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### OMRI Canada Permitted Substances Categories

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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 Canada Organic Standards

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. It describes the OMRI's standards for input product compliance with the Canadian Organic Regime (COR) which encompasses the Canada Organic Standards (COS). The COR is a government 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 form the foundation of the OMRI Canada Review Program standards. The COS are the regulatory text administered by the CFIA's Canada Organic Office found at CAN/CGSB 32.310 and 32.311. The OMRI Permitted Substances

Categories are based on the Permitted Substances List (PSL) of the COS, and serve as a resource for applicants who wish to have their product listed by OMRI. OMRI may review products against additional standards that are provided in more detail on the OMRI website and in OMRI's application materials. In addition to 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.

OMRI standards are updated as necessary to reflect changes to applicable federal laws or regulations. Check the OMRI web page, [www.omri.org](http://www.omri.org), to be sure you have the most current OMRI standards.

This manual outlines specific criteria used along with the COS to evaluate products for listing in the OMRI Products List®. 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.

## Part 2: General Review Standards

### 2.1 Synthetic versus Nonsynthetic Determination

CAN/CGSB 32.310 and CAN CGSB 32.311 reference the use of nonsynthetic 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 nonsynthetic forms of the substance may be used; or that the synthetic form can only be used if the nonsynthetic form is commercially unavailable. OMRI uses the definition of 'synthetic substance' as it appears

in the CAN/CGSB 32.310 Par. 3 (Definitions and Terminology) – "A man-made substance formulated or manufactured by a chemical process or by a process that chemically alters compounds extracted from plant, micro-organisms, and animal or mineral sources. This term does not apply to compounds synthesized or produced by biological processes, including heat and mechanical processing." 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, Methods, or Ingredients in Organic Production and Handling (CAN/CGSB 32.310 Paragraph 1.4.1)

Except for those substances appearing in the PSL, OMRI does not permit products that contain a substance prohibited by Paragraph 1.4.1. of CAN/CGSB 32.310 as follows:

## 3.1 Genetic Engineering

Materials and products produced from genetic engineering are not permitted under this standard, except for vaccines only that have been grown on genetically engineered substrates but are not themselves a product of genetic engineering, as specified in CAN/CGSB-32.311, Organic Production Systems – Permitted Substances Lists. 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. Some examples of these techniques include recombinant DNA techniques that use vector systems and cell fusion with cells that do not fall within the same taxonomic family. Except for specific exemptions to this clause, OMRI does not permit genetically engineered ingredients or products of genetically engineered substances in products for use according to the COS.

## 3.2 Synthetic Pesticides

Synthetic pesticides (e.g., defoliants and desiccants, fungicides, insecticides and rodenticides), wood preservatives (e.g., arsenate) or other pesticides, except as specified in CAN/CGSB-32.311, Organic Production Systems - Permitted Substances Lists, are not permitted.

## 3.3 Sewage Sludge

Sewage sludge, in any form, as defined in the standard, is prohibited as an ingredient and OMRI will not permit it in products.

## 3.4 Synthetic Growth Regulators

Synthetic growth regulators are not permitted by the standard, and OMRI will not allow them as ingredients in products.

## 3.5 Synthetic Allopathic Veterinary Drugs

Synthetic allopathic drugs, including antibiotics and parasitocides are prohibited, except for those specified in the standard. OMRI does not permit these ingredients in products.

## 3.6 Synthetic Processing Substances

Synthetic processing substances, aids and ingredients, and food additives and processing including sulfates, nitrates and nitrites, except as specified in the PSL are prohibited as ingredients in products.

## 3.7 Ionizing Radiation

Ionizing radiation and forms of irradiation on products destined for food or their inputs, as defined in this standard, except as specified in the PSL, is prohibited. Ionizing radiation is 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.

## 3.8 Packaging and Containers with Prohibited Substances

Equipment, packaging materials and storage containers, or bins that contain a synthetic fungicide, preservative or fumigant are prohibited.

## 3.9 Nanotechnology

Nanotechnology, as defined by the standard, is prohibited. Nanotechnology refers to intentionally manufactured nanotechnology products, or nano-processes involving intentional manipulation of matter at the nano scale to achieve new properties or functions that are different than properties and functions of the materials at the macro scale, except naturally oc-

curing nano sized particles, or those produced incidentally through normal processes such as grinding flour, or nano sized particles used in a way that guarantees no transference to product. OMRI does not permit the use of nanotechnology in ingredients or products.

## Part 4: Additional OMRI Standards

In addition to the Canadian Organic Standards (COS), OMRI reviews products to additional standards that are identified on OMRI's website at [www.omri.org](http://www.omri.org). These additional standards include OMRI's interpretation of the COS to ensure product compliance.

### 4.1 Additional Standards for Crop Fertilizers and Soil Amendments

Certain substances appearing in the PSL may use synthetic substances as extractants, but OMRI does not allow extractants to be used in greater quantities than are necessary for extraction. OMRI has developed thresholds for these substances 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 will be prohibited.

CAN/CGSB 32.311 requires that "Composting feedstocks that may be contaminated with substances not included or prohibited by par. 1.4.1 of CAN/CGSB 32.310 shall require documentation to confirm the absence of these substances..." Operators may have the option of analysis of the final product to confirm that no contaminants persist, and OMRI standards for residual contaminants are outlined on OMRI's website at [OMRI.org](http://OMRI.org).

### 4.2 Additional Standards for Pesticides

Both active and inert, or formulant ingredients in pesticides must meet the OMRI standards. All pesticides are subject to the restriction in CAN/CGSB 32.310 par. 5.6.2 which requires that pest, disease and weed control be 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). Formulants must appear on the PSL Table 4.3.

OMRI will not accept an application that simply lists "inert ingredients" as a component. OMRI listing is not a substitute for PMRA or other governmental registration. All pesticide products sold in Canada must be PMRA registered. OMRI will identify products not registered for use in Canada as such in the *OMRI Products List*.

# Part 5: Introduction to OMRI Permitted Substances Categories

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

The PSL is a list of substances that are allowed or prohibited in organic production. It specifies nonsynthetic and synthetic materials that are permitted in crop and livestock production. It also stipulates that certain synthetic or nonsynthetic materials are prohibited. Where the Permitted Substances List does not specify different standards for synthetic and nonsynthetic versions of a substance, or where a substance is only available in one form, these categories will indicate “Synthetic/Nonsynthetic” in order to encompass all options.

For processing the PSL specifies those nonorganic ingredients and processing aids that may be used in ‘organic’ and products whose contents are ‘70% or more and less than 95% organic ingredients’ processed foods. OMRI has also included some categories that describe broad types of products for easier categorization. These additional categories are based on the PSL. The OMRI 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 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 Products List for easy referral to the OMRI Permitted Substances Categories.
- OMRI Annotation – details use parameters, and provides additional information and COS Rule specifications for the generic material.

- COS Rule citations – cites applicable regulatory sections for each material listing.

## 5.1 How to use the OMRI Permitted Substances Categories

Applicants to the OMRI Canada Review Program must choose a category that corresponds to 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. 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 a material use, applicants should regularly check the OMRI website ([www.omri.org](http://www.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, Organic Production Systems – Permitted Substances Lists). 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 par 5.4: Soil Fertility and Crop Nutrient Management, and par 5.5: Manure Management. Unless otherwise specified, the soil amendments and crop nutrients listed in Table 4.2 of the PSL shall not contain substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, or not permitted on the Permitted Substances Lists.

**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 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 par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, 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 par 5.6.2. The conditions for using such substances must be documented in the organic plan, in accordance with section 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, insect traps, compost inoculants, and plant extracts without nutrient or pest control claims. These products shall not contain substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, or not permitted on the Permitted Substances Lists.

## 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 par. 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

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## Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

Restrictions' status therefore indicates that these substances are subject to use restrictions. These restrictions are outlined in the COS regulations and include: a) manure management standards (CAN/CGSB-32.310 par. 5.5), b) crop pest, disease and weed management standards (CAN/CGSB-32.310 par.

5.6.2) and c) specific restrictions detailed in the PSL. Source restrictions, other than the requirement for preferential use of nonsynthetic or organic sources, do not result in a substance being listed as Allowed with Restrictions.

## LISTINGS

**Acetic acid** **Allowed with Restrictions**  
 Class: CT Synthetic/Nonsynthetic  
 As an adjuvant and pH regulator.  
*CGSB Reference: Table 4.3 Crop Production Aids and Materials*

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

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

**Alcohol** **Allowed with Restrictions**  
 Class: CT Nonsynthetic  
 Non-synthetic ethyl alcohols are allowed as solvents to extract botanical insecticides.  
*CGSB Reference: Table 4.3 Crop Production Aids and Materials*

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

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

**Algae** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
 See Aquatic plant products.  
*CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition*

**Amino acids, non-synthetic** **Allowed**  
 Class: CT, CF 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.

*CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials*

**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.

*CGSB Reference: CAN/CGSB-32.310 section 5.6; Table 4.3*

**Ammonium carbonate** **Allowed with Restrictions**  
 Class: CP Synthetic/Nonsynthetic  
 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.

*CGSB Reference: Table 4.3 Crop Production Aids and Materials*

**Animal manure** **Allowed with Restrictions**  
 Class: CF Synthetic/Nonsynthetic  
 See sections 5 and 6 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards.

*CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition*

<b>Animal manure, processed</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Aquatic plants and aquatic plant products</b>	<b>Allowed</b>
Class: CF, CT	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials</i>	
<b>Aquatic plants and aquatic plant products</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<b>Arthropod pathogens</b>	<b>Allowed</b>
Class: CP	Synthetic/Nonsynthetic
See Biological organisms.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Arthropod predators and parasitoids</b>	<b>Allowed</b>
Class: CP	Synthetic/Nonsynthetic
See Biological organisms.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Arthropods</b>	<b>Allowed</b>
Class: CP	Synthetic/Nonsynthetic
See Biological organisms.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Ascorbic acid (vitamin C)</b>	<b>Allowed with Restrictions</b>
Class: CT	Nonsynthetic
Non-synthetic sources only may be used as a pH regulator and for promoting natural growth.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Ascorbic acid (vitamin C)</b>	<b>Allowed with Restrictions</b>
Class: CT	Synthetic
Synthetic and non-synthetic sources may be used as a pH regulator. Only nonsynthetic sources may be used for promoting natural growth.	
<b>Ash</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Baits for rodent traps</b>	<b>Allowed</b>
Class: CT	Synthetic/Nonsynthetic
Baits shall not contain synthetic substances.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Basalt</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Mined or quarried volcanic rock minerals.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Bentonite</b>	<b>Allowed</b>
Class: CF, CP, CT	Synthetic/Nonsynthetic
See Mined minerals and unprocessed mined minerals.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials</i>	
<b>Biodynamic preparations for compost</b>	<b>Allowed</b>
Class: CT	Synthetic/Nonsynthetic
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Biodynamic preparations for soil and plants</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Biological organisms</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
Living organisms that benefit plant production by reducing pest populations, such as <i>Bacillus thuringiensis</i> , 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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	

**Class Codes**

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids



<b>Biostimulants</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Boron products</b> Class: CF The following soluble boron products may be used: sodium tetraborate (borax and anhydrous) and sodium octaborate. Shall only be used for a documented deficiency relative to the type of crop. See also Trace elements (micronutrients) for documentation requirements. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Biostimulants</b> 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 use restriction. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Botanical pesticides</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Biotite (iron, magnesium or aluminum silicates)</b> Class: CF <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Calcium carbonate</b> Class: CF See limestone. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Blood meal</b> Class: CF Allowed only if sterilized. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Calcium chloride</b> Class: CF Natural sources only. May be used to adjust nutrient deficiencies and physiological disorders. Shall not cause build-up of salts in soil over repeated applications. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Nonsynthetic
<b>Bone meal</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Calcium chloride</b> Class: CT Natural sources and food-grade quality only. May be used to adjust nutrient deficiencies and physiological disorders. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Nonsynthetic
<b>Borate</b> Class: CF Shall only be used for a documented deficiency relative to the type of crop. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Calcium lignin sulphonate</b> Class: CT See Lignin sulphonates. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Borate</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Calcium polysulphide</b> Class: CP See Lime sulphur. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Borax (sodium tetraborate)</b> Class: CF See Boron products. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Calcium sulphate (gypsum)</b> Class: CF See Gypsum (calcium sulphate). <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Boric acid</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Calcium, natural sources</b> Class: CF Sources include shells from aquatic animals. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic

<b>Cannery wastes</b> Class: CF Use only if organically grown or as composting feedstocks. See Composting, feedstocks for mandatory composting requirements. *Organic source. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Compost</b> Class: CF See Composting feedstocks, Compost produced on the farm, Compost obtained from off-farm sources, Compost tea. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Cannery wastes</b> Class: CF Use only if organically grown or as composting feedstocks. Requirements for "Composting feedstocks" in this table shall be met. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Compost obtained from off-farm sources</b> Class: CF Compost obtained from off-farm sources shall meet the criteria for composting feedstocks (see "Composting feedstocks" in this table), and: (a) shall not exceed the maximum acceptable contents of trace contaminants (in mg/kg) and foreign matter outlined for unrestricted use (Category A) compost according to Canadian Council of Ministers of the Environment (CCME) compost quality guidelines AND (b) shall not cause a build-up of heavy metals in soil over repeated applications AND (c) shall meet CCME criteria for acceptable levels (MPN/g total solids) of human pathogens. For vermicompost, see "Worm castings". For information on compost starters, see "Microbial products". <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Carbon dioxide</b> Class: CT For soil and greenhouse use and for controlled atmosphere storage. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Compost produced on the farm</b> 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: (i) 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 (ii) meet Canadian Council of Ministers of the Environment (CCME) compost quality guideline limits for acceptable levels (MPN/g total solids) of human pathogens. OR (iii) 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". <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Cardboard</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic		
<b>Chelates</b> Class: CT Natural chelates and synthetic chelates specifically included for that purpose in this Standard are allowed. See Lignin sulphonates. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic		
<b>Cholecalciferol (vitamin D3)</b> Class: CP 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic		
<b>Citric acid</b> Class: CT Non-synthetic and synthetic sources may be used as a chelating agent and a pH adjuster. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic		
<b>Clay</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Compost tea</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic

**Class Codes**

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

**Composting feedstocks**

Class: CF

**Allowed**

Synthetic/Nonsynthetic

Acceptable feedstocks include:

- animal manures conforming with requirements as set out in par. 5.5.1 of CAN/CGSB 32.310 Organic Production Systems – General Principles and Management Standards;
- animal products and by-products (including fishery);
- plants and plants by-products (including forestry and source-separated yard debris such as grass clippings and leaves);
- soils and minerals in conformity with CAN/CGSB 32.310 Organic Production Systems – General Principles and Management Standards and 32.311 Organic Production Systems – Permitted Substances Lists.

Except for animal manures, feedstocks that may be contaminated by substances not included in 32.311 Organic Production Systems – Permitted Substances Lists or prohibited by par. 1.8.1 of 32.310 Organic Production Systems – General Principles and Management Standards shall require documentation to confirm the absence of those substances OR documentation substantiating the common degradation of such contaminants through the composting process.

The following are prohibited as compost feedstocks: sewage sludge; compost starter and feedstocks fortified with substances not included in 32.311 Organic Production Systems – Permitted Substances Lists or prohibited by par. 1.8.1 of 32.310 Organic Production Systems – General Principles and Management Standards; leather by-products; glossy paper; waxed cardboard; paper containing coloured ink; and animals and animal by-products that are not guaranteed free of specified risk materials as described in the annotation for bone meal.

For information on compost starters, see “Microbial products”.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Copper products**

Class: CF

**Allowed with Restrictions**

Synthetic/Nonsynthetic

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.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Copper products**

Class: CP

**Allowed with Restrictions**

Synthetic/Nonsynthetic

These include copper hydroxide for use as a wood preservative or for disease control; copper sulphates for use as a fungicide; Bordeaux mix, and copper oxychloride, fungicides or wood treatments, for fruits and vegetables.

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. 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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Cytokinins**

Class: CP

**Allowed with Restrictions**

Synthetic/Nonsynthetic

See Growth regulators for 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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Diatomaceous earth**

Class: CP

**Allowed with Restrictions**

Synthetic/Nonsynthetic

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Dolomite**

Class: CF

**Allowed**

Synthetic/Nonsynthetic

See Limestone.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Dormant oils**

Class: CP

**Allowed with Restrictions**

Synthetic/Nonsynthetic

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Enzymes**

Class: CF

**Allowed**

Synthetic/Nonsynthetic

Acceptable if derived microbiologically from natural substances and not fortified with synthetic plant nutrients. Ensure enzymes are not obtained through genetic engineering.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Epsom salts**

Class: CF

**Allowed with Restrictions**

Synthetic/Nonsynthetic

See Magnesium sulphate.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Feather meal**

Class: CF

**Allowed**

Synthetic/Nonsynthetic

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Feldspar**

Class: CF

**Allowed**

Synthetic/Nonsynthetic

See Mined minerals and unprocessed mined minerals.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Ferric and ferrous compounds**

Class: CF

**Allowed with Restrictions**

Synthetic/Nonsynthetic

Includes ferric oxide, ferric sulphate and ferrous sulphate. See Iron products; Trace elements (micronutrients).

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**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.

**CGSB Reference:** Table 4.3

**Fertilizers, blended** **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.

**CGSB Reference:** CAN/CGSB-32.310 par 5.4.5

**Fertilizers, blended** **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 source or use restriction.

**CGSB Reference:** CGSB/CAN 32.310 par. 5.4.5

**Fibre row covers** **Allowed with Restrictions**

Class: CT Synthetic/Nonsynthetic  
Shall not be incorporated into the soil or left in the field to decompose; shall be removed at the end of the growing season.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Fish emulsions or solubles** **Allowed**

Class: CF Synthetic/Nonsynthetic  
See Fish products.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Fish farm wastes** **Allowed**

Class: CF Synthetic/Nonsynthetic  
Shall be composted.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Fish hydrolysate** **Allowed**

Class: CF Synthetic/Nonsynthetic  
See Fish products.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Fish meal, powder** **Allowed**

Class: CF Synthetic/Nonsynthetic  
Natural substances or those derived from natural substances, without the addition of ethoxyquin or other chemically synthesized substances or chemical treatment. See also Fish products.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Fish products** **Allowed**

Class: CF Synthetic/Nonsynthetic  
Natural substances or those derived from natural substances without the addition of ethoxyquin or other chemically synthesized substances or chemical treatment except that liquid fish products as soil and plant amendments may be pH adjusted with (in preferential order) organic vinegar, organic citric acid, or phosphoric acid, or sulphuric acid. The amount of acid used shall not exceed the minimum needed to reach pH 3.5. Shall not contain synthetic preservatives or fertilizing substances not listed in this Standard.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Formulants** **Allowed with Restrictions**

Class: CT Synthetic/Nonsynthetic  
Formulants can only be used in conjunction with substances listed in par. 4.3. Only formulants that are classified by the Pest Management Regulatory Agency (PMRA) in Regulatory Note REG2007-04 as List 4A or 4B or are non-synthetic may be used with substances in par. 4.3 that are applied directly to crops. Formulants classified as List 3 in PMRA Regulatory Note REG2007-04 may be used with passive pheromone dispensers. Formulants classified as List 1 or List 2 in PMRA Regulatory Note REG2007-04 are prohibited.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Fungicides** **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.

**CGSB Reference:** CAN/CGSB-32.310 par. 5.6.2; Table 4.3

**Gibberellic acid** **Allowed with Restrictions**

Class: CP Synthetic/Nonsynthetic  
Acceptable if made from a fermentation process. Fermentation process shall not use organisms from genetic engineering. See also Growth regulators for plants. 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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Granite dust** **Allowed**

Class: CF Synthetic/Nonsynthetic  
Sources that are mixed with petroleum products, such as from stone engraving, are prohibited. See also Mined minerals and unprocessed mined minerals.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Greensand (glaucanite)** **Allowed**

Class: CF Synthetic/Nonsynthetic  
See Mined minerals and unprocessed mined minerals.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Growth regulators for plants** **Allowed with Restrictions**

Class: CP Synthetic/Nonsynthetic  
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.

**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

<b>Guano, bat or bird</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Gypsum (calcium sulphate)</b>	<b>Allowed with Restrictions</b>
Class: CF	Synthetic/Nonsynthetic
Mined source; for correcting calcium and sulphur deficiencies and for amending soil salinity problems documented by soil and plant tissue testing. Sulphates produced using sulphuric acid are prohibited.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Herbicides</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: CAN/CGSB-32.310 par. 5.6.2; Table 4.3</i>	
<b>Hormones</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Humates, humic acid and fulvic acid</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Permitted if extracted by microbial fermentation or potassium hydroxide. Shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, copper, lead and mercury specified in the Guidelines for the Beneficial Use of Fertilizing Residuals, published by the Quebec Ministère du Développement durable, de l'Environnement et des Parcs, Direction du milieu rural. Potassium hydroxide levels used in the extraction process may not exceed the amount required for extraction.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Humus from worms and insects (vermicompost)</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
See Worm castings.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Hydrated Lime</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Hydrogen peroxide</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Indoleacetic acid</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
See Growth regulators for plants. 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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Inoculants</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
See Microbial products.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Iron products</b>	<b>Allowed with Restrictions</b>
Class: CF	Synthetic/Nonsynthetic
Ferric oxide, ferric sulphate, ferrous sulphate, iron citrate, iron sulphate or iron tartrate may be used where a soil or plant nutrient deficiency is documented by soil or tissue testing.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Iron sulphates</b>	<b>Allowed with Restrictions</b>
Class: CF	Synthetic/Nonsynthetic
Sulphates produced using sulphuric acid are prohibited. See also Iron products.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Kaolin</b>	<b>Allowed with Restrictions</b>
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.	
<i>CGSB Reference: CAN/CGSB-32.310 par. 5.6.2; CAN/CGSB 32.311 Table 4.3</i>	
<b>Kaolin clay</b>	<b>Allowed</b>
Class: CT	Synthetic/Nonsynthetic
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Kelp and kelp products</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
See Aquatic plants and aquatic plant products.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Kieserite</b>	<b>Allowed with Restrictions</b>
Class: CF	Synthetic/Nonsynthetic
See Magnesium sulphate, Mined minerals and unprocessed mined minerals.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Langbeinite</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Mined sulphate of potash magnesia	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	

<b>Leaf mould</b> Class: CF <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Manganese products</b> Class: CF Manganous oxide and manganese sulphate may be used to correct documented manganese deficiencies. See Trace elements (micronutrients). <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Lignin sulphonates</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Manure, composted</b> Class: CF See Compost. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Lime sulphur (Calcium polysulphide)</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Manure, non-organic manure source</b> Class: CF See conditions in par. 5.5 of CAN/CGSB-32.310. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Limestone</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Manure, organic manure source</b> Class: CF See conditions in par. 5.5 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards. <i>CGSB Reference: CAN/CGSB-32.310 par. 5.5</i>	<b>Allowed</b> Nonsynthetic
<b>Magnesium carbonate</b> Class: CF Naturally occurring in dolomite and magnesite. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Mica</b> Class: CF See Mined minerals and unprocessed mined minerals. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Magnesium chloride</b> Class: CF, CT Natural sources only. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Microbial products</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Magnesium rock</b> Class: CF Natural substances or those derived from natural substances, without the addition of chemically synthesized substances or chemical treatments. See also Mined minerals and unprocessed mined minerals. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Micronutrients, synthetic</b> Class: CF See Trace elements (micronutrients). <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Magnesium sulphate</b> Class: CF Allowed for use with a documented magnesium deficiency. Mined as kieserite or epsom salts (see also Mined minerals and unprocessed mined minerals) or synthetically produced epsom salts. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Milk</b> Class: CF <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
		<b>Mined minerals and unprocessed mined minerals</b> Class: CF 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Nonsynthetic

**Class Codes**

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

<p><b>Molasses</b> Class: CF Synthetic/Nonsynthetic Shall be organic molasses unless not commercially available. *Organic source. <i>CGSB Reference: Table 4.2</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Molasses</b> Class: CF Synthetic/Nonsynthetic Shall be organic molasses unless not commercially available. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Molybdenum products</b> Class: CF Synthetic/Nonsynthetic To correct documented molybdenum deficiencies. See also Trace elements (micronutrients). <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Mulches</b> Class: CF, CT Synthetic/Nonsynthetic Organic plant residue: where organic materials are not readily available, non-organic straw, leaves, grass clippings or hay that are not the products of genetic engineering may be used. Substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, shall not have been used on these materials for at least 60 days before harvest. Sawdust, wood chips and shavings: permitted for mulching if they are from natural sources or derive from natural substances and 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. Newspaper mulch: glossy paper and coloured ink are prohibited. Paper: glossy paper and coloured ink are prohibited. As a Crop Production Aid: Fully biodegradable films are permitted without removal if they do not contain substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Mulches</b> Class: CT Synthetic/Nonsynthetic Organic plant residue: Is permitted for mulching. Where organic materials are not readily available, non-organic straw, leaves, grass clippings or hay that are not the products of genetic engineering may be used. Substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards, shall not have been used on these materials for at least 60 days before harvest. 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. Newspaper mulch: Glossy paper and coloured ink are prohibited. Paper: Glossy paper and coloured ink and prohibited. Plastic mulches: Non-biodegradable and semi-biodegradable materials shall not be incorporated into the soil or left in field to decompose; shall be removed at the end of the growing season. Plastic mulches in perennial crops may be left for more than one season but shall be removed before the plastic decomposes. Use of polyvinyl chloride as plastic mulch or row cover is prohibited. Fully biodegradable films: Are permitted without removal if they do not contain substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards. <i>CGSB Reference: Table 4.3</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Mushroom compost</b> Class: CF Synthetic/Nonsynthetic See Compost. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Naturally occurring biological organisms (e.g. worms) and their products</b> Class: CF Synthetic/Nonsynthetic See Worm castings. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Nitrogen</b> Class: CT Synthetic/Nonsynthetic For controlled atmosphere storage. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Oilseed meals</b> Class: CF Synthetic/Nonsynthetic Use organic sources unless commercially unavailable. Shall not be from genetically engineered oilseeds. *Organic source.</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Oilseed meals</b> Class: CF Synthetic/Nonsynthetic Use organic sources unless not commercially available. Shall not be from genetically engineered oilseeds. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Oxygen</b> Class: CT Synthetic/Nonsynthetic For controlled atmosphere storage. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>

**Oyster shell lime** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
 Ground shells from oysters. See also Limestone.  
**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Peat moss** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Peracetic acid** **Allowed with Restrictions**  
 Class: CP Synthetic/Nonsynthetic  
 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.  
**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Perlite** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**pH buffers** **Allowed**  
 Class: CT Synthetic/Nonsynthetic  
 Shall be from a natural source, such as citric acid or vinegar. Lye and sulphuric acid are prohibited.  
**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Pheromones and other semiochemicals** **Allowed with Restrictions**  
 Class: CP Synthetic/Nonsynthetic  
 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.  
**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Phosphate rock** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
 Shall not be fortified or processed with synthetic chemicals. Cadmium shall not exceed 90 mg/kg P2O5.  
**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Plant extracts, oils and preparations** **Allowed**  
 Class: CT Synthetic/Nonsynthetic  
 Allowed for use as production aids unless otherwise specifically restricted or prohibited. Allowed extractants include cocoa butter, lanolin, animal fats, alcohols and water. Allowed for disease and pest control. 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. Of the two products, potassium hydroxide is the preferred choice; the manufacturer shall prove the need to use sodium hydroxide.  
**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Plant extracts, oils and preparations** **Allowed with Restrictions**  
 Class: CP Synthetic/Nonsynthetic  
 Allowed for use as production aids unless otherwise specifically restricted or prohibited. Allowed extractants include cocoa butter, lanolin, animal fats, alcohols and water. Allowed for pest (disease, weed and insect) control. 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. Of the two products, potassium hydroxide is the preferred choice; 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.

**Plant protectants, natural** **Allowed**  
 Class: CT Synthetic/Nonsynthetic  
 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.  
**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

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

**Plants and plant by-products** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
 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.  
**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Plastic for row covers and solarization** **Allowed with Restrictions**  
 Class: CT Synthetic/Nonsynthetic  
 Shall not be incorporated into the soil or left in the field to decompose; shall be removed at the end of the growing season. Use of polyvinyl chloride plastic is prohibited.  
**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

#### Class Codes

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<b>Pomaces</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Feedstocks shall be from organically grown fruits or vegetables, or the material shall be aerobically composted before use.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Potassium bicarbonate</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Potassium chloride (muriate of potash and rock potash)</b>	<b>Allowed with Restrictions</b>
Class: CF	Synthetic/Nonsynthetic
Mined potassium salts (e.g. sylvinite and kainite). Shall not cause build-up of salts in soil over repeated applications.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Potassium rock powders</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Includes basalt, biotite, mica, feldspars, granite and greensand.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Potassium sulphate</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Only if from langbeinite or other natural sources. See also Mined minerals and unprocessed mined minerals.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Potassium sulphate magnesia</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Langbeinite.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Potting soil</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
Shall not contain synthetic wetting agents or synthetic fertilizers.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Potting soil</b>	<b>Allowed with Restrictions</b>
Class: CF	Synthetic/Nonsynthetic
Shall not contain synthetic wetting agents or synthetic fertilizers. Contains one or more substances with a source or use restriction.	
<i>CGSB Reference: CGSB/CAN 32.310 par. 5.4.5</i>	
<b>Pumice</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Pyrethrum</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Quick lime</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Repellents</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Rock dusts (stone meal), unprocessed</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
See Mined minerals and unprocessed mined minerals.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Rotenone</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
Shall not be combined with unacceptable formulants. 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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Sand</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	
<b>Seaweed and seaweed products</b>	<b>Allowed</b>
Class: CF, CP, CT	Synthetic/Nonsynthetic
See Aquatic plants and aquatic plant products.	
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition; Table 4.3 Crop Production Aids and Materials</i>	
<b>Seed treatments</b>	<b>Allowed</b>
Class: CT	Synthetic/Nonsynthetic
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.	
<i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	
<b>Seed Treatments</b>	<b>Allowed with Restrictions</b>
Class: CP	Synthetic/Nonsynthetic
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.	
<b>Shells from aquatic animals</b>	<b>Allowed</b>
Class: CF	Synthetic/Nonsynthetic
<i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	

**Soaps**

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Soaps, ammonium**

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Sodium bicarbonate**

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Sodium silicate**

Class: CT

For tree fruit and fibre processing.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Soil**

Class: CF

From organic sources in accordance with this standard for 36 months.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Allowed**

Synthetic/Nonsynthetic

**Sphagnum moss**

Class: CF

Shall not contain synthetic wetting agents.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Allowed**

Synthetic/Nonsynthetic

**Sterile insects**

Class: CP

See Biological organisms.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed**

Synthetic/Nonsynthetic

**Sticky traps**

Class: CP

For rodents and other destructive pests, mechanical and sticky traps are permitted in sugar bush development and maintenance. Poisons of any kind are prohibited. 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.

**CGSB Reference:** CAN/CGSB-32.310 par 7.2.9.5

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Stillage and stillage extract**

Class: CF

Ammonium stillage is prohibited.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Allowed**

Synthetic/Nonsynthetic

**Sugar**

Class: CT

Organic sugar may be used as an ingredient in a crop production aid.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed**

Synthetic/Nonsynthetic

**Sulphate of potash magnesia**

Class: CF

From langbeinite. See also Mined minerals and unprocessed mined minerals. Natural substances or those derived from natural substances, without the addition of chemically synthesized substances or chemical treatment.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Allowed**

Synthetic/Nonsynthetic

**Sulphates of zinc or iron**

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.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Sulphur (smoke bombs)**

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Sulphur, elemental**

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.

**CGSB Reference:** Table 4.2 Soil Amendments and Crop Nutrition

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Sulphur, elemental**

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Summer oils**

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.

**CGSB Reference:** Table 4.3 Crop Production Aids and Materials

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Class Codes**

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<b>Surfactants</b> Class: CP, CT See Soaps. 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Vinegar (acetic acid)</b> Class: CT See acetic acid. Non-synthetic sources unless commercially unavailable. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Nonsynthetic
<b>Trace elements (micronutrients)</b> Class: CF Includes micronutrients from natural sources that are unchelated or chelated by substances listed as allowed. To be used when soil and plant deficiencies are documented by soil and plant testing. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Vinegar (acetic acid)</b> Class: CT See acetic acid. Non-synthetic sources unless commercially unavailable. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic
<b>Transplant and potting media</b> Class: CT Shall be composed entirely of allowed substances. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Virus sprays</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Treated seed, non-synthetic agents</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Vitamins</b> Class: CF Non-synthetic sources of all vitamins and synthetic sources of vitamins B1, C and E may be used in organic crop production. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Tree seals</b> 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. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Water</b> Class: CT <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Vegetable oils</b> Class: CT Spreader-stickers, surfactants and carriers. Plant oils shall not contain synthetic pesticides. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Water, reclaimed</b> Class: CT Reclaimed water shall be used only on non-edible parts of food crops and on crops not for human consumption. Use on edible plant parts and root crops is prohibited. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Vegetable oils</b> 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.	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Wetting agents</b> Class: CT Natural wetting agents, including saponins and microbial wetting agents, are allowed. See also Soaps. <i>CGSB Reference: Table 4.3 Crop Production Aids and Materials</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Vermicasts</b> Class: CF See Worm castings. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Wood ash</b> Class: CF See Ash. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Vermiculite</b> Class: CF <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Worm castings</b> 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. <i>CGSB Reference: Table 4.2 Soil Amendments and Crop Nutrition</i>	<b>Allowed</b> Synthetic/Nonsynthetic

**Yeast** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
 See Microbial products.  
**CGSB Reference:** *Table 4.2 Soil Amendments and Crop Nutrition*

**Zeolite** **Allowed**  
 Class: CF Synthetic/Nonsynthetic  
 See Mined minerals and unprocessed mined minerals.  
**CGSB Reference:** *Table 4.2 Soil Amendments and Crop Nutrition*

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

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**Class Codes**

CF: Crop Fertilizers and Soil Amendments

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# 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, Organic Production Systems – Permitted Substances Lists). 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 (i.e., essential nutrients in the form of amino acids, vitamins and minerals).” A feed supplement is “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. Feed and feed additives, including amino acids and feed supplements may not contain substances not in accordance with CAN/CGSB-32.311, Organic Production Systems - Permitted Substances Lists. 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 administered in the diagnosis, treatment, mitigation or prevention of disease, disorder, abnormal physical state or its symptoms in animals; restoring, correcting or modifying functions in animals.” Other health care products include medications, remedies, parasiticides 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 CAN/CGSB-32.311, Organic Production Systems - Permitted Substances Lists 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. 6.7.9 of CAN/CGSB 32.310.

**Livestock External Parasiticides and Pesticides (LP)** include all PMRA-registered 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 pars. 6.7 and 6.8 (Livestock Health Care and Livestock Living Conditions) of CAN/CGSB 32.310.

**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.

## Status

Livestock Permitted Substances 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 regulatory restrictions that limit their use.

**Allowed with Restrictions (R)** livestock production cate-

gories 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 COS. These standards include: a) requirements that specific substances on the PSL be organic or nonsynthetic unless commercially unavailable, or b) other specific use restrictions detailed in the PSL. Source restrictions other than those for the preferential use of nonsynthetic or organic sources do not result in a substance being designated as Allowed with Restrictions.

## LISTINGS

### Acetylsalicylic acid

Class: LH

Aspirin.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed**

Synthetic/Nonsynthetic

### Activated charcoal

Class: LH, LT

Plant sources only.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed**

Synthetic/Nonsynthetic

### Alcohol, ethyl (ethanol)

Class: LH, LT

Allowed as a disinfectant and sanitizer only.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

### Alcohol, isopropyl

Class: LH, LT

Allowed as a disinfectant only.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

### Amino Acids

Class: LF

Non-synthetic sources only. Exception granted for use of synthetic DL-methionine, DL-methionine-hydroxy analog and DL-methionine-hydroxy analog calcium.

Note: This exception will be re-evaluated at the next revision of this standard.

Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Synthetic/Nonsynthetic

### Antibiotics

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.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

### Antibiotics, oxytetracycline

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.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

### Anti-inflammatories

Class: LH

For health care use, to reduce inflammation. Preference shall be given to natural alternatives.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

### Antioxidants

Class: LF

Non-synthetic sources only. Water, alcohol, acid and base extracts permitted by this standard 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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Nonsynthetic

### Bedding, not typically consumed

Class: LF, LT

Bedding material must be capable of absorbing excrement. Where bedding is not typically consumed by the animal species (e.g., lactating dairy cows), material used for the bedding shall be free from the application of substances prohibited by par. 1.4.1 for at least 60 days prior to harvest.

**CGSB Reference:** CAN/CGSB 32.310 par. 6.8.1(g)

**Allowed**

Nonsynthetic

#### Class Codes

LF: Livestock Feed Ingredient

LH: Livestock Health Care

LP: Livestock External Parasiticides and Pesticides

LT: Livestock Management Tools and Production Aides

<p><b>Bedding, typically consumed</b> Class: LF, LT Bedding material must be capable of absorbing excrement. Bedding material typically consumed by the animal species shall be organic unless commercially unavailable, in which case bedding material shall not be produced from genetic engineering and shall be free from the application of substances prohibited by par. 1.4.1 for at least 60 days prior to harvest. *Organic source <i>CGSB Reference: CAN/CGSB 32.310 par. 6.8.1(g)</i></p>	<p><b>Allowed</b> Nonsynthetic</p>	<p><b>Calcium borogluconate</b> Class: LH For milk fever. No withdrawal period required. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic</p>
<p><b>Bedding, typically consumed</b> Class: LF, LT Bedding material must be capable of absorbing excrement. Bedding material typically consumed by the animal species shall be organic unless commercially unavailable, in which case bedding material shall not be produced from genetic engineering and shall be free from the application of substances prohibited by par. 1.4.1 for at least 60 days prior to harvest. <i>CGSB Reference: CAN/CGSB 32.310 par. 6.8.1(g)</i></p>	<p><b>Allowed with Restrictions</b> Nonsynthetic</p>	<p><b>Chlorohexidine</b> 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. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Biologics, including vaccines</b> 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. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>	<p><b>Colostrum whey</b> Class: LH Probiotic. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Biologics, including vaccines</b> 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. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Colostrum</b> Class: LH Shall be organic unless commercially unavailable. *Organic source. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Botanical compounds</b> Class: LH, LP Botanical preparations according to label specifications. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Colostrum</b> Class: LH Shall be organic unless commercially unavailable. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Biologics, including vaccines</b> 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. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Copper sulphate</b> Class: LH For use as an essential nutrient (source of copper and sulphur) and for topical use (foot baths). Sulphates produced using sulphuric acid are prohibited. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Biologics, including vaccines</b> 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. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Diatomaceous earth</b> Class: LP For use in control of external parasites. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Biologics, including vaccines</b> 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. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Diatomaceous earth</b> Class: LF Approved as an anti-caking agent in feed to a maximum of 2% of the total diet. <i>CGSB Reference: Table 5.2 Feed, Feed Additives and Feed Supplements</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Botanical compounds</b> Class: LH, LP Botanical preparations according to label specifications. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Electrolyte solutions</b> Class: LH With no added active ingredients. <i>CGSB Reference: Table 5.3 Health Care Products and Production Aids</i></p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>

**Electrolytes**

Class: LH  
Without antibiotics.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Energy feeds and forage concentrates and roughages**

Class: LF

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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Enzymes**

Class: LF

Natural substances are permitted, including, as examples, 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 be from an organic source unless not commercially available. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Enzymes**

Class: LF

Natural substances are permitted, including, as examples, 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 be from an organic source unless not commercially available. \*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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Class Codes**

LF: Livestock Feed Ingredient

LH: Livestock Health Care

LP: Livestock External Parasitocides and Pesticides

LT: Livestock Management Tools and Production Aides

**Allowed**

Synthetic/Nonsynthetic

**Formic acid**

Class: LP

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.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic

**Formulants (inerts, excipients)**

Class: LH

Can only be used in conjunction with substances listed in par. 5.3.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Glucose**

Class: LH, LT

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed**

Synthetic/Nonsynthetic

**Glycerin**

Class: LH, LT

For use as a livestock teat dip; shall be produced through the hydrolysis of fats or oils.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Homeopathic and biotherapies**

Class: LH

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed**

Synthetic/Nonsynthetic

**Honey**

Class: LH, LP, LT

Organic honey is allowed.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed**

Synthetic/Nonsynthetic

**Hydrogen peroxide**

Class: LT

External use (disinfectant): pharmaceutical grade. Internal use (e.g. livestock drinking water): food grade.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed**

Synthetic/Nonsynthetic

**Hydrogen peroxide**

Class: LP, LT

External use (disinfectant): pharmaceutical grade. Internal use (e.g. livestock drinking water): food grade.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Iodine**

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).

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic



<p><b>Iodine</b> 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). <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Milk replacer</b> 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. <b>CGSB Reference:</b> Table 5.2 Feed, Feed Additives and Feed Supplements</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Iron products</b> 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. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>	<p><b>Mineral oil</b> Class: LH, LT For external use only. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Lime, hydrated</b> Class: LH, LT Not permitted to cauterize physical alterations or deodorize animal wastes. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Minerals, trace minerals, elements - non-synthetic</b> Class: LT Non-synthetic chelated or sulphated minerals such as but not limited to calcium chloride. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed with Restrictions</b> Nonsynthetic</p>
<p><b>Local anesthetics</b> 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. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Minerals, trace minerals, elements - non-synthetic</b> Class: LF 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. <b>CGSB Reference:</b> Table 5.2 Feed, Feed Additives and Feed Supplements</p>	<p><b>Allowed with Restrictions</b> Nonsynthetic</p>
<p><b>Magnesium sulphate</b> Class: LH, LT Mined sources only. A source of magnesium and sulphur. Sulphates produced using sulphuric acid are prohibited. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>	<p><b>Minerals, trace minerals, elements - synthetic</b> Class: LF, LT 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. <b>CGSB Reference:</b> Table 5.2 Feed, Feed Additives and Feed Supplements</p>	<p><b>Allowed with Restrictions</b> Synthetic</p>
<p><b>Micro-organisms and yeasts</b> 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. <b>CGSB Reference:</b> Table 5.2 Feed, Feed Additives and Feed Supplements</p>	<p><b>Allowed with Restrictions</b> Nonsynthetic</p>	<p><b>Minerals, trace minerals, elements</b> Class: LH 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. Minerals from any source are allowed for medical use. <b>CGSB Reference:</b> Table 5.3 Health Care Products and Production Aids</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Milk replacer</b> 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. <b>CGSB Reference:</b> Table 5.2 Feed, Feed Additives and Feed Supplements</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>		

**Molasses**

Class: LF

May be used as a flavouring agent; shall be organic unless commercially unavailable. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Molasses**

Class: LF

May be used as a flavouring agent; shall be organic unless commercially unavailable. \*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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Oxalic acid**

Class: LP

For the control of mites in honeybee colonies.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Oxytocin**

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.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Paints**

Class: LT

For use in honeybee hive construction. Exterior surfaces of the hive shall be painted only with non-lead-based paints.

**CGSB Reference:** CAN/CGSB-32.310 par 7.1.12.2

**Allowed with Restrictions**

Synthetic

**Parasiticides and anti-microbials**

Class: LH

See par. 6.7 of CAN/CGSB-32.310 for conditions regarding the use of internal parasiticides.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Plant oils**

Class: LH, LP

To control external parasites.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Pre-mixes**

Class: LF

Concentrated mixture of minerals and vitamins; all ingredients shall be organically sourced, where applicable, and shall be essential for animal nutrition. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Probiotics**

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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Nonsynthetic

**Protein feeds**

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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Rotenone**

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.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Seaweed meal**

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.

**CGSB Reference:** Table 5.2 Feed, Feed Additives and Feed Supplements

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Selenium products**

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.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Sulfur**

Class: LP

For control of external parasites.

**CGSB Reference:** Table 5.3 Health Care Products and Production Aids

**Allowed with Restrictions**

Synthetic/Nonsynthetic

**Class Codes**

LF: Livestock Feed Ingredient

LH: Livestock Health Care

LP: Livestock External Parasiticides and Pesticides

LT: Livestock Management Tools and Production Aides

**Vaccines** **Allowed**  
Class: LH Synthetic/Nonsynthetic  
See Biologics, including vaccines.

**Vaccines** **Allowed with Restrictions**  
Class: LH Synthetic/Nonsynthetic  
See Biologics, including vaccines.  
**CGSB Reference:** *Table 5.3 Health Care Products and Production Aids*

**Vitamins** **Allowed**  
Class: LH Synthetic  
Used for enrichment or fortification. Synthetic vitamins may be used if nonsynthetic sources are not commercially available. Vitamins from any source are allowed for medical use.  
**CGSB Reference:** *5.3 Health Care Products and Production Aids*

**Vitamins** **Allowed with Restrictions**  
Class: LF Nonsynthetic  
Used for enrichment or fortification of livestock feed. Synthetic vitamins may be used if non-synthetic sources are not commercially available. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.  
**CGSB Reference:** *Table 5.2 Feed, Feed Additives and Feed Supplements*

**Vitamins** **Allowed with Restrictions**  
Class: LF Synthetic  
Used for enrichment or fortification of livestock feed. Synthetic vitamins may be used if non-synthetic sources are not commercially available. Shall not be provided in amounts above those required for adequate nutrition and health maintenance for the species at its specific stage of life.  
**CGSB Reference:** *Table 5.2 Feed, Feed Additives and Feed Supplements*

# 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, other nonagricultural, nonorganic ingredients, and substances permitted in products whose contents are 70% or more, and less than 95% organic ingredients. The PN classification also encompasses processing aids.

Processing materials in this class are in most cases considered nonagricultural, although some of the fundamental ingredients may have originated from agriculture-based commodities. Nonorganic ingredients may be used only when an acceptable alternative, nonsynthetic ingredient is not commercially available as specified in the PSL. Processing ingredients which are food additives are listed in Table 6.3 of the PSL. "Food Additive" is defined as having the same meaning as in Section B.01.001 of Part B of the Food and Drug Regulations. Other permitted processing ingredients are those not considered food additives, and are listed in Table 6.4 of the PSL. Substances permitted in products whose contents are 70% or more, and less than 95% organic ingredients are listed in Table 6.5 of the PSL. Finally, processing aids are substances or ingredients that are added to a product for a technological effect during processing. They are not present in the finished product or are present at insignificant or non-functional levels. These substances appear in Table 6.6 of the PSL.

**Processing Pest Control (PP)** substances are used to disinfest or prevent infestation of stored commodities, prevent postharvest decay, provide pest control in handling facilities,

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### Class Codes

PA: Processing Agriculture Ingredients and Processing Aids

PN: Processing Non-agricultural Ingredients and Processing Aids

PP: Processing Pest Control

PS: Processing Sanitizers and Cleaners

and to control damage caused by insects, diseases, rodents, and other organisms. Substances permitted for these uses appear in Table 6.7 of the PSL, and may be employed to control pests only after the organic operator has adopted good manufacturing practices to prevent pest infestation. These pest management practices must first involve the removal of pest habitat and food; second, the prevention of access and environmental management (light, temperature and atmosphere) to prevent pest intrusion and reproduction; and third, mechanical and physical methods (traps), and use of lures and repellents listed in Table 6.7 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: 1) food-grade cleaners, disinfectants and sanitizers that are allowed on food or food contact surfaces without a mandatory removal event (PSL Table 7.3) and 2) cleaners, disinfectants and sanitizers allowed on food contact surfaces, equipment and in facilities, provided that 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 par. 8.3.8 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 or fumigants.

## Status

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

**Allowed (A)** processing substances include nonorganic ingredients, processing aids and processing pest control substances that appear in Tables 6.3, 6.4 or 6.6 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 nonorganic ingredients, processing aids and processing pest control substances with limited use annotations on Tables 6.3, 6.4 or 6.6 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:

1. Substances permitted in products whose contents are 70% or more, and less than 95% organic ingredients. This group comprises all of PSL Table 6.5.
2. Cleaners, disinfectants and sanitizers allowed on food contact surfaces, including equipment provided that substances are removed from food contact surfaces prior to organic production. These substances comprise all of PSL Table 7.4.
3. Food-grade cleaners, disinfectants and sanitizers that are allowed without a mandatory removal event on PSL Table 7.3, but which have a different limiting annotation in that table, are also listed as Allowed with Restrictions.

# LISTINGS

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

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

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

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

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

**Alcohol, ethyl (ethanol)** **Allowed**  
 Class: PN Synthetic/Nonsynthetic  
*CGSB Reference: Table 6.6*

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

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

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

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

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

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

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

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

**Ascorbic acid, non-synthetic** **Allowed**  
 Class: PN Nonsynthetic  
*CGSB Reference: Table 6.3*

<b>Ascorbic acid, synthetic</b> Class: PN Synthetic form is allowed in fruits and vegetables only if the natural form is not commercially available. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic	<b>Calcium sulphate</b> Class: PN 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. <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Bentonite</b> Class: PN <i>CGSB Reference: Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Calcium sulphate, (gypsum)</b> Class: PN As a carrier for cakes and biscuits, soybean products and bakers' yeast. Sulphates produced using sulphuric acid are prohibited. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Bleach</b> Class: PS a. Calcium hypochlorite; b. Chlorine dioxide; c. Sodium hypochlorite; d. Ozone; and e. Hydrogen peroxide. Not to exceed 10% solution by volume. Free chlorine levels for wash water in direct contact with crops or food, and in flush water from cleaning irrigation systems, that is applied to crops or fields, shall not exceed the maximum limits under the applicable regulations for safe drinking water. <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Carbon dioxide</b> Class: PN, PP <i>CGSB Reference: Table 6.3; Table 6.6; Table 6.7</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Boric acid</b> Class: PP May be used for structural pest control (e.g. ants). No direct contact with organic food or crops is allowed. <i>CGSB Reference: Table 6.7</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Carrageenan (Irish moss)</b> Class: PN Water, alcohol, acid and base extracts that are permitted by this standard only. <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Calcium carbonate</b> Class: PN Prohibited as a colouring agent. <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Casein</b> Class: PN Shall be from organic sources unless commercially unavailable. *Organic source. <i>CGSB Reference: Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Calcium chloride</b> Class: PN Milk products, fat products, fruits and vegetables, and soybean products. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Casein</b> Class: PN Shall be from organic sources unless commercially unavailable. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Calcium citrate</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Cellulose</b> Class: PN As a filtering aid (non-chlorine bleached) and for use in inedible regenerative sausage casings. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Calcium hydroxide (lime)</b> Class: PN <i>CGSB Reference: Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Chlorine</b> Class: PS See Bleach. <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Calcium phosphates (monobasic, dibasic, and tribasic forms)</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Cholecalciferol (vitamin D3)</b> Class: PP Not allowed in organic food processing and food storage facilities. <i>CGSB Reference: Table 6.7</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
		<b>Citric acid</b> Class: PN From fruit and vegetable products. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
		<b>Citric acid</b> Class: PS Non-synthetic and synthetic sources may be used. <i>CGSB Reference: Table 7.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic

**Class Codes**

PA: Processing Agriculture Ingredients and Processing Aids  
 PN: Processing Non-agricultural Ingredients and Processing Aids  
 PP: Processing Pest Control  
 PS: Processing Sanitizers and Cleaners

<p><b>Colouring, natural</b> Class: PN From non-synthetic sources only and shall not be produced using synthetic solvents and carrier systems or any artificial preservative. <b>CGSB Reference:</b> Table 6.4</p>	<p><b>Allowed</b> Nonsynthetic</p>	<p><b>Enzymes</b> Class: PN 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. <b>CGSB Reference:</b> Table 6.4; Table 6.6</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Cornstarch</b> Class: PN Not from sources from genetic engineering or products derived from genetic engineering, with no added chemosynthetic substance. <b>CGSB Reference:</b> Table 6.4</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>	<p><b>Ethylene</b> Class: PN For post-harvest ripening of tropical fruit and degreening of citrus only. <b>CGSB Reference:</b> Table 6.6</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Dairy cultures</b> Class: PN May not be products of recombinant DNA technology. <b>CGSB Reference:</b> Table 6.4</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>	<p><b>Ferrous sulphate</b> Class: PN For iron enrichment or fortification of products when recommended or required by regulation. Sulphates produced using sulphuric acid are prohibited. <b>CGSB Reference:</b> Table 6.3</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Defoamers</b> Class: PA For use in conversion of sap to syrup in maple syrup production. The only antifoaming agents permitted are Pennsylvania maple wood (<i>Acer pennsylvanicum</i>, also known as striped maple or moosewood) and all organic vegetable oils, except those made from soy, peanuts, sesame seeds or nuts. <b>CGSB Reference:</b> CAN/CGSB-32.310 par 7.2.12.5</p>	<p><b>Allowed with Restrictions</b> Nonsynthetic</p>	<p><b>Flavours</b> Class: PN 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. <b>CGSB Reference:</b> Table 6.4</p>	<p><b>Allowed</b> Nonsynthetic</p>
<p><b>Detergents</b> Class: PS Biodegradable only (whose biodegraded components are not more harmful than the original components). On equipment. <b>CGSB Reference:</b> Table 7.4; Must be removed prior to food contact</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>	<p><b>Gelatine</b> Class: PN Shall be from an organic source unless not commercially available. *Organic source Plant sources are allowed. Animal sources may be used for canned meat or as gelling agent for gummed candy. If derived from cattle, gelatin 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. <b>CGSB Reference:</b> Table 6.3; Table 6.6</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>
<p><b>Diatomaceous earth</b> Class: PP <b>CGSB Reference:</b> Table 6.7</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>	<p><b>Gelatine</b> Class: PN Shall be from an organic source unless not commercially available. Plant sources are allowed. Animal sources may be used for canned meat or as gelling agent for gummed candy. If derived from cattle, gelatin 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. <b>CGSB Reference:</b> Table 6.3; Table 6.6</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>
<p><b>Diatomaceous earth</b> Class: PN As a food filtering aid or as a clarifying agent only. <b>CGSB Reference:</b> Table 6.6</p>	<p><b>Allowed with Restrictions</b> Synthetic/Nonsynthetic</p>		
<p><b>Enzymes</b> Class: PN Any preparations of enzymes normally used in food processing derived from edible, non-toxic plants, non-pathogenic fungi or non-pathogenic bacteria. 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. Egg white lysozyme. *Organic animal enzyme source or non-animal source. <b>CGSB Reference:</b> Table 6.4; Table 6.6</p>	<p><b>Allowed</b> Synthetic/Nonsynthetic</p>		

<b>Glycerides (mono and diglycerides)</b> Class: PN 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. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Lactic acid</b> Class: PN For fermented vegetable products or in sausage casings. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Glycerides (mono and diglycerides)</b> Class: PA 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. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Lecithin</b> Class: PN Shall be organic unless the required form is not commercially available. Bleached form is allowed if processed in accordance with the requirement of par. 1.4.1. j. of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards. *Organic source. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Glycerine</b> Class: PN Shall be produced by hydrolysis of natural (vegetable or animal) fats and oils. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Lecithin</b> Class: PN Shall be organic unless the required form is not commercially available. Bleached form is allowed if processed in accordance with the requirement of par. 1.4.1. j. of CAN/CGSB-32.310, Organic Production Systems – General Principles and Management Standards. <i>CGSB Reference: Table 6.3 ; Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Gums</b> Class: PN Water, alcohol, acid and base extracts that are permitted by this standard only (includes arabic, guar, gellan, karaya, tragacanth, locust bean (carob bean), and xantham gums). <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Lime</b> Class: PS <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Hydrogen peroxide</b> Class: PS <i>CGSB Reference: Table 7.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Magnesium carbonate</b> Class: PN As an anti-caking agent in non-standardized dry mixes (e.g. seasonings) used in meat products. <i>CGSB Reference: Table 6.5</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Iodine</b> Class: PS On equipment. Non-elemental only and not to exceed 5% solution by volume (e.g. iodophors). <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Magnesium chloride (nigari)</b> Class: PN Derived from seawater, for soybean products. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Nonsynthetic
<b>Isinglass</b> Class: PN As a fining agent (fish-based). <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Magnesium stearate</b> Class: PN <i>CGSB Reference: Table 6.5</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Kaolin</b> Class: PN As a clarifying agent. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Magnesium sulphate</b> Class: PN From non-synthetic sources only. Sulphates produced using sulphuric acid are prohibited. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Nonsynthetic
<b>Kelp and kelp products</b> Class: PA For use only as a thickener and dietary supplement. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Malic acid</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
		<b>Micro-organisms, (processing derivatives)</b> Class: PN Including any preparations of micro-organisms normally used in product processing, excepting micro-organisms from genetic engineering or enzymes derived from genetic engineering, with no added chemosynthetic substance. <i>CGSB Reference: Table 6.4</i>	<b>Allowed</b> Synthetic/Nonsynthetic
		<b>Neem oil</b> Class: PP <i>CGSB Reference: Table 6.7</i>	<b>Allowed</b> Synthetic/Nonsynthetic

**Class Codes**

PA: Processing Agriculture Ingredients and Processing Aids  
 PN: Processing Non-agricultural Ingredients and Processing Aids  
 PP: Processing Pest Control  
 PS: Processing Sanitizers and Cleaners



<b>Nitrogen</b> Class: PN Food-grade quality only. <i>CGSB Reference: Table 6.4; Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Potassium bicarbonate</b> Class: PS On equipment. <i>CGSB Reference: Table 7.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Oxygen</b> Class: PN <i>CGSB Reference: Table 6.4; Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Potassium carbonate</b> Class: PN <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Ozone</b> Class: PN <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Potassium chloride</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Packaging materials</b> Class: PC Packaging materials that do not contain synthetic fungicides, preservatives, or fumigants are allowed. <i>CGSB Reference: CAN/CGSB-32.310 par. 1.4.1.i.</i>	<b>Allowed</b> Synthetic	<b>Potassium citrate</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Pectin (high-methoxy)</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Potassium hydroxide (caustic potash)</b> Class: PS <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Pectin (low-methoxy)</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Potassium hydroxide (caustic potash)</b> Class: PN For pH adjustment only. Prohibited for use in lye peeling of fruits and vegetables. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Peracetic (peroxyacetic) acid</b> Class: PS For use in wash or rinse water for food or plants or on food contact surfaces. <i>CGSB Reference: Table 7.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Potassium iodide, natural</b> Class: PN Permitted only when legally required. <i>CGSB Reference: Table 6.4</i>	<b>Allowed with Restrictions</b> Nonsynthetic
<b>Perlite</b> Class: PN For use as a filter aid in food processing only. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Potassium iodide, synthetic</b> Class: PN <i>CGSB Reference: Table 6.5</i>	<b>Allowed with Restrictions</b> Synthetic
<b>Phosphoric acid</b> Class: PS On equipment in the dairy industry only. <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Potassium metabisulphite</b> Class: PN See Sulphurous acid. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Potassium acid tartrate (KC4H5O6)</b> Class: PN Synthetic form is allowed only if the non-synthetic form is not commercially available. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Nonsynthetic	<b>Potassium permanganate</b> Class: PS Not to exceed 1% solution by volume. <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Potassium acid tartrate (KC4H5O6)</b> Class: PN Synthetic form is allowed only if the non-synthetic form is not commercially available. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic	<b>Potassium phosphate</b> Class: PN <i>CGSB Reference: Table 6.5</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
		<b>Potassium tartrate (K2C4H4O6. INS 336)</b> Class: PN Synthetic form is allowed only if the non-synthetic form is not commercially available. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Nonsynthetic

<b>Potassium tartrate (K<sub>2</sub>C<sub>4</sub>H<sub>4</sub>O<sub>6</sub>. INS 336)</b>	<b>Allowed with Restrictions</b>	
Class: PN	Synthetic	
Synthetic form is allowed only if the non-synthetic form is not commercially available.		
<i>CGSB Reference: Table 6.3</i>		
<b>Pyrethrins</b>	<b>Allowed with Restrictions</b>	
Class: PP	Synthetic/Nonsynthetic	
Without piperonyl butoxide as a carrier. No direct contact with organic food is allowed.		
<i>CGSB Reference: Table 6.7</i>		
<b>Salt</b>	<b>Allowed</b>	
Class: PN	Synthetic/Nonsynthetic	
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.		
<i>CGSB Reference: Table 6.4</i>		
<b>Sanitizers, cleaners and disinfectants</b>	<b>Allowed with Restrictions</b>	
Class: PS	Synthetic/Nonsynthetic	
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.		
<i>CGSB Reference: CAN/CGSB 32.310 par. 8.3.8</i>		
<b>Silicon dioxide</b>	<b>Allowed</b>	
Class: PN	Synthetic/Nonsynthetic	
<i>CGSB Reference: Table 6.3 ; Table 6.6</i>		
<b>Smoke flavour</b>	<b>Allowed</b>	
Class: PN	Nonsynthetic	
See Yeast.		
<i>CGSB Reference: Table 6.4</i>		
<b>Soap-based algicide (demossers)</b>	<b>Allowed with Restrictions</b>	
Class: PS	Synthetic/Nonsynthetic	
On equipment.		
<i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>		
<b>Soaps</b>	<b>Allowed with Restrictions</b>	
Class: PS	Synthetic/Nonsynthetic	
Soaps consisting of fatty acids derived from animal or vegetable oils are allowed.		
<i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>		
<b>Soaps, ammonium</b>	<b>Allowed with Restrictions</b>	
Class: PP	Synthetic/Nonsynthetic	
As a large animal repellent; no contact with soil or edible portion of crop is allowed.		
<i>CGSB Reference: Table 6.7</i>		
<b>Sodium acid pyrophosphate</b>	<b>Allowed with Restrictions</b>	
Class: PN	Synthetic/Nonsynthetic	
For use as a leavening agent only.		
<i>CGSB Reference: Table 6.3</i>		
<b>Sodium bicarbonate (baking soda)</b>	<b>Allowed</b>	
Class: PS	Nonsynthetic	
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.		
<i>CGSB Reference: Table 7.3</i>		
<b>Sodium bicarbonate (baking soda)</b>	<b>Allowed</b>	
Class: PN	Nonsynthetic	
Synthetic form is allowed only if the non-synthetic form is not commercially available.		
<i>CGSB Reference: Table 6.3 ; Table 6.6</i>		
<b>Sodium bicarbonate (baking soda)</b>	<b>Allowed with Restrictions</b>	
Class: PN	Synthetic	
Synthetic form is allowed only if the non-synthetic form is not commercially available.		
<i>CGSB Reference: Table 6.3 ; Table 6.6</i>		
<b>Sodium bicarbonate (baking soda)</b>	<b>Allowed with Restrictions</b>	
Class: PS	Synthetic	
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.		
<i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>		
<b>Sodium borate</b>	<b>Allowed with Restrictions</b>	
Class: PS	Synthetic/Nonsynthetic	
<i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>		
<b>Sodium carbonate (soda ash)</b>	<b>Allowed</b>	
Class: PN	Nonsynthetic	
Synthetic form is allowed only if the non-synthetic form is not commercially available.		
<i>CGSB Reference: Table 6.3</i>		
<b>Sodium carbonate (soda ash)</b>	<b>Allowed</b>	
Class: PS	Nonsynthetic	
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.		
<i>CGSB Reference: Table 7.3</i>		
<b>Sodium carbonate (soda ash)</b>	<b>Allowed with Restrictions</b>	
Class: PS	Synthetic	
Only non-synthetic sources may be used on food or food contact surfaces without a mandatory removal event.		
<i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>		
<b>Sodium carbonate (soda ash)</b>	<b>Allowed with Restrictions</b>	
Class: PN	Synthetic	
Synthetic form is allowed only if the non-synthetic form is not commercially available.		
<i>CGSB Reference: Table 6.3</i>		

**Class Codes**

PA: Processing Agriculture Ingredients and Processing Aids  
 PN: Processing Non-agricultural Ingredients and Processing Aids  
 PP: Processing Pest Control  
 PS: Processing Sanitizers and Cleaners

<b>Sodium chloride</b> Class: PN <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Tannic acid</b> Class: PA 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. <i>CGSB Reference: Table 6.6</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Sodium citrate</b> Class: PN For sausages and milk products. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Tannic acid</b> Class: PN 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. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Sodium hydroxide (lye or caustic soda)</b> Class: PS <i>CGSB Reference: Table 7.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Tartaric acid (C4H6O6. INS 334)</b> Class: PN 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. <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed</b> Nonsynthetic
<b>Sodium hydroxide (lye or caustic soda)</b> Class: PN Prohibited for use in lye peeling of fruits and vegetables. <i>CGSB Reference: Table 6.3; Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Tartaric acid (C4H6O6. INS 334)</b> Class: PN For beverages; synthetic form is allowed only if the non-synthetic form is not commercially available. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic
<b>Sodium phosphates</b> Class: PN For use in dairy products only. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Tocopherols and mixed natural concentrates</b> Class: PN Derived from vegetable oil when rosemary extracts are not a suitable alternative. <i>CGSB Reference: Table 6.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Starch</b> Class: PN Chemically unmodified only. From rice and waxy maize. Water, alcohol, acid and base extracts that are permitted by this standard only. Shall not be from genetically engineered sources. <i>CGSB Reference: Table 6.4</i>	<b>Allowed</b> Synthetic/Nonsynthetic	<b>Vegetable oil</b> Class: PN Obtained without the use of synthetic solvents. May be used as a spray-on greasing agent only. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Sulphurous acid</b> Class: PN For use as a preservative only in alcoholic beverages made from grapes or other fruit; minimum use of SO <sub>2</sub> is recommended. The maximum allowable level of SO <sub>2</sub> 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 SO <sub>2</sub> bottled gas, as liquid SO <sub>2</sub> , or liberated from the ignition of asbestos-free sulphur wicks is acceptable. <i>CGSB Reference: Table 6.3</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Vinegar</b> Class: PS Organic or non-organic sources. <i>CGSB Reference: Table 7.3</i>	<b>Allowed</b> Synthetic/Nonsynthetic
<b>Surfactants</b> Class: PS See Detergents, Soaps. <i>CGSB Reference: Table 7.4; Must be removed prior to food contact</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Vitamins and minerals</b> Class: PN Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used except where legally required or a dietary or nutritional deficiency can be demonstrated and shall be documented. Vitamins shall not be derived from organisms from genetic engineering. <i>CGSB Reference: Table 6.4</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic
<b>Talc</b> Class: PN As a filtering agent. <i>CGSB Reference: Table 6.6</i>	<b>Allowed with Restrictions</b> Synthetic/Nonsynthetic	<b>Waxes</b> Class: PN Non-synthetic only: a) carnauba wax and b) wood resin (processing product of resin component). <i>CGSB Reference: Table 6.4; Table 6.6</i>	<b>Allowed</b> Nonsynthetic

**Wetting agents**

Class: PS

**Allowed with Restrictions**

Synthetic/Nonsynthetic

Natural wetting agents, including saponins and microbial wetting agents, are allowed. See also Detergents, Soaps.

**CGSB Reference:** Table 7.4; Must be removed prior to food contact

**Yeast**

Class: PN

**Allowed**

Nonsynthetic

Non-synthetic only: a) autolysate, b) bakers' (may contain lecithin, obtained without the use of bleaches and organic solvents), c) brewers', d) nutritional, and e) smoked. Non-synthetic smoke flavouring process shall be documented. Growth on petrochemical substrate and sulphite waste liquor are prohibited.

**CGSB Reference:** Table 6.4

**Class Codes**

PA: Processing Agriculture Ingredients and Processing Aids

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# OMRI Glossary of Terms

**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](http://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” of substances allowed in Canadian organic production systems under the Canadian Organic Standards. It is available online at [www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/normes-standards/comm/32-20-agriculture-eng.html](http://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), Livestock Feed Ingredients (LF), and Processing Nonagricultural Ingredients (PN).

**Conformity Verification Body (CVB)** – An organisation 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 (i.e., essential nutrients in the form of amino acids, vitamins and minerals). “Food Additive” is defined as having the same meaning as in Section B.01.001 of Part B of the Food and Drug Regulations.

**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*)

**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. Some examples of these techniques include recombinant DNA techniques that use vector systems and cell fusion with cells that do not fall within the same taxonomic family. Except for specific exemptions to this clause, OMRI does not permit genetically engineered ingredients or products of genetically engineered substances in products for use according to the COS.

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

**Inert ingredient** – *See Formulant*

**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.

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

**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)** – List of substances allowed in Canadian organic production systems under the Canadian Organic Standards. It is available online at [www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/normes-standards/comm/32-20-agriculture-eng.html](http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/normes-standards/comm/32-20-agriculture-eng.html).

**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.

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

**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. For some standards, OMRI may utilize the SIC interpretations as presented on the Organic Federation of Canada (OFC) website: [organicfederation.ca/final-qas-canadian-organic-standards](http://organicfederation.ca/final-qas-canadian-organic-standards).

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

