFOAM, UNCTAD project, which functioned from 2009 to 2012 to promote and foster equivalence and harmonisation of organic standards and technical regulations. A principal GOMA activity during this period was the facilitation of an initiative in East, South-East and South Asia to foster regional development of organic trade. GOMA organized a Working Group for Cooperation on Organic Labeling and Trade for Asia and this group decided to develop the Asia Regional Organic Standards (AROS). The Working Group established a sub-project to develop AROS and the following development process principles to guide its development:

- The standard should be developed through a highly inclusive process, although in-country consultation is foreseen as being determined and funded by the participating governments.
- The standard development to take into consideration:
 - The technical comparative study prepared by GOMA.
 - The requirements of the Codex Alimentarius Organic Guidelines and the IFOAM Basic standards version 2005.
 - The ITF-GOMA EquiTool – especially Annex 2 – Common Objectives and Related Requirements for Organic Standards – (COROS).
- The development process will be overseen by the Asia Organic Standards Drafting Group which is a subgroup of the Working Group.

The Drafting Group held workshops in the Philippines, Laos and South Korea to develop AROS with additional extensive in-country consultation undertaken on the drafts of AROS. The first draft was prepared at the March 2011 workshop held in the Philippines. Following feedback a second draft was developed at the Laos workshop in June 2011. The second draft was consulted with the GOMA-Asia Working group and in their respective countries during September-October 2012, and

a final draft taking the comment into account was prepared in December 2011. The GOMA-Asia Working Group approved the final draft at its meeting in Nuremberg, Germany in February 2012.

1.2 AROS SCOPE AND OBJECTIVES

The Asia Regional Organic Standard describes the requirements for organic production. It covers plant (including mushroom) production, collection of wild products 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 AROS is guided by the following objectives established for organic farming;

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

Organic farming systems and standards such as AROS are continually evolving in response to changing knowledge, production and market conditions. It is anticipated that in the future the scope of AROS 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 ASIAN ORGANIC FARMING AND TRADE

This standard has been developed for the Asian region that includes all those countries in East, South-East and South Asia. There is great diversity found within this region in relation to climate, crops produced, farming traditions and farming systems. However there are also some common features including the:

- Large number and traditional critical importance of small farms for supplying the majority of food. Many of these small farms also hold livestock such as chickens and pigs.
- Long history of agriculture being practiced in the region and the subsequent evolution of farming systems that are adapted to local conditions, resources and societal needs.
- Strong linkages between local food production and local, national and regional cultures.
- Importance of rice production and consumption in most of the countries in the region.
- Tropical climate over most of the region and the evolution of farming systems that are adapted to tropical climatic conditions.

Traditional approaches to farming in the Asian region 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.

Possibly as a result of this alignment between traditional farming and organic farming systems the understanding and subsequent development of organic farming in the region has been comparatively strong. Governments and non-government groups see a range of benefits associated with the increased adoption of organic production in their countries 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.

The Asia region hosts a wide range of organic sector development scenarios, from early development to highly regulated. It is now an accepted concept and growing market trend in the region and while exports remain a dominant feature of sector development in the majority of developing countries, local markets have emerged and are gaining ground.

ORGANIC PRODUCTION AND TRADE IN ASIA

Organic Agriculture in Asia –Key Figures 2009¹

- Asia has approximately 10% of the world's organic agricultural land.
- There were 731'315 producers reported.
- The leading countries by area are China (1.9 million hectares) and India (1.2 million hectares).

1 Survey of FiBL and IFOAM, based on national sources and data from certifiers

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, labelling, 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

Additive: 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.

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

Biodegradable inputs: Inputs composed of natural materials capable of being decomposed by bacteria or other biological means and includes – compost, green manures, plant and animal waste.

Biodiversity: 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).

Breeding: Selection of plants or animals to reproduce and / or to further develop desired characteristics in succeeding generations.

Buffer Zone: 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.

Carcinogen: Any natural or artificial substance that can produce or trigger cancer.

Certification: 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.

Certification Body: The body that conducts certification, as distinct from standard-setting and inspection.

Contamination: Contact of organic crops, animals, land or products with any substance that would compromise the organic integrity.

Conventional: Any production or processing practice or system that does not conform to organic production practices and standards.

Conversion: The time of transition from non-organic to organic farming.

Conversion Period: The time between the start of the organic management and the certification of crops and animal husbandry as organic.

Crop Rotation: The practice of alternating the species or families of annual and/or biennial crops grown on a specific field in a planned pattern or sequence so as to break weed, pest and disease cycles and to maintain or improve soil fertility and organic matter content.

Disinfecting: 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.

Exception: 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.

Factory Farming: Industrial management systems that are heavily reliant on veterinary and feed inputs not permitted in organic agriculture.

Farm Unit or Holding: 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.

Food Additive: An enrichment, supplement or other substance which can be added to a foodstuff to affect its keeping quality, consistency, color, taste, smell or other technical property (for full definition, see Codex Alimentarius).

Genetic Diversity: Genetic diversity means the variability among living organisms from agricultural, forest and aquatic ecosystems; this includes diversity within species and between species.

Genetic Engineering: 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.

Genetically Modified Organism (GMO): A plant, animal, or microbe that is transformed by genetic engineering.

GMO Derivative: 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.

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

Habitat: 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.

Handling: Manual or mechanical carrying, moving, delivering or working with something.

High Conservation Value Areas: Areas that have been identified as having outstanding and critical importance due to their environmental, cultural, socioeconomic, biodiversity or landscape values.

Homeopathic Treatment: 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.

Hydroponic Systems: Crop production systems in inert media or water using dissociated nutrients as the prime source of nutrient supply.

Ingredient: 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.

Irradiation: 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.

Isolated Nutrients: Individual and separate forms of nutrients.

Label: Any written, printed or graphic representation that is present on a product, accompanies the product, or is displayed near the product.

Media (plural) or Medium (singular): The substance in which an organism, tissue, or organ exists.

Mutagen: A substance or agent that can induce genetic mutation.

Neurotoxin: A toxin that damages or destroys nerve tissue.

Operation: For the purposes of this document an operation is an individual or business enterprise producing, processing or handling agricultural products.

Organic Agriculture: 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.

Organic Integrity: Adherence to the principles, objectives and standards for organic production.

Organic Product: A product that has been produced, processed, or handled in compliance with organic standards.

Organic Quality: Produced according to organic standards.

Parallel Production: A situation where the same operation is producing visually indistinguishable products in both an organic system and a non-organic system. A situation with "organic" and "in conversion" production of the same product may also be parallel production.

Plant Genetic Integrity: Maintaining plant varieties to ensure that they remain pure, true to type and not contaminated by other varieties.

Peat: Partially carbonized vegetable matter, usually mosses, found in bogs and used as fertilizer and fuel

Processing: The handling, treatment, transformation or packaging of agricultural or wild collected products.

Processing Aid: Any substance or material, not including apparatus or utensils, and not consumed as a food ingredient by itself, intentionally used in the processing of raw materials,

foods or its ingredients, to fulfill a certain 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.

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

Sanitizing: Any treatment that is effective in destroying or substantially reducing the numbers of vegetative cells of microorganisms of public health concern, and other undesirable microorganisms.

Soil Biodiversity: 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.

Split Production: Conventional, in conversion and/or organic production, breeding, handling or processing in the same operation.

Synthetic: 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.

Standards: 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.

Supply Chain: A system of organizations, people, technology, activities, information and resources involved in moving a product or service from a supplier to a customer.

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

Traditional agriculture: An indigenous form of farming based on knowledge generated, preserved and transmitted between generations and may exhibit a high level of understanding of local resources, social and environmental conditions.

Teratogen: Any agent that interferes with normal embryonic development

Wild Harvest: 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 PRODUCTION AND PROCESSING

2.1 ECOSYSTEM MANAGEMENT

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

REQUIREMENTS

2.1.1 Organic management maintains and / or enhances biodiversity on the farm holding, in crop and where applicable non-crop habitats. Examples of biodiversity enhancement strategies include the use of crop rotation, multiple cropping, green manuring, hedgerow plantings and border crops.

2.1.2 Organic management does not undertake any actions that create any negative impacts in officially recognized high conservation value and heritage areas- such as forests wildlife protection areas and watershed areas.

2.2 SOIL 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.

REQUIREMENTS

2.2.1 Organic crop production systems conserve or improve soil physical, chemical and biological properties including; organic matter, fertility and soil biodiversity.

2.2.2 Organic crop production systems enhance soil primarily by employing cultural management practices, incorporating manures and other biodegradable inputs, and/ or by nitrogen fixation from plants.

2.2.3 Soil fertility management employs measures to recycle organic materials within the production system where possible such as green manuring and composting.

2.2.4 Land clearing and preparation by burning vegetation is prohibited except where it is part of an established and well managed traditional management practice e.g. slash and burn shifting cultivation where it is to be restricted to a minimum.

2.2.5 Organic crop production systems employ measures to prevent land degradation, such as erosion, salinization and other related risks to soil loss and degradation.

2.2.6 Organic management ensures that water resources are used efficiently to meet farm production requirements with strategies established to optimize water use and prevent wastage.

2.2.7 Organic management prevents pollution of the environment and preserves the quality of land and water.

2.3 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

2.3.1 Organic management takes precautionary measures to avoid contamination that could affect the organic integrity of the supply chain. Precautionary measures may include barriers/buffer zones in production, cleaning of farm equipment, use of dedicated facilities and equipment and cleaning in processing.

2.3.2 Organic management actively addresses risks of contamination. Where there is reasonable suspicion of contamination, efforts shall be made to identify and address the source of contamination.

2.3.3 Organic management systems do not use genetically modified organisms (GMO) or their derivatives, in all stages of organic production and processing.

2.3.4 Organic management systems restrict the use of non-bio-degradable coverings and mulches.

2.4 WILD HARVESTED PRODUCTS AND COMMON/PUBLIC LAND MANAGEMENT

OBJECTIVES

The harvesting of products from wild or common land areas is undertaken sustainably, does not use prohibited inputs or practices and ensures products are not contaminated.

REQUIREMENTS

2.4.1 Organic wild harvest management ensures that harvesting does not exceed the sustainable yield of the harvested species or otherwise threaten the local ecosystem.

2.4.2 Organic operators harvest products only from within the boundaries of the clearly defined wild harvest area.

2.4.3 Organic wild harvest management excludes systems that harvest officially protected or endangered species.

2.4.4 Wild harvest areas are at an appropriate distance from conventional farming, pollution and other potential sources of contamination.

2.5 CONVERSION REQUIREMENTS

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

2.5.1 There shall be a period of at least 12 months organic management for annuals and 18 months for perennials that meets all the requirements of these standards before the resulting product can be considered organic. The conversion period can be extended based on the identification and evaluation of relevant issues and risks.

An exemption to this requirement may be approved where there is a verifiable record of the unbroken use of traditional agriculture practices with no use of non-permitted inputs or activities.

2.5.2 The start of the conversion period shall be calculated from the date of the documented start of organic management.

2.6 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

2.6.1 Organic management completely and clearly separates the non-organic and organic parts and products of holdings with split or parallel production, e.g. through physical barriers; management practices such as the production of different varieties or the timing of harvest; storage of inputs and products.

2.7 MAINTENANCE OF ORGANIC MANAGEMENT

OBJECTIVES

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

REQUIREMENT

2.7.1 Organic management does not rely upon switching back and forth between organic and conventional management. Exceptions to this may only be made in cases where compelling reasons to cease organic management on the certified organic land are present and in these cases conversion requirements apply.

3 CROP PRODUCTION MANAGEMENT SYSTEMS

3.1 CHOICE OF CROPS AND VARIETIES

OBJECTIVES

Appropriate crops and varieties are grown to suit local conditions. The organic integrity of crops is maintained in production.

REQUIREMENTS

3.1.1 Operators are encouraged to preserve the plant genetic integrity of varieties and traditional ecotypes. As an example the use of locally sourced or native varieties is encouraged while the use of GMO varieties is prohibited.

3.1.2 Organic crop production uses seed and planting materials that are of organic quality unless such seed and materials are unavailable.

3.1.3 Organic crop production systems use untreated seeds and planting materials whenever available. If treated, they are treated only with substances that are listed in Appendix 2 unless treatment with other substances is required or unless seed and planting material not treated with these other substances is unavailable. In these situations any prohibited chemical treatment shall be removed from the seeds or planting materials before use. Exemptions are limited in time or subject to review.

3.2 DIVERSITY IN CROP PRODUCTION

OBJECTIVES

The selection of crop species and varieties is based on an understanding of their adaptation to local conditions, pests and diseases and the broader ecological relationships present in healthy farming systems. Organic crop production systems produce terrestrial crops in soil-based systems.

REQUIREMENTS

3.2.1 Organic crop production includes the use of diverse plantings as an integral part of the farm management system. For perennial crops, this includes the use of plant-based ground cover. For annual crops, this includes the use of crop rotation practices, cover crops (green manures), integrated crop management, intercropping or other diverse plant production with comparable achievements.

3.2.2 Organic crop production systems produce terrestrial crops in soil-based systems.

3.3 SOIL FERTILITY AND FERTILIZATION

OBJECTIVES

Soil fertility management nourishes plants primarily through the soil ecosystem and achieves nutrient balance.

REQUIREMENTS

3.3.1 Organic soil fertility management uses only naturally occurring mineral fertilizers and only as a supplement to biologically-based fertility methods such as green manures and compost.

3.3.2 Organic soil fertility management uses only crop fertility substances that are listed in Appendix 1.

3.3.3 Organic soil fertility management does not use

- Synthetic fertilizers;
- Fertilizers made soluble by chemical methods, e.g. superphosphates.

3.3.4 Organic soil fertility management does not use human excrement on leafy, tuber or root crops. Where it is used in other crops it will not come into contact with the edible parts of a crop and measures are established to protect humans from pathogens for example through composting or fermentation as listed in Appendix 1.

3.4 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

3.4.1 Organic crop production management employs interrelated positive processes and mechanisms for the management of pests, diseases, and weeds. These include but are not limited to site and crop adapted fertility management and soil tillage, crop cultural practices, choice of appropriate varieties, enhancement of functional biodiversity e.g. planting host plants for beneficial insects, mulching to control weeds. In case additional measures are required, thermal controls and the use of crop protectants and growth regulators are permitted (see 3.4.2).

3.4.2 Organic crop production uses only active substances for pest/disease/growth management that are listed in Appendix 2.

3.4.3 Organic crop production ensures that co-formulants (e.g. inert and synergists) in formulated farm production input products are not carcinogens, mutagens, teratogens or neurotoxins.

3.5 POST HARVEST MANAGEMENT

OBJECTIVES

On farm post harvest management maintains the organic integrity of organic products.

REQUIREMENTS

3.5.1 On-farm post harvest management takes measures to prevent contamination and commingling of organic products with non-organic products in processing, handling, packaging, storage and transport; for example in the threshing, peeling, hulling, cleaning, cooling, cutting, drying and packing of products.

4 PROCESSING AND HANDLING

4.1 GENERAL

OBJECTIVES

Processing and handling management systems maintain the organic integrity of organic products.

REQUIREMENTS

4.1.1 Organic processing management takes measures to prevent contamination and co-mingling of organic products with non-organic products in processing, handling, packaging, storage and transport. For example – the transportation of organic and non-organic products can only occur if adequate measures are in place to prevent mixing or contamination such as the products having different labeling and separate handling practices.

4.2 INGREDIENTS

OBJECTIVES

Organic processed products are made from organic ingredients.

REQUIREMENTS

4.2.1 Organic processing uses only organic ingredients except for when they are not available and subject to the labeling requirements in section 5. The same ingredient in a product shall not be derived from both an organic and a non-organic source.

4.2.2 Organic processing only uses minerals (including trace elements), vitamins, essential fatty, amino acids, and other isolated nutrients when their use is legally required or strongly recommended by the competent authority, in the food products in which they are incorporated.

4.3 PROCESSING METHODS

OBJECTIVES

Organic food is processed by biological, mechanical or physical processing techniques.

REQUIREMENTS

4.3.1 For food and feed production, organic processing uses only processing methods that are biological, mechanical and physical in nature such as hulling, milling, fermentation, grinding, pressing and dehydration

4.3.2 Organic processing uses only additives, processing aids, other substances that modify organic products and solvents used for extraction if they that are listed in Appendix 3 and 4.

4.3.3 Organic processing does not use irradiation (ionizing radiation) technologies.

4.3.4 Filtration techniques used in organic processing do not chemically react with or modify the product at the molecular level.

4.4 PEST AND DISEASE CONTROL

OBJECTIVES

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

REQUIREMENTS

4.4.1 Organic processing management systems control pests according to a hierarchy of practices starting with prevention, and then physical, mechanical, biological methods and substances that are in Appendix 4. Pest and disease control examples include the use of physical barriers, sound, ultra-sound, light and UV-light, traps (including pheromone traps), temperature control, controlled atmosphere and diatomaceous earth. Where these practices are not effective, and other substances are used, they do not come into contact with the organic product.

4.5 PACKAGING

OBJECTIVES

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

REQUIREMENTS

4.5.1 The packaging, storage and transportation containers used for organic products do not contaminate the organic product. For example – packaging materials or storage containers that contain a synthetic fungicide, preservative or fumigant are prohibited as is the use of re-used bags or containers that have been in contact with any substance likely to compromise the organic integrity of a product or ingredient placed in those containers.

4.6 CLEANING, DISINFECTING AND SANITIZING OF FOOD PROCESSING FACILITIES

OBJECTIVES

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

REQUIREMENTS

4.6.1 Organic management employs only those systems for cleaning and disinfecting surfaces, machinery and processing facilities that prevent contamination of the organic product.

4.6.2 Organic processing restricts disinfecting and sanitizing substances that may come in contact with organic products to water and substances that are listed in Appendix 5. In cases where these substances are ineffective and others must be used, these other substances must not come into contact with any organic products.

5 LABELING

5.1 GENERAL

OBJECTIVES

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

REQUIREMENTS

- 5.1.1 Labeling fully discloses ingredients in the order of their weight percentages and whether or not they are organic. As an exemption - if herbs and/or spices constitute less than 2 % of the total weight of the product, they may be listed as “spices” or “herbs”.
- 5.1.2 Labeling identifies the entity legally responsible for the product and the body that assures conformity to the applicable organic standard.
- 5.1.3 Claims that processed products are “organic” are made only if the product contains at least 95% organic ingredients (by weight for solids or by volume for liquids- excluding water and salt). The non-organic ingredients shall not be genetically modified, irradiated or treated with processing aids not listed in Appendix 4.
- 5.1.4 Claims that processed products are “made with organic ingredients” or similar terms are made only if the product contains at least 70% organic ingredients (by weight for solids or by volume for liquids - excluding water and salt).
- 5.1.5 Labeling does 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 list of ingredients.)
- 5.1.6 Labeling clearly distinguishes in-conversion products or similar terms from organic products. Labeling ensure that products labeled as “organic” or “in-conversion”, or an equivalent term (e.g. biologic or ecological), comply with the applicable organic standards.

APPENDICES

These appendices detail approved inputs that can be used in the production and processing of organic food. The lists are based on the lists from the IFOAM Norms version 2005 and the Codex Alimentarius Organic Guidelines.

Any amendment to these appendices needs to be based on the criteria detailed in Section 5. *Requirements for Inclusion of Substances in Annex 2 and Criteria for the Development of Lists of Substances by Countries* – of the Codex Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods (GL32-1999). Any updates made to the Codex Guideline lists can also be adopted for this Standard based on the review and agreement of the designated competent authority with established governance over this Standard.

The use of any input listed in these appendices is subject to recognition by and agreement of the relevant certification body or authority.

APPENDIX 1: FERTILIZERS AND SOIL CONDITIONERS

Substances Description, Compositional Requirements	Conditions for Use
i. Plant and Animal Origin	
Animal manure (including dried), slurry, urine, compost.	<p>The restricted use of factory farm manure is permitted but this needs to undergo:</p> <ul style="list-style-type: none"> - Testing for residues where there is a risk of their presence e.g. veterinary drugs, pesticides, hormones and heavy metals. - That it undergoes full decomposition e.g. composting /fermentation
Guano	Subject to relevant resource conservation regulations.
Source separated human excrement (human waste is not mixed with other materials).	Not to be directly applied on edible parts of plants intended for human consumption. The source is separated from household and industrial wastes that pose a risk of chemical contamination. It is treated sufficiently to eliminate risks from pests, parasites, pathogenic micro-organisms for example through composting or fermentation
Blood meal, meat meal, bone, bone meal	
Hoof and horn meal, feather meal, fish and fish products, wool, fur, hair, dairy products	
Biodegradable processing by-products, plant or animal origin, e.g. by-products of food, feed, oilseed, brewery, distillery, sugar, press mud or textile processing (Not treated with synthetic additives).	By-products cannot be from GMO crops
By-products from oil palm, coconut and cocoa (including empty fruit bunch, coir, husks, - palm oil mill effluent (pome), cocoa peat and empty cocoa pods)	
By-products of industries processing ingredients from organic agriculture.	
Crop and vegetable residues, mulch, green manure, straw, azolla.	
Wood, bark, sawdust, wood shavings, wood ash, wood, charcoal, wood/bamboo vinegar,	Wood not to be chemically treated after felling.
Seaweed and seaweed products and by-products, algae	
Peat (prohibited for soil conditioning)	Excluding synthetic additives; permitted for inclusion in potting mixes. Not permitted as a soil conditioner.

Plant preparations and extracts	
Compost made from ingredients listed in this appendix, spent mushroom waste, humus from worms and insects and vermiculture substrate.	The initial composition of the substrate must be limited to the products on this list.
Urban sorted fermented or composts (city compost) (from separated sources which are monitored for contamination)	
Naturally occurring biological organisms e.g. worms	
ii. Mineral Origin	
Basic slag	
Calcareous and magnesium amendments	
Limestone, marl, maerl, chalk, sugar beet lime,	
Calcium chloride solution	Leaf treatment in case of proven calcium deficiency.
Chloride of Lime	
Gypsum (calcium sulphate)	Only from natural sources/origin.
Magnesium rock, kieserite and Epsom salt (magnesium sulfate)	
Mineral potassium (e.g. sulfate of potash, muriate of potash, kainite, sylvanite, patentkali)	Shall be obtained by physical procedures but not enriched by chemical processes. Less than 60% chlorine.
Natural phosphates e.g. Rock Phosphate	Cadmium should not exceed 90mg/kg P205
Pulverized rock, stone meal	
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	
Sodium chloride	Only mined salt
Trace elements	
Sulfur	
Stillage and stillage extract ²	Ammonium stillage excluded
Aluminum calcium phosphate	Cadmium should not exceed 90mg/kg P205
iii. Microbiological	
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	

² Stillage is the residue grain from the manufacture of alcohol from grain; used as a feed.

APPENDIX 2: CROP PROTECTANTS, GROWTH REGULATORS AND SEED TREATMENTS

Substances Description, Compositional Requirements	Conditions for Use
i.) Plant and Animal Origin	
Algal preparations e.g. extract from Chlorella	
Animal preparations and oils e.g. fish extracts	
Beeswax	
Chitin nematicides	To be of a natural origin
Coffee grounds	
Corn gluten meal (weed control)	
Dairy products (e.g. milk, casein)	
Gelatine	
Lecithin	
Extract from mushroom (Shiitake fungus)	
Natural acids (e.g. vinegar)	
Preparations/products from Neem (<i>Azadirachta indica</i>)	
Plant oils	
Natural plant preparations such as tea seed meal, Fishtail palm extracts.	
Plant based repellents such as fermented plant juice, marigold.	
Propolis	
Preparations of <i>Chrysanthemum cinerariaefolium</i> .	The synergist Piperonyl butoxide is prohibited.
Preparations from <i>Quassia amara</i>	
Preparations of Rotenone from Derris <i>elliptica</i> , <i>Lonchocarpus</i> , <i>Thephrosia</i> spp.)	The substance should be used in such a way as to prevent its flowing into waterways.
Preparations from <i>Ryania speciosa</i>	
Sabadilla ³	
Tobacco tea (pure nicotine is forbidden)	
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
Seaweed, seaweed meal, seaweed extracts	
Wood ash	

³ Sabadilla is derived from the seeds of the Sabadilla lily – a native plant of South America.

ii) Mineral Origin	
Chloride of lime	
Clay (e.g. bentonite, perlite, vermiculite, zeolite)	
Copper salts (e.g. sulfate, hydroxide, oxychloride, octanoate, cuprous oxide, Bordeaux mixture and Burgundy mixture)	Need, prescription and application rates recognised by certification body or authority. As a fungicide on condition that the substance is used in such a way as to minimize copper accumulation in the soil. Authorities 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	
Light mineral oils (paraffin)	
Lime sulfur (Calcium polysulfide)	
Iron phosphates	As molluscicide
Potassium bicarbonate	
Potassium permanganate	
Quicklime	
Silicates (e.g. sodium silicates, quartz)	
Sodium bicarbonate	
Sulfur	Need to be recognised by the certification body or authority.
Mineral powders (stone meal, silicates)	
iii) Organisms	
Fungal preparations	
Bacterial preparations (e.g. <i>Bacillus thuringiensis</i>)	
Release of parasites, predators and sterilized insects e.g. <i>Trichogramma</i> wasp, ladybirds.	
Viral preparations (e.g. <i>granulosis</i> virus)	
iv.) Others	
Herbal and biodynamic preparations	
Calcium hydroxide	
Carbon dioxide and nitrogen gas	
Ethyl alcohol	
Ethylene	For fruit fly control in citrus and as an agent to control flowering in pineapples. For ripening of kiwifruit, bananas and other tropical fruit.
Homeopathic and Ayurvedic preparations	
Sea-salt and salty water	
Soda	
Potassium soap (soft soap)	

Rodenticides	Need, prescription and application rates recognised by certification body or authority.
Sulfur dioxide	
Thermal controls	
Traditional preparations (of non synthesized chemical nature) based on natural products	
Bio-dynamic preparations	
V.) Traps, Barriers, Repellents	
Physical methods (e.g. chromatic traps, mechanical traps)	
Mineral oils	
Mulches, nets	
Pheromones – in traps and dispensers only	

APPENDIX 3: LIST OF APPROVED ADDITIVES

Additives permitted for use under specified conditions in certain organic food categories or individual food items.

The following table provides a list of those food additives including carriers that are allowed for use in organic food production. The functional uses and food categories and individual food items for each food additive in the following table are governed by the provisions in Tables 1–3 of the General Standard for Food Additives and other standards which have been adopted by the Codex Alimentarius Commission. The table is an indicative list for the purpose of processing organic food only. Food additives in this Table can be used to perform the function indicated in the specified food products. Where the substances listed in this annex can be found in nature, natural sources are preferred. Substances of certified organic origin are preferred.

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
INS 170i	Calcium carbonate	All	Permitted, although exclusions of the GSFA still apply	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 220	Sulfur dioxide	All	14.2.2 Cider and perry 14.2.3 Grape wines 14.2.4 Wines (other than grapes) <i>Products made from tropical plants such as coconut oil, tapioca starch, raisins grown in areas of high humidity</i>	14.2.5 Mead
INS 224	Potassium metabisulphate		Only for wine	
INS 270	Lactic acid (L-D- and DL-)	All	04.2.2.7 fermented vegetables (including mushrooms and fungi, roots and tubers, pulse and legumes, and aloe vera) and seaweed products, excluding fermented soybean products of food category 12.10	01.0 Dairy products and analogues, excluding products of food category 02.0 08.4 Edible casings (e.g. sausage casings)
INS 290	Carbon dioxide	All	Permitted, although exclusions of the GSFA still apply.	Permitted, although exclusions of the GSFA still apply.
INS 296	Malic acid (DL-)	All	Permitted, although exclusions of the GSFA still apply.	Not permitted
INS 300	Ascorbic acid	All	Provided insufficient natural sources are available. Permitted, although exclusions of the GSFA still apply.	Provided insufficient natural sources are available. 08.2 Processed meat, poultry and game products in whole pieces or cuts 0.8.3 Processed comminuted meat, poultry and game products. 08.4 Edible casings (e.g. sausage casings)
INS 306	Tocopherols (mixed natural concentrates)	All	Permitted, although exclusions of the GSFA still apply.	All mixed products allowed under the General Standard for Food Additives and Standards adopted by the Codex Alimentarius Commission.

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
INS 322	Lecithins (obtained without using bleaches and organic solvents)	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0 02.0 Fats and oils and fat emulsions. 12.6.1 Emulsified sauces (e.g. mayonnaise, salad dressing) 13.1 Infant formulae and follow-on formulae 13.2 Complementary foods for infants and young children
INS 327	Calcium Lactate	All	Not permitted	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 330	Citric acid	All	04.0 Fruits and vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweeds and nuts and seeds	As a coagulation agent for specific cheese products and for cooked eggs 01.6 Cheese and analogues 02.1 Fats and oils essentially free from water 10.0 Egg and egg products
INS 331i	Sodium Dihydrogen citrates	All	Not permitted	01.1.1.2 Butter milk (plain) (Stabilizer only). 01.1.2 Dairy based drinks, flavoured and or fermented (e.g. chocolate milk, cocoa, eggnog, drinking yoghurt, whey-based drinks). 01.2.1.2 Fermented milks (plain), heat treated after fermentation (Stabilizer only). 01.2.2 Renneted milk (Stabilizer only). 01.3 Condensed milk and analogues (plain) (Stabilizer only). 01.4 Cream (plain) and the like (Stabilizer only). 01.5.1 Milk powder and cream powder (plain) (Stabilizer only).

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
				01.6.1 Unripened cheese (Stabilizer only). 01.6.4 Processed cheese (Emulsifier only) 01.8.2 Dried whey and whey products, excluding whey cheeses. To be used in pasteurization of egg whites only in the following: 10.2 Egg products.
INS 332i	Potassium Dehydrogenate citrates	All	Not permitted	Permitted, although exclusions of the GSFA still apply.
INS 333	Calcium citrates	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 334	Tartaric acid	All	Permitted, although exclusions of the GSFA still apply.	Not permitted.
INS 335i	Monosodium tartrate	All	05.0 Confectionery	Not permitted
INS 335ii	Disodium tartrate	All	07.2.1 Cakes	Not permitted
INS 336ii	Dipotassium tartrate	All	07.2.1 Cakes	Not permitted
INS 341i	Monocalcium orthophosphate	All	06.2.1 Flours	Not permitted
INS 342	Ammonium phosphate	All	Restricted to 0.3 gm/l in wine	
INS 400	Alginic acid	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 401	Sodium alginate	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0 All mixed products allowed under the General Standard for Food Additives and Standards adopted by the Codex Alimentarius Commission

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
INS 402	Potassium alginate	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0 All mixed products allowed under the General Standard for Food Additives and Standards adopted by the Codex Alimentarius Commission
INS 406	Agar	All	Permitted, although exclusions of the GSFA still apply.	Permitted, although exclusions of the GSFA still apply.
INS 407	Carrageenan	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 410	Carob bean gum	All	Permitted, although exclusions of the GSFA still apply.	01.1 Milk and dairy based drinks. 01.2 Fermented and renneted milk products (plain) excluding food category 01.1.2 (dairy based drinks). 01.3 Condensed milk and analogues (plain). 01.4 Cream (plain) and the like. 01.5 Milk powder and cream powder and powder analogues (plain). 01.6 Cheese and analogues. 01.7 Dairy based desserts (e.g. pudding, fruit or flavoured yoghurt). 01.8.1 Liquid whey and whey products, excluding whey cheeses. 08.1.2 Fresh meat, poultry, game products in wholes pieces or cuts. 08.2 Process meat, poultry and game products in whole pieces or cuts.

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
				08.3 Processed comminuted meat, poultry, and game products. 08.4 Edible casings (e.g. sausage casings)
INS 412	Guar gum	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0. 8.2.2 Heat treated processed meat, poultry and game products in whole pieces or cuts. 8.3.2 Heat treated processed comminuted meat, poultry and game products.
INS 413	Tragacanth gum	All	Permitted, although exclusions of the GSFA still apply.	Permitted, although exclusions of the GSFA still apply.
INS 414	Arabic gum	All	02.0 Fats and oils and fat emulsions 05.0 Confectionary	01.0 Dairy products and analogues, excluding products of food category 02.0 02.0 Fats and oils and fat emulsions. 05.0 Confectionary
INS 415	Xanthan gum	All	02.0 Fats and oils and fat emulsions 04.0 Fruits and vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweeds and nuts and seeds. 07.0 Bakery wares 12.7 Salads (e.g. macaroni salad, potato salad).	Not permitted.
INS 416	Karaya gum	All	Permitted, although exclusions of the GSFA still apply.	Not permitted.

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
INS 422	Glycerol	All	<p>Obtained from plant origin; used as a carrier for plant extracts</p> <p>04.1.1.1 Untreated fresh fruit</p> <p>04.1.1.1.2 Surface treated fresh fruit</p> <p>04.1.1.2 Processed fruit</p> <p>04.2.1.2 Surface treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweeds and nuts and seeds.</p> <p>04.2.2.2 Dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweeds and nuts and seeds.</p> <p>04.2.2.3 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), and seaweeds in vinegar, oil, brine, or soy sauce.</p> <p>04.2.2.4 Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera) and seaweed and nut and seed purees and spreads (e.g. peanut butter).</p> <p>04.2.2.5 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweed and nut and seed pulps and preparations</p>	

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
			04.2.2.6 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweed and nut and seed pulps and preparations (e.g. vegetable deserts and sauces, candied vegetables) other than food category 04.2.2.5. 04.2.2.7 Fermented vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera) and seaweed products excluding fermented soybean products of food category 12.10. 12.2 Herbs, spices, seasoning and condiments e.g. seasoning for instant noodles).	Not permitted.
INS 440	Pectins (non-amidated)	All	Permitted, although exclusions of the GSFA still apply.	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 500ii INS 500iii	Sodium hydrogen carbonate Sodium sesquicarbonate	All	05.0 Confectionary 07.0 Bakery wares	01.0 Dairy products and analogues, excluding products of food category 02.0
INS 501i	Potassium carbonate	All	05.0 Confectionary 06.0 Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses and legumes, excluding bakery wares of food category 07.0. 07.2 Fine bakery wares (sweet, salty, savory) and mixes.	Not permitted.
INS 503 i INS 503ii	Ammonium carbonate Ammonium hydrogen carbonate	Acidity regulator Raising agent	Permitted, although exclusions of the GSFA still apply.	Not permitted.

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
INS 504i INS 504ii	Magnesium carbonate Magnesium hydrogen carbonate	All	Permitted, although exclusions of the GSFA still apply.	Not permitted.
INS 508	Potassium chloride	All	04.0 Fruits and vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweeds and nuts and seeds. 12.4 Mustards 12.6.2 Non-emulsified sauces (e.g. ketchup, cheese sauces, cream sauces, brown gravy).	Not permitted.
INS 509	Calcium chloride	All	04.0 Fruits and vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera), seaweeds and nuts and seeds. 06.8 Soybean products (excluding soybean products of food category 12.9 and fermented soybean products of food category 12.10) 12.9.1 Soybean protein products. 12.10 Fermented soybean products.	01.0 Dairy products and analogues, excluding products of food category 02.0 08.2 Process meat, poultry and game products in whole pieces or cuts. 08.3 Processed comminuted meat, poultry, and game products. 08.4 Edible casings (e.g. sausage casings)
INS 511	Magnesium chloride	All	06.8 Soybean products (excluding soybean products of food category 12.9 and fermented soybean products of food category 12.10) 12.9.1 Soybean protein products. 12.10 Fermented soybean products.	Not permitted.

International Numbering System	Additive Name	Functional use allowed in organic production	Permitted for use in food categories	
			Food of plant origin	Food of animal origin
INS 516	Calcium sulfate	All	06.8 Soybean products (excluding soybean products of food category 12.9 and fermented soybean products of food category 12.10) 07.2.1 Cakes, cookies and pies (e.g. fruit-filled or custard type). 12.8 Yeast and like products. 12.9.1 Soybean protein products. 12.10 Fermented soybean products.	Not permitted.
INS 517	Ammonium sulfate	All	Only for wine restricted to 0.3 mg/l.	
INS 524	Sodium hydroxide	All	06.0 Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses and legumes, excluding bakery wares of food category 07.0. 07.1.1.1 Yeast leavened breads and speciality breads.	Not permitted.
INS 526	Calcium hydroxide	All	Food additive for maize tortilla flour	
INS 551	Silicon dioxide (amorphous)	All	12.2 Herbs, spices, seasonings and condiments e.g. seasonings for instant noodles).	Not permitted.
INS 938	Argon	All		
INS 941	Nitrogen	All	Permitted, although exclusions of the GSFA still apply.	Permitted, although exclusions of the GSFA still apply.
INS 948	Oxygen	All		

Flavorings

- Substances and products labeled as natural flavouring substances or natural flavoring preparations are defined in the General Requirements for Natural Flavourings (CAC/GL 29-1987).
- Organic flavoring extracts (including volatile oils).
- Volatile (essential) oils produced by means of solvents such as oil, water, ethanol, carbon dioxide and mechanical and physical processes.
- Natural smoke flavor.
- Water and salts.
- Drinking water.
- Salts (with sodium chloride or potassium chloride as basic components generally used in food processing).
- Preparations of micro-organisms and enzymes.
- Any preparation of micro-organisms and enzymes normally used in food processing, with the exception of micro-organisms genetically engineered/modified or enzymes derived from genetic engineering.
- Minerals (including trace elements), vitamins, essential fatty and amino acids, and other nitrogen compounds.
- Only approved in so far as their use is legally required in the food products in which they are incorporated.

APPENDIX 4: PROCESSING AIDS WHICH MAY BE USED FOR THE PREPARATION OF PRODUCTS OF AGRICULTURAL ORIGIN

Substance	Specific conditions
For Plant Products	
Water	
Calcium chloride	Coagulation agent
Calcium carbonate	
Calcium hydroxide	
Calcium sulphate	
Magnesium chloride (or nigari)	Coagulation agent
Potassium carbonates	Drying of grape raisins
Carbon dioxide	
Nitrogen	
Ethanol	Solvent
Tannic acid	Filtration aid
Egg white albumin	
Casein	
Gelatine	
Isinglass	
Vegetable Oils	Greasing or releasing agent
Silicon dioxide	As gel or colloidal solution
Activated carbon	
Talc	
Bentonite	
Kaolin	
Diatomaceous earth	
Perlite	
Hazelnut shells	
Beeswax	Releasing agent
Carnauba wax	Releasing agent
Sulphuric acid	pH adjustment of extraction water in sugar production
Sodium hydroxide	pH adjustment in sugar production
Tartaric acid and salts (Sodium and Potassium tartrate)	
Sodium carbonates	Sugar production
Preparations of bark components	
Potassium hydroxide	pH adjustment for sugar processing
Citric acid	pH adjustment
Tannin	
Lactic acid	

Malic acid	
Lecithin	
Oxygen	

Preparations of micro-organisms and enzymes

- Any preparations of micro-organisms and enzymes normally used as processing aids in food processing, with the exception of genetically engineered/modified organisms and enzymes derived from genetically engineered/modified organisms.
- Approval needs to be based on compliance with the relevant criteria of this Standard.

Extraction shall only take place with – water, ethanol, plant and animal oils, vinegar, carbon dioxide and nitrogen. They shall be of a quality appropriate for the purpose.

APPENDIX 5: INDICATIVE LIST OF EQUIPMENT CLEANSERS AND EQUIPMENT DISINFECTANTS THAT MAY COME INTO DIRECT CONTACT WITH FOOD

Product	Limitation/Note
Acetic acid	
Alcohol, ethyl (ethanol)	
Alcohol, isopropyl (isopropanol)	
Calcium hydroxide (slaked lime)	
Calcium hypochlorite	
Calcium oxide (quicklime)	
Chloride of lime (calcium oxychloride, calcium chloride, and calcium hydroxide)	
Chlorine dioxide	
Citric acid	
Formic acid	
Hydrogen peroxide	
Lactic acid	
Natural essences of plants	
Oxalic acid	
Ozone	
Peracetic acid	
Phosphoric acid	
Plant extracts	
Potassium soap	
Sodium carbonate	
Sodium hydroxide (caustic soda)	
Sodium hypochlorite	E.g. as liquid bleach
Sodium soap	



About GOMA

Organic agriculture and trade afford the world a high level of agro-ecosystem services, and present social and economic opportunities for those in need of food security and ways out of poverty.

Among the foremost challenges for further development of organic agriculture is that trade pathways are blocked due to multiple organic standards and technical regulations. A product produced according to one set of organic standards and certification requirements may also need to comply with other organic standards and requirements in order to be traded. This constrains organic market development and denies market access to many, including hundreds-of-thousands of small producers in developing countries.

The Global Organic Market Access (GOMA) project is a partnership of the Food and Agriculture Organization of the United Nations (FAO), International Federation of Organic Agriculture Movements, (IFOAM) and the United Nations Conference on Trade and Development (UNCTAD). GOMA seeks to clear trade pathways for organic products through the mechanisms of harmonization and equivalence. For more information on the project, visit www.goma-organic.org.