

Comparison Aquaculture – Agriculture Organic Standards

September 21st 2011

The draft of the Organic Aquaculture Standards that is currently submitted for the approval of the CGSB Committee on Organic Aquaculture (in the blue column), as compared with the National Standard of Canada - Organic Production Systems – CAN/CGSB-32.310 and Permitted Substances Lists CAN/CGSB-32.311 (in the green column). Please note that the Aquaculture standard is fully listed, the Agriculture standard sections corresponding to the content of the Aquaculture standard being reported “en vis-à-vis” in the green column.

Section 1 to 4.4.3

Notes: Agriculture and aquaculture sections 1 to 4.4.3 are very similar. Description, General Principles, Organic Practices, Scope, Prohibited Substances (par 1.4.1), Definitions and terminology and Organic Plan are almost the same, except for some specific notions related to aquaculture. A majority of sentences are duplicated: same wording, same principles.

<u>AQUACULTURE STANDARDS Par 1 to 4.4.3</u>	<u>AGRICULTURE STANDARDS Par 1 to 4.4.3</u>
<p>Description</p> <p>Organic aquaculture production is a holistic system designed to optimize the productivity and fitness of diverse communities within the aquatic ecosystem, including benthic organisms, seaweeds, aquatic plants, aquaculture animals and people. The principal goal of organic aquaculture production is to develop enterprises that are sustainable and harmonious with the environment.</p>	<p>Description</p> <p>Organic production is a holistic system designed to optimize the productivity and fitness of diverse communities within the agro-ecosystem, including soil organisms, plants, livestock and people. The principal goal of organic production is to develop enterprises that are sustainable and harmonious with the environment.</p>

This standard¹ describes the principles and management standards of organic aquaculture and provides lists of substances that are permitted for use in organic aquaculture.

As in the case of all products sold in Canada, organic inputs, such as, but not limited to, fertilizers, feed supplements, pesticides, water amendments, veterinary treatments, processing additives or aids, sanitizing and cleaning material; and products derived from organic aquaculture such as, but not limited to, feed and food should comply with all applicable regulatory requirements.

Substances that appear on the Permitted Substances Lists are subject to the Pest Control Products Act (PCPA) or the Food and Drugs Act (FDA) when used in Canada as pesticides (PCPA), sanitizers (PCPA) or disinfectants (FDA). Their presence on these lists only confirms their acceptability within the present standards. However, they can legally be used in Canada only if a product is registered for each particular use. Users can confirm the legality of the use by consulting Health Canada label database or by reading the directions available on each product label. Health Canada's Pest Management Regulatory Agency (PMRA) is the federal authority responsible for the regulation of pesticides² under the PCPA and Regulations. Disinfectants are regulated by Health Canada's Therapeutic Products Directorate (TPD) under the FDA and Regulations.

Substances that appear on the Permitted Substances Lists are subject to the *Food and Drugs Act* (FDA) when used in Canada as veterinary drugs destined to food-producing animals and to the *Feeds Act* when used in Canada as livestock feed. Health Canada's Veterinary Drugs Directorate is

CAN/CGSB-32.310, *Organic Production Systems — General Principles and Management Standards*, describes the principles and management standards of organic production systems.

CAN/CGSB-32.311, *Organic Production Systems — Permitted Substances Lists*, provides lists of substances that are allowed for use in organic production systems.

As in the case of all products sold in Canada, organic inputs, such as, but not limited to, fertilizers, feed supplements, pesticides, soil amendments, veterinary treatments, processing additives or aids, sanitizing and cleaning material; and products derived from organic agriculture, such as, but not limited to, feed and food should comply with all applicable regulatory requirements.

¹ References throughout this document to "this standard" refer to, C**/CGSB 32.312 *Organic Aquaculture Standards*.

² Pesticides as defined in this standard.

the federal authority responsible for the regulation of veterinary drugs under the FDA and Regulations. Animal feeds are regulated by the Veterinary Feed Division of the Canadian Food Inspection Agency (CFIA) under the *Feeds Act* and Regulations and the *Health of Animals Act* and Regulations.

II. General Principles of Organic Aquaculture Production

Organic aquaculture production is based on principles that support healthy practices. These principles aim to increase the quality and the durability of the environment through specific management and production methods. They also focus on ensuring the humane treatment of animals.

The general principles of organic aquaculture production include the following:

1. Protect the environment, minimize benthic degradation and erosion and water quality degradation, decrease pollution, optimize biological productivity and promote a sound state of health.
2. Maintain long-term biological stability by optimizing conditions for biological diversity.
3. Recycle materials and resources to the greatest extent possible within the enterprise.
4. Provide attentive care that promotes the health and meets the behavioural needs of aquaculture animals.
5. Prepare organic products, emphasizing careful processing, and handling methods in order to maintain the organic integrity and vital qualities of the products at all stages of production.

II. General Principles of Organic Production

Organic production is based on principles that support healthy practices. These principles aim to increase the quality and the durability of the environment through specific management and production methods. They also focus on ensuring the humane treatment of animals.

The general principles of organic production include the following:

1. Protect the environment, minimize soil degradation and erosion, decrease pollution, optimize biological productivity and promote a sound state of health.
2. Maintain long-term soil fertility by optimizing conditions for biological activity within the soil.
3. Maintain biological diversity within the system.
4. Recycle materials and resources to the greatest extent possible within the enterprise.
5. Provide attentive care that promotes the health and meets the behavioural needs of livestock.
6. Prepare organic products, emphasizing careful processing, and handling methods in order to maintain the organic integrity and vital qualities of the products at all stages of production.
7. Rely on renewable resources in locally organized agricultural systems.

Organic Practices

Neither this standard nor organic products in accordance with this standard represent specific claims about the health, safety and nutrition of such organic products.

Management methods are carefully selected in order to restore and then sustain ecological stability within the enterprise and the surrounding environment. Biological stability is maintained and enhanced by promoting optimal biological activity within the aquaculture production unit and surrounding area. Weeds, pests and diseases are managed using biological and mechanical control methods, and cultural practices. Crop selection and fallowing are important for managing nutrient cycling, recycling of plant and animal residues, water management, augmentation of beneficial organisms for the promotion of biological diversity, and ecologically based pest management.

Under a system of organic aquaculture production, aquaculture animals are provided with living conditions and space allowances appropriate to their behavioural requirements, and organically produced feed. These practices strive to minimize stress, promote good health and prevent disease.

Organic products are produced and processed under a system that strives to preserve the integrity of the principles in this standard.

Organic practices and this standard cannot assure that organic products are entirely free of residues of substances prohibited by this standard and of other contaminants, since exposure to such compounds from the atmosphere, soil, ground water and other sources may be beyond the control of the operator. The practices permitted by this standard are designed to assure the least possible residues at the lowest possible levels.

Organic Practices

Neither this standard¹ nor organic products in accordance with this standard represent specific claims about the health, safety and nutrition of such organic products.

Management methods are carefully selected in order to restore and then sustain ecological stability within the enterprise and the surrounding environment. Soil fertility is maintained and enhanced by promoting optimal biological activity within the soil and conservation of soil resources. Weeds, pests and diseases are managed using biological and mechanical control methods, and cultural practices, including minimized tillage. Crop selection and rotation are important for managing nutrient cycling, recycling of plant and animal residues, water management, augmentation of beneficial insects to encourage a balanced predator-prey relationship, and the promotion of biological diversity, and ecologically based pest management.

Under a system of organic production, livestock are provided with living conditions and space allowances appropriate to their behavioural requirements, and organically produced feed. These practices strive to minimize stress, promote good health and prevent disease.

Organic products are produced and processed under a system that strives to preserve the integrity of the principles in this standard.

Organic practices and this standard cannot assure that organic products are entirely free of residues of substances prohibited by this standard and of other contaminants, since exposure to such compounds from the atmosphere, soil, ground water and other sources may be beyond the control of the operator. The practices permitted by this standard are designed to assure the least possible residues at the lowest possible levels.

In the development of the standard, it was recognized that differences between Canada's aquaculture regions require varying practices to meet production needs.

To ensure compliance with this standard in the marketplace, specific measures are necessary to ensure that trade and processing enterprises can be audited effectively. The certification of a process, rather than a final product, demands responsible action by all involved parties.

ORGANIC AQUACULTURE STANDARDS

1. SCOPE

1.1 Foods and other aquaculture products shall refer to organic production methods only if they comply with this standard and local regulations.

1.2 This standard applies to the following products to the extent that the principles of production and specific verification rules for them are described in the standard:

- a. seaweeds and aquatic plants and seaweed and aquatic plant products, aquaculture animals and aquaculture animal products
- b. processed products intended for human consumption or use and derived from the items mentioned in par. 1.2 a.

In the development of the standard, it was recognized that differences between Canada's agricultural regions require varying practices to meet production needs.

This standard is intended for certification and regulation to prevent deceptive practices in the marketplace. The certification of a process, rather than a final product, demands responsible action by all involved parties.

ORGANIC PRODUCTION SYSTEMS GENERAL PRINCIPLES AND MANAGEMENT STANDARDS

1. SCOPE

1.1 Foods and other agricultural products shall refer to organic production methods only if they come from a farm system employing management practices that seek to nurture ecosystems in order to achieve sustainable productivity; and that provide weed, pest and disease control through enhancement of biodiversity, recycling of plant and animal residues, crop selection and rotation, water management, tillage and cultivation.

1.2 This standard applies to the following products:

- a. Unprocessed plants and plant products, livestock and livestock products, to the extent that the principles of production and specific verification rules for them are described in the standard
- b. Processed agricultural crop and livestock products intended for human consumption or use and derived from the items mentioned in par. 1.2 a.
- c. Livestock feed

<p>c. aquaculture animal feed</p> <p>d. processed products intended for animal consumption or use derived from the items mentioned in par. 1.2 a.</p> <p>1.3 Quantities and dimensions in this standard are given in metric units.</p> <p>1.4 Prohibited Substances, Methods or Ingredients in Organic Production and Handling</p> <p>1.4.1 When producing or handling organic products, it is forbidden to use any of the following substances or techniques:</p> <p>a. All materials and products produced from genetic engineering as these are not compatible with the general principles of organic production and therefore are not accepted under this standard, except for vaccines</p> <p>b. synthetic pesticides (e.g. defoliants and desiccants, fungicides, insecticides and rodenticides), wood preservatives (e.g. arsenate) or other pesticides, except as specified in this standard</p> <p>c. fertilizer or composted plant and animal material that contains a substance prohibited by par. 1.4.1 (and not included in this standard)</p>	<p>d. Processed agricultural crop and livestock products intended for animal consumption or use and derived from the items mentioned in par. 1.2 a.</p> <p>1.3 Quantities and dimensions in this standard are given in metric units with yard/pound equivalents, mostly obtained through soft conversion, given in parentheses. The metric units shall be regarded as official in the event of dispute or unforeseen difficulty arising from the conversion.</p> <p>1.4 Prohibited Substances, Methods or Ingredients in Organic Production and Handling</p> <p>1.4.1 When producing or handling organic products, it is forbidden to use any of the following substances or techniques:</p> <p>a. All materials and products produced from genetic engineering as these are not compatible with the general principles of organic production and therefore are not accepted under this standard, except for vaccines only that have been grown on genetically engineered substrates but are not themselves a product of genetic engineering, as specified in CAN/CGSB-32.311, <i>Organic Production Systems — Permitted Substances Lists</i></p> <p>b. Synthetic pesticides (e.g. defoliants and desiccants, fungicides, insecticides and rodenticides), wood preservatives (e.g. arsenate) or other pesticides, except as specified in CAN/CGSB-32.311, <i>Organic Production Systems — Permitted Substances Lists</i></p> <p>c. Fertilizer or composted plant and animal material that contains a substance prohibited by par. 1.4.1 (and not included in CAN/CGSB-32.311, <i>Organic Production Systems — Permitted Substances Lists</i>)</p>
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<p>d. sewage sludge, in any form, as defined in this standard, as an input</p> <p>e. synthetic growth regulators</p> <p>f. synthetic veterinary drugs, including antibiotics and parasiticides, except as specified in this standard</p> <p>g. synthetic processing substances, aids and ingredients, and food additives and processing aids including sulphates, nitrates and nitrites, except as specified in CAN/CGSB-32.311 <i>Organic Production Systems — Permitted Substances Lists</i></p> <p>h. or their inputs, as defined in this standard, except as specified in CAN/CGSB-32.311 <i>Organic Production Systems — Permitted Substances Lists</i></p> <p>i. equipment, packaging materials and storage containers, or bins that contain a synthetic fungicide, preservative or fumigant</p> <p>j. substances that are not included in the permitted substances lists, except as provided by this standard</p> <p>k. cloned farm animals and their descendants. A producer shall know the lineage of any non-organic animal brought under organic management</p> <p>l. intentionally manufactured nano-technology products, or nano-processes involving intentional manipulation of matter at the nano scale to achieve new properties or functions that are different than properties and functions of the materials at the macro scale, except naturally occurring nano sized particles, or those produced incidentally through normal</p>	<p>d. Sewage sludge, in any form, as defined in this standard, as a soil amendment</p> <p>e. Synthetic growth regulators</p> <p>f Synthetic allopathic veterinary drugs, including antibiotics and parasiticides, except as specified in this standard</p> <p>g Synthetic processing substances, aids and ingredients, and food additives and processing aids including sulphates, nitrates and nitrites, except as specified in CAN/CGSB-32.311, <i>Organic Production Systems — Permitted Substances Lists</i></p> <p>h Ionizing radiation and forms of irradiation on products destined for food or their inputs, as defined in this standard, except as specified in CAN/CGSB-32.311, <i>Organic Production Systems — Permitted Substances Lists</i></p> <p>i. Equipment, packaging materials and storage containers, or bins that contain a synthetic fungicide, preservative or fumigant</p> <p>j. Substances that are not included in CAN/CGSB-32.311, <i>Organic Production Systems — Permitted SubstancesLists</i>, except as provided by this standard</p> <p>k. Cloned farm animals and their descendants. A producer shall know the lineage of any non-organic animal brought under organic management.</p> <p>l. Intentionally manufactured nano-technology products, or nano-processes involving intentional manipulation of matter at the nano scale to achieve new properties or functions that are different than properties and functions of the materials at the macro scale, except naturally occurring nano sized particles, or those produced incidentally through</p>
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process such as grinding flour, or nano sized particles used in a way that guarantees no transference to product.

2. REFERENCED PUBLICATIONS

2.1 The following publications are referenced in this standard:

2.1.1 Canadian General Standards Board (CGSB)
CAN/CGSB-32.311 — *Organic Production Systems — Permitted Substances Lists.*

2.1.2 Food and Agriculture Organization of the United Nations (FAO)
Implementation of the 1995 FAO Code of Conduct for Responsible Fisheries

To be completed later

2.2 A dated reference in this standard is to the issue specified. An undated reference in this standard is to the latest issue. The sources are given in the Notes section.

3. DEFINITIONS AND TERMINOLOGY

3.1 The following definitions and terms apply in this standard:

normal processes such as grinding flour, or nano sized particles used in a way that guarantees no transference to product.

1.4.2 The same ingredient in both an organic and non-organic form shall not be present in an organic product.

2. REFERENCED PUBLICATIONS

2.1 The following publications are referenced in this standard:

2.1.1 Canadian General Standards Board (CGSB) CAN/CGSB-32.311 — *Organic Production Systems — Permitted Substances Lists.*

2.1.2 Health Canada *Food and Drug Regulations* (C.R.C., c. 870).

2.2 A dated reference in this standard is to the issue specified. An undated reference in this standard is to the latest issue. The sources are given in the Notes section.

3 DEFINITIONS AND TERMINOLOGY

3.1 The following definitions and terms apply in this standard:

Aeroponics (Aéroponie)

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

Antibiotic (Antibiotique)

Natural substances produced by a microorganism (including the chemically synthesized equivalent of any such substance) which have the capacity to inhibit the growth of or to kill other microorganisms, specifically bacteria.

Antimicrobial (Antimicrobien)

Antimicrobial includes all substances that can kill or inhibit the growth of microorganisms (e.g., antibacterials, antivirals, antimycotics, disinfectants etc.).

Aquaculture (Aquaculture)

The cultivation of seaweeds, aquatic plants or animals in a controlled or managed environment.

Aquaculture Animal (Animal d'aquaculture)

Agricultural Product (Produit agricole)

An animal, a plant, an animal or a plant product, or a product, including any food or drink wholly or partly derived from an animal or a plant.

Agro-ecosystem (Agroécosystème)

A system consisting of the form, function, interaction and equilibrium of the biotic and abiotic elements present within the environment of a given agricultural enterprise.

Allopathic (Allopathique)

Using allopathy.

Allopathy (Allopathie)

A method of treating disease with substances that produce a reaction or effects different from those caused by the disease itself.

Annual Seedling (Semis annuel)

A young plant grown from seed that will complete its life cycle or produce a yield and be able to be harvested within the same crop year or season in which it was planted.

Antibiotic (Antibiotique)

Various substances that contain any quantity of any chemical substance produced by a micro-organism, like penicillin, and that are used to inhibit or destroy the growth of micro-organisms to prevent or treat disease.

Animal raised in captivity in fresh, brackish, or salt water.

Aquatic Plant (Plante aquatique)

Plant cultivated or naturally growing in fresh, brackish, or salt water.

Broodstock (Géniteurs)

Aquaculture animals kept for the production of gametes.

Buffer Zone (Zone tampon)

A clearly defined and identifiable boundary area that separates an organic production unit from adjacent non-organic areas.

Cloned Animals (Animaux clonés)

Identical animals resulting from human manipulation of embryos and embryo transfer, using techniques such as somatic cell nuclear transfer, embryonic cell nuclear transfer or embryo splitting.

Commercially available (Disponible sur le marché)

The documented ability to obtain a production input or an ingredient in an appropriate form, quality, quantity or variety in order to fulfil an essential function in an organic farming, processing or handling system.

Commingling (Mélange)

Physical contact between bulk, unbound or unpackaged organic products and non-organic products during production, processing, transportation, storage or handling.

Disinfectant (Désinfectant)

An antimicrobial agent capable of destroying pathogenic and potentially pathogenic microorganisms on environmental surfaces and inanimate objects.

Feed (Aliment pour animaux)

Edible materials, which are consumed by aquaculture animals for their

Buffer Zone (Zone tampon)

A clearly defined and identifiable boundary area that separates an organic production unit from adjacent nonorganic areas.

Cloned Animals (Animaux clonés)

Identical animals resulting from human manipulation of embryos and embryo transfer, using techniques such as somatic cell nuclear transfer, embryonic cell nuclear transfer or embryo splitting.

Commercially Available (Disponible sur le marché)

The documented ability to obtain a production input or an ingredient in an appropriate form, quality, quantity or variety in order to fulfil an essential function in an organic farming, preparation or handling system.

Commingling (Mélange)

Physical contact between bulk, unbound or unpackaged organic products and non-organic products during production, preparation, transportation, storage or handling.

Compost (Compost)

The product of a carefully managed aerobic process by which non-synthetic materials are digested by microorganisms. Organic materials for compost shall be managed appropriately to reach temperatures for the duration necessary to effectively stabilize nutrients and kill human pathogens.

Compost Tea (Thé de compost)

nutritional value. May be supplied to aquaculture animals or may be foraged.

Feed Additive (Additif pour alimentation animale)

A substance or combination of substances added to the basic aquaculture animal feed mixes or parts thereof to fulfill a specific need. Usually used in micro quantities and requires careful handling and mixing. Includes substances added in small amounts to aquaculture animals feed to enhance, stabilize, preserve, or otherwise alter it.

Feed Supplement (Supplément pour alimentation animale)

“Supplement” means a feed that is used with another feed to improve the nutritive balance of the total ration and intended to be

- a. fed undiluted as a supplement to other feeds;
- b. offered free choice with other parts of the ration separately available; or
- c. further diluted and mixed to produce a complete feed
(*Note: In Canada, regulations require that the resulting feed must be acceptable for registration.*)

A soil amendment solution created by steeping mature compost in order to promote beneficial bacterial growth.

Crop Rotation (Rotation des cultures)

The practice of alternating crops grown on a specific field in a planned sequence in successive crop years so that crops of the same species or family are not continuously grown on the same field. Perennial cropping systems employ techniques such as alley cropping, intercropping and hedgerows to introduce biological diversity in lieu of crop rotation.

Perennial Crop (*Culture vivace*)

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

Feed Additive (Additif pour alimentation animale)

A substance added to feed in small quantities to fulfil a specific nutritional need (i.e. essential nutrients in the form of amino acids, vitamins and minerals).

Feed Supplement (Supplément alimentaire)

“Supplement” means a feed that is used with another feed to improve the nutritive balance of the total and that is intended to be

- a. fed undiluted as a supplement to other feeds,
- b. offered free choice with other parts of the ration separately available, or
- c. further diluted and mixed to produce a complete feed.
(*Note: In Canada, regulations require that the resulting feed must be acceptable for registration.*)

Food Irradiation (Irradiation des aliments)

A sanitation or preservative method for packaged or bulk foodstuffs that controls insect infestation and that reduces microbial load by ionizing radiation from Cobalt-60 or Cesium-137; or X-rays generated by a machine source operated at or below an energy level of 5 MeV; or from electrons generated by a machine source operated at or below an energy level of 10 MeV.

Genetic Engineering (Génie génétique)

Refers to techniques by which the genetic material of an organism is changed in a way that does not occur naturally by multiplication and/or natural recombination.

Examples of the techniques used in genetic engineering include but are not limited to

- recombinant DNA (rDNA) techniques that use vector systems
- techniques involving the direct introduction into the organism of hereditary materials prepared outside the organism
- cell fusion (including protoplast fusion) or hybridization techniques that

Fertilizer (Engrais)

A single or blended substance composed of one or more recognized plant nutrient(s).

Food Additive (Additif alimentaire)

“Food additive” has the same meaning as in Section B.01.001 of Part B of the *Food and Drug Regulations*.

Food Irradiation (Irradiation des aliments)

A sanitation or preservative method for packaged or bulk foodstuffs that controls insect infestation and that reduces microbial load by ionizing radiation from Cobalt-60 or Cesium-137; or X-rays generated by a machine source operated at or below an energy level of 5 MeV; or from electrons generated by a machine source operated at or below an energy level of 10 MeV.

Forage (Fourrage)

Vegetative material in fresh, dried or ensiled state (pasture, hay or silage), which is fed to livestock.

Genetic Engineering (Génie génétique)

Refers to techniques by which the genetic material of an organism is changed in a way that does not occur naturally by multiplication and/or natural recombination.

Examples of the techniques used in genetic engineering include but are not limited to

- recombinant DNA (rDNA) techniques that use vector systems;
- techniques involving the direct introduction into the organism of hereditary materials prepared outside the organism;
- cell fusion (including protoplast fusion) or hybridization techniques

overcome natural physiological, reproductive or recombination barriers, where the donor cells/protoplasts do not fall within the same taxonomic family

Unless the donor/recipient organism is derived from any of the above techniques, examples of techniques not covered by this definition include

- in vitro fertilization;
- conjugation, transduction, transformation, or any other natural process;
- polyploidy induction;
- cell fusion (including protoplast fusion) or hybridization techniques where the donor cells/protoplasts are in the same taxonomic family.

Handling (Manutention)

Any operation or portion of operation that receives or otherwise acquires aquaculture products for resale, including final retailers of aquaculture products, who process and transform, repack or relabel such products.

Homeopathy (Homéopathie)

A treatment of disease based on the administration of minute doses of a substance that in massive amounts produce symptoms in healthy animals similar to those of the disease itself.

that overcome natural physiological, reproductive or recombination barriers, where the donor cells/protoplasts do not fall within the same taxonomic family.

Unless the donor/recipient organism is derived from any of the above techniques, examples of techniques not covered by this definition include

- in vitro fertilization;
- conjugation, transduction, transformation, or any other natural process;
- polyploidy induction;
- cell fusion (including protoplast fusion) or hybridization techniques where the donor cells/protoplasts are in the same taxonomic family.

Handling (Manutention)

Any operation or portion of operation that receives or otherwise acquires agricultural products for resale, including final retailers of agricultural products, who process and transform, repack or relabel such products.

Herbivore (Herbivore)

An animal that feeds chiefly on plants.

Homeopathic (Homéopathique)

Using homeopathy.

Homeopathy (*Homéopathie*)

A treatment of disease based on the administration of minute doses of a substance that in massive amounts produce symptoms in healthy animals similar to those of the disease itself.

Hydroponics (Hydroponie)

Cultivation of plants (flowers and vegetables) in aqueous nutrient solutions without the aid of soil. The soil is replaced by an inert culture

Input (Intrant)

Substances that are used or directly applied to the organic production system: particularly fertilizers, feed supplements, pesticides, water and benthic amendments, veterinary treatments, processing additives or aids, sanitizing and cleaning materials.

Integrated Multi-Trophic Aquaculture (Aquaculture multitrophique intégrée)

The farming, in proximity, of aquaculture species from different trophic levels, and with complementary ecosystem functions, in a way that allows one species' uneaten feed and wastes, nutrients and by-products to be recaptured and converted into fertilizer, feed and energy for the other crops, and to take advantage of synergistic interactions between species

Monosex (Monosex)

Population comprised of only one sex.

Nanotechnology (Nanotechnologie)

Nanotechnology is a field described generally as the control and structuring of matter at dimensions typically between 1 and 100 nm to create materials, devices and systems with fundamentally new properties and functions. Nanoscale chemical substances, or nanomaterials, behave differently from their macroscale counterparts, exhibiting different mechanical, optical, magnetic and electronic properties.

medium (e.g. coarse sands, expanded clay, rockwool). Plants are cultivated by using a nutritive solution that is brought to each plant by taking into account the requirements of the species.

Ingredient (Ingrédient)

Any substance, including a food additive, used in the manufacture or preparation of a product. The substance is present in the final product, possibly in a modified form.

Input (Intrant)

Substances that are used or directly applied to the organic production system: particularly fertilizers, feed supplements, pesticides, soil amendments, veterinary treatments, processing additives or aids, sanitizing and cleaning materials.

Livestock (Animaux d'élevage)

Livestock means any domestic or domesticated animal including bovine (e.g. buffalo and bison), ovine, porcine, caprine, equine, poultry and bees raised for food or in the production of food. The products of hunting or fishing of wild animals shall not be considered part of this definition.

Manure (Déjections animales)

Livestock feces, urine and other excrement, and bedding used (or soiled) by livestock and that have not been composted.

Nanotechnology (Nanotechnologie)

Nanotechnology is a field described generally as the control and structuring of matter at dimensions typically between 1 and 100 nm to create materials, devices and systems with fundamentally new properties and functions. Nanoscale chemical substances, or nanomaterials, behave differently from their macroscale counterparts, exhibiting different mechanical, optical, magnetic and electronic properties.

Organic Integrity (Intégrité biologique)

The maintenance of the inherent organic qualities of a product from the reception of ingredients through to the end consumer, in accordance with this standard.

Organic Product (Produit biologique)

Any commodity or output produced in a system conforming to this standard.

Organic Production (Production biologique)

A method of production, including any subsequent processing, handling, storage and transportation, conforming to this standard.

Parallel Production (Production parallèle)

The simultaneous production, processing or handling of organic and non-organic (including transitional) seaweeds, aquatic plants, aquaculture animals and products of the same or similar (indistinguishable) varieties.

Non-synthetic (Non synthétique)

A substance derived from mineral, plant or animal matter that does not undergo a synthetic process as defined in accordance with this standard.

Nutrient Management Plan (Plan de gestion des nutriments)

A nutrient budgeting plan in which the timing and rate of nutrient application is based on soil nutrient status (soiltest results), crop nutrient needs, amendment (manure, compost, plow-down crop or other permitted substance), nutrient contents and expected nutrient release rates. The goal of a nutrient management plan is to minimize nutrient loss, protect water quality, maintain soil fertility and ensure effective use of permitted soil amendments.

Operator (Exploitant)

Any person, firm or organization that produces, prepares or imports, with a view to the subsequent marketing of products referred to as organic.

Organic Integrity (Intégrité biologique)

The maintenance of the inherent organic qualities of a product from the reception of ingredients through to the end consumer, in accordance with this standard.

Organic Product (Produit biologique)

Any commodity or output produced by a system conforming to this standard.

Organic Production (Production biologique)

A method of agricultural production, including any subsequent preparation, storage and transportation, conforming to this standard.

Parallel Production (Production parallèle)

The simultaneous production, preparation or handling of organic and non-organic (including transitional) crops, livestock and other organic products of the same or similar, visually indistinguishable varieties.

Pest (Organisme nuisible)

Any injurious, noxious or troublesome insect, fungus, bacterial organism, virus, weed, rodent or other plant or animal.

Pesticide or Pest Control Product (Pesticide ou produit antiparasitaire)

Any product, device, organism, substance or thing that is manufactured, represented, sold or used as a means for directly or indirectly controlling, preventing, destroying, mitigating, attracting or repelling any pest. Control products include active ingredients used in the manufacture of end-use products and the end-use products themselves. Includes herbicides, insecticides, fungicides, antimicrobial agents, pool chemicals, microbials, material and wood preservatives, animal and insect repellents, and insect-and rodent-controlling devices.

Piscivorous (Piscivore)

Aquaculture animals that feed primarily on fish.

Processing (Transformation)

Means any of the following fish process operations:

- a. canning fish
- b. processing ready-to-eat fish
- c. processing shellfish
- d. pickling, spicing or marinating fish
- e. salting or drying fish
- f. processing fresh or frozen fish or semi-preserves, and
- g. any other type of process operation

Production Unit (Unité de production)

An identifiable portion of an operation that produces, raises, process or handle an organic product under a specific management plan.

Pest (Organisme nuisible)

An organism causing damage to humans or to resources used by humans, such as some viruses, bacteria, fungi, weeds, parasites, arthropods and rodents.

Pesticide (Pesticide)

Any substance or mixture of substances intended to prevent, destroy, repel or mitigate any pests or plants.

Planting Stock (Matériel de reproduction végétale)

Any plant or plant tissue, other than annual seedlings but including rhizomes, shoots, leaf or stem cuttings, roots or tubers, bulbs or cloves, used in plant production or propagation.

Preparation (Préparation)

Includes, in respect of an agricultural product, processing, slaughtering, storing, inspecting, grading, packing, assembling, pricing, marking and labelling.

Processing Aids (Auxiliaires de production)

Substances that are added to a food for a technological effect during processing and that are not present in the finished food product or are present at insignificant and non-functional levels.

Production Unit (Unité de production)

An identifiable portion of an operation that produces, raises or prepares an organic product under a specific management plan.

Records (Registres)

Any information in written, visual or electronic form that documents the activities undertaken by a producer or a person engaged in the production, processing or handling of organic products, in accordance with this standard.

Sewage Sludge (Boues d'épuration)

A solid, liquid or semisolid material typically formed as a precipitate from wastewater treatment of liquid and solid human domestic waste, among other compounds, which is accumulated predominantly in municipal or industrial sewage treatment facilities, sewers and drains. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment processes; or material derived from sewage sludge.

Sanitizer (Agent d'assainissement)

A product that reduces the level of microorganisms present by significant numbers, e.g., 3 log₁₀ reduction (99.9%) or more, or to acceptable levels established by local health authorities.

Sustainable (Durable)

Refers to the meeting of the needs of the present without compromising the ability of future generations to meet their own needs.

Synthetic (Synthétique)

Refers to a man-made substance that is formulated or manufactured by a chemical process or by a process that chemically alters compounds extracted from seaweed, plant, microorganisms, and animal or mineral sources. This term does not apply to compounds synthesized or produced by biological processes, including heat and mechanical processing.

Traceability (Traçabilité)

A documentation control procedure that can determine the origin, transfer of ownership, and transportation process (i.e. supply chain) of an organic product or a product containing organic ingredients.

Records (Registres)

Any information in written, visual or electronic form that documents the activities undertaken by a producer or a person engaged in the preparation of organic products, in accordance with this standard.

Sewage Sludge (Boues d'épuration)

A solid, liquid or semisolid material typically formed as a precipitate from wastewater treatment of liquid and solid human domestic waste, among other compounds, which is accumulated predominantly in municipal or industrial sewage treatment facilities, sewers and drains. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment processes; or material derived from sewage sludge.

Soil (Sol)

A mixture of minerals, organic matter and living organisms.

Split Production–Split Operation (Production fractionnée–Exploitation fractionnée) An operation that produces, prepares or handles organic and non-organic agricultural products (including transition).

Synthetic Substance (Substance synthétique)

A man-made substance formulated or manufactured by a chemical process or by a process that chemically alters compounds extracted from plant, micro-organisms, and animal or mineral sources. This term does not apply to compounds synthesized or produced by biological processes, including heat and mechanical processing.

Traceability (Traçabilité)

A documentation control procedure that can determine the origin, transfer of ownership, and transportation process (i.e. supply chain) of an organic product or a product containing organic ingredients.

Transition (Conversion)

Set of steps taken by the operator of a non-organic production system to establish organic management practices, in accordance with this standard

Transition Period (Période de conversion)

The period of time between the start of an organic program in a production unit and the attainment of organic status by a production unit, in accordance with this standard.

Veterinary Biologic (Produit biologique vétérinaire)

A helminth, protozoa or micro-organism; or a substance or mixture of substances derived from seaweeds, plants, animals, helminths, protozoa or micro-organisms; or a substance of synthetic origin that is manufactured, sold or represented for use in restoring, correcting or modifying functions in animals or for use in the diagnosis, treatment, mitigation or prevention of a disease, disorder, abnormal physical state, or the symptoms thereof, in animals. Veterinary biologics include vaccines, bacterins, bacterin-toxoids, immunoglobulin products, diagnostic kits and any veterinary biologic derived through biotechnology.

Veterinary Drug (Médicament vétérinaire)

Any substance or mixture of substances represented for use or administered in the diagnosis, treatment, mitigation or prevention of disease, disorder, abnormal physical state or its symptoms in animals; restoring, correcting or modifying functions in animals.

Water Quality (Qualité de l'eau)

Observable indicators of the physical, chemical, or biological condition of water, including the presence of environmental contaminants.

Transition (Conversion)

Set of steps taken by the operator of a non-organic production system to establish organic management practices, in accordance with this standard.

Transitional Period (Période de conversion)

The period of time between the start of an organic management program in a production unit and the attainment of organic status by a production unit, in accordance with this standard.

Transplant (Plant repiqué)

A seedling that has been removed from its original place of production, transported and replanted.

Veterinary Biologic (Produit biologique vétérinaire)

A helminth, protozoa or micro-organism; or a substance or mixture of substances derived from animals, helminths, protozoa or micro-organisms; or a substance of synthetic origin that is manufactured, sold or represented for use in restoring, correcting or modifying functions in animals or for use in the diagnosis, treatment, mitigation or prevention of a disease, disorder, abnormal physical state, or the symptoms thereof, in animals. Veterinary biologics include vaccines, bacterins, bacterin-toxoids, immunoglobulin products, diagnostic kits and any veterinary biologic derived through biotechnology.

Veterinary Drug (Médicament vétérinaire)

Any substance or mixture of substances represented for use or administered in the diagnosis, treatment, mitigation or prevention of disease, disorder, abnormal physical state or its symptoms in animals; restoring, correcting or modifying functions in animals.

Wildcrafting

Wildcrafting is the practice of harvesting seaweeds and plants from their natural, or "wild" habitat. It applies to uncultivated seaweeds and plants wherever they may be found, and is not necessarily limited to wilderness areas. Ethical considerations are often involved, such as protecting endangered species.

4. ORGANIC PLAN

4.1 The operator of an enterprise shall prepare an organic plan outlining the details of transition, production, processing, handling and management practices, in accordance with this standard.

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

4.3 The organic plan shall include a description of the internal record-keeping system, with documents sufficient to meet traceability requirements as specified in par. 4.4.1 and record-keeping requirements.

4.4 **Record Keeping and Identification** — The operator seeking to comply with this standard shall maintain records and relevant supporting documents concerning the inputs and details of their use, production, processing, handling and transport of organic seaweeds, aquatic plants, aquaculture animals and products. The operator is responsible for maintaining the organic integrity of the product and shall fully record and disclose all activities and transactions in sufficient detail as to be readily understood; and sufficient to demonstrate compliance to this standard.

Wild Crop (Plante sauvage)

Naturally growing plants in their natural habitat collected or harvested from a site that is not maintained under cultivation or other agricultural management.

4 ORGANIC PLAN

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

4.3 The organic plan shall include a description of the internal record-keeping system, with documents sufficient to meet traceability requirements as specified in par. 4.4.1 and record-keeping requirements.

4.4 **Record Keeping and Identification** — The operator seeking to comply with this standard shall maintain records and relevant supporting documents concerning the inputs and details of their use, production, preparation, handling and transport of organic crops, livestock and products. The operator is responsible for maintaining the organic integrity of the product and shall fully record and disclose all activities and transactions in sufficient detail as to be readily understood, and to demonstrate compliance.

<p>4.4.1 Records shall make it possible to trace</p> <ul style="list-style-type: none"> a. the origin, nature and quantities of organic products, as stated within this standard, that have been delivered to the production unit; b. the nature, quantities and consignees of products, as stated within this standard, that have left the production unit; c. any other information, such as the origin, nature and quantities of ingredients, additives and manufacturing aids delivered to the unit, and the composition of processed products, for the purposes of proper verification of the operations in accordance with this standard. 	<p>4.4.1 Records shall make it possible to trace</p> <ul style="list-style-type: none"> a. the origin, nature and quantities of organic products, as stated within this standard, that have been delivered to the production unit; b. the nature, quantities and consignees of products, as stated within this standard, that have left the production unit; c. any other information, such as the origin, nature and quantities of ingredients, additives and manufacturing aids delivered to the unit, and the composition of processed products, for the purposes of proper verification of the operations in accordance with this standard.
<p>4.4.2 Records shall be maintained for not less than five years beyond their creation.</p>	<p>4.4.2 Records shall be maintained for not less than five years beyond their creation.</p>
<p>4.4.3 An identification system shall be provided for distinguishing organic and non-organic seaweeds, aquatic plants, aquaculture animals (e.g. general appearance, colour, variety and types), and products.</p>	<p>4.4.3 An identification system shall be provided for distinguishing organic and non-organic crops, livestock (e.g. general appearance, colour, variety and types) and products.</p>