OMRI CANADA

Standards Manual

STANDARDS FOR THE REVIEW OF PRODUCTS INTENDED FOR USE IN CANADIAN CERTIFIED ORGANIC PRODUCTION OR PROCESSING

Includes the OMRI Canada Permitted Substance Categories

Crop · Livestock · Processing & Handling

OMRI

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OMRI Quality Policy

OMRI provides professional, independent, and transparent review of materials and processes to determine their suitability for producing, processing, and handling organic food and fiber. The OMRI Review Program is committed to maintaining a timely, courteous, accurate, transparent, and consistent approach throughout the program and on a day-to-day basis.

Part 1: About the OMRI Standards for Compliance with the Canadian Organic Standards

The *OMRI Canada Standards Manual*© outlines specific criteria used along with the Canadian Organic Standards (COS) to evaluate products for listing in the *OMRI Canada Products List*©. This manual is designed to give applicants and registrants to the OMRI Canada Review Program the information necessary to know whether a product would be compliant if it were submitted as an application to OMRI.

The Canada Organic Regime (COR) which encompasses the COS is the Canadian government's system for regulating organic agricultural products. The Canadian Food Inspection Agency (CFIA) is responsible for the monitoring and enforcement of the regulations. Under the Regime, Certification Bodies are accredited by CFIA based on the recommendation of CFIA designated Conformity Verification Bodies. The Certification Bodies are responsible for verifying the application of the Canadian Organic Standards.

The COS are the foundation of the *OMRI Canada Standards Manual.* The COS are administered by the CFIA's Canada Organic Office and can be found at CAN/CGSB 32.310 – General principles and management standards and CAN/CGSB 32.311 – Permitted Substances List (PSL). The OMRI Canada Permitted Substances Categories contained within this manual are based on the PSL. OMRI may review products against additional standards that are provided in more detail on the OMRI website at OMRI.org and in OMRI's application materials.

In addition to the COS and the *OMRI Canada Standards Manual,* OMRI maintains an Administrative Procedures Manual that describes review procedures in greater detail. The Administrative Procedures Manual is available upon request. Additional requirements for application to the OMRI Review Program are described in the *OMRI Policy Manual*©*,* on OMRI's website, and in the application materials. OMRI's standards and policies are updated as necessary to reflect changes to applicable federal laws or regulations. Please refer to the OMRI website, OMRI.org, for the most current information.

Part 2: General Review Standards

2.1 Synthetic versus Non-synthetic Determination

CAN/CGSB 32.310 and CAN/CGSB 32.311 reference the use of non-synthetic and synthetic materials in organic production. Primarily, if substances appear in the PSL, they are allowed for use in accordance with source and use restrictions. In some cases, the PSL stipulates that only non-synthetic forms of the substance may be used, or that the synthetic form can only be used if the non-synthetic form is commercially unavailable. OMRI uses the definitions of synthetic and non-synthetic substances as they appear in the CAN/CGSB 32.310 Clause 3 (Terms and Definitions). A synthetic substance is a "manufactured substance, including petrochemicals, formulated by a chemical process or by a process that chemically alters compounds extracted from plant, micro-organisms, animal or mineral sources. This term does not apply to compounds synthesized or produced by physical processing or biological processes, which may include heat and mechanical processing. However, minerals altered through chemical reactions caused by heating or burning shall be classified as synthetic." A non-synthetic substance is a "substance derived from mineral, plant or animal matter that has not been chemically altered." OMRI also may use the Canada Organic Office Standards Interpretation Committee's (SIC) Question and Answers when determining synthetic and non-synthetic classifications.

Part 3: Prohibited Substances, Materials or Techniques in Organic Production and Preparation (CAN/CGSB 32.310 Subclause 1.4)

OMRI does not permit products that contain a substance prohibited by Subclause 1.4 of CAN/CGSB 32.310, as follows:

3.1 Genetic Engineering

Products of and materials from genetic engineering, as defined in CAN/CGSB-32.310, are prohibited, except as specified in the PSL. Genetic engineering 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 these techniques include, but are not limited to: recombinant DNA techniques that use vector systems; techniques involving the direct introduction into the organisms of hereditary materials prepared outside the organism; and cell fusion (including protoplast fusion) or hybridization techniques that overcome natural physiological, reproductive or recombination barriers, where the donor cells/protoplasts do not fall within the same taxonomic family.

3.2 Nanotechnology

Products, materials or processes intentionally using nanotechnology, as defined in CAN/CGSB-32.310, are prohibited with some exceptions. Nanotechnology refers to the manipulation of matter at atomic, molecular, or macromolecular dimensions typically between 1 and 100 nm to create materials, devices and systems with fundamentally new properties and functions. Exceptions include naturally occurring nano-sized particles or those produced incidentally through normal processes such as grinding flour, and contact surfaces where transference of nano-sized particles to organic products is unintended and unlikely to occur.

3.3 Irradiation

Irradiation, as defined in CAN/CGSB-32.310, is prohibited, except as specified in the PSL. Irradiation is a sanitation or preservative method for packaged or bulk foodstuffs that controls insect infestation and that reduces microbial load by treatment with ionizing radiation, which includes gamma-radiation from Cobalt-60 or Cesium-137 source, X-rays generated from a machine source operated at or below an energy level of 5 MeV, and electrons generated from a machine source operated at or below an energy level of 10 MeV.

3.4 Prohibited Soil Amendments

Soil amendments, such as fertilizers or composted plant and animal materials, that contain substances not listed in the PSL are prohibited.

3.5 Sewage Sludge

Sewage sludge as defined in CAN/CGSB-32.310 is prohibited. Sewage sludge is defined as solid, liquid or semisolid residues generated by municipal or industrial sewage treatment facilities. 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.

3.6 Synthetic Crop Production Aids and Pesticides

Synthetic crop production aids and materials are prohibited, except as specified in the PSL.

3.7 Synthetic Growth Regulators

Synthetic growth regulators are prohibited.

3.8 Cloned Livestock

Cloned livestock and their descendants are prohibited.

3.9 Synthetic Allopathic Veterinary Drugs

Synthetic allopathic drugs, including antibiotics and parasticides, are prohibited, except as permitted by CAN/CGSB-32.310.

3.10 Synthetic Processing Substances

Synthetic substances used in organic product preparation, such as ingredients, food additives and processing, including sulphates, nitrates and nitrites, are prohibited, except as specified in the PSL.

3.11 Equipment, Packaging and Containers with Prohibited Substances

Equipment, harvest and storage containers, storage facilities and packaging materials treated with synthetic fungicides, preservatives, fumigants or pesticides are prohibited.

3.12 Other Prohibited Substances

Substances that are not listed in the PSL are prohibited, except as specified in CAN/CGSB-32.310.

Part 4: Additional OMRI Standards

In addition to the Canadian Organic Standards, OMRI reviews products to additional standards that are summarized below. Further details are identified on OMRI's website at OMRI.org and in OMRI's application materials. These additional standards include OMRI's interpretation of the COS to ensure product compliance.

4.1 Additional Standards for Crop Fertilizers and Soil Amendments

The PSL allows for some substances to be produced using specific synthetic substances as extractants or pH adjusters. OMRI requires that synthetic formulants are not used in quantities greater than the amount necessary for extraction or stabilization. OMRI has developed thresholds for synthetic extractants and pH adjusters used in crop production, and products that exceed these thresholds and that may be fortified with plant nutrients such as nitrogen, phosphorous, and/or potassium are prohibited.

The PSL states, "When evidence indicates that composting feedstocks may contain a substance prohibited by subclause1.4 of CAN/CGSB 32.310 known to be persistent in compost, documentation or testing of the final product may be required." To document the absence of contaminants, operators may provide a laboratory analysis of the final composted product to demonstrate compliance with OMRI's standards for residual contaminants, which are outlined on OMRI's website at OMRI.org.

Clause 5.4 of CAN/CGSB 32.310 requires that plant and livestock materials are managed in a manner that does not contribute to the contamination of crop, soil or water, by plant nutrients, pathogenic organisms, heavy metals or prohibited substance residue. Maximum acceptable levels are described in the COS for some contaminants. In addition, OMRI has developed standards to help operators avoid contamination from pathogenic organisms, which are outlined on OMRI's website at OMRI.org. OMRI will identify OMRI Listed products that test above established pathogen thresholds in the *OMRI Canada Products List* with a cautionary statement that application to certified organic farms must not contribute to contamination of crops, soil or water.

4.2 Additional Standards for Pesticides

All active ingredients and formulants (inert ingredients) in pesticides must be reviewed and meet OMRI standards. A complete list of formulants must be disclosed for review. OMRI will not accept an application that simply lists "inert ingredients" as a component.

All pesticides are subject to the restriction in CAN/CGSB 32.310 subclause 5.6.1 which requires that pest, disease and weed control are centered on organic management practices aimed at enhancing crop health and reducing losses caused by weeds, disease and pests. Organic management practices include cultural practices (e.g., rotations, establishment of a balanced ecosystem, and use of resistant varieties) and mechanical

techniques (e.g., sanitation measures, cultivation, traps, mulches and grazing) and physical techniques (e.g., flaming against weeds, heat against diseases).

OMRI listing is not a substitute for legally required registration by the Pest Management Regulatory Agency (PMRA) or other regulatory agencies. All pesticide products sold in Canada must be PMRA registered.

4.3 Additional Standards for Products Produced on Genetically Engineered Substrate or Growth Media

The PSL requires that substrates or growth media that are not present in the final product shall be non-genetically engineered if commercially available. OMRI will identify OMRI Listed products that were produced using genetically engineered substrate or growth media on the *OMRI Canada Products List*, which are subject to commercial availability restrictions in accordance with CAN/CGSB 32.311 subclauses 4.1.3.b, 5.1.2.b and 6.2.1.b.

Part 5: Introduction to OMRI Canada Permitted Substances Categories

The OMRI Canada Permitted Substances Categories include an explanation of the permitted uses, standards of identities, and regulatory references for many substances that may be used in organic production under the COS. These descriptions are provided to assist applicants in choosing the appropriate use categories for potential listing in the *OMRI Canada Products List*©. The OMRI Canada Permitted Substances Categories conform to the COS, and are based in the PSL (CAN/CGSB 32.311).

In some cases, the PSL distinguishes between non-synthetic and synthetic forms of a permitted substance. Where the PSL does not specify different standards for synthetic and non-synthetic versions of a substance, these categories will indicate "Synthetic/Non-synthetic" in order to encompass all options.

The OMRI Canada Permitted Substances Categories are divided into three sections: Crop Production Categories, Livestock Production Categories, and Processing and Handling Categories. Categories included in each section are sorted alphabetically and designated with a two-letter OMRI Class code and an OMRI Status that indicates that they are Allowed or Allowed with Restrictions under the COS. OMRI's Allowed with Restrictions status indicates use restrictions that are required for compliant use of the material under the COS. Further information on status is given at the beginning of the Crops, Livestock, and Processing and Handling sections.

Other features of the OMRI Canada Permitted Substances Categories for crops, livestock and processing listings include:

- OMRI Class – groups materials into several distinct end-use classes. OMRI also uses these Class Codes in the *OMRI Canada Products List*© for easy referral to the OMRI Canada Permitted Substances Categories.
- OMRI Annotation – details use parameters, and provides additional information and COS specifications for the generic material.
- CAN/CGSB Reference – cites applicable regulatory sections for the material listing.

5.1 How to Use the OMRI Canada Permitted Substances Categories

Applicants to the OMRI Canada Review Program must choose a category that corresponds with the intended product use. For example, those who produce a product for use as a fertilizer should search within the CROPS section. Or, alternatively, those who produce animal health care products should search within the LIVESTOCK section.

It is also important to identify when and how the material is permitted for use. Note the class or classes for which the product is permitted for use. The class is given as a two-letter code just below the material name. A key to the OMRI class codes

appears at the bottom of each even numbered page. OMRI Listed® products will only be allowed for use within the specified OMRI class for that material entry.

To stay current with COS changes that may affect a material status and/or use, applicants should regularly check the OMRI website (OMRI.org) for standards updates.

5.2 Regulatory Compliance

In addition to the COS and the OMRI Standards, other national, federal, state, and local laws and regulations may apply to the use of materials on organic operations. OMRI makes no representation that the materials listed here comply with any of these other requirements. It is the user's responsibility to determine the compliance of a particular substance with all applicable laws and regulations.

CROP Production Categories

Class Coding

Crop production materials are classified by OMRI according to the following Use Classes:

CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Crop Fertilizers and Soil Amendments (CF) are soil amendments and crop nutrition substances which correspond to listings in Table 4.2 of the Permitted Substances List (PSL) (CAN/CGSB-32.311). They are substances applied to the soil to improve fertility and tilth and to correct soil problems. Fertilizers, plant foods and soil amendments are primarily used for their plant nutrient content and may be applied to the soil or to the foliage of plants. Examples include compost, animal manures, blood/bone meals, plants and plant by-products. Use of fertilizers and soil amendments must comply with requirements of CAN/CGSB-32.310 subclauses 5.4 (Soil Fertility and Crop Nutrient Management) and 5.5 (Manure Management), which include requirements for using organic matter produced on the operation as the basis of the nutrient cycling program, and that supplemental nutrient sources are applied in accordance with good nutrient management practices and do not contribute to the contamination of crops, soil or water by heavy metals or pathogenic organisms. Subclause 5.5.1 also requires the preferential use of organic manure, and specifies that non-organic manure may be permitted only if organic manure is commercially unavailable. Unless otherwise specified, the soil amendments and crop nutrients listed in Table 4.2 of the PSL shall not contain substances prohibited by subclause 1.4 of CAN/CGSB-32.310 or not permitted by the PSL.

Crop Pest, Weed and Disease Control (CP) substances are those used to control pests (disease, weed or insect), and they correspond to substances listed in Table 4.3 of the PSL. They include vertebrate animal pest management substances, plant disease management substances, insect pest management (invertebrates), mites, molluscs and crustacean management substances; and nematode management substances. Plant growth regulators are also considered pest control substances when used to control "any injurious or troublesome organic function of a plant," and are therefore subject to regulation under the Pest Management Regulatory Agency (PMRA) Pest Control Products Act.

Pest control products shall not contain substances prohibited by subclause 1.4 of CAN/CGSB-32.310, or substances that are not permitted by the Permitted Substances List. Biological, botanical, or other pest control substances listed in Table 4.3 of the PSL may be used only when organic management practices and mechanical techniques alone cannot prevent or control crop pests, disease or weeds, per CAN/CGSB-32.310 subclause 5.6.2. The conditions for using such substances must be documented in the organic plan, in accordance with clause 4 of CAN/CGSB-32.310. Use of pest control substances must meet the requirements of any limiting annotation specified in Table 4.3 of the PSL.

Crop Management Tools and Production Aids (CT) include inputs used in conjunction with other substances, which may or may not be directly applied to the crop or soil, and which do not provide a recognized plant nutrient, soil conditioning or crop protection function. They are listed in Table 4.3 of the PSL, together with crop pest, weed and disease control substances (CP). Examples of crop management tools and production aids include adjuvants, equipment cleaners, and compost inoculants without nutrient or pest control claims. These products shall not contain substances prohibited by subclause 1.4 of CAN/CGSB-32.310, or not permitted by the PSL.

Status

Crop production substances have one of the following OMRI Status designations:

Allowed (A) crop production substances include those that appear on Table 4.2 or 4.3 of the PSL with no annotation that limits their use. The OMRI 'Allowed' status therefore indicates that these materials are not subject to use restrictions beyond the general management requirements in CAN/CGSB-32.310 subclauses 5.4 and 5.5.

Allowed with Restrictions (R) crop production substances include those that appear on Table 4.2 or 4.3 of the PSL with annotations that limit their use. The OMRI 'Allowed with Restrictions' status therefore indicates that these substances

are subject to use restrictions. These restrictions are outlined in the COS regulations and include: a) application of raw manure (CAN/CGSB-32.310 subclause 5.5.2.5), b) crop pest, disease and weed management standards (CAN/CGSB-32.310 subclause 5.6.2) and c) specific restrictions detailed in the PSL. Source restrictions, such as a requirement to only use mined sources of a mineral, are evaluated in OMRI's review process, and compliant sources do not result in a substance being listed as 'Allowed with Restrictions'. However, substances that are permitted only if preferred alternatives are not commercially available may be listed as 'Allowed with Restrictions'.

LISTINGS

Acetic acid **Allowed with Restrictions**
Class: CT Nonsynthetic
Non-synthetic sources. As an adjuvant and a pH regulator.
CAN/CGSB Reference: 32.311 Table 4.3

Acetic acid **Allowed with Restrictions**
Class: CP Nonsynthetic
Non-synthetic sources. For weed control.
CAN/CGSB Reference: 32.311 Table 4.3

Adhesives for sticky traps and barriers **Allowed**
Class: CP
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Agar **Allowed with Restrictions**
Class: CF
For use in initial mushroom spawn production.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Alcohol
See Extractants.

Alfalfa meal and pellets **Allowed**
Class: CF
Use organic alfalfa unless commercially unavailable. Ensure non-organic alfalfa is not a product of genetic engineering. *Organic source.
CAN/CGSB Reference: Table 4.2

Alfalfa meal and pellets **Allowed with Restrictions**
Class: CF
Use organic alfalfa unless commercially unavailable. Ensure non-organic alfalfa is not a product of genetic engineering.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Algae
See Aquatic plant products.

Amino acids, non-synthetic **Allowed**
Class: CF, CT Nonsynthetic
Amino acids produced by plants, animals and micro-organisms that are not from genetic engineering and that are extracted or isolated by hydrolysis or by physical or other non-chemical means are considered non-synthetic. Non-synthetic amino acids may be used as chelating agents.
CAN/CGSB Reference: Table 4.2 and 4.3

Amino acids, non-synthetic **Allowed with Restrictions**
Class: CP Nonsynthetic
Amino acids produced by plants, animals and micro-organisms that are not from genetic engineering and that are extracted or isolated by hydrolysis or by physical or other non-chemical means are considered non-synthetic. Non-synthetic amino acids may be used as plant growth regulators or chelating agents. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met.
CAN/CGSB Reference: CAN/CGSB-32.310 section 5.6; Table 4.3

Ammonium carbonate **Allowed with Restrictions**
Class: CP
As an attractant in insect traps. May be used as an attractant if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques."
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Animal manure, processed **Allowed**
Class: CF
Manures treated by mechanical and/or physical (including heat) methods, and/or to which are added biological, mineral or other substances listed in this table, are allowed. Sources of manures shall meet the requirements in par. 5.5.1 of CAN/CGSB 32.310 Organic Production Systems – General Principles and Management Standards. The operator shall be able to demonstrate that best practices known to eliminate human pathogens during the process have been used or that the requirements in par. 5.5.3.3 of CAN/CGSB 32.310 Organic Production Systems – General Principles and Management Standards have been met.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Aquatic plants and aquatic plant products **Allowed**
Class: CF, CT
Shall not contain synthetic preservatives, such as formaldehyde, or fertilizing substances not listed in this Standard. Natural (non-synthetic) extracts are allowed. Extraction with synthetic solvents is prohibited except for potassium hydroxide or sodium hydroxide, provided the amount of solvent used does not exceed the amount necessary for extraction. The manufacturer shall prove the need to use sodium hydroxide.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials

Aquatic plants and aquatic plant products **Allowed with Restrictions**
Class: CP
Shall not contain synthetic preservatives, such as formaldehyde. Natural (nonsynthetic) extracts are allowed. Extraction with synthetic solvents is prohibited except for potassium hydroxide or sodium hydroxide, provided the amount of solvent used does not exceed the amount necessary for extraction. The manufacturer shall prove the need to use sodium hydroxide. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

Arthropod pathogens
See Biological organisms.

Arthropod predators and parasitoids
See Biological organisms.

Arthropods
See Biological organisms.

Ascorbic acid (vitamin C) **Allowed with Restrictions**
Class: CT Nonsynthetic
Non-synthetic sources only may be used as a pH regulator and for promoting natural growth.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Ascorbic acid (vitamin C) **Allowed with Restrictions**
Class: CT Synthetic
Synthetic and non-synthetic sources may be used as a pH regulator. Only non-synthetic sources may be used for promoting natural growth.

Ash **Allowed**
Class: CF
Ash from plant and animal sources only. Ash from burning minerals, manure, coloured paper, plastics, or other synthetic substances is prohibited. Ash obtained from off-farm source shall not exceed Environnement Québec ash quality guideline limits (category C1) for acceptable levels (in mg/kg) of arsenic, cadmium, chromium, copper, lead and mercury. Shall not cause build-up of heavy metals in soil over repeated applications.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Baits for rodent traps **Allowed**
Class: CT
Baits shall not contain synthetic substances.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Basalt
See Mined minerals, unprocessed.

Bentonite
Class: CF
See MINED MINERALS AND UNPROCESSED MINED MINERALS.

Bentonite **Allowed**
Class: CP, CT
A mined mineral shall not have undergone any change in its molecular structure through heating or combining with other substances and shall not be processed or fortified with synthetic chemicals unless listed in Table 4.2.
CAN/CGSB Reference: 32.311 Table 4.3

Biochar **Allowed**
Class: CF
Produced through pyrolysis of forestry by-products which have not been treated with or combined with prohibited substances. Recycled biochar from contaminated remediation sites is prohibited.
CAN/CGSB Reference: 32.311 Table 4.2

Biodegradable plant containers **Allowed**
Class: CT
Biodegradable planting containers (for example pots or cell packs) may be left to decompose in the field if all ingredients are listed in Table 4.2.
CAN/CGSB Reference: 32.311 Table 4.3

Biodynamic preparations for compost **Allowed**
Class: CT
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Biodynamic preparations for soil and plants **Allowed**
Class: CF
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Biological organisms **Allowed with Restrictions**
Class: CP
Living organisms that benefit plant production by reducing pest populations, such as Bacillus thuringiensis, spinosad, granulosis (e.g. viruses, bacteria, protozoa, fungi, insects and nematodes). No organisms from genetic engineering. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Biological organisms, naturally-occurring **Allowed**
Class: CF
Includes worms and their products. See also WORM CASTINGS.
CAN/CGSB Reference: 32.311 Table 4.2

Biostimulants **Allowed**
Class: CF Synthetic/Nonsynthetic
Must be composed entirely of substances allowed on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, for use as soil amendments.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Biostimulants **Allowed with Restrictions**
Class: CF Synthetic/Nonsynthetic
Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, for use as soil amendments. Contains one or more substances with a use restriction.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Biotite (iron, magnesium or aluminum silicates)
See Potassium.

Blood meal **Allowed**
Class: CF
Allowed only if sterilized.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Bone meal **Allowed**
Class: CF
Permitted only if guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Borate
See Boron.

Borate **Allowed with Restrictions**
Class: CP
Sodium tetraborate and octaborate may be used as wood preservatives. Only mined sources acceptable. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Borax (sodium tetraborate)
See Boron.

Boric acid **Allowed with Restrictions**
Class: CP
May be used for structural pest control (e.g. ants). No direct contact with organic food or crops is allowed. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Boron **Allowed with Restrictions**
Class: CF
The following soluble boron products are permitted: a) borate; b) sodium tetraborate (borax and anhydrous); and c) sodium octaborate. Shall be used to correct a documented deficiency specific to the type of crop. See also MICRONUTRIENTS.
CAN/CGSB Reference: 32.311 Table 4.2

Botanical pesticides **Allowed with Restrictions**
Class: CP
Botanical pesticides shall be used in conjunction with a biorational pest management program but shall not be the primary method of pest control in the farm plan. The least toxic botanicals shall be used in the least ecologically disruptive way possible. All label restrictions and directions shall be followed including restrictions concerning crops, livestock, target pests, safety precautions, pre-harvest intervals and worker re-entry. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Calcium **Allowed with Restrictions**
Class: CF Nonsynthetic
The following calcium products are permitted: mined calcium carbonate, limestone, dolomite (not slaked) and other non-synthetic sources, including shells from aquatic animals (such as oyster shell flour), aragonite, eggshell meal and lime from sugar processing. Non-synthetic calcium chloride may be used to address nutrient deficiencies and physiological disorders. Calcium products used in controlled atmosphere storage are prohibited. Shall not cause salt buildup in soil through repeated application. See also CALCIUM SULPHATE (GYPSUM).
CAN/CGSB Reference: 32.311 Table 4.2

Calcium carbonate
See Calcium and Limestone.

Calcium chloride
See Calcium.

Calcium chloride **Allowed with Restrictions**
Class: CT Nonsynthetic
Natural sources and food-grade quality only. May be used to adjust nutrient deficiencies and physiological disorders.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Calcium lignin sulphonate
See Lignin sulphonates.

Calcium polysulphide
See Lime sulphur.

Calcium silicate **Allowed with Restrictions**
Class: CT Nonsynthetic
Non-synthetic sources. To address plant nutrient deficiencies and physiological disorders.
CAN/CGSB Reference: 32.311 Table 4.3

Calcium sulphate (gypsum) **Allowed with Restrictions**
Class: CF Nonsynthetic
Mined sources; calcium sulphate produced using sulphuric acid is prohibited. To correct calcium and sulphur deficiencies and soil salinity problems, as documented by visual symptoms or by testing of soil or plant tissue.
CAN/CGSB Reference: 32.311 Table 4.2

Cannery wastes – non-organic **Allowed with Restrictions**
Class: CF
Non-organic cannery wastes shall be composted. See also COMPOST FEEDSTOCKS.
CAN/CGSB Reference: 32.311 Table 4.2

Cannery wastes – organic **Allowed**
Class: CF
Shall be from organic sources. See also CANNERY WASTES – NON-ORGANIC.
CAN/CGSB Reference: 32.311 Table 4.2

Carbon dioxide **Allowed with Restrictions**
Class: CT
For soil and greenhouse use and for controlled atmosphere storage.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Cardboard **Allowed with Restrictions**
Class: CF
Cardboard that is not waxed or impregnated with fungicide or substances not on these lists; may be used as mulch or compost feedstock.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Chelates **Allowed**
Class: CT
Natural chelates and synthetic chelates specifically included for that purpose in this Standard are allowed. See Lignin sulphonates.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Cholecalciferol (vitamin D3) **Allowed with Restrictions**
Class: CP Synthetic/Nonsynthetic
When methods described in CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, par. 5.6.1 have failed, may be used outdoors and inside greenhouses for rodent control. Not allowed inside on-farm food processing and food storage facilities.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Citric acid **Allowed with Restrictions**
Class: CT Synthetic/Nonsynthetic
Non-synthetic and synthetic sources may be used as a chelating agent and a pH adjuster.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Clay **Allowed**
Class: CF
Bentonite, perlite and zeolite as a soil amendment or seed pellet additive. These are also listed individually in this standard. See also Mined minerals and unprocessed mined minerals.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Clove oil **Allowed with Restrictions**
Class: CP
As a sprout inhibitor.
CAN/CGSB Reference: 32.311 Table 4.3; Table 8.3

Compost
See Composting feedstocks, Compost produced on the farm, Compost obtained from off-farm sources, Compost tea.

Compost feedstocks **Allowed**
Class: CF
Acceptable feedstocks include: a) animal manures conforming to criteria specified in 5.5.1 of CAN/CGSB-32.310; b) animals, animal products and by-products (including fishery); c) plants and plants by-products (including forestry and source-separated yard debris, such as grass clippings and leaves), pomaces and cannery wastes; d) soils and minerals that conform to the requirements of CAN/CGSB-32.310 and 32.311; and e) paper yard waste bags which contain coloured ink. When evidence indicates that composting feedstocks may contain a substance prohibited by 1.4 of CAN/CGSB-32.310 known to be persistent in compost, documentation or testing of the final product may be required. The following composting feedstocks are prohibited: sewage sludge; compost starter and feedstocks fortified with substances not included in CAN/CGSB 32.311 ; leather by-products; glossy paper; waxed cardboard; paper containing coloured ink other than paper yard waste bags; and animals, animal products and animal by-products not guaranteed free of specified risk materials specified in BONE MEAL entry. For information on compost starters, see MICROBIAL PRODUCTS.
CAN/CGSB Reference: 32.311 Table 4.2

Compost obtained from off-farm sources **Allowed**
Class: CF
Compost obtained from off-farm sources shall meet the criteria for composting feedstocks, and: (a) shall not exceed the maximum acceptable levels of arsenic, cadmium, chromium, lead, and mercury (in mg/kg) and foreign matter outlined for unrestricted use compost (Category A) specified in the Canadian Council of Ministers of the Environment (CCME) publication Guidelines for Compost Quality, and (b) shall meet criteria for acceptable levels (MPN/g total solids) of human pathogens as specified in the CCME publication Guidelines for Compost Quality, and (c) shall not cause a build-up of heavy metals in soil over repeated applications.
For vermicompost, see WORM CASTINGS. For information on compost starters, see MICROBIAL PRODUCTS.
CAN/CGSB Reference: Table 4.2

Compost produced on the farm **Allowed**
Class: CF
Compost produced on the farm shall meet the criteria for composting feedstocks (see "Composting Feedstocks" in this table). If it is made from animal manures or other likely sources of human pathogens, it shall: reach a temperature of 55°C (130°F) for a period of four consecutive days or more. The compost piles shall be mixed or managed to ensure that all of the feedstock heats to the required temperature for the minimum time. OR
meet Canadian Council of Ministers of the Environment (CCME) compost quality guideline limits for acceptable levels (MPN/g total solids) of human pathogens. OR
be considered as aged or raw manure rather than compost i.e. meet the requirements in section 5.5.3.3 of CAN/CGSB 32.310 Organic Production Systems – General Principles and Management Standards.
For vermicompost, see "Worm castings". For information on compost starters, see "Microbial products".
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Compost tea **Allowed with Restrictions**
Class: CF
Compost tea shall be made from composts respecting the annotation for "Compost produced on the farm" or "Compost obtained from off-farm sources" in this table or "Worm castings" respecting the annotation for "Worm castings" in this table. Other substances listed in CAN/CGSB 32.311 Organic Production Systems – Permitted Substances Lists may be added to compost tea. If the compost tea is applied directly on edible part of plants, the operator shall be able to demonstrate that best practices known to eliminate pathogens during the process have been used OR the requirements for raw manure in section 5.5.3.3 of CAN/CGSB 32.310 Organic Production Systems – General Principles and Management Standards have been met.
See definition for Compost Tea in section 3 of CAN/CGSB-32.310 Organic Production Systems – General Principles and Management Standards.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Copper **Allowed with Restrictions**
Class: CF
These products shall be used in a manner that prevents excessive copper accumulation in the soil. Buildup of copper in soil may prohibit future use. Use with caution. No visible residue shall be allowed on harvested crops. Basic copper sulphate, copper oxide, copper sulphate and copper oxysulphate may be used to correct documented copper deficiencies. Copper ammonia base, copper ammonium carbonate, copper nitrate and cuprous chloride are prohibited as sources of copper for plant nutrients.
CAN/CGSB Reference: 32.311 Table 4.2

Copper **Allowed with Restrictions**
Class: CP
The following copper products are permitted: a) See COPPER HYDROXIDE; b) for use as a fungicide on fruits and vegetables—copper sulphates, Bordeaux mix, copper oxychloride and copper oxide. Shall be used with caution to prevent excessive copper accumulation in the soil. Copper buildup in soil may prohibit future use. Visible residue of copper products on harvested crops is prohibited.
CAN/CGSB Reference: 32.311 Table 4.3

Copper hydroxide **Allowed with Restrictions**
Class: CP
For use as a wood preservative or for disease control. Shall be used with caution to prevent excessive copper accumulation in the soil. Copper buildup in soil may prohibit future use. Visible residue of copper products on harvested crops is prohibited.
CAN/CGSB Reference: 32.311 Table 4.3

Cytokinins
See Growth regulators for plants.

Diatomaceous earth **Allowed with Restrictions**
Class: CP
Only non-heated forms may be used. Make sure no synthetic pesticides or synergists are added. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Digestate, anaerobic – manure source **Allowed with Restrictions**
Class: CF
Products of anaerobic digestion may be used for soil amendment, provided that the following conditions are met: a) the materials added to the digester shall be listed in CAN/CGSB-32.311 Table 4.2. If feedstocks are obtained from off-farm sources, the digestate shall comply with the heavy metal restrictions in COMPOST FROM OFF-FARM SOURCES; b) the criteria for raw manure land application specified in 5.5.2.3 of CAN/CGSB-32.310 shall be met; c) anaerobic digestate may be used as a compost feedstock if it is added to other substances which are then composted. See also COMPOST FEEDSTOCKS.
CAN/CGSB Reference: 32.311 Table 4.2

Digestate, anaerobic – non-manure source **Allowed**
Class: CF
Products of anaerobic digestion may be used for soil amendment, provided that the following conditions are met: a) the materials added to the digester shall be listed in CAN/CGSB-32.311 Table 4.2. If feedstocks are obtained from off-farm sources, the digestate shall comply with the heavy metal restrictions in CAN/CSGS-32.311 Table 4.2 Compost from off-farm sources; b) the criteria for raw manure land application specified in 5.5.2.3 of CAN/CGSB-32.310 shall be met; c) anaerobic digestate may be used as a compost feedstock if it is added to other substances which are then composted. See also COMPOST FEEDSTOCKS.
CAN/CGSB Reference: 32.311 Table 4.2

Dolomite
See Limestone and Mined minerals, unprocessed.

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Dormant oils **Allowed with Restrictions**
Class: CP
Allowed for use as a dormant spray on woody plants only. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Dust suppressants **Allowed**
Class: CF, CT
Non-synthetic substances, or substances listed in Tables 4.2 and 4.3 (for example: Lignin sulphonate, Molasses, Vegetable oils) are permitted. Petroleum products are prohibited.
CAN/CGSB Reference: 32.311 Table 4.2; Table 4.3

Enzymes **Allowed**
Class: CF Nonsynthetic
Acceptable if derived microbiologically from natural substances and not fortified with synthetic plant nutrients. Ensure enzymes are not obtained through genetic engineering.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Epsom salts
See Magnesium sulphate.

Extractants **Allowed**
Class: CT
Permitted extractants include non-synthetic substances such as cocoa butter, lanolin, animal fats, alcohols and water. Extraction with synthetic solvents is prohibited, except as specified in the annotations of substances listed in CAN/CGSB-32.311 Table 4.3.
CAN/CGSB Reference: 32.311 Table 4.3

Feather meal **Allowed**
Class: CF
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Feldspar
See Mined minerals, unprocessed.

Fermentation Products **Allowed**
Class: CF
Products made by the biological activity of bacteria, fungi, or other microorganism. Must be composed entirely of substances allowed on CAN/CGSB-32.311, Organic Production Systems – Permitted Substances List, for use as soil amendments.
CAN/CGSB Reference: 32.310 subclause 5.4; 32.311 Table 4.2

Ferric and ferrous compounds
See Iron.

Ferric phosphate iron orthophosphate, iron phosphate) **Allowed with Restrictions**
Class: CP Synthetic
Permitted as molluscicide. To be used in such a way as to prevent runoff into water bodies. Shall not be in contact with crops. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3

Fertilizers, blended **Allowed**
Class: CF
Must be composed entirely of substances allowed on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, for use as soil amendments.
CAN/CGSB Reference: CAN/CGSB-32.310 par 5.4.5

Fertilizers, blended **Allowed with Restrictions**
Class: CF
Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, for use as soil amendments. Contains one or more substances with a source or use restriction.
CAN/CGSB Reference: CGSB/CAN 32.310 par. 5.4.5

Fibre row covers **Allowed with Restrictions**
Class: CT
Shall not be incorporated into the soil or left in the field to decompose; shall be removed at the end of the growing season.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Fish emulsions or solubles
See Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles.

Fish farm wastes
See Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles.

Fish hydrolysate
See Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles.

Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles **Allowed**
Class: CF
The following fish products are permitted: fish meal; fish powder; and hydrolysate, emulsions and solubles. Fish farm wastes shall be composted. Ethoxyquin or other synthetic preservatives, fertilizers and other chemically synthesized substances not listed in CAN/CGSB-32.311 shall not be added to fish products. Chemical treatment is prohibited, except that liquid fish products may be pH adjusted with the following, in preferential order: a) vinegar; b) non-synthetic citric acid; c) synthetic citric acid; d) phosphoric acid; or e) sulphuric acid. The amount of acid used for pH adjustment shall not exceed the minimum needed to stabilize the product. Shall not contain synthetic preservatives or fertilizing substances not listed in CAN/CGSB-32.311.
CAN/CGSB Reference: 32.311 Table 4.2

Fish meal, powder
See Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles.

Formulants – non-synthetic **Allowed**
Class: CF, CT Nonsynthetic
Non-synthetic substances shall be used, unless a category annotation specifies that a synthetic formulant may be used. See also AQUATIC PLANTS AND PLANT PRODUCTS; FISH MEAL, FISH POWDER, FISH WASTES, HYDROLYSATE, EMULSIONS AND SOLUBLES; HUMATES, HUMIC ACID AND FULVIC ACID.
CAN/CGSB Reference: 32.311 Table 4.3

Formulants, PMRA List 3 **Allowed with Restrictions**
Class: CT
Formulants classified in PMRA List 3 may be used with passive pheromone dispensers.
CAN/CGSB Reference: 32.311 Table 4.3

Formulants, PMRA List 4A and 4B **Allowed with Restrictions**
Class: CT Synthetic
Formulants may be used in conjunction with substances listed in CAN/CGSB-32.311 Table 4.3 as follows: Formulants classified in PMRA List 4A or 4B or non-synthetic may be used with the following substances: adhesives for sticky traps and barriers, ammonium carbonate, baits, borate, boric acid, pesticides, dormant oils, hydrogen peroxide and soaps. Formulants used with all other substances listed in CAN/CGSB-32.311 Table 4.3 shall be non-synthetic unless specified in the annotation as being permitted. See also FORMULANTS – NON-SYNTHETIC.
CAN/CGSB Reference: 32.311 Table 4.3

Fungicides **Allowed with Restrictions**
Class: CP
May be applied when the organic management practices alone cannot prevent or control crop pests. However, the conditions for using the substance shall be documented in the organic plan, in accordance with section 4 of CAN/CGSB-32.310. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: CAN/CGSB-32.310 par. 5.6.2; Table 4.3

Gibberellic acid
See Growth regulators for plants.

Granite dust
See Mined minerals, unprocessed.

Greensand (glauconite)
See Mined minerals, unprocessed.

Growth regulators for plants **Allowed with Restrictions**
Class: CP
Natural plant hormones, such as gibberellic acid, indoleacetic acid and cytokinins, are allowed. See also Gibberellic acid. May be used as a plant growth regulator if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Guano, bat or bird **Allowed**
Class: CF
Shall be decomposed, dried deposits from wild bats or birds. Domesticated fowl excrement is considered manure, not guano. See Compost for the definition of compost.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Gypsum (calcium sulphate)
See Calcium sulphate (gypsum).

Herbicides **Allowed with Restrictions**
Class: CP
Must be composed of materials appearing on the PSL Table 4.3. May be applied when the organic management practices alone cannot prevent or control crop weeds. However, the conditions for using the substance shall be documented in the organic plan, in accordance with section 4 of CAN/CGSB-32.310.
CAN/CGSB Reference: CAN/CGSB-32.310 par. 5.6.2; Table 4.3

Homeopathic preparations **Allowed**
Class: CP, CT
CAN/CGSB Reference: 32.311 Table 4.3

Hormones **Allowed with Restrictions**
Class: CP
See Growth regulators for plants. May be used as a plant growth regulators if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Humates, humic acid and fulvic acid **Allowed**
Class: CF
Permitted if extracted by: a) non-synthetic substances; b) microbial fermentation; or c) potassium hydroxide—potassium hydroxide levels used in the extraction process shall not exceed the amount required for extraction. Shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, copper, lead and mercury specified in Guidelines for the Beneficial Use of Fertilizing Residuals.
CAN/CGSB Reference: 32.311 Table 4.2

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Humus from worms and insects (vermicompost)
See Worm castings.

Hydrated Lime **Allowed with Restrictions**
Class: CP
As a plant disease control only. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Hydrogen peroxide **Allowed with Restrictions**
Class: CP
Hydrogen peroxide is not allowed in maple syrup production. Allowed for use as a fungicide. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Indoleacetic acid
See Growth regulators for plants.

Inoculants
See Microbial products.

Iron **Allowed with Restrictions**
Class: CF
The following sources of iron are permitted, to correct documented iron deficiencies: ferric oxide, ferric sulphate, ferrous sulphate, iron citrate, iron sulphate or iron tartrate. See also MICRONUTRIENTS.
CAN/CGSB Reference: 32.311 Table 4.2

Iron sulphates
See Iron.

Kaolin **Allowed with Restrictions**
Class: CP Synthetic/Nonsynthetic
May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: CAN/CGSB-32.310 par. 5.6.2; CAN/CGSB 32.311 Table 4.3

Kaolin clay **Allowed**
Class: CT
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Kelp and kelp products
See Aquatic plants and aquatic plant products.

Kieserite
See Magnesium sulphate.

Langbeinite
See Mined minerals, unprocessed.

Leaf mould **Allowed**
Class: CF
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Lignin sulphonates **Allowed with Restrictions**
Class: CT
Lignosulphonic acid, calcium lignosulphate and sodium lignosulphate. Allowed as a chelating agent, as a formulant ingredient and as a dust suppressant. Ammonium lignosulphate is prohibited.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Lime sulphur
(Calcium polysulphide) **Allowed with Restrictions**
Class: CP
Allowed as fungicide, insecticide and acaricide (mite control) on plants. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Limestone **Allowed**
Class: CF
Magnesium carbonate and calcium carbonate. May cause build-up of magnesium. Use with caution. Shall be from a natural source. Oyster shell flour, limestone, dolomite (not slaked), aragonite, eggshell meal, lime from sugar processing and mined calcium carbonate are acceptable. Calcium products that have been used in controlled atmosphere storage are prohibited.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Magnesium **Allowed**
Class: CF Nonsynthetic
From non-synthetic substances, without the addition of chemically synthesized substances or chemical treatment. The following sources of magnesium are permitted: a) magnesium rock—magnesium carbonate, magnesium chloride; b) dolomitic limestone (not slaked). See also LIMESTONE; c) See MAGNESIUM SULPHATE
CAN/CGSB Reference: 32.311 Table 4.2

Magnesium carbonate **Allowed with Restrictions**
Class: CF Nonsynthetic
Non-synthetic sources without the addition of chemically synthesized substances or chemical treatment. Shall be used with caution to prevent magnesium buildup in soil. See also MAGNESIUM and LIMESTONE.
CAN/CGSB Reference: 32.311 Table 4.2

Magnesium chloride
See Magnesium.

Magnesium rock
See Magnesium and Mined minerals, unprocessed.

Magnesium sulphate **Allowed with Restrictions**
Class: CF Synthetic/Nonsynthetic
Includes epsom salts (may be synthetic) and kieserite. Magnesium sulfate, $MgSO_4$, shall be used to correct a documented magnesium deficiency.
CAN/CGSB Reference: 32.311 Table 4.2

Manganese products **Allowed with Restrictions**
Class: CF
Manganous oxide and manganese sulphate may be used to correct documented manganese deficiencies. See Trace elements (micronutrients).
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Manure, composted
See Compost.

Manure, raw, uncomposted – organic **Allowed with Restrictions**
Class: CF Nonsynthetic
See clauses 5 and 6 of CAN/CGSB-32.310. See also MANURE, RAW, UNCOMPOSTED – NON-ORGANIC. Soil amendments including manure shall be applied to land in accordance with good nutrient management practices. The non-composted solid or liquid manure shall be a) incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or b) incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles.
CAN/CGSB Reference: 32.310 clauses 5 and 6; 32.311 Table 4.2

Manure, raw, uncomposted – non-organic **Allowed with Restrictions**
Class: CF
See clauses 5 and 6 of CAN/CGSB-32.310. If organic manure is not commercially available, non-organic manure is permitted provided that: a) the non-organic source is not a fully caged system in which livestock cannot turn 360°; and b) livestock is not permanently kept in the dark; and c) the source and quantity of manure, type of livestock, and evaluation of the criteria in CAN/CGSB-32.310 5.5.1 a) and 5.5.1 b) shall be recorded. Soil amendments including manure shall be applied to land in accordance with good nutrient management practices. The non-composted solid or liquid manure shall be a) incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or b) incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles.
CAN/CGSB Reference: 32.310 clauses 5 and 6; 32.311 Table 4.2

Meat meal **Allowed**
Class: CF
Shall be processed by drying, heat sterilization and/or composting.
CAN/CGSB Reference: 32.311 Table 4.2

Mica
See Mined minerals, unprocessed and Potassium.

Microbial products **Allowed**
Class: CF
Allowable microbial products include rhizobium bacteria, mycorrhizal fungi, azolla, yeast and other micro-organisms on compost, plants, seeds, soils and other components of the organic operation. Ionizing radiation is allowed for use on peat moss carrier only, before the addition of microbial inoculants. Radiation is otherwise prohibited.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Micronutrients **Allowed with Restrictions**
Class: CF Synthetic/Nonsynthetic
Includes micronutrients (trace elements) from non-synthetic or synthetic sources. May be chelated. See CHELATES. To be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. Nitrate and ammonium forms of micronutrients are prohibited. See BORON; COPPER; IRON; MANGANESE; MOLYBDENUM; and ZINC
CAN/CGSB Reference: 32.311 Table 4.2

Milk **Allowed**
Class: CF
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Mined minerals and unprocessed mined minerals **Allowed**
Class: CF Nonsynthetic
A mined mineral shall not have undergone any change in its molecular structure through heating or by combining with other substances. Acceptable if the substance is not processed or fortified with synthetic chemicals. Mined minerals are regarded as supplements to a balanced, organic soil-building program. Some of the minerals that are mined can also be made synthetically or are by-products of industry; investigate the source of any new substance. Sodium nitrate is prohibited.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Molasses – organic **Allowed**
Class: CF
Shall be organic. Non-organic molasses is prohibited.
CAN/CGSB Reference: 32.311 Table 4.2

Molybdenum products **Allowed with Restrictions**
Class: CF
To correct documented molybdenum deficiencies. See also Trace elements (micronutrients).
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Mulches **Allowed**
Class: CT
Organic plant residues may be used for mulching. If organic plant materials are not readily available, non-organic, non-genetically engineered sources of straw, leaves, grass clippings or hay may be used. Prohibited substances shall not have been used on these materials for at least 60 days before harvest. Sawdust, wood chips and shavings may be used for mulching if they are obtained or derived from wood that has not been treated with paint or prohibited. Newspaper and paper mulch: glossy paper and coloured ink are prohibited. Biodegradable mulches: 100% of biodegradable mulch films shall be derived from bio-based sources. Formulants or ingredients shall be listed in CAN/CGSB-32.311 Tables 4.2 or 4.3. Biodegradable polymers and Carbon Black from GE or petroleum sources are not permitted.

CAN/CGSB Reference: 32.311 Table 4.3

Mulches, plastic, non-biodegradable and semi-biodegradable **Allowed with Restrictions**
Class: CT
Plastic mulches: Non-biodegradable and semi-biodegradable materials shall not be incorporated into the soil or left in field to decompose; Use of polyvinyl chloride as plastic mulch or row cover is prohibited.

CAN/CGSB Reference: 32.311 Table 4.3

Mushroom compost
See Compost.

Nitrogen **Allowed with Restrictions**
Class: CT
For controlled atmosphere storage.

CAN/CGSB Reference: 32.311 Table 4.3; Table 8.3

Oilseed meals **Allowed**
Class: CF
Use organic sources unless commercially unavailable. Shall not be from genetically engineered oilseeds. *Organic source.

Oilseed meals **Allowed with Restrictions**
Class: CF
Use organic sources unless not commercially available. Shall not be from genetically engineered oilseeds.

CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Oxygen **Allowed with Restrictions**
Class: CT
For controlled atmosphere storage.

CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Oyster shell lime
See Calcium and Limestone.

Peat moss **Allowed**
Class: CF

CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Peracetic acid **Allowed with Restrictions**
Class: CP
For use in controlling fire blight bacteria and in disinfecting seed and asexually propagated planting material. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Perlite
See Clay.

pH buffers **Allowed**
Class: CT
Shall be from a natural source, such as citric acid or vinegar. Lye and sulphuric acid are prohibited.

CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Pheromones and other semiochemicals **Allowed with Restrictions**
Class: CP
Allowed for use in pheromone traps or dispensers. Both synthetic and non-synthetic pheromones and semiochemicals may be used for pest control. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Phosphate rock **Allowed**
Class: CF
Shall not be fortified or processed with synthetic chemicals. Cadmium shall not exceed 90 mg/kg P2O5.

CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Plant extracts, oils and preparations **Allowed**
Class: CF, CT
Permitted extractants include non-synthetic substances such as cocoa butter, lanolin, animal fats, alcohols and water.. Extraction with synthetic solvents is prohibited, except as specified in the annotatin of substances listed in CAN/CGSB-32.311 Table 4.3. See also PLANTS AND PLANT BY-PRODUCTS and EXTRACTANTS.

CAN/CGSB Reference: 32.311 Table 4.2; Table 4.3

Plant extracts, oils and preparations **Allowed with Restrictions**
Class: CP
Permitted extractants include: cocoa butter, lanolin, animal fats, alcohols and water. Extraction with synthetic solvents is prohibited except with, in order of preference: a) potassium hydroxide; b) sodium hydroxide; provided the amount of solvent used does not exceed the amount necessary for extraction. The manufacturer shall prove the need to use sodium hydroxide. For pest control (disease, weed and insect). See also CLOVE OIL. May be used as a pesticide if the requirements of CAN/CGSB-32.310 clause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.

CAN/CGSB Reference: 32.311 Table 4.3

Plant protectants, natural **Allowed**
Class: CT
Substances that protect plants from harsh environmental conditions such as frost and sunburn, infection, the buildup of dirt on leaf surfaces, or injury by a pest. Natural substances are allowed, including diatomaceous earth, kaolin clay, pine oil, pine resin and yucca. White wash is allowed for use on trees to protect against sunburn and southwest disease.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Plant protectants, white wash **Allowed with Restrictions**
Class: CT
White wash is allowed for use on trees to protect against sunburn and southwest disease.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Plants and plant by-products **Allowed**
Class: CF
Includes plant preparations of aquatic or terrestrial plants or parts of plants, such as cover crops, green manures, crop wastes, hay, leaves and straw. Parts of plants used as soil amendments and foliar feeds are permitted. Wastes from crops that have been treated or produced with substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards are prohibited. Only substances listed in par. 6.3 and 6.6 may be used in the processing of plant by-products. Plant by-products not meeting this restriction may be used as composting feedstocks. Sawdust, wood chips and shavings: From natural sources or that derive from natural substances are permitted for mulching if they are from wood, trees or logs that have not been treated with paint or substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Plastic for row covers and solarization **Allowed with Restrictions**
Class: CT
Non-biodegradable and semi-biodegradable materials shall not be incorporated into the soil or left in the field to decompose. Use of polyvinyl chloride as plastic mulch or row cover is prohibited. See also MULCHES, PLASTIC, NON-BIODEGRADABLE AND SEMI-BIODEGRADABLE.
CAN/CGSB Reference: 32.311 Table 4.3

Pomaces **Allowed**
Class: CF
Feedstocks shall be from organically grown fruits or vegetables, or the material shall be aerobically composted before use.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Potassium **Allowed**
Class: CF
The following potassium sources are permitted: a) langbeinite, mined sulphate of potash magnesia and mined potassium salts (sylvinite and kainite); b) potassium rock powder—includes basalt, biotite, mica, feldspar, granite and greensand; c) See POTASSSIUM CHLORIDE (KCL); d) potassium sulphate—shall be produced by combining brines from seabed deposits and mined minerals. Potassium sulphate made using reactants (such as sulphuric acid or ammonia) is prohibited. Fortification with synthetic chemicals is prohibited.
CAN/CGSB Reference: 32.311 Table 4.2

Potassium bicarbonate **Allowed with Restrictions**
Class: CP
Allowed for pest and disease control in greenhouses and other crops. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Potassium chloride (KCl) **Allowed with Restrictions**
Class: CF
Muriate of potash and rock potash. Shall not cause salt buildup in soil through repeated application.
CAN/CGSB Reference: 32.311 Table 4.2

Potassium rock powders
See Potassium and Mined minerals, unprocessed.

Potassium sulphate
See Potassium and Mined minerals, unprocessed.

Potassium sulphate magnesia
See Potassium and Mined minerals, unprocessed.

Potting soil **Allowed**
Class: CF
Shall not contain synthetic wetting agents or synthetic fertilizers.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Potting soil **Allowed with Restrictions**
Class: CF
Shall not contain synthetic wetting agents or synthetic fertilizers. Contains one or more substances with a source or use restriction.
CAN/CGSB Reference: CGSB/CAN 32.310 par. 5.4.5

Pumice
See Mined minerals, unprocessed.

Pyrethrum **Allowed with Restrictions**
Class: CP
May only be combined with acceptable formulants listed in par. 4.3 of this Standard. See also Botanical pesticides for restrictions. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Quick lime **Allowed with Restrictions**
Class: CP
Also known as calcium oxide. Prohibited as a fertilizer or soil amendment. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Repellents **Allowed with Restrictions**
Class: CP
Acceptable if derived from a natural source, such as sterilized blood meal, rotten eggs, hair or predator scents, provided synthetic additives are not used. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Rock dusts (stone meal), unprocessed
See Mined minerals, unprocessed.

Rotenone
See Botanical pesticides.

Salt **Allowed with Restrictions**
Class: CP Nonsynthetic
Non-synthetic sources of sodium chloride and calcium chloride. For disease control and prevention in mushroom production.
CAN/CGSB Reference: 32.311 Table 4.3

Sand
See Mined minerals, unprocessed.

Seaweed and seaweed products
See Aquatic plants and aquatic plant products.

Seed treatments **Allowed**
Class: CT
Microbial products, kelp, yucca, gypsum, clays, botanicals, and any substances and formulants that appear in Table 4.3 with consistent origin and usage permitted for use as treatments on organic seed.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Seed treatments **Allowed with Restrictions**
Class: CP
Microbial products, kelp, yucca, gypsum, clays, botanicals, and any substances and formulants that appear in par. 4.3 with consistent origin and usage permitted for use as treatments on organic seed. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop production aids and materials

Shell from aquatic animals **Allowed**
Class: CF, CT
Includes chitin.
CAN/CGSB Reference: 32.311 Table 4.2; Table 4.3

Shell from aquatic animals **Allowed with Restrictions**
Class: CP
Includes chitin. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: 32.311 Table 4.3

Soaps **Allowed with Restrictions**
Class: CP
Soaps (including insecticidal soaps) consisting of fatty acids derived from animal or vegetable oils are allowed.May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Soaps, ammonium **Allowed with Restrictions**
Class: CP
As a large animal repellent only; no contact with soil or edible portion of crop allowed. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Sodium bicarbonate **Allowed with Restrictions**
Class: CP
Allowed for pest and disease control in greenhouses and other crops. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Sodium silicate **Allowed with Restrictions**
Class: CT
For tree fruit and fibre processing.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Soil **Allowed**
Class: CF
From organic sources in accordance with this standard for 36 months.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Sphagnum moss **Allowed**
Class: CF
Shall not contain synthetic wetting agents.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Spinosad **Allowed with Restrictions**
Class: CP Synthetic/Nonsynthetic
Derived from the bacterium Saccharopolyspora spinosa. No organisms from genetic engineering. May be used as a pesticide if the requirements of CAN/CSGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See BIOLOGICAL ORGANISMS.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Sterile insects
See Biological organisms.

Sticky traps **Allowed with Restrictions**
Class: CP
Within the sugar bush, substances listed in Table 4.3 of CAN/CGSB-32.311, are permitted for disease and insect control. Within preparation facilities, mechanical and sticky traps are permitted for rodents and other destructive pests, as are natural repellents listed in Table 8.2 of CAN/CGSB-32.311. If an infestation occurs, pests may be hunted. Poisons of any kind are prohibited.
CAN/CGSB Reference: 32.310 clause 7.2.9.5

Stillage and stillage extract **Allowed**
Class: CF
Ammonium stillage is prohibited.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Substrate and growth media **Allowed with Restrictions**
Class: CF, CP, CT
Substrates or growth media ingredients present in the final product shall be listed in CAN/CGSB-32.311 Table 4.2 or 4.3; Substrates or growth media that are not present in the final product shall be non-genetically engineered, if commercially available. *OMRI does not list products in this category.
CAN/CGSB Reference: 32.311 clause 4.1.3; clause 5.1.2; clause 6.2.1

Sugar **Allowed**
Class: CT
Organic sugar may be used as an ingredient in a crop production aid.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Sulphate of potash magnesia
See Mined minerals, unprocessed and Potassium.

Sulphates of zinc or iron **Allowed with Restrictions**
Class: CF
May be used only to correct for deficiencies determined by soil or plant tissue testing. Sulphates produced using sulphuric acid are prohibited. See also Iron products.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Sulphur (smoke bombs) **Allowed with Restrictions**
Class: CP
Sulphur smoke bombs used for rodent control shall be used in conjunction with other methods and only when a full pest control program is maintained but temporarily overwhelmed. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Sulphur, elemental **Allowed with Restrictions**
Class: CF
Sulphur may be used as a soil amendment where more buffered sources of sulphur are not appropriate, and as a foliar application. Natural substances or those derived from natural substances without the addition of chemically synthesized substances or chemical treatment.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Sulphur, elemental **Allowed with Restrictions**
Class: CP
Allowed for foliar use only. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Summer oils **Allowed with Restrictions**
Class: CP
Allowed for use in organic production as suffocating or stylet oils on foliage. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Surfactants **Allowed**
Class: CF, CT Nonsynthetic
Non-synthetic substances. See also FORMULANTS; WETTING AGENTS; SOAPS; and VEGETABLE OILS
CAN/CGSB Reference: 32.311 Table 4.3

Surfactants **Allowed with Restrictions**
Class: CP Nonsynthetic
Non-synthetic substances. See also SOAPS; VEGETABLE OILS; and WETTING AGENTS. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: 32.311 Table 4.3

Trace elements (micronutrients)
See Micronutrients.

Transplant and potting media **Allowed**
Class: CT
Shall be composed entirely of allowed substances.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Class Codes
CF: Crop Fertilizers and Soil Amendments
CP: Crop Pest, Weed and Disease Control
CT: Crop Management Tools and Production Aids

Treated seed, non-synthetic agents **Allowed**
Class: CP, CT
Seed treated with naturally occurring biological management agents are allowed. Organisms from genetic engineering are prohibited. Seed pelletized with clay, gypsum or other non-synthetic coating is allowed. For rhizobial bacteria coatings, pelletized seeds are allowed unless pelletizing substance contains prohibited substances. Plastic polymer pelletization of seed is prohibited. See also Seed treatments.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Tree seals **Allowed with Restrictions**
Class: CT
Plant or milk-based paints may be used. Synthetic grafting materials are permitted on planting stock provided that the organic products are harvested after such plants have been maintained in accordance with this standard for at least 12 months. Shall not be combined with fungicides or other synthetic chemicals.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Vegetable oils **Allowed**
Class: CT
Spreader-stickers, surfactants and carriers. Plant oils shall not contain synthetic pesticides.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Vegetable oils **Allowed with Restrictions**
Class: CP
Spreader-stickers, surfactants and carriers. Plant oils shall not contain synthetic pesticides. May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Vermicasts **Allowed**
Class: CF
See Worm castings.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Vermiculite **Allowed**
Class: CF
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Vinegar (acetic acid)
See Acetic acid.

Vinegar (acetic acid) **Allowed with Restrictions**
Class: CT Synthetic
See Acetic acid. Non-synthetic sources unless commercially unavailable.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Virus sprays **Allowed with Restrictions**
Class: CP
May be used as a pesticide if the requirements of CAN/CGSB-32.310 section 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Water **Allowed**
Class: CT
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Water, recycled **Allowed with Restrictions**
Class: CT
Recycled water shall only contain substances listed in CAN/CGSB-32.311 Tables 4.2, 4.3, 7.3 and 7.4. Recycled wash water from all organic operations, including dairy operations, may be spread on crop lands. Requirements for land application, as specified in 5.5.2.5 of CAN/CGSB-32.310, shall be met. In all other uses, recycled water shall meet applicable irrigation water regulatory requirements.
*OMRI does not list products in this category.
CAN/CGSB Reference: 32.310 clause 5.5.2.5; 32.311 Table 4.3

Wetting agents **Allowed**
Class: CT
Natural wetting agents, including saponins and microbial wetting agents, are allowed. See also Soaps.
CAN/CGSB Reference: Table 4.3 Crop Production Aids and Materials

Wood ash
See Ash.

Worm castings **Allowed**
Class: CF
Worm castings (also called vermicompost, worm compost, vermicast, worm humus or worm manure) are the end-product of the breakdown of organic matter and compounds by some species of earthworm. Feedstocks for these earthworms shall meet the criteria for composting feedstocks in this table. Whether produced on the farm or obtained from off-farm sources, the operator shall be able to demonstrate that the worm castings meet Canadian Council of Ministers of the Environment (CCME) criteria for acceptable levels (MPN/g total solids) of human pathogens OR that best practices known to eliminate human pathogens during the process have been used. See Microbial products for information on compost starters.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

Yeast
See Microbial products.

Zeolite
See Mined minerals, unprocessed.

Zinc products **Allowed with Restrictions**
Class: CF
Zinc oxide and zinc sulphate may be used to correct a documented zinc deficiency.
CAN/CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition

LIVESTOCK Production Categories

Class Coding

Materials used in the feeding and care of organic livestock are classified by OMRI in the following Use Classes:

LF: Livestock Feed Ingredients
LH: Livestock Health Care
LP: Livestock External Parasiticides and Pesticides
LT: Livestock Management Tools and Production Aids

Livestock Feed Ingredients (LF) include feed additives and feed supplements, and correspond to substances listed in Table 5.2 of the Permitted Substances List (PSL) (CAN/CGSB-32.311). They do not encompass agricultural commodities either as feed or forage from range and pasture or as formulated rations, which must be grown to meet organic certification requirements. A feed additive is "a substance added to feed in small quantities to fulfill a specific nutritional need (e.g., essential nutrients in the form of amino acids, vitamins and minerals, and non-nutritive additives such as anticaking agents and antioxidants)." A feed supplement is "a feed that is used with other 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." Feed and feed additives, including amino acids and feed supplements, may not contain substances not in accordance with CAN/CGSB-32.311. In Canada, livestock feed must meet the compositional and labeling standards of the Canada Feeds Regulations, 1983. Ingredients used in livestock feed must be approved and listed in Schedule IV or V of the Feeds Regulations, 1983. Some ingredients and products require registration (e.g., enzymes and milk replacers).

The operator of an organic livestock production facility shall provide livestock with a feed ration balanced to meet their nutritional requirements and consisting of feedstuffs produced in accordance with the COS. Livestock feed shall consist of substances that are necessary and essential for maintaining the animals' health, well-being and vitality, and that meet the physiological and behavioral needs of the species in question. Approved feed supplements or additives are not to be used in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

Livestock Health Care Products (LH) include veterinary drugs, which are "any substance or mixture of substances represented for use or administrated 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." Other health care products include medications, remedies, parastiticides, and other substances used to maintain or restore the well-being of an animal. These substances are listed in Table 5.3 of the PSL. According to COS standards, the use of biological, cultural, and physical treatments and practices is permitted in accordance with the PSL when preventive practices and vaccines are inadequate to prevent sickness or injury, and where disease and health problems require treatment. Use of parasiticides not on Table 5.3 of the PSL must comply with Par. 6.6.11 of CAN/CGSB 32.310.

Livestock External Parasticides and Pesticides (LP) include all pesticides that are used to manage ticks, flies and other external parasites and pests. They include pesticides used in barns, poultry houses, and other livestock facilities. These substances are listed in Table 5.3 of the PSL. Other substances for control of vertebrate, invertebrate, and nematode range and pasture pests are covered under Crop Pest, Weed and Disease Control, PSL Table 4.3. Use of these substances must comply with subclauses 6.7 and 6.8 (Livestock Health Care and Livestock Living Conditions) of CAN/CGSB 32.310. In Canada, these substances are also subject to regulation under the Pest Management Regulatory Agency (PMRA) Pest Control Products Act.

Livestock Management Tools and Production Aids (LT) include substances listed in Table 5.3 of the PSL that are used for purposes other than providing nutrition or a direct health care effect. Production aids include equipment and facility cleaners, grooming aids, manure/odor management and other materials used on animals and in their living areas. Two examples are bedding and manure odor controls.

Class Codes
LF: Livestock Feed Ingredients
LH: Livestock Health Care
LP: Livestock External Parasiticides and Pesticides
LT: Livestock Management Tools and Production Aids

Status

Livestock Permitted Substance Categories have one of the following OMRI Status designations:

Allowed (A) livestock production categories include those that appear on Table 5.2 or 5.3 of the PSL with no annotation that limits their use. Products listed under these categories may be given to organic animals and used in their production areas. The OMRI 'Allowed' status therefore indicates that these materials are not subject to restrictions that limit their use.

Allowed with Restrictions (R) livestock production categories include those that appear on Table 5.2 or 5.3 of the PSL with annotations that limit their use. Products listed under these categories are subject to use restrictions per the COS. These standards include: a) requirements that specific substances in the PSL be organic or non-synthetic unless commercially unavailable, or b) other specific use restrictions detailed in the PSL. Source restrictions other than those for the preferential use of non-synthetic or organic sources are evaluated in OMRI's review process and do not result in a substance being designated as 'Allowed with Restrictions'.

LISTINGS

Acetylsalicylic acid **Allowed**
Class: LH
Aspirin.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Acids for water treatments **Allowed with Restrictions**
Class: LT Nonsynthetic
Non-synthetic acids may be used on farm to neutralize the pH of livestock drinking water.
CAN/CGSB Reference: 32.311 Table 5.3

Activated charcoal **Allowed**
Class: LH, LT Synthetic/Nonsynthetic
Plant sources only.
CAN/CGSB Reference: Table 5.3

Alcohol, ethyl (ethanol) **Allowed with Restrictions**
Class: LH, LT
Allowed as a disinfectant and sanitizer only.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Alcohol, isopropyl **Allowed with Restrictions**
Class: LH, LT
Allowed as a disinfectant only.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Amino Acids **Allowed with Restrictions**
Class: LF Nonsynthetic
Non-synthetic sources. Amino acids are considered non-synthetic if they are produced by plants, animals and micro-organisms and are extracted, or isolated, by hydrolysis or by physical or other non-chemical means. Exceptions: a) See L-LYSINE; and b) See DL-METHIONINE Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Antibiotics **Allowed with Restrictions**
Class: LH
See par. 6.7 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, for conditions on antibiotic use in livestock. See also Antibiotics, oxytetracycline.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Antibiotics, oxytetracycline **Allowed with Restrictions**
Class: LH
For emergency use for bees. The equipment shall be destroyed, in accordance with par. 7.1.14.7 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, but the bees need not be destroyed if they are taken out of organic production and treated with oxytetracycline.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Anti-inflammatories **Allowed with Restrictions**
Class: LH
For health care use, to reduce inflammation. Preference shall be given to natural alternatives.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Antioxidants **Allowed with Restrictions**
Class: LF Nonsynthetic
Non-synthetic sources. Derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Bedding – non-organic **Allowed with Restrictions**
Class: LF, LT Nonsynthetic
Bedding material must be capable of absorbing excrement. If organic bedding is commercially unavailable, non-genetically engineered bedding material that is free of prohibited substances for at least 60 days prior to harvest may be used.
CAN/CGSB Reference: 32.310 clause 6.7.1(g)

Bedding – organic **Allowed**
Class: LF, LT Nonsynthetic
Bedding material must be capable of absorbing excrement.
CAN/CGSB Reference: 32.310 clause 6.7.1(g)

Biologics, including vaccines **Allowed**
Class: LH
Organisms from genetic engineering or their products (e.g. recombinant gene technology) are prohibited, except vaccines that have been grown on genetically engineered substrates but are not themselves a product of genetic engineering provided that a. there is documented evidence that the targeted diseases are communicable to livestock on the enterprise and cannot be combated by other means, and b. an analogous vaccine grown on a substrate not produced from genetic engineering is not commercially available and a reasonable search of veterinary suppliers has been conducted. This exception shall be reviewed before the end of 2012.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Biologics, including vaccines **Allowed with Restrictions**
Class: LH
Organisms from genetic engineering or their products (e.g. recombinant gene technology) are prohibited, except vaccines that have been grown on genetically engineered substrates but are not themselves a product of genetic engineering provided that a. there is documented evidence that the targeted diseases are communicable to livestock on the enterprise and cannot be combated by other means, and b. an analogous vaccine grown on a substrate not produced from genetic engineering is not commercially available and a reasonable search of veterinary suppliers has been conducted. This exception shall be reviewed before the end of 2012.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Botanical compounds **Allowed with Restrictions**
Class: LH, LP
Botanical preparations according to label specifications.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Calcium borogluconate **Allowed with Restrictions**
Class: LH Synthetic
For milk fever. No withdrawal period required.
CAN/CGSB Reference: Table 5.3

Chlorohexidine **Allowed with Restrictions**
Class: LH
For surgical procedures conducted by a veterinarian. Allowed for use as a post-milking teat dip when alternative germicidal agents and physical barriers have lost their effectiveness.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Colostral whey **Allowed**
Class: LH
Probiotic.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Colostrum **Allowed**
Class: LH
Shall be organic unless commercially unavailable. *Organic source.
CAN/CGSB Reference: Table 5.3

Colostrum **Allowed with Restrictions**
Class: LH
Shall be organic unless commercially unavailable.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Copper sulphate **Allowed with Restrictions**
Class: LH
As an essential nutrient (source of copper and sulphur) and for topical use (foot baths).
CAN/CGSB Reference: 32.311 Table 5.3

Diatomaceous earth **Allowed with Restrictions**
Class: LP
For use in control of external parasites.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Diatomaceous earth **Allowed with Restrictions**
Class: LF
Approved as an anti-caking agent in feed to a maximum of 2% of the total diet.
CAN/CGSB Reference: Table 5.2

DL-methionine **Allowed with Restrictions**
Class: LF
DL-methionine, DLmethionine–hydroxy analog and DL-methionine–hydroxy analog calcium 15 (CAS#'s 59-51-8, 853-91-5, 4857-44-7, and 922-50-9) may be used in organic poultry production. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.311 Table 5.2

Electrolytes **Allowed**
Class: LH
Without antibiotics.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Class Codes
LF: Livestock Feed Ingredients
LH: Livestock Health Care
LP: Livestock External Parasiticides and Pesticides
LT: Livestock Management Tools and Production Aids

Energy feeds and forage concentrates and roughages **Allowed with Restrictions**
Class: LF Nonsynthetic
Includes grains, and roughages such as hay, silage, fodder, straw. Shall be obtained from organic sources and may include silage preservation products (e.g. bacterial or enzymatic additives derived from bacteria, fungi and plants and food by-products [e.g. molasses and whey]). Note that if weather conditions are unfavourable to fermentation, lactic, propionic and formic acid may be used. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: Table 5.2 Feed, Feed Additives and Feed Supplements

Enzymes **Allowed with Restrictions**
Class: LF Nonsynthetic
Non-synthetic enzymes are permitted, including bromelain, catalase–bovine liver, ficin, animal lipase, malt, pancreatin, pepsin, trypsin, proteases and carbohydrases. Animal-derived enzymes shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of ruminants aged 30 months or older; and the distal ileum (portion of the small intestine) of ruminants of all ages. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Formic acid **Allowed with Restrictions**
Class: LP Synthetic
For apicultural use to control parasitic mites. This substance may be used after the last honey harvest of the season and shall be discontinued 30 days before the addition of honey supers.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Formulants (inerts, excipients) **Allowed with Restrictions**
Class: LH Synthetic/Nonsynthetic
Can only be used in conjunction with substances listed in par. 5.3.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Glucose **Allowed**
Class: LH, LT
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Glycerol (glycerine, glycerin) – non-organic **Allowed with Restrictions**
Class: LH, LT
Non-organic sources are permitted if organic sources are not commercially available. Shall be from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
CAN/CGSB Reference: 32.311 Table 5.3; Table 6.3

Glycerol (glycerine, glycerin) – organic **Allowed**
Class: LH, LT
Shall be from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
CAN/CGSB Reference: 32.311 Table 5.3; Table 6.3

Hay or silage preservation products **Allowed with Restrictions**
Class: LF
Preference should be given to bacterial or enzymatic additives derived from bacteria, fungi and plants and food by-products (such as molasses and whey). The following acids may be used: lactic, propionic and formic.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Homeopathic and biotherapies **Allowed**
Class: LH
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Honey **Allowed**
Class: LH, LP, LT
Organic honey is allowed.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Hydrogen peroxide **Allowed**
Class: LT
External use (disinfectant): pharmaceutical grade. Internal use (e.g. livestock drinking water): food grade.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Hydrogen peroxide **Allowed with Restrictions**
Class: LP, LT
External use (disinfectant): pharmaceutical grade. Internal use (e.g. livestock drinking water): food grade.
CAN/CGSB Reference: Table 5.3

Iodine **Allowed with Restrictions**
Class: LH
For use as a topical disinfectant. Sources include potassium iodide and elemental iodine. As a cleaning agent, shall be followed by a hot-water rinse. Nonelemental only; not to exceed 5% solution by volume (e.g. iodophors).
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Iodine **Allowed with Restrictions**
Class: LT
For use as a topical disinfectant. Sources include potassium iodide and elemental iodine. As a cleaning agent, shall be followed by a hot-water rinse. Non-elemental only; not to exceed 5% solution by volume (e.g. iodophors).
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Iron products **Allowed**
Class: LH
May be supplied by ferric phosphate, ferric pyrophosphate, ferrous lactate, ferrous sulphate, iron carbonate, iron gluconate, iron oxide, iron phosphate, iron sulphate or reduced iron.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Lime, hydrated **Allowed with Restrictions**
Class: LH, LT
Shall not be used to deodorize animal wastes.
CAN/CGSB Reference: 32.311 Table 5.3

L-lysine **Allowed with Restrictions**
Class: LF Nonsynthetic
L-lysine extracted using biofermentation and not produced from genetically engineered organisms shall be permitted if the need to supplement hog or poultry feed with lysine can be demonstrated. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Local anesthetics **Allowed with Restrictions**
Class: LH
Use requires a withdrawal period of 90 days after administering to livestock intended for slaughter, and 7 days after administering to dairy animals. Preference shall be given to natural alternatives.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Magnesium sulphate **Allowed with Restrictions**
Class: LH, LT
Mined sources. A source of magnesium and sulphur.
CAN/CGSB Reference: 32.311 Table 5.3

Micro-organisms **Allowed with Restrictions**
Class: LF, LH
Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2; Table 5.3

Milk replacer **Allowed with Restrictions**
Class: LF
From organic sources when commercially available. Only without antibiotics and animal fats, by-products, and for emergency use only. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: Table 5.2

Milk replacer **Allowed with Restrictions**
Class: LF
From organic sources when commercially available. Only without antibiotics and animal fats, by-products, and for emergency use only. *Organic source. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: Table 5.2

Mineral oil **Allowed with Restrictions**
Class: LH, LT
For external use only.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Minerals, trace minerals, elements **Allowed**
Class: LH Synthetic/Nonsynthetic
Minerals from any source are permitted for medical use.
CAN/CGSB Reference: 32.311 Table 5.3

Minerals, trace minerals, elements – non-synthetic **Allowed**
Class: LT Nonsynthetic
Non-synthetic chelated or sulphated minerals. Examples include oyster shell, calcium chloride and magnesium oxide.
CAN/CGSB Reference: 32.311 Table 5.3

Minerals, trace minerals, elements – non-synthetic **Allowed with Restrictions**
Class: LF Nonsynthetic
Non-synthetic chelated or sulphated minerals such as but not limited to calcium chloride. Synthetic nutrient minerals may be used when non-synthetic sources are not commercially available. Minerals may not be used to stimulate growth or production. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.311 Table 5.2

Minerals, trace minerals, elements - synthetic **Allowed with Restrictions**
Class: LF Synthetic
Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available. Minerals may not be used to stimulate growth or production. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.311 Table 5.2

Minerals, trace minerals, elements – synthetic **Allowed**
Class: LT Synthetic
Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available.
CAN/CGSB Reference: 32.311 Table 5.3

Molasses – organic **Allowed with Restrictions**
Class: LF
Shall be organic. Non-organic molasses is prohibited. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Oxalic acid **Allowed with Restrictions**
Class: LP
For the control of mites in honeybee colonies.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Oxytocin **Allowed with Restrictions**
Class: LH
For post parturition therapeutic use only. Meat from treated animals will not lose its organic status. See par. 6.7.6 d. of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, for mandatory withdrawal time requirement.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Class Codes
LF: Livestock Feed Ingredients
LH: Livestock Health Care
LP: Livestock External Parasiticides and Pesticides
LT: Livestock Management Tools and Production Aids

Paints **Allowed with Restrictions**
Class: LT Synthetic
For use in honeybee hive construction. Exterior surfaces of the hive shall be painted only with non-lead-based paints.
CAN/CGSB Reference: CAN/CGSB-32.310 par 7.1.12.2

Paraffin **Allowed with Restrictions**
Class: LT
Shall be food-grade. For use in hives.
CAN/CGSB Reference: 32.311 Table 5.3

Parasiticides and anti-microbials **Allowed with Restrictions**
Class: LH
See par. 6.7 of CAN/CGSB-32.310 for conditions regarding the use of internal parasiticides.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Physical teat seals **Allowed with Restrictions**
Class: LH
Synthetic and non-synthetic ingredients are permitted. Shall be free from antibiotics. For post-lactation use. Shall be completely removed prior to nursing or milking. Shall be prescribed and administered under veterinary supervision.
CAN/CGSB Reference: 32.311 Table 5.3

Plant oils **Allowed with Restrictions**
Class: LH, LP
To control external parasites.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Prebiotics – non-organic **Allowed with Restrictions**
Class: LH
Non-organic sources permitted if organic sources are not commercially available.
CAN/CGSB Reference: 32.311 Table 5.3

Prebiotics – organic **Allowed**
Class: LH
CAN/CGSB Reference: 32.311 Table 5.3

Pre-mixes – non-organic **Allowed with Restrictions**
Class: LF
Concentrated mixture of minerals and vitamins. From organic sources if commercially available. All ingredients in pre-mixes shall be essential for animal nutrition, and listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Pre-mixes – organic **Allowed with Restrictions**
Class: LF
Concentrated mixture of minerals and vitamins. All ingredients in pre-mixes shall be essential for animal nutrition, and listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Probiotics **Allowed with Restrictions**
Class: LF, LH Nonsynthetic
Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2; Table 5.3

Protein feeds **Allowed with Restrictions**
Class: LF
Shall be from organic sources. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: Table 5.2

Rotenone **Allowed with Restrictions**
Class: LP
For external parasites, rotenone shall not be combined with unacceptable formulants. Botanical pesticides shall be used in conjunction with a biorational pest management program but shall not be the primary method of pest control in the farm plan. The least toxic botanicals shall be used in the least ecologically disruptive way possible. All label restrictions and directions shall be followed including restrictions concerning crops, livestock, target pests, safety precautions, pre-harvest intervals and worker re-entry.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Seaweed meal **Allowed with Restrictions**
Class: LF
Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: Table 5.2

Sedatives **Allowed with Restrictions**
Class: LH
Such as xylazine. To minimize pain, stress and suffering during physical alterations permitted under CAN/CGSB 32.210 section 6.6.4, 6.6.6 and 6.6.10.
CAN/CGSB Reference: 32.310 clause 6.6.4 c); 32.311 Table 5.3

Selenium products **Allowed with Restrictions**
Class: LH
May be derived from sodium selenate or sodium selenite. See Trace minerals, elements (mineral products). May be used where documented deficiencies in the stock, soils or feed supplies exist.
CAN/CGSB Reference: Table 5.3 Health Care Products and Production Aids

Sodium hydroxide **Allowed with Restrictions**
Class: LT
For use in dehorning paste.
CAN/CGSB Reference: 32.311 Table 5.3

Substrate and growth media **Allowed with Restrictions**
Class: LF, LH, LP, LT
Substrates or growth media ingredients present in the final product shall be listed in CAN/CGSB-32.311 Table 4.2 or 4.3; Substrates or growth media that are not present in the final product shall be non-genetically engineered, if commercially available. *OMRI does not list products in this category.
CAN/CGSB Reference: 32.311 clause 4.1.3; clause 5.1.2; clause 6.2.1

Sulphur **Allowed with Restrictions**
Class: LP Synthetic/Nonsynthetic
For control of external parasites.
CAN/CGSB Reference: Table 5.3

Vaccines
See Biologics, including vaccines.

Vitamins **Allowed**
Class: LH
Vitamin formulants that comply with Canadian regulations are accepted. Orally, topically or by injection.
CAN/CGSB Reference: 32.311 Table 5.3

Vitamins **Allowed with Restrictions**
Class: LF
Permitted for enrichment or fortification. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2

Yeasts – non-organic **Allowed with Restrictions**
Class: LF, LH Nonsynthetic
If organic sources of yeast are not commercially available, non-synthetic yeast sources, including yeast autolysate, shall be used. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2; Table 5.3

Yeasts – organic **Allowed with Restrictions**
Class: LF, LH
Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.
CAN/CGSB Reference: 32.310 clause 6.4.4; 32.311 Table 5.2; Table 5.3

Class Codes
LF: Livestock Feed Ingredients
LH: Livestock Health Care
LP: Livestock External Parasiticides and Pesticides
LT: Livestock Management Tools and Production Aids

PROCESSING & Handling Categories

Class Coding

Processing and handling categories are classified by OMRI according to the following Use Classes:

PN: Processing Nonagricultural Ingredients and Processing Aids
PP: Processing Pest Controls
PS: Processing Sanitizers and Cleaners
PC: Processing Containers and Packaging Materials

Processing Non-agricultural Ingredients and Processing Aids (PN) include non-organic food additives and other ingredients and processing aids permitted in organic products.

Processing materials in this class are in most cases considered non-agricultural, although some of the fundamental ingredients may have originated from agriculture-based commodities. Organic commercial availability requirements specified in the PSL apply to substances used in products composed of 95% or more organic content. Non-synthetic commercial availability requirements specified in the PSL apply to substances used in products composed of 70% or more organic content. Processing ingredients classified as food additives by the Canada Food and Drug Regulations are listed in Table 6.3 of the PSL. Other permitted processing ingredients that are not considered food additives are listed in Table 6.4 of the PSL. Processing aids appear in Table 6.5 of the PSL.

Processing Pest Control (PP) substances are pesticides used in and around facilities used to disinfest or prevent infestation of stored commodities, to prevent postharvest decay, and to control damage caused by insects, diseases, rodents and other organisms. Substances permitted for these uses appear in Table 8.2 of the PSL, and may be used in traps, lures, and as repellents unless indicated otherwise within substance annotations. These substances may be used only after the organic operator has adopted good manufacturing practices to prevent pest infestation, which must first involve the removal of pest habitat and food, the prevention of access and environmental management (light, temperature and atmosphere) to prevent pest intrusion and reproduction, and mechanical and physical methods (traps), lures and repellents listed in Table 8.2 of the PSL.

Processing Sanitizers, Cleaners, and Disinfectants (PS) are used to remove dirt, filth and foreign matter from products and product handling operations. These substances are also used to control micro-organisms that may contaminate products. They fall under one of the two following general classifications: food-grade cleaners, disinfectants and sanitizers that are allowed on food or food contact surfaces without a mandatory removal event (PSL Table 7.3); or cleaners, disinfectants and sanitizers allowed on food contact surfaces, equipment and in facilities, provided that the substances are removed from food contact surfaces prior to organic production (PSL Table 7.4). COS regulations also provide that if the above substances are ineffective, substances that do not appear in these lists may be used to clean, disinfect and sanitize organic food contact surfaces provided that procedures in CAN/CGSB 32.310 subclause 8.2.3 are followed.

Processing Containers and Packaging Materials (PC) are used to hold, transport, store, and contain organic food. These are food contact substances that are used to make bags, bins, cans and other containers, or to control ripening when placed inside product packaging. These packaging materials, storage containers or bins may not contain synthetic fungicides, preservatives, fumigants or pesticides.

Status

Substances permitted in processing have one of the following OMRI Status designations:

Allowed (A) processing substances include non-organic ingredients, processing aids and processing pest control substances that appear in Tables 6.3, 6.4, 6.5, 8.2 or 8.3 with no annotation to limit their use. Allowed processing substances also include food-grade cleaners, disinfectants and sanitizers that are allowed on food and food contact surfaces without a mandatory removal event (listed in Table 7.3 of the PSL), and which have no annotation limiting their use.

Allowed with Restrictions (R) processing substances include non-organic ingredients, processing aids and processing pest control substances with limited use annotations on Tables 6.3, 6.4, 6.5, 8.2 or 8.3 of the PSL. These substances may only be used according to the specific restrictions detailed in the PSL.

Other groups of processing substances which carry the OMRI Allowed with Restrictions status are: a) Substances permitted in products whose contents are 70% or more, and less than 95% organic ingredients, b) Cleaners, disinfectants and sanitizers allowed on food contact surfaces, including equipment, provided that the substances are removed from food contact surfaces prior to organic production, and c) Food-grade cleaners, disinfectants and sanitizers that are allowed without a mandatory removal event but which have a different limiting annotation.

LISTINGS

Acer pennsylvanicum **Allowed with Restrictions**
Class: PN Agricultural
As an anti-foaming agent in maple syrup production.
CAN/CGSB Reference: 32.311 Table 6.5

Acetic acid **Allowed**
Class: PS Nonsynthetic, Nonagricultural
Non-synthetic and synthetic sources may be used on equipment.
Non-synthetic sources only may be used on food and plants.
CAN/CGSB Reference: 32.311 Table 7.3

Acetic acid **Allowed with Restrictions**
Class: PS Synthetic, Nonagricultural
Non-synthetic and synthetic sources may be used on equipment.
Non-synthetic sources only may be used on food and plants.
CAN/CGSB Reference: Table 7.3

Acids **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Including a) alginic, b) citric – produced by microbial fermentation of carbohydrate substances, and c) lactic.
CAN/CGSB Reference: Table 6.3

Activated charcoal **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Shall be of plant origin. Prohibited for use in the processing of maple syrup.
CAN/CGSB Reference: Table 6.6

Agar **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Water, alcohol, acid and base extracts that are permitted by this standard only.
CAN/CGSB Reference: Table 6.3

Alcohol, ethyl (ethanol) **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Non-synthetic and synthetic sources may be used on equipment.
CAN/CGSB Reference: Table 7.3

Alcohol, ethyl (ethanol) – organic **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Organic alcohol is permitted as a processing aid.
CAN/CGSB Reference: 32.311 Table 6.5

Alcohol, isopropyl **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Non-synthetic and synthetic sources may be used on equipment.
CAN/CGSB Reference: Table 7.3

Alginates
(alginic acid, sodium alginate, potassium alginate) **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Ammonium bicarbonate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use as a leavening agent only.
CAN/CGSB Reference: Table 6.3

Ammonium carbonate **Allowed with Restrictions**
Class: PN
For use as a leavening agent only.
CAN/CGSB Reference: Table 6.3

Ammonium carbonate **Allowed with Restrictions**
Class: PP
As an attractant in insect traps.
CAN/CGSB Reference: Table 6.7

Argon **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3; Table 6.6

Ascorbic acid **Allowed with Restrictions**
Class: PS Nonsynthetic, Nonagricultural
Non-synthetic sources may be used on equipment.
CAN/CGSB Reference: Table 7.3

Ascorbic acid (vitamin C) – food additive **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use as a food additive.
CAN/CGSB Reference: 32.311 Table 6.3

Ascorbic acid (vitamin C) –
non-synthetic **Allowed with Restrictions**
Class: PN Nonsynthetic, Nonagricultural
For use as an anti-browning agent prior to the extraction or concentration of fruit or vegetable juice.
CAN/CGSB Reference: 32.311 Table 6.5

Class Codes
PN: Processing Nonagricultural Ingredients and Processing Aids
PP: Processing Pest Controls
PS: Processing Sanitizers and Cleaners
PC: Processing Containers and Packaging Materials

Ascorbic acid (vitamin C) – synthetic **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
If the non-synthetic form is not commercially available, the synthetic form is permitted. For use as an anti-browning agent prior to the extraction or concentration of fruit or vegetable juice.
CAN/CGSB Reference: 32.311 Table 6.5

Bentonite **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.6

Bleach
See CHLORINE, OZONE, or HYDROGEN PEROXIDE.

Boric acid **Allowed with Restrictions**
Class: PP Synthetic/Nonsynthetic, Nonagricultural
May be used for structural pest control (e.g. ants). No direct contact with organic food or crops is allowed.
CAN/CGSB Reference: Table 6.7

Calcium carbonate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Prohibited as a colouring agent.
CAN/CGSB Reference: Table 6.3; Table 6.6

Calcium chloride **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Milk products, fat products, fruits and vegetables, and soybean products.
CAN/CGSB Reference: Table 6.3

Calcium citrate **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Calcium hydroxide (lime) **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.6

Calcium phosphates (monobasic, dibasic, and tribasic forms) **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Calcium sulphate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a Non-Organic Ingredient: From mined sources only. Sulphates produced using sulphuric acid are prohibited.
As a Processing Aid: As a carrier for cakes and biscuits, soybean products and bakers' yeast. Sulphates produced using sulphuric acid are prohibited.
CAN/CGSB Reference: Table 6.3; Table 6.6

Calcium sulphate, (gypsum) **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a carrier for cakes and biscuits, soybean products and bakers' yeast. Sulphates produced using sulphuric acid are prohibited.
CAN/CGSB Reference: Table 6.6

Carbon dioxide **Allowed with Restrictions**
Class: PN, PP Synthetic/Nonsynthetic, Nonagricultural
As a food additive: carbonation of wine or mead is prohibited. As a processing aid: no annotation. As a facility pest management substance: no annotation. As a post-harvest substance: for controlled atmosphere storage.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5; Table 8.2; Table 8.3

Carrageenan (Irish moss) **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Water, alcohol, acid and base extracts that are permitted by this standard only.
CAN/CGSB Reference: Table 6.3; Table 6.6

Casein – non-organic **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Agricultural
Shall be from organic sources if commercially available. Non-organic casein shall be derived from the milk of animals not treated with rBGH (recombinant bovine growth hormone).
CAN/CGSB Reference: 32.311 Table 6.5

Casein – organic **Allowed**
Class: PN Synthetic/Nonsynthetic, Agricultural
Organic casein is permitted as a processing aid.
CAN/CGSB Reference: 32.311 Table 6.5

Cellulose **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a filtering aid (non-chlorine bleached) and for use in inedible regenerative sausage casings.
CAN/CGSB Reference: Table 6.6

Chlorine **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, and sodium hypochlorite. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event, including: a) for wash water in direct contact with crops or food, or b) in flush water from cleaning irrigation systems, equipment, and storage and/or transport units - application to crops or fields is permitted. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production.
CAN/CGSB Reference: Tables 7.3 and 7.4

Cholecalciferol (vitamin D3) **Allowed with Restrictions**
Class: PP Synthetic/Nonsynthetic, Nonagricultural
Not allowed in organic food processing and food storage facilities.
CAN/CGSB Reference: Table 6.7

Citric acid **Allowed**
Class: PN
From fruit and vegetable products.
CAN/CGSB Reference: Table 6.3

Citric acid **Allowed**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Non-synthetic and synthetic sources may be used.
CAN/CGSB Reference: Table 7.3

Clay dust **Allowed with Restrictions**
Class: PN
As a filtering agent in maple syrup production.
CAN/CGSB Reference: 32.311 Table 6.5

Clove oil **Allowed with Restrictions**
Class: PP
As a sprout inhibitor.
CAN/CGSB Reference: 32.311 Table 4.3; Table 8.3

Collagen casings **Allowed with Restrictions**
Class: PN
Collagen shall be derived from animal sources. If derived from cattle, collagen shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. Other ingredients (such as, but not limited to: cellulose, calcium coatings, glycerin, etc.) added to collagen casings during their manufacture which remain in the collagen casing when it is used shall respect the requirement provided in 1.4 a) of CAN/CGSB-32.310. Permitted for poultry sausage.
CAN/CGSB Reference: 32.311 Table 6.4

Colouring, natural **Allowed**
Class: PN Nonsynthetic, Nonagricultural
From non-synthetic sources only and shall not be produced using synthetic solvents and carrier systems or any artificial preservative.
CAN/CGSB Reference: Table 6.4

Cornstarch
See Starch.

Cultures
See Micro-organisms and Yeast.

Defoamers **Allowed with Restrictions**
Class: PA Nonsynthetic, Agricultural
For use in conversion of sap to syrup in maple syrup production. The only antifoaming agents permitted are Pennsylvania maple wood (Acer pennsylvanicum, also known as striped maple or moosewood) and all organic vegetable oils, except those made from soy, peanuts, sesame seeds or nuts.
CAN/CGSB Reference: CAN/CGSB-32.310 par 7.2.12.5

Detergents **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Detergents shall be biodegradable (see Biodegradable definition in clause 3 of CAN/CGSB-32.310).
CAN/CGSB Reference: 32.311 Table 7.4

Diatomaceous earth **Allowed**
Class: PP Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.7

Diatomaceous earth **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a food filtering aid or as a clarifying agent only.
CAN/CGSB Reference: Table 6.6

Dibasic ammonium phosphate **Allowed with Restrictions**
Class: PN
For use in alcoholic beverages: Dibasic ammonium phosphate (diammonium phosphate, DAP) is restricted to 0.3 g/L (0.04 oz./gal.)—permitted for cider, mead and wine.
CAN/CGSB Reference: 32.311 Table 6.3

Enzymes **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Any preparations of enzymes normally used in food processing derived from edible, non-toxic plants, non-pathogenic fungi or non-pathogenic bacteria.

Enzymes **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Animal enzymes: rennet–animal-derived; catalase–bovine liver; animal lipase; pancreatin; pepsin; and trypsin. Animal-derived enzymes shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of ruminants aged 30 months or older; and the distal ileum (portion of the small intestine) of ruminants of all ages. Shall be from an organic source unless commercially unavailable. *Organic animal enzyme source.
CAN/CGSB Reference: Table 6.4; Table 6.6

Enzymes **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Animal enzymes: rennet–animal-derived; catalase–bovine liver; animal lipase; pancreatin; pepsin; and trypsin. Animal-derived enzymes shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of ruminants aged 30 months or older; and the distal ileum (portion of the small intestine) of ruminants of all ages. Shall be from an organic source unless commercially unavailable.
CAN/CGSB Reference: Table 6.4; Table 6.6

Ethylene **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For post-harvest ripening of tropical fruit and degreening of citrus.
CAN/CGSB Reference: 32.311 Table 6.5; Table 8.3

Extraction solvents, carriers and precipitation aids **Allowed with Restrictions**
Class: PN
The following may be used to derive substances listed in CAN/CGSB-32.311Tables 5.2, 6.3, 6.4 and 6.5: a) water; b) culinary steam, containing only substances listed in CAN/CGSB-32.311 Tables 6.3-6.5 and food-grade cleaners, disinfectants and sanitizers authorized for organic product contact in Table 7.3 of CAN/CGSB-32.311; c) fats, oils and alcohols other than isopropyl alcohol; d) supercritical CO2; and e) substances listed in CAN/CGSB-32.311 Tables 6.3-6.5.
CAN/CGSB Reference: 32.310 clause 8.1.2 b); 32.311 Table 6.3

Class Codes
PN: Processing Nonagricultural Ingredients and Processing Aids
PP: Processing Pest Controls
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Ferrous sulphate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Shall be used if legally required and may be used, on a voluntary basis, if legally permitted.
CAN/CGSB Reference: 32.311 Table 6.4

Flavours **Allowed**
Class: PN Nonsynthetic, Nonagricultural
From non-synthetic sources only; shall not be produced using synthetic solvents and carrier systems or any artificial preservative. No propylene glycol carrier or any artificial preservatives, and shall not be hexane extracted.
CAN/CGSB Reference: Table 6.4

Gelatine – non-organic plant or animal source **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Agricultural
Non-organic sources are permitted if organic sources are not commercially available. Permitted sources are: a) plants; and b) animals. Animal gelatine may be used in preparations of canned meat or as a gelling agent for gummed candy. If derived from cattle, gelatine shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Gelatine – organic animal source **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Agricultural
Animal gelatine may be used in preparations of canned meat or as a gelling agent for gummed candy. If derived from cattle, gelatine shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Gelatine – organic plant source **Allowed**
Class: PN Synthetic/Nonsynthetic, Agricultural
Plant sources are permitted.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Glucono delta lactone **Allowed**
Class: PN
Production by the oxidation of D-glucose with bromine water is prohibited.
CAN/CGSB Reference: 32.311 Table 6.3

Glycerides (mono and diglycerides) **Allowed with Restrictions**
Class: PA Synthetic/Nonsynthetic, Agricultural
For use only in drum drying of products. Organisms from genetic engineering are excluded. Documentation is required. Shall be produced from organic sources unless not commercially available. *Organic source.
CAN/CGSB Reference: Table 6.3

Glycerides (mono and diglycerides) **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Agricultural
For use only in drum drying of products. Organisms from genetic engineering are excluded. Documentation is required. Shall be produced from organic sources unless not commercially available.
CAN/CGSB Reference: Table 6.3

Glycerol (glycerine, glycerin) **Allowed**
Class: PS
Shall be sourced from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
CAN/CGSB Reference: 32.311 Table 7.3

Glycerol (glycerine, glycerin) – non-organic **Allowed with Restrictions**
Class: PN
Non-organic sources are permitted if organic sources are not commercially available. Shall be from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
CAN/CGSB Reference: 32.311 Table 5.3; Table 6.3

Glycerol (glycerine, glycerin) – organic **Allowed**
Class: PN
Shall be from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
CAN/CGSB Reference: 32.311 Table 5.3; Table 6.3

Gums **Allowed**
Class: PN
The following gums are permitted: Arabic gum, carob bean gum (locust bean gum), gellan gum, guar gum, karaya gum, tragacanth gum, and xantham gum. Shall be derived using substances listed in Table 6.3 Extraction solvents, carriers and precipitation aids. By exception, isopropyl alcohol may also be used to derive gums.
CAN/CGSB Reference: 32.311 Table 6.3

Hydrogen peroxide **Allowed**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 7.3

Iodine **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
On equipment. Non-elemental only and not to exceed 5% solution by volume (e.g. iodophors).
CAN/CGSB Reference: Table 7.4

Isinglass **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a fining agent (fish-based).
CAN/CGSB Reference: Table 6.6

Kaolin **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a clarifying agent.
CAN/CGSB Reference: Table 6.6

Kelp and kelp products **Allowed**
Class: PA Synthetic/Nonsynthetic, Nonagricultural
For use only as a thickener and dietary supplement.
CAN/CGSB Reference: Table 6.3

Lactic acid
See Acids.

Lecithin – non-organic **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Agricultural
Non-organic forms are permitted if organic forms are not commercially available. Bleached form is permitted if processed using food-grade hydrogen peroxide.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Lecithin – organic **Allowed**
Class: PN Synthetic/Nonsynthetic, Agricultural
Bleached form is permitted if processed using food-grade hydrogen peroxide.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Lime **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 7.4

Magnesium carbonate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As an anti-caking agent in non-standardized dry mixes (e.g. seasonings) used in meat products.
CAN/CGSB Reference: Table 6.5

Magnesium chloride (nigari) **Allowed**
Class: PN Nonsynthetic, Nonagricultural
Derived from seawater.
CAN/CGSB Reference: 32.311 Table 6.3

Magnesium stearate – non-synthetic **Allowed with Restrictions**
Class: PN Nonsynthetic, Nonagricultural
Non-synthetic forms may be used as an anti-caking or releasing agent in products whose contents are ≥70% and <95% organic ingredients.
CAN/CGSB Reference: 32.311 Table 6.3

Magnesium stearate – synthetic **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
If non-synthetic magnesium stearate is not commercially available, synthetic sources of magnesium stearate are permitted. For use as an anti-caking or releasing agent in products whose contents are ≥70% and <95% organic ingredients.
CAN/CGSB Reference: 32.311 Table 6.3

Magnesium sulphate **Allowed**
Class: PN Nonagricultural
CAN/CGSB Reference: 32.311 Table 6.3

Malic acid **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Meat curing agents – non-organic **Allowed with Restrictions**
Class: PN
Extracts, juice or cultured powder of celery or chard are permitted. Non-organic sources are permitted if organic sources are not commercially available.
CAN/CGSB Reference: 32.311 Table 6.3

Meat curing agents – non-organic **Allowed with Restrictions**
Class: PN
Extracts, juice or cultured powder of celery or chard are permitted. Non-organic sources are permitted if organic sources are not commercially available.
CAN/CGSB Reference: 32.311 Table 6.3

Meat curing agents – organic **Allowed**
Class: PN
Organic extracts, juice or cultured powder of celery or chard are permitted.
CAN/CGSB Reference: 32.311 Table 6.3

Meat curing agents – organic **Allowed**
Class: PN
Organic extracts, juice or cultured powder of celery or chard are permitted.
CAN/CGSB Reference: 32.311 Table 6.3

Micro-organisms **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Includes starter and dairy cultures and other preparations of micro-organisms normally used in product processing. Ingredients used for micro-organism preparations: non-synthetic substrates (such as milk, lactose, soy, etc.) are permitted. Other ingredients used in micro-organism preparations (such as carriers, anti-caking agents and fillers, etc.) shall be listed in CAN/CGSB-32.311 Tables 6.3 or 6.4.
CAN/CGSB Reference: 32.311 Table 6.4

Neem oil **Allowed**
Class: PP Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.7

Nitrogen **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Food-grade quality only.
CAN/CGSB Reference: Table 6.4; Table 6.6

Nitrogen **Allowed with Restrictions**
Class: PN
For controlled atmosphere storage.
CAN/CGSB Reference: 32.311 Table 4.3; Table 8.3

Oxygen **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Oxygen is permitted as an ingredient, processing aid and for post-harvest use.
CAN/CGSB Reference: 32.311 Table 6.4; Table 6.5; Table 8.3

Ozone **Allowed**
Class: PN, PS Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5; Table 7.3

Class Codes
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Packaging materials **Allowed**
Class: PC Synthetic, Nonagricultural
Packaging materials that do not contain synthetic fungicides, preservatives, or fumigants are allowed.
CAN/CGSB Reference: CAN/CGSB-32.310 par. 1.4.1.i.

Paraffin wax **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
Paraffin wax may be used to coat cheese if other non-synthetic waxes are not commercially available. Use of microcrystalline wax, either alone or in formulations with paraffin wax, is prohibited. Wax cheese coatings, except for organic waxes, must be removable and considered inedible, and shall not include synthetic preservatives, synthetic colors, or any bactericide or fungicide.
CAN/CGSB Reference: 32.311 Table 6.5

Pectin (high-methoxy) **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Pectin (low-methoxy) **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Peracetic (peroxyacetic) acid **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
For use in wash or rinse water for food or plants or on food contact surfaces.
CAN/CGSB Reference: Table 7.3

Perlite **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use as a filter aid in food processing only.
CAN/CGSB Reference: Table 6.6

Phosphoric acid **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
On equipment in the dairy industry only.
CAN/CGSB Reference: Table 7.4

Potassium acid tartrate (KC4H5O6) **Allowed**
Class: PN Nonsynthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Potassium acid tartrate (KC4H5O6) **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Potassium bicarbonate **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
On equipment.
CAN/CGSB Reference: Table 7.3

Potassium carbonate **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3; Table 6.6

Potassium carbonate **Allowed with Restrictions**
Class: PS Nonagricultural
Documentation shall demonstrate that effluent discharge was neutralized to minimize negative environmental impact. May be used as cleaners, disinfectants and sanitizers on organic product contact surfaces with a mandatory removal event.
CAN/CGSB Reference: 32.311 Table 7.4

Potassium chloride **Allowed**
Class: PN Nonsynthetic, Nonagricultural
Non-synthetic sources.
CAN/CGSB Reference: 32.311 Table 6.3

Potassium chloride **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use in alcoholic beverages: permitted for ale, beer, light beer, malt liquor, porter and stout.
CAN/CGSB Reference: 32.311 Table 6.3

Potassium citrate **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Potassium hydroxide (caustic potash) **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 7.4

Potassium hydroxide (caustic potash) **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For pH adjustment only. Prohibited for use in lye peeling of fruits and vegetables.
CAN/CGSB Reference: Table 6.6

Potassium iodide, natural **Allowed with Restrictions**
Class: PN Nonsynthetic, Nonagricultural
Permitted only when legally required.
CAN/CGSB Reference: Table 6.4

Potassium iodide, synthetic **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
CAN/CGSB Reference: Table 6.5

Potassium metabisulphite
See Sulphurous acid.

Potassium permanganate **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Not to exceed 1% solution by volume.
CAN/CGSB Reference: Table 7.4

Potassium phosphate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.5

Potassium tartrate (K2C4H4O6. INS 336) **Allowed**
Class: PN Nonsynthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Potassium tartrate
(K2C4H4O6. INS 336) **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Pyrethrins **Allowed with Restrictions**
Class: PP Synthetic/Nonsynthetic, Nonagricultural
Without piperonyl butoxide as a carrier. No direct contact with organic food is allowed.
CAN/CGSB Reference: Table 6.7

Salt **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
See also Sodium chloride in par. 6.3. Only substances listed in par. 6.3 or 6.4 may be added to mined or sea salt.
CAN/CGSB Reference: Table 6.4

Sanitizers, cleaners
and disinfectants **Allowed with Restrictions**
Class: PS
If the substances given in par 7.3 or 7.4 of CAN/CGSB-32.311, Organic Production Systems – Permitted Substances Lists, are ineffective, substances that do not appear in these lists may be used to clean, disinfect and sanitize organic food-contact surfaces, provided that a. documented procedures have verified the efficacy of the chosen removal event; b. their removal from such surfaces as per a. is documented prior to each organic production run; c. the disposition of all such substances is recorded to ensure that the effluent discharge is neutralized to minimize negative environmental impact.
CAN/CGSB Reference: CAN/CGSB 32.310 par. 8.3.8

Silicon dioxide **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3; Table 6.6

Smoke flavour
See Yeast.

Soap-based algicide (demossers) **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
May be used as cleaners, disinfectants and sanitizers on organic product contact surfaces with a mandatory removal event.
CAN/CGSB Reference: 32.311 Table 7.4

Soaps **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Soaps consisting of fatty acids derived from animal or vegetable oils are allowed.
CAN/CGSB Reference: Table 7.4

Soaps, ammonium **Allowed with Restrictions**
Class: PP Synthetic/Nonsynthetic, Nonagricultural
As a large animal repellent; no contact with soil or edible portion of crop is allowed.
CAN/CGSB Reference: Table 6.7

Sodium acid pyrophosphate **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use as a leavening agent only.
CAN/CGSB Reference: Table 6.3

Sodium bicarbonate (baking soda) – non-synthetic **Allowed**
Class: PS Nonsynthetic, Nonagricultural
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.
CAN/CGSB Reference: Table 7.3

Sodium bicarbonate (baking soda) – non-synthetic **Allowed**
Class: PN Nonsynthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3; Table 6.5

Sodium bicarbonate (baking soda) –
synthetic **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3; Table 6.5

Sodium bicarbonate (baking soda) –
synthetic **Allowed with Restrictions**
Class: PS Synthetic, Nonagricultural
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.
CAN/CGSB Reference: Table 7.4

Sodium borate **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 7.4

Sodium carbonate (soda ash) **Allowed**
Class: PN Nonsynthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Sodium carbonate (soda ash) **Allowed**
Class: PS Nonsynthetic, Nonagricultural
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.
CAN/CGSB Reference: Table 7.3

Sodium carbonate (soda ash) **Allowed with Restrictions**
Class: PS Synthetic, Nonagricultural
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.
CAN/CGSB Reference: Table 7.4

Class Codes
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Sodium carbonate (soda ash) **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
Synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Sodium chloride **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 6.3

Sodium citrate **Allowed with Restrictions**
Class: PS Synthetic, Nonagricultural
May be used as cleaners, disinfectants and sanitizers on organic product contact surfaces with a mandatory removal event.
CAN/CGSB Reference: 32.311 Table 7.4

Sodium citrate – non-synthetic **Allowed**
Class: PN, PS Nonsynthetic, Nonagricultural
Non-synthetic sources.
CAN/CGSB Reference: 32.311 Table 6.3; Table 7.3

Sodium hydroxide (lye or caustic soda) **Allowed**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
CAN/CGSB Reference: Table 7.3

Sodium hydroxide
(lye or caustic soda) **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Prohibited for use in lye peeling of fruits and vegetables.
CAN/CGSB Reference: Table 6.3; Table 6.6

Sodium percarbonate **Allowed with Restrictions**
Class: PS
May be used as cleaners, disinfectants and sanitizers on organic product contact surfaces with a mandatory removal event.
CAN/CGSB Reference: 32.311 Table 7.4

Sodium phosphates **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use in dairy products only.
CAN/CGSB Reference: Table 6.3

Sodium silicate **Allowed with Restrictions**
Class: PS
In detergents. May be used as cleaners, disinfectants and sanitizers on organic product contact surfaces with a mandatory removal event. See also DETERGENTS.
CAN/CGSB Reference: 32.311 Table 7.4

Starch **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
From rice and waxy maize—Shall be derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids, where applicable. Starch shall not be modified by chemicals. Starch may be modified using physical or enzymatic methods. Cornstarch—May contain substances that are plant-derived and/or listed in CAN/CGSB-32.311 Tables 6.3-6.5.
CAN/CGSB Reference: 32.311 Table 6.4

Substrate and growth media **Allowed with Restrictions**
Class: PN, PS
Substrates or growth media ingredients present in the final product shall be listed in CAN/CGSB-32.311 Table 4.2 or 4.3; Substrates or growth media that are not present in the final product shall be non-genetically engineered, if commercially available. *OMRI does not list products in this category.
CAN/CGSB Reference: 32.311 clause 4.1.3; clause 5.1.2; clause 6.2.1

Sulphurous acid **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
For use as a preservative only in alcoholic beverages made from grapes or other fruit; minimum use of SO2 is recommended. The maximum allowable level of SO2 in alcoholic beverages with less than 5% residual sugar is 100 parts per million and 30 parts per million for total sulphites and free sulphites respectively; in alcoholic beverages with 5% or more and less than 10% residual sugar, 150 parts per million and 35 parts per million respectively; and in alcoholic beverages with 10% or more residual sugar, 250 parts per million and 45 parts per million respectively. The use of sulphites from SO2 bottled gas, as liquid SO2, or liberated from the ignition of asbestos-free sulphur wicks is acceptable.
CAN/CGSB Reference: Table 6.3

Surfactants
See Detergents, Soaps.

Talc **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
As a filtering agent.
CAN/CGSB Reference: Table 6.6

Tannic acid **Allowed**
Class: PA Synthetic/Nonsynthetic, Agricultural
Tannins and tannic extracts using water, alcohol, acid and base extracts that are permitted by this standard only. Shall be from an organic source unless not commercially available. Only permitted as a filtration aid for wines. *Organic source.
CAN/CGSB Reference: Table 6.6

Tannic acid **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Agricultural
Tannins and tannic extracts using water, alcohol, acid and base extracts that are permitted by this standard only. Shall be from an organic source unless not commercially available. Only permitted as a filtration aid for wines.
CAN/CGSB Reference: Table 6.6

Tartaric acid (C4H6O6. INS 334) **Allowed**
Class: PN Nonsynthetic, Nonagricultural
For beverages; synthetic form is allowed only if the non-synthetic form is not commercially available.
As a Processing Aid: For beverages; from non-synthetic sources.
CAN/CGSB Reference: Table 6.3; Table 6.6

Tartaric acid (C4H6O6. INS 334) **Allowed with Restrictions**
Class: PN Synthetic, Nonagricultural
For beverages; synthetic form is allowed only if the non-synthetic form is not commercially available.
CAN/CGSB Reference: Table 6.3

Tocopherols and mixed natural concentrates **Allowed**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Derived from vegetable oil when rosemary extracts are not a suitable alternative.
CAN/CGSB Reference: Table 6.3

Vegetable oils – non-organic **Allowed with Restrictions**
Class: PN
Non-organic sources are permitted if organic sources are not commercially available. Derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. Maple syrup production—vegetable oils shall be organic and without allergenic potential.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Vegetable oils – organic **Allowed with Restrictions**
Class: PN
Derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. Maple syrup production—vegetable oils shall be organic and without allergenic potential.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Vinegar **Allowed**
Class: PS Synthetic/Nonsynthetic, Agricultural
Organic or non-organic sources.
CAN/CGSB Reference: Table 7.3

Vitamins and minerals **Allowed with Restrictions**
Class: PN Synthetic/Nonsynthetic, Nonagricultural
Shall be used if legally required. The following non-dairy substitute products may be fortified on a voluntary basis, if legally permitted: plant-based beverages, products that resemble cheese, and butter substitutes. See also FERROUS SULPHATE.
CAN/CGSB Reference: 32.311 Table 6.4

Waxes – applied to fresh produce **Allowed**
Class: PN Agricultural
Applied to fresh produce—only organic wax or carnauba wax is permitted.
CAN/CGSB Reference: 32.311 Table 6.3

Waxes – non-organic **Allowed with Restrictions**
Class: PN Nonsynthetic
For applications other than fresh produce, including as a food processing aid—If organic waxes, such as beeswax, are not commercially available, non-synthetic waxes, such as carnauba wax, shall be used. As a processing aid, wax cheese coatings, except for organic waxes, must be removable and considered inedible, and shall not include synthetic preservatives, synthetic colors, or any bactericide or fungicide. See also PARAFFIN WAX.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.5

Wetting agents **Allowed with Restrictions**
Class: PS Synthetic/Nonsynthetic, Nonagricultural
Natural wetting agents, including saponins and microbial wetting agents, are allowed. See also Detergents, Soaps.
CAN/CGSB Reference: Table 7.4

Yeast – non-organic **Allowed with Restrictions**
Class: PN Nonsynthetic, Nonagricultural
If organic sources of yeast are not commercially available, these non-synthetic sources of yeast may be used: a) autolysate; b) bakers' (may contain lecithin, as listed in CAN/CGSB-32.311 Table 6.3); c) brewers'; d) nutritional; and e) smoked. Growth on petrochemical substrate and sulphite waste liquor is prohibited. Non-synthetic smoke flavouring process shall be documented.
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.4

Yeast – organic **Allowed**
Class: PN Nonsynthetic, Nonagricultural
CAN/CGSB Reference: 32.311 Table 6.3; Table 6.4

Class Codes
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OMRI Glossary of Terms

Biobased – Substance that is derived from a plant, animal or microbial source.

Biodegradable – Capable of microbial decomposition within 24 months in soil (with the exception of plant biomass), one month in aerated water, two months in anaerobic water, with minimal impact on the environment.

Canada Organic Regime (COR) – Canada's regulated system for organic agricultural products. The Canadian Organic Standards are part of this system.

Canada Organic Office (COO) – Governmental body under the Canadian Food Inspection Agency that is responsible for the implementation of the Canada Organic Regime.

Canadian Food Inspection Agency (CFIA) – Canadian governmental agency responsible for supervising and inspecting Canada's food supply while safeguarding plant and animal resources.

Canadian General Standards Board (CGSB) – Governmental institution that oversees the creation and amendment of standards throughout Canada. See Standards Committee on Organic Agriculture.

Canadian Organic Standards (COS) – Body of standards applied to organic food production under the Canada Organic Regime. Includes CAN/CGSB -32.310 and 32.311.

CAN/CGSB-32.310 – The "General Principles and Management Standards" section of the Canadian Organic Standards, which describes the principles and management standards of organic production systems. They are available online at www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/normes-standards/comm/32-20-agriculture-eng.html.

CAN/CGSB-32.311 – The "Permitted Substances List" section of the Canadian Organic Standards, which lists substances allowed in organic production systems. This regulation is also referred to as the PSL. It is available online at www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/normes-standards/comm/32-20-agriculture-eng.html.

Category, OMRI Use – General category of materials used in organic crop production, food processing, and livestock production. All products on the OMRI Products List have been reviewed to meet the standards in a particular category. For OMRI listing under Canada Organic Regime (COR) standards, these categories are called Permitted Substances Categories.

Certification Bodies (CBs) – Organizations accredited by the CFIA to verify application of the Canadian Organic Standards for a specific producer and food product. Accreditation by the CFIA is based on recommendation of a Conformity Verification Body.

Class, OMRI – Part of the OMRI classification system that groups products with similar use attributes. Some examples of OMRI classes are Crop Fertilizers and Soil Amendments (CF) and Livestock Feed Ingredients (LF).

Conformity Verification Body (CVB) – An organization that has an agreement with the Canadian Food Inspection Agency under subsection 14(1) of the Canadian Food Inspection Agency Act to assess, recommend for accreditation and monitor certification bodies.

Feed Additive – A substance added to feed in small quantities to fulfill a specific nutritional need (e.g., essential nutrients in the form of amino acids, vitamins and minerals, and non-nutritive additives such as anticaking agents and antioxidants).

Feed Supplement – A feed that is used with another feed to improve the nutritive balance of the total and that is intended to be (i) fed undiluted as a supplement to other feeds; (ii) offered free choice with other parts of the ration separately available; or (iii) further diluted and mixed to produce a complete feed.

Food Additive – Term defined in Section B.01.001 of Part B of the Food and Drug Regulations, which includes: any substance the use of which results, or may reasonably be expected to result, in it or its by-products becoming a part of or affecting the characteristics of a food, but does not include

- *(a) any nutritive material that is used, recognized or commonly sold as an article or ingredient of food;*
- *(b) vitamins, mineral nutrients and amino acids, other than those listed in the tables to Division 16,*
- *(c) spices, seasonings, flavouring preparations, essential oils, oleoresins and natural extractives;*
- *(d) agricultural chemicals, other than those listed in the tables to Division 16,*
- *(e) food packaging materials and components thereof; and*
- *(f) drugs recommended for administration to animals that may be consumed as food; (additif alimentaire)*

Food-grade – Designation used to identify that a substance (e.g., a cleaning material, gas, etc.) or material (e.g., a counter, containers, a conveyor, etc.) may come in contact with food, food contact surfaces and/or is safe for human consumption.

Formulant – Any component of a pest control product that is added intentionally to the product and that is not an active ingredient.

Genetic Engineering – Genetic engineering 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.

Health Canada – Governmental body with broad responsibility for helping the people of Canada maintain and improve their health. Oversees the Pest Management Regulatory Agency.

Incidental Additives – Substances used in organic processing facilities that have the potential to remain present in organic products as residues. Examples are: hand products (cleaners, antiseptics, lotions, barrier creams), boiler water treatment compounds, water treatment compounds, lubricants (release agents, solvents), antifoaming agents and non-food chemicals (sanitizers, disinfectants, cleaning agents and detergents).

Inert Ingredient – See Formulant

Ingredient – 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 – Substance used in production or preparation. Examples are: fertilizers, feed supplements, pesticides, and soil amendments, veterinary treatments, processing aids, sanitizing and cleaning materials.

Ionizing Radiation – 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. OMRI does not permit the use of ionizing radiation on any ingredients or products except for those exempted in the PSL.

Irradiation – Treatment with ionizing radiation.

Nanotechnology – Manipulation of matter at atomic, molecular, or macromolecular 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.

Non-synthetic – Substance derived from mineral, plant or animal matter that has not been chemically altered.

Para-probiotics – "Non-viable microbial cells" that are inactivated or dead micro-organisms which can prevent pathogen growth.

Permitted Substances Categories, OMRI – Categories that describe how a particular material is correlated to the Canadian Organic Standards and, in particular, the Permitted Substances List. All products on the OMRI Canada Products List© have been reviewed to meet the standards in a particular category.

Permitted Substances List (PSL) – See CAN/CGSB -32.311.

Pest Control Products (PCP) Act – An enforcement act of the Canadian government to regulate the products employed for the control of pests and organic functions of plants and animals.

Pest Management Regulatory Agency (PMRA) – Agency under Health Canada responsible for pesticide regulation.

Pesticides – Substances used, directly or indirectly, to attract, prevent, destroy, repel or mitigate pests; or to alter the growth, development or characteristics of plants. Includes any organism, substance or mixture of substances and devices such as lures or traps.

Prebiotic – Fibre food and potential carriers for bacteria. Examples of prebiotic substrates are inulin, lactulose, various galacto, fructo, or xylo-oligosaccharides and sugar alcohols.

Probiotics – Micro-organisms that provide health benefits when consumed.

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

Removal Event – Procedure performed prior to organic production runs, batches or loads, to prevent organic products from coming into contact with prohibited substances or commingling with non-organic products. Examples of removal events are rinsing with potable water, letting surfaces drip-dry and purging a system with organic product.

Salt – Sodium chloride, or low-sodium and sodium-free substitutes that serve the purpose of providing salt flavor, nutrition or microbial control in a product.

Sewage Sludge – Solid, liquid or semisolid residues generated by municipal or industrial sewage treatment facilities. 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.

Standards Committee on Organic Agriculture – Committee of the Canadian General Standards Board including over 100 technical experts representing user, producer, general interest and regulatory groups. Forty members of this Committee are voting members. The other technical experts are information members.

Standards Interpretation Committee (SIC) – Advisory body to the Canada Organic Office that assists in interpretation of the Canadian Organic Standards. SIC interpretations are available on the Organic Federation of Canada (OFC) website: http://www.organicfederation.ca/canadian-organic-standards.

Symbiotics – Combinations of prebiotics and probiotics. Many contain a combination of probiotic culture with a prebiotic substrate that favors its growth.

Veterinary Biologic – 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 – A substance or mixture of substances represented for use or administrated 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.

Yeast – Single celled micro-organisms that produce enzymes, carbon dioxide (CO_2), and other metabolites from carbohydrates, whose functional roles are frequently used in the processes of fermentation, baking, flavoring foods, adding nutritional value and providing health benefits.

Yeast Autolysate Extract – Water-soluble components of the yeast cell, generally produced by autolysis, a process in which the rupture of cell wall is induced mechanically or chemically.

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