OMRI CANADA

Standards Manual

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

Includes the OMRI Canada Permitted Substance Categories



Crop · Livestock · Processing & Handling

OMRI



P.O. Box 11558, Eugene, OR 97440-3758, USA
P 541.343.7600 • fax 541.343.8971
info@omri.org OMRI.org

© 2026 OMRI. All Rights Reserved.
No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of OMRI.

Design and production by Slub Design, slubdesign.com

TABLE OF

Contents

OMRI is a 501(c)(3) nonprofit organization. OMRI's mission is to cultivate organic integrity through knowledge and trust.

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.

OMRI Canada Standards Manual

Part 1: About the OMRI Standards for Compliance with the Canadian Organic Standards . . . 2

Part 2: General Review Standards . . . 2

2.1 Permitted Substance Determination . . . 2

Part 3: Prohibited Substances, Materials, or Techniques in Organic Production and Preparation (CAN/CGSB 32.310 Subclause 1.4 or 1.5) . . . 3

3.1 Genetic Engineering . . . 3

3.2 Nanotechnology . . . 3

3.3 Irradiation . . . 3

3.4 Prohibited Soil Amendments . . . 3

3.5 Sewage Sludge . . . 3

3.6 Prohibited Crop Production Aids and Pesticides . . . 3

3.7 Prohibited Growth Regulators . . . 3

3.8 Cloned Livestock . . . 3

3.9 Prohibited Veterinary Drugs . . . 4

3.10 Non-organic Processing Substances . . . 4

3.11 Equipment, Packaging and Containers with Prohibited Substances . . . 4

3.12 Prohibited Formulants . . . 4

Part 4: Additional OMRI Standards . . . 4

4.1 Additional Standards for Crop Fertilizers and Soil Amendments . . . 4

4.2 Additional Standards for Pesticides . . . 4

4.3 Additional Standards for Processing Sanitizers . . . 5

4.4 Additional Standards for Products Produced on Genetically Engineered Substrate or Growth Media . . . 5

4.5 Additional Standards for Facility Pest Management and Post-Harvest Substances . . . 5

Part 5: Introduction to OMRI Canada Permitted Substances Categories . . . 6

5.1 How to Use the OMRI Canada Permitted Substances Categories . . . 6

5.2 Regulatory Compliance . . . 6

OMRI Canada Permitted Substances Categories . . . 7

Crop Production Categories . . . 8

Livestock Production Categories . . . 29

Processing & Handling Production Categories . . . 37

OMRI Canada Standards Manual Glossary . . . 50

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

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

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

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

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

Part 2: General Review Standards

2.1 Permitted Substance Determination

CAN/CGSB 32.310 and CAN/CGSB-32.311 reference the use of permitted substances in organic production. Primarily, if substances appear in the PSL, they are allowed for use in accordance with source and use restrictions. In some cases, the PSL stipulates that only non-synthetic forms of the substance may be used, or that the synthetic form can only be used if the non-synthetic form is commercially unavailable. OMRI uses the definition of "synthetic substance" as it appears in the CAN/CGSB-32.310 Clause 3 (Terms and Definitions). A synthetic substance is a "manufactured substance, including petrochemicals, formulated by a chemical process or by a process that chemically alters compounds extracted from plant, microorganisms, animal or mineral sources. This term does not apply to compounds synthesized or produced by physical processing or biological processes, which may include heat and mechanical processing. However, minerals altered through chemical reactions caused by heating or burning shall be classified as synthetic." The term "non-synthetic" is defined in the *OMRI Canada Standards Manual* Glossary. OMRI also refers to the Permitted Substances Decision Tree in Appendix B of CAN/CGSB-32.310 as well as the Standards Interpretation Committee's (SIC) Question and Answers when determining whether a substance is permitted.

Part 3: Prohibited Substances, Materials, or Techniques in Organic Production and Preparation (CAN/CGSB 32.310 Subclause 1.4 or 1.5)

OMRI does not permit products that contain a substance prohibited by Subclause 1.4 or 1.5 of CAN/CGSB-32.310, as follows:

3.1 Genetic Engineering

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

3.2 Nanotechnology

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

3.3 Irradiation

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

3.4 Prohibited Soil Amendments

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

3.5 Sewage Sludge

Sewage sludge as defined in CAN/CGSB-32.310 is prohibited. Sewage sludge is defined as solid, liquid or semisolid residues generated by municipal or industrial sewage treatment facilities. Sewage sludge includes but is not limited to: domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment processes; or material derived from sewage sludge.

3.6 Prohibited Crop Production Aids and Pesticides

Any crop production aids or substances not listed in the PSL are prohibited.

3.7 Prohibited Growth Regulators

Any plant, fungal and animal growth regulators not specified in the PSL are prohibited.

3.8 Cloned Livestock

Cloned livestock and their descendants are prohibited.

3.9 Prohibited Veterinary Drugs

Veterinary drugs, including antibiotics and parasiticides, are prohibited, except as permitted by CAN/CGSB-32.310.

3.10 Non-organic Processing Substances

Non-organic ingredients, food additives and processing aids used in organic product preparation, including sulphates, nitrates and nitrites, are prohibited, except as permitted by CAN/CGSB-32.310 or specified in the PSL.

3.11 Equipment, Packaging and Containers with Prohibited Substances

Equipment, harvest and storage containers, storage facilities and packaging materials treated with fungicides, preservatives, fumigants and pesticides not listed in the PSL, are prohibited, except as permitted in 8.2.3 and 8.3.3 of CAN/CGSB-32.310. **OMRI does not review products that may be allowed by certifiers under these exceptions.**

3.12 Prohibited Formulants

Formulants are prohibited except as specified in the PSL.

Part 4: Additional OMRI Standards

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

4.1 Additional Standards for Crop Fertilizers and Soil Amendments

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

The PSL states, "When evidence indicates that compost feedstocks could contain a substance or substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310 known to be potentially persistent in compost, before using the compost, operators shall provide compost test results indicating no presence of the prohibited substance or a reference to scientific literature that establishes that the specific potential contaminant(s) will degrade during the composting process." To document the absence of contaminants, operators may provide a laboratory analysis of the final composted product to demonstrate compliance with OMRI's standards for residual contaminants, which are outlined on OMRI's website at OMRI.org.

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

4.2 Additional Standards for Pesticides

All active ingredients and formulants (inert ingredients) in pesticides must be reviewed and meet OMRI standards. A

complete list of formulants must be disclosed for review.

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

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

4.3 Additional Standards for Processing Sanitizers

All non-organic ingredients listed on Safety Data Sheets (SDS) and active ingredients on the label of formulated cleaners, sanitizers, and disinfectants shall be listed in Tables 7.3 or 7.4. Other non-organic ingredients used without a removal event shall be limited to substances listed in Table 7.3; water; compounds used to treat drinking water; and product stabilisers, such as HEDP (1-hydroxyethane 1,1-diphosphonic acid) or dipicolinic acid, whose function is to prevent the chemical degradation of substances listed in Table 7.3. Table 7.4 compliant products may contain non-active ingredients, including, but not limited to, dyes, fragrances, and chemical agents used to prevent physical separation of foams or emulsions.

Processing cleaners, disinfectants and sanitizers listed in Tables 7.3 and 7.4 are not subject to 1.4 and 1.5 of CAN/CGSB-32.310.

OMRI does not review or list cleaners, disinfectants and/or sanitizers which may be permitted in Canadian organic production under CAN/CGSB-32.310 subclause 8.2.3.

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

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

4.5 Additional Standards for Facility Pest Management and Post-Harvest Substances

Facility pest management substances listed in Table 8.2 and substances used to accomplish a physiological effect post-harvest listed in Table 8.3 are not subject to 1.4 and 1.5 in CAN/CGSB-32.310.

Part 5: Introduction to OMRI Canada Permitted Substances Categories

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

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

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

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

5.1 How to Use the OMRI Canada Permitted Substances Categories

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

It is also important to identify when and how the material is permitted for use. Note the class or classes for which the product is permitted for use. The class is given as a two-letter code just below the material name. A key to the OMRI class codes appears at the bottom of each even numbered page. OMRI Listed® products will only be allowed for use within the specified OMRI class for that material entry.

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

5.2 Regulatory Compliance

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

OMRI Canada Permitted Substances Categories

Crop, Livestock and Processing & Handling

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) soil amendments and crop nutrition substances which correspond to listings in Table 4.2 (column 1) of the Permitted Substances List (PSL) (CAN/CGSB-32.311). They are substances applied to the soil to improve fertility, tilth, and soil biodiversity. Fertilizers, plant foods and soil amendments are primarily used for their plant nutrient content and may be applied to the soil, to mushroom substrate or to the foliage of plants. Examples include compost, animal manures, blood/bone meals, plants and plant by-products. Use of fertilizers and soil amendments must comply with requirements of CAN/CGSB-32.310 subclauses 5.4 (Soil Fertility and Nutrient Management) and 5.5 (Manure Management), which include requirements for using organic matter produced on the operation as the basis of the nutrient cycling program, and that supplemental nutrient sources are applied in accordance with good nutrient management practices and do not contribute to the contamination of crops, soil or water by plant nutrients, pathogenic organisms, heavy metals or residues of prohibited substances, while also minimizing negative environmental impact. Water-soluble sources of nitrogen and phosphorus shall be limited to 20% of a crop's needs of each nutrient, except those naturally occurring in manure, anaerobic digestate, and compost or compost tea. Subclause 5.5.1.1 also requires that animal manure produced on an operation must be used first and specifies that non-organic manure may be permitted only if organic manure is commercially unavailable. Unless otherwise specified, the soil amendments and crop nutrients listed in Table 4.2 (column 1) of the PSL shall not contain substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310 or not permitted by the PSL.

Uncomposted plant materials used in mushroom substrate must be organically produced. Non-organic agricultural materials may be used in mushroom substrate when organic sources are not commercially available, and must be composted. Only products listed in designated mushroom production categories have been reviewed to the requirement that uncomposted plant materials be organic when commercially available.

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 4.2 (column 2) of the PSL. They include vertebrate animal pest management substances, plant disease management substances, insect pest management (invertebrates), mites, molluscs and crustacean management substances; and nematode management substances. Plant growth regulators are also considered pest control substances when used to control "any injurious or troublesome organic function of a plant," and are therefore subject to regulation under the Pest Management Regulatory Agency (PMRA) Pest Control Products Act.

Pest control products shall not contain substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310, or substances that are not permitted by the Permitted Substances List. Biological, botanical, or other pest control substances listed in Table 4.2 (column 2) of the PSL may be used only when organic management practices and mechanical techniques alone cannot prevent or control crop pests, disease or weeds, per CAN/CGSB-32.310 subclause 5.6.2. The conditions for using such substances must be documented in the organic plan, in accordance with clause 4 of CAN/CGSB-32.310. Use of pest control substances must meet the requirements of any limiting annotation specified in Table 4.2 (column 2) 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 pest, weed, or disease control function. They are listed in Table 4.2 (column 2) of the PSL, together with crop pest, weed and disease control substances (CP). Examples of crop

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

management tools and production aids include adjuvants, equipment cleaners, and compost inoculants without nutrient or pest control claims. Physical plant protectants derived from mineral or biological substances, including those used to protect plants from harsh environmental conditions, are also classified as CT substances. These products shall not contain substances prohibited by subclause 1.4 or 1.5 of CAN/CGSB-32.310, or not permitted by the PSL, except that formulants classified as List 4A, 4B, or 3 by PMRA used with crop production aids are not subject to 1.4 or 1.5 of CAN/CGSB-32.310.

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 (column 1 and/or 2) of the PSL with no annotation that limits their use. The OMRI "Allowed" status therefore indicates that these materials are not subject to use restrictions beyond the general management requirements in CAN/CGSB-32.310 subclauses 5.4 and 5.5.

Allowed with Restrictions (R) crop production substances include those that appear on Table 4.2 (column 1 or 2) of the PSL with annotations that limit their use. The OMRI "Allowed with Restrictions" status therefore indicates that these substances are subject to use restrictions. These restrictions are outlined in the COS regulations and include: a) application of raw manure (CAN/CGSB-32.310 subclause 5.5.2.5), b) crop pest, disease and weed management standards (CAN/CGSB-32.310 subclause 5.6.2), and c) specific restrictions detailed in the PSL. Source restrictions, such as a requirement to only use mined sources of a mineral, are evaluated in OMRI's review process, and compliant sources do not result in a substance being listed as "Allowed with Restrictions." However, substances that are permitted only if preferred alternatives are not commercially available may be listed as "Allowed with Restrictions."

Listings

Acetic Acid **Allowed With Restrictions**
Class: CP
Sources other than petrochemicals can be used. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Acetic Acid **Allowed With Restrictions**
Class: CT
Sources other than petrochemicals can be used. For use as an adjuvant. For use as a pH adjuster. For cleaning seeds.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Acid Activators for Chlorine Dioxide **Allowed With Restrictions**
Class: CT
For the generation of chlorine dioxide. Use of resulting chlorine dioxide must comply with CAN/CGSB-32.311. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event, including: a) for wash water in direct contact with crops or food, or b) in flush water from cleaning irrigation systems, equipment, and storage and/or transport units - application to crops or fields is permitted. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. See also CHLORINE COMPOUNDS.
CGSB Reference: *32.311 Table 7.3; 7.4*

Adhesives for sticky traps and barriers **Allowed**
Class: CP
CGSB Reference: *32.311 Table 4.2 (column 2)*

Agar **Allowed With Restrictions**
Class: CF
For use in initial mushroom spawn production.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Agricultural Substances, mushroom production **Allowed With Restrictions**
Class: CF, CT
From non-organic sources. May only be used if organic sources are not commercially available. Shall be composted.
CGSB Reference: *32.310 Subclause 7.3.2.3*

Alcohol
Class: CT
See EXTRACTANTS.

Alfalfa Meal or Pellets **Allowed**
Class: CF
From organic sources. Shall be organic if commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Alfalfa Meal or Pellets **Allowed With Restrictions**
Class: CF
From non-organic sources. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Algae
Class: CF
See AQUATIC PLANT EXTRACTS; PLANT MATERIAL.

Ammonium Carbonate **Allowed With Restrictions**
Class: CP
For use as an attractant in insect traps. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Aquatic Plant Extracts **Allowed**
Class: CF, CT
Aquatic plant extracts may be produced using the following substances in order of preference: a) substances in Table 4.2 (column 1 or 2) with the exception of Formulants Used in Crop Production Aids; b) potassium hydroxide provided the amount of solvent used does not exceed the amount necessary for extraction. The operator shall provide an affidavit from the manufacturer that proves the need to use potassium hydroxide; c) potassium sorbate; and d) sodium benzoate. Aquatic plant extracts shall not contain more than: a) 1.5% total nitrogen (dry basis); b) 0.5% P_2O_5 (dry basis); and c) 20% K_2O (dry basis). Ammonium nitrogen shall not exceed 20% of total nitrogen (dry basis). Nitrate nitrogen shall not exceed 20% of total nitrogen (dry basis). Nitrogen compounds may not be added during the extraction process. See PLANT MATERIAL and SEAWEED for unprocessed aquatic plants.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Aquatic Plant Extracts **Allowed With Restrictions**
Class: CP
Aquatic plant extracts may be produced by using the following substances in order of preference: a) substances in Table 4.2 (column 1 or 2) with the exception of Formulants Used in Crop Production Aids; b) potassium hydroxide provided the amount of solvent used does not exceed the amount necessary for extraction. The operator shall provide an affidavit from the manufacturer that proves the need to use potassium hydroxide. c) potassium sorbate; and d) sodium benzoate. Aquatic plant extracts shall not contain more than: a) 1.5% total nitrogen (dry basis); b) 0.5% P_2O_5 (dry basis); and c) 20% K_2O (dry basis). Ammonium nitrogen shall not exceed 20% of total nitrogen. Nitrate nitrogen shall not exceed 20% of total nitrogen. See PLANT MATERIAL for unprocessed aquatic plants. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Arthropod pathogens
Class: CP
See BIOLOGICAL ORGANISMS.

Arthropod predators and parasitoids
Class: CP
See BIOLOGICAL ORGANISMS.

Arthropods
Class: CP
See BIOLOGICAL ORGANISMS.

Ascorbic Acid (Vitamin C) **Allowed**
Class: CT
CGSB Reference: *32.311 Table 4.2 (column 2)*

Ash **Allowed With Restrictions**
Class: CF, CT
Ash shall be from plant and animal sources. Ash from burning manure or from burning minerals, coloured paper, plastics or other non-biological substances is prohibited. Ash containing materials that cannot be verified or containing prohibited substances shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury, as specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Ash **Allowed With Restrictions**
Class: CP
Ash shall be from plant and animal sources. Ash from burning manure or from burning minerals, coloured paper, plastics or other non-biological substances is prohibited. Ash containing materials that cannot be verified or containing prohibited substances shall not exceed the limits (category C1) for acceptable levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury, as specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

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

Baits for rodent traps **Allowed**
Class: CT
May contain food or substances listed in Table 8.1.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Basalt
Class: CF
See MINED MINERALS.

Bentonite
Class: CP
See CLAY.

Bentonite **Allowed**
Class: CF, CT
To be allowed as a mined mineral, the product shall not have undergone any change in its molecular structure through heating, processing, ion exchange or combining with other substances. See also CLAY; MINED MINERALS.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Biochar **Allowed**
Class: CF
Produced through pyrolysis of forestry by-products which have not been treated or combined with prohibited substances. Recycled biochar from contaminated remediation sites is prohibited.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Biodegradable Plant Containers **Allowed**
Class: CT
Biodegradable planting containers (for example, bio-based pots or cell packs and paper chain pots) may be left to decompose in the field if all ingredients, including adhesives, are listed in Table 4.2 (column 1).
CGSB Reference: *32.311 Table 4.2 (column 2)*

Biodegradable Plant Containers **Allowed With Restrictions**
Class: CT
Biodegradable planting containers (for example, bio-based pots or cell packs and paper chain pots) may be left to decompose in the field if all ingredients, including adhesives, are listed in Table 4.2 (column 1). Contains one or more substances with a source or use restriction. Refer to specific ingredient categories for applicable use restrictions.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Biodynamic Preparations for Compost, Soil and Plants **Allowed**
Class: CF, CT
As described in the international Demeter Biodynamic Production Standards.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Biotite
Class: CF
See MINED MINERALS; POTASSIUM.

Blood Meal **Allowed**
Class: CF
Shall be sterilized.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Bone Meal **Allowed**
Class: CF
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.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Borate
Class: CF
See BORON.

Borates **Allowed With Restrictions**
Class: CP
Mined sources of sodium tetraborate and octaborate. Direct contact with organic food or crops is prohibited. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For structural pest control (example: for ants). For use as a wood preservative. See also BORIC ACID.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Borax (Sodium Tetraborate)
Class: CF
See BORON.

Boric Acid **Allowed With Restrictions**
Class: CP
Direct contact with organic food or crops is prohibited. For structural pest control (example: for ants). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also BORATES.
CGSB Reference: *32.311 Table 4.2 (column 2); 32.310 Subclause 5.6.2*

Boron **Allowed With Restrictions**
Class: CF
Hydrated borates of sodium (octaborate, pentaborate, tetraborate, borax), boric acid, and boron-lignosulfonate complexes (except those containing ammonium lignosulphonate) are permitted. May be chelated with substances listed under Table 4.2 Chelates. Ammonium borates, boron-amino acid complexes and boron/potassium nitrate mixes are not permitted. May only be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil or plant tissue, or when the need for a preventative application can be documented.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Botanical Pesticides **Allowed With Restrictions**
Class: CP
For use in conjunction with a biorational pest management program. Shall not be the primary method of pest control. 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 only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Brewers' Grain and Solubles **Allowed**
Class: CF
A by-product or by-products from the production of alcohol by fermenting grain. Shall be from non-GE grain. Shall not contain more than 7% total nitrogen (dry basis). Ammonium nitrogen shall not exceed 15% of the total nitrogen (dry basis). Nitrate nitrogen shall not exceed 10% of the total nitrogen (dry basis). Nitrogen compounds, beyond what is needed for yeast nutrition, may not be added during the fermentation process and they may not be added post fermentation.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Calcium **Allowed**
Class: CF
Calcium carbonate (calcitic limestone), calcium magnesium carbonate (dolomitic limestone), and calcium silicate, all from mined sources are permitted. Other biological or mineral sources, such as shells from aquatic animals (for example, oyster shell flour), aragonite, eggshell meal and lime from sugar processing are also permitted. Calcium chloride derived from naturally occurring brines. May be chelated with substances listed under Table 4.2 Chelates. Slaked limestone (calcium hydroxide), quicklime (calcium oxide) and calcium products that have been used in controlled atmosphere storage are prohibited. See also CALCIUM SULPHATE (GYPSUM); MINED MINERALS; CHELATES.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Calcium Carbonate
Class: CF
See CALCIUM; LIMESTONE.

Calcium Chloride
Class: CF
See CALCIUM.

Calcium Lignin Sulphonate
Class: CT
See LIGNIN AND LIGNIN SULPHONATES (LIGNOSULPHONATES).

Calcium Polysulphide
Class: CP
See LIME SULPHUR (CALCIUM POLYSULPHIDE).

Calcium Silicate **Allowed**
Class: CT
Mined sources. May not have been previously used in controlled atmosphere storage.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Calcium Sulphate (Gypsum) **Allowed With Restrictions**
Class: CF
Mined sources are allowed; calcium sulphate produced using sulphuric acid is prohibited. For correcting calcium and sulphur deficiencies and soil salinity problems.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Cannery wastes **Allowed**
Class: CF
From organic sources. See also COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Cannery wastes **Allowed With Restrictions**
Class: CF
From non-organic sources. Shall be composted. See also COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Carbon dioxide (CO_2) **Allowed With Restrictions**
Class: CP
For storage pest control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; Table 4.2 (column 2)*

Carbon dioxide (CO_2) **Allowed With Restrictions**
Class: CT
For controlled atmosphere storage. For soil and greenhouse use.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Cardboard **Allowed With Restrictions**
Class: CP, CT
Cardboard shall not be waxed or impregnated with fungicide or prohibited substances. For use as a mulch or as a pest trapping material. See also MULCHES, BIODEGRADABLE BIOBASED FILMS; MULCHES, FROM NEWSPAPER OR PAPER; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.
CGSB Reference: *32.310 Subclause 5.6.1; 32.311 Table 4.2 (column 2)*

Cardboard **Allowed With Restrictions**
Class: CF
Cardboard shall not be waxed or impregnated with fungicide or prohibited substances. For use as a composting feedstock. See also COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Chelates **Allowed**
Class: CT
The following acids may be used to chelate metallic or metalloid nutrient elements listed in Table 4.2. Acetic (including vinegar); Ascorbic; Citric; humic, fulvic and lignosulphonic. See also LIGNIN AND LIGNIN SULPHONATES (LIGNOSULPHONATES); ACETIC ACID; ASCORBIC ACID (VITAMIN C); CITRIC ACID.
CGSB Reference: *32.311 Table 4.2 (column 1); (column 2)*

Chitosan **Allowed**
Class: CF, CT
Including chitosan hydrochloride and chitosan oligosaccharides (COS).
CGSB Reference: *32.311 Table 4.2 (column 1); (column 2)*

Chitosan **Allowed With Restrictions**
Class: CP
Including chitosan hydrochloride and chitosan oligosaccharides (COS). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.311 Table 4.2 (column 1); (column 2)*

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

Chlorine Compounds **Allowed With Restrictions**
Class: CT
Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, hypochlorous acid generated via electrolyzed water, and sodium hypochlorite. When used in direct contact with organic products and product contact surfaces without a removal event, shall not exceed the maximum level of chlorine in potable water, as per the Guidelines for Canadian Drinking Water Quality published by Health Canada, as well as any applicable provincial requirements. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. Sodium hypochlorite used to disinfect Solanaceae seeds of tomato rough brown fruit virus must not exceed 2.5% concentration.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2); 7.3; 7.4*

Cholecalciferol (Vitamin D_3) **Allowed With Restrictions**
Class: CP
For use outdoors and inside greenhouses for rodent control when methods described in 5.6.1 of CAN/CGSB-32.310 have failed. Prohibited inside organic food processing and food storage facilities.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Citric Acid **Allowed**
Class: CT
CGSB Reference: *32.311 Table 4.2 (column 2)*

Clay **Allowed**
Class: CF
Bentonite, perlite and kaolin; as soil amendments or seed pellet additives. See also MINED MINERALS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Clay **Allowed With Restrictions**
Class: CP
Bentonite, perlite and kaolin. For use as a pest control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also KAOLIN CLAY.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Clove oil **Allowed With Restrictions**
Class: CP
May be used as a pesticide if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. Also permitted for sprout inhibition in potatoes.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Cobalt **Allowed With Restrictions**
Class: CF
Sulphates, carbonates, oxides and chlorides of cobalt are permitted. May be chelated with substances listed under Table 4.2 Chelates. Nitrates and amino acid chelates are not permitted. May only be used when soil deficiencies are documented by testing soil or plant tissue, or when the needs of soil microorganisms or livestock can be documented. Shall be used with caution to prevent excessive cobalt accumulation. Cobalt build-up in soil shall prohibit future use. See also CHELATES.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Coconut Fiber, mushroom production **Allowed With Restrictions**
Class: CF, CT
From non-organic sources. Also known as coir. May only be used if organic sources are not commercially available. Shall be composted.
CGSB Reference: *32.310 Subclause 7.3.2.3*

Coir (coconut fiber) **Allowed**
Class: CF, CT
Washed, processed and/or buffered (to adjust pH) with substances listed in Table 4.2 (column 1 or column 2) excluding Formulants used in crop production aids.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Compost **Allowed With Restrictions**
Class: CF
Includes every source of compost other than that produced on the farm. For example: municipal; residential; industrial; or compost from any organic or non-organic farm. Shall conform to the criteria specified in Table 4.2 Compost feedstocks. Finished compost shall comply to the following: a) shall not exceed the maximum acceptable levels of arsenic, cadmium, chromium, lead and mercury (mg/kg) and foreign matter outlined for unrestricted use compost (Category A), as specified in Guidelines for Compost Quality; and b) shall meet criteria for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality. Compost using a manure feedstock that does not meet the pathogen requirements will be considered as raw manure rather than compost. Shall not cause heavy metal buildup in soil. See also WORM CASTINGS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Compost Feedstocks
Class: CF
Acceptable feedstocks include: a) animal manures conforming to criteria specified in 5.5.1 of CAN/CGSB-32.310 and insect frass; b) animals, animal products and by-products (including fishery); c) plants and plants by-products (including forestry and source-separated yard debris, such as grass clippings and leaves), pomaces and cannery wastes; d) soils and minerals that conform to the requirements of CAN/CGSB-32.310 and 32.311; e) paper yard waste bags which contain coloured ink and f) anaerobic digestate that conforms to the requirements of this standard. When evidence indicates that compost feedstocks could contain a substance prohibited by 1.4 or 1.5 of CAN/CGSB-32.310 that is known to be potentially persistent in compost, before using the compost, test results shall be provided indicating no presence of the prohibited substance, or a reference to scientific literature that establishes that the specific potential contaminant(s) will degrade during the composting process. The following composting feedstocks are prohibited: sewage sludge; compost starter and feedstocks fortified with substances not included in CAN/CGSB-32.311; leather by-products; glossy paper; waxed cardboard; paper containing coloured ink other than paper yard waste bags; and animals, animal products and animal by-products not guaranteed free of Specified Risk Material (SRM). See Glossary for definition of specified risk material (SRM). See also COMPOST categories.
CGSB Reference: *32.310 Subclause 3; 32.311 Table 4.2 (column 1); COR SIC 548.1*

Compost produced on the farm
Class: CF
Compost produced on the farm shall conform to the criteria specified in Table 4.2 Compost feedstocks. In addition, if made from animal manures or other likely sources of human pathogens, compost produced on the farm shall: a) 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 up to the required temperature for the minimum time; or b) meet limits for acceptable levels (MPN/g total solids) of human pathogens specified in Guidelines for Compost Quality; or c) be considered as aged or raw manure rather than compost, that is, meeting requirements specified in 5.5.2.5 of CAN/CGSB-32.310. Compost tea shall be made from composts that conform to criteria specified in Table 4.2 Compost produced on the farm; Compost from off-farm sources or Worm castings. Other substances listed in Table 4.2 may be added to compost tea. See also COMPOST categories. See COMPOST; WORM CASTINGS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Compost Tea **Allowed With Restrictions**
Class: CF
Compost tea shall be made from composts that conform to criteria specified in Table 4.2 Compost produced on the farm; Compost from off-farm sources; or Worm castings. Additional ingredients shall be listed in Table 4.2 (column 1). If compost tea is applied directly to the edible parts of plants, the operator shall be able to demonstrate that best practices known to eliminate pathogens during the processing have been used OR that the requirements for raw manure, as specified in 5.5.2.5 of CAN/CGSB-32.310, have been met. See also COMPOST; COMPOST OBTAINED FROM OFF-FARM SOURCES; COMPOST PRODUCED ON THE FARM; WORM CASTINGS; COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Condensed Molasses Fermentation Solubles (Vinasse) **Allowed**
Class: CF
A by-product from the fermentation of cane, beet or agave sugar and/or their respective molasses. Shall be from non-GE feedstock. Shall not contain more than 7% total nitrogen (dry basis). Ammonium nitrogen shall not exceed 15% of the total nitrogen (dry basis). Nitrate nitrogen shall not exceed 10% of the total nitrogen (dry basis). Additional nitrogen compounds may not be added post fermentation.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Copper (Plant Nutrition) **Allowed With Restrictions**
Class: CF
Sulphates, carbonates, oxides and oxysulphates of copper are permitted. May be chelated with substances listed under Table 4.2. Chelates. Nitrates, chlorides, hydroxides, amino acid chelates, and ammonia-copper complexes are not permitted. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. Shall be used with caution to prevent excessive copper accumulation in the soil. Copper build up in soil may prohibit future use. No residues of copper products shall be visible on harvested products. See also CHELATES.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Copper (Production Aid) **Allowed With Restrictions**
Class: CP
Copper sulphate, copper hydroxide, copper octanoate, Bordeaux mix, copper oxychloride and copper oxide. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For use as a wood preservative, or for controlling pests, including diseases. Shall be used with caution to prevent excessive copper accumulation in the soil. Copper build up in soil may prohibit future use. No residues of copper products shall be visible on harvested products.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Cytokinins
Class: CP
See GROWTH REGULATORS FOR PLANTS.

Diatomaceous Earth **Allowed With Restrictions**
Class: CP
Non-calcined forms. May contain substances listed in Table 4.2 (Column 2). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

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

Digestate, anaerobic, exceeds pathogen limits **Allowed With Restrictions**
Class: CF
Permitted to be used for soil amendment, provided that the following conditions are met: a) the materials added to the digester shall be listed in CAN/CGSB-32.311 Table 4.2 (column 1) or permitted as COMPOST FEEDSTOCKS.; b) nutrients, vitamins and trace minerals other than nitrogen and phosphorus may be supplemented (in amounts needed for optimal metabolic performance of the digester) without restriction; c) shall not exceed maximum acceptable levels of arsenic, cadmium, chromium, lead and mercury (mg/kg), and foreign matter outlined for unrestricted use compost (Category A), as specified in Guidelines for Compost Quality; and d) shall meet the criteria for the application of raw manure on land specified in 5.5.2 of CAN/CGSB-32.310. When digestate feedstocks could contain a substance or substances prohibited by 1.4 or 1.5 of CAN/CGSB-32.310 that is potentially persistent, before using the anaerobic digestate, test results shall be provided indicating no presence of the prohibited substance or a reference to scientific literature that establishes that the specific potential contaminant(s) will degrade during the digestion process. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles. See also DIGESTATE, ANAEROBIC, MEETS PATHOGEN LIMITS; COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1); 32.310 Subclause 5.5.2*

Digestate, anaerobic, meets pathogen limits **Allowed**
Class: CF
Permitted to be used for soil amendment, provided that the following conditions are met: a) the materials added to the digester shall be listed in CAN/CGSB-32.311 Table 4.2 (column 1) or permitted as COMPOST FEEDSTOCKS. b) nutrients, vitamins and trace minerals other than nitrogen and phosphorus may be supplemented (in amounts needed for optimal metabolic performance of the digester) without restriction; c) shall not exceed maximum acceptable levels of arsenic, cadmium, chromium, lead and mercury (mg/kg), and foreign matter outlined for unrestricted use compost (Category A), as specified in Guidelines for Compost Quality; and d) shall meet the criteria for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality. When digestate feedstocks could contain a substance or substances prohibited by 1.4 or 1.5 of CAN/CGSB-32.310 that is potentially persistent, before using the anaerobic digestate, test results shall be provided indicating no presence of the prohibited substance or a reference to scientific literature that establishes the specific potential contaminant(s) will degrade during the digestion process. See also DIGESTATE, ANAEROBIC, EXCEEDS PATHOGEN LIMITS; COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Distillers' Grains and Solubles **Allowed**
Class: CF
A by-product or by-products from the production of alcohol by fermenting grain. Shall be from non-GE grain. Shall not contain more than 7% total nitrogen (dry basis). Ammonium nitrogen shall not exceed 15% of the total nitrogen (dry basis). Nitrate nitrogen shall not exceed 10% of the total nitrogen (dry basis). Nitrogen compounds, beyond what is needed for yeast nutrition, may not be added during the fermentation process and they may not be added post fermentation.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Dolomite
Class: CF
See LIMESTONE; MAGNESIUM; MINED MINERALS.

Dormant Oils **Allowed With Restrictions**
Class: CP
For use as a dormant spray on woody plants. Shall not be used as a dust suppressant. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Dust Suppressants **Allowed**
Class: CF, CT
Vegetable oils, organic molasses or substances listed in Table 4.2 (Column 1 or 2) are permitted, excluding Formulants used in crop production aids. For example: Lignin and lignin sulphonates (lignosulphonates). Petroleum products are prohibited.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Enzymes **Allowed**
Class: CF, CT
Originating from plants, animals or microorganisms.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Epsom Salts
Class: CF
See MAGNESIUM; MAGNESIUM SULPHATE.

Extractants **Allowed**
Class: CT
The following may be used as extractants: a) water; b) culinary steam, as described in 8.1.2 b) of CAN/CGSB-32.310; c) fats and oils, such as cocoa butter, vegetable oils, lanolin and animal fats, and alcohols other than isopropyl alcohol; d) supercritical CO_2; and e) substances listed in Table 4.2 (Column 1 or 2) except for Formulants used in crop production aids.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Feather Meal **Allowed**
Class: CF
CGSB Reference: *32.311 Table 4.2 (column 1)*

Feather Meal, mushroom production **Allowed With Restrictions**
Class: CF, CT
From non-organic sources. May only be used if organic sources are not commercially available. Shall be composted.
CGSB Reference: *32.310 Subclause 7.3.2.3*

Feldspar
Class: CF
See MINED MINERALS.

Fermentation Products
Class: CF
See MICROORGANISMS AND MICROBIAL PRODUCTS.

Ferric and Ferrous Compounds
Class: CF
See IRON.

Ferric phosphate (iron orthophosphate, iron phosphate) **Allowed With Restrictions**
Class: CP
May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For use as a molluscicide (for slug and snail control). Shall be used in such a manner that runoff into water bodies is prevented. Contact with crops is prohibited.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Fertilizers and Soil Amendments, Blended **Allowed**
Class: CF
Must be composed entirely of substances on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, allowed for use in soil amendments.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Fertilizers and Soil Amendments, Blended **Allowed With Restrictions**
Class: CF
Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, allowed for use in soil amendments. Contains one or more substances with a source or use restriction. Refer to specific ingredient categories for applicable use restrictions.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Fibre Row Covers **Allowed With Restrictions**
Class: CT
Shall not be incorporated into the soil or left in the field to decompose. Shall be removed at the end of the growing season.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Fish Emulsions or Solubles
Class: CF
See FISH PRODUCTS.

Fish Farm Wastes
Class: CF
See FISH PRODUCTS.

Fish Hydrolysate
Class: CF
See FISH PRODUCTS.

Fish Meal, Powder
Class: CF
See FISH PRODUCTS.

Fish Products **Allowed**
Class: CF
The following fish products are permitted: fish meal; fish powder; and hydrolysate, emulsions and solubles. Fish farm wastes shall be composted. Only substances listed in Column 1 or 2 of Table 4.2 can be added to fish products with the exception that the addition of Formulants used in crop production aids is prohibited. Chemical treatment is prohibited, with the exception of the following substances which are in preferential order: a) vinegar; b) citric acid; c) phosphoric acid; or d) sulphuric acid. The amount of acid used shall not exceed the minimum needed to stabilize the product.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Formulants Used in Crop Production Aids **Allowed With Restrictions**
Class: CT
Only formulants classified as List 4A or 4B by the Pest Management Regulatory Agency (PMRA) or derived from biological or mineral sources may be used with substances in Table 4.2 (Column 2). Formulants classified as List 3 by PMRA may be used with passive pheromone dispensers. Formulants classified as List 4A, 4B or 3 by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. Formulants classified as List 1 or 2 by PMRA are prohibited. Only for use with substances listed in 32.311 Table 4.2 (column 2). See also FORMULANTS USED IN SOIL AMENDMENTS.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Formulants Used in Soil Amendments **Allowed**
Class: CF
Shall be derived from biological or mineral sources unless a substance annotation permits the use of a specified formulant. Substances listed elsewhere in Table 4.2 (column 1) and used as formulants in soil amendments are subject to the annotations therein. See also FORMULANTS USED IN CROP PRODUCTION AIDS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Formulants Used in Soil Amendments **Allowed With Restrictions**
Class: CT
Shall be derived from biological or mineral sources unless a substance annotation permits the use of a specified formulant. Substances listed elsewhere in Table 4.2 (column 1) and used as formulants in soil amendments are subject to the annotations therein. Contains one or more substances with a use restriction. Refer to specific ingredient categories for applicable use restrictions. See also FORMULANTS USED IN CROP PRODUCTION AIDS.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Formulants, PMRA List 1 and 2 **Prohibited**
Class: CT
Formulants classified as List 1 or 2 by PMRA are prohibited.
CGSB Reference: *32.311 Table 4.2 (column 2)*

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

Formulants, PMRA List 3 **Allowed With Restrictions**
Class: CT
Formulants classified as List 3 by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with passive pheromone dispensers.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Formulants, PMRA List 4A and 4B **Allowed With Restrictions**
Class: CT
Includes formulants classified as List 4A or 4B by the Pest Management Regulatory Agency (PMRA) and non-synthetic substances only. Formulants classified as List 4A or 4B by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with substances listed in CAN/CGSB-32.311 Table 4.2 (column 2). See also FORMULANTS, PMRA LIST 3.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Frass **Allowed**
Class: CF
From organic sources. A by-product of insect farming. Shall be from an organic source if commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Frass **Allowed With Restrictions**
Class: CF
From non-organic sources. A by-product of insect farming. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Fungicides **Allowed With Restrictions**
Class: CP
Must be composed of materials appearing on CAN/CGSB-32.311 Table 4.2 (column 2) as permitted for this use. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Gibberellic Acid **Allowed With Restrictions**
Class: CP
Must be derived from terrestrial or aquatic plants, or produced by microorganisms. For use as a plant growth regulator. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also EXTRACTANTS.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Grain Products, mushroom production **Allowed With Restrictions**
Class: CF, CT
From non-organic sources. May only be used if organic sources are not commercially available. Shall be composted.
CGSB Reference: *32.310 Subclause 7.3.2.3*

Granite Dust
Class: CF
See MINED MINERALS.

Greensand (glauconite)
Class: CF
See MINED MINERALS.

Growth Regulators for Plants **Allowed With Restrictions**
Class: CP
Plant hormones, such as gibberellic acid, indoleacetic acid and cytokinins, made from terrestrial or aquatic plants or produced by microorganisms are permitted. For use as a plant growth regulator. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also GIBBERELLIC ACID.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Guano **Prohibited**
Class: CF
CGSB Reference: *32.311 Table 4.2 (column 1)*

Gypsum (calcium sulphate)
Class: CF
See CALCIUM SULPHATE (GYPSUM).

Herbicides **Allowed With Restrictions**
Class: CP
Must be composed of materials appearing on CAN/CGSB-32.311 Table 4.2 (column 2) as permitted for this use. For use as an herbicide. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Homeopathic Preparations **Allowed**
Class: CT
CGSB Reference: *32.311 Table 4.2 (column 2)*

Homeopathic Preparations **Allowed With Restrictions**
Class: CP
May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Hormones
Class: CP
See GROWTH REGULATORS FOR PLANTS.

Humates, humic acid and fulvic acid **Allowed With Restrictions**
Class: CF
Permitted if mined; produced through microbial activity; extracted by physical processes; or with: a) CAN/CGSB-32.311 Table 4.2 Extractants; or b) potassium hydroxide - potassium hydroxide levels used in the extraction process shall not exceed the amount required for extraction. Levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury shall not exceed the limits (category C1) specified in Guidelines for the Beneficial Use of Fertilising Residuals. Shall not cause a build-up of heavy metals or micronutrients in the soil.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Humic Acid Starting Materials **Allowed With Restrictions**
Class: CF
Includes dry products containing humates and permitted extractant. Levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury shall not exceed the limits (category C1) specified in Guidelines for the Beneficial Use of Fertilising Residuals. Must be extracted with the addition of water prior to use. Shall not cause a build-up of heavy metals or micronutrients in the soil.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Hydrated Lime (Calcium Hydroxide) **Allowed With Restrictions**
Class: CP
For plant disease control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Hydrogen Peroxide **Allowed With Restrictions**
Class: CP
May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Hydrolyzed Proteins of Animal Origin **Allowed With Restrictions**
Class: CF
Resulting from enzymatic hydrolysis (in conjunction with physical processes). Shall not contain more than 17% N (dry basis). At least 90% of the total nitrogen shall be organic (protein) nitrogen. Isolated amino acids such as glycine, lysine and methionine are prohibited. Nitrogen compounds may not be added during hydrolysis. Shall not be applied to the edible portion of crops. See also HYDROLYZED PROTEINS OF PLANT ORIGIN.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Hydrolyzed Proteins of Plant Origin **Allowed**
Class: CF
Resulting from enzymatic hydrolysis (in conjunction with physical processes). Shall not contain more than 0.3% hydroxyproline (as a % of total amino acids). Shall not contain more than 15% N (dry basis). At least 90% of the total nitrogen shall be organic (protein) nitrogen. Isolated amino acids such as glycine, lysine and methionine are prohibited. Nitrogen compounds may not be added during hydrolysis. See also HYDROLYZED PROTEINS OF ANIMAL ORIGIN.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Indoleacetic acid
Class: CP
See GROWTH REGULATORS FOR PLANTS.

Inoculants
Class: CF
See MICROORGANISMS AND MICROBIAL PRODUCTS.

Invertebrates **Allowed**
Class: CF, CP, CT
Worms, insects (including sterile insects), nematodes, arthropods and other invertebrates. See also STERILE INSECTS; WORM CASTINGS.
CGSB Reference: *32.310 Subclause 5.6.1; 32.311 Table 4.2 (column 1); 4.2 (column 2)*

Iron **Allowed With Restrictions**
Class: CF
Sulphates, carbonates, chlorides, oxides, oxysulphates, citrates, tartrates or permitted chelates of iron are permitted. May be chelated with substances listed under Table 4.2 Chelates. Nitrates, amino acid chelates and ammonia-iron complexes are not permitted. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. Iron chloride may be used to prevent loss of phosphorus in soils prone to flooding without demonstrating a soil deficiency. See also CHELATES.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Iron Sulphates
Class: CF
See IRON.

Kaolin Clay **Allowed**
Class: CT
May be calcined. Shall not be processed or fortified with substances unless listed in Table 4.2 (Column 2).
CGSB Reference: *32.311 Table 4.2 (column 2)*

Kaolin Clay **Allowed With Restrictions**
Class: CP
May be calcined. Shall not be processed or fortified with substances unless listed in CAN/CGSB-32.311 Table 4.2 (Column 2). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Kelp and kelp products
Class: CF
See AQUATIC PLANT EXTRACTS; PLANT MATERIAL.

Kieserite
Class: CF
See MAGNESIUM; MAGNESIUM SULPHATE.

Lactic Acid **Allowed**
Class: CF
Lactic acid produced by fermentation and extraction is permitted. Extraction processes must use permitted extractants. Requirements with regard to substrates/growth media must be met. Chemical processes used to purify and/or extract substances are permitted as long as they do not create new molecules or involve processes specifically prohibited by CAN/CGSB-32.310 subclause 3. See also MICROORGANISMS AND MICROBIAL PRODUCTS; EXTRACTANTS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Langbeinite
Class: CF
See MAGNESIUM; MINED MINERALS.

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

Leaf Mould **Allowed**
Class: CF
CGSB Reference: *32.311 Table 4.2 (column1)*

Lignin and Lignin Sulphonates (Lignosulphonates) **Allowed With Restrictions**
Class: CT
Ammonium lignosulphonate is prohibited. Other lignin forms such as lignosulphonic acid, calcium lignosulphonate, magnesium lignosulphonate, sodium lignin and sodium lignosulphonate are permitted. For use as a formulant, such as a chelating agent, binding agent and dust suppressant.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Lime Sulphur (Calcium Polysulphide) **Allowed With Restrictions**
Class: CP
For use as a fungicide, an insecticide and an acaricide (mite control) on plants. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Limestone **Allowed**
Class: CF
Mined magnesium and calcium carbonates. See also CALCIUM.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Magnesium **Allowed**
Class: CF
The following sources are permitted: a) mined magnesium rock; b) magnesium chloride derived from natural brines and not chemically treated; c) mined calcium magnesium carbonate (dolomitic limestone) that has not been slaked; d) potassium magnesium sulphate (langbeinite). See also LIMESTONE; MAGNESIUM CARBONATE; MAGNESIUM SULPHATE.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Magnesium Carbonate **Allowed**
Class: CF
Mined sources. See also LIMESTONE; MAGNESIUM.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Magnesium Chloride
Class: CF, CT
See MAGNESIUM.

Magnesium Rock
Class: CF
See MAGNESIUM; MAGNESIUM CARBONATE; MINED MINERALS.

Magnesium Sulphate **Allowed With Restrictions**
Class: CF
Magnesium sulphate (MgSO4), from kieserite or Epsom salts. May only be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil or plant tissue, or when the need for a preventative application can be documented. See also MAGNESIUM.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Manganese **Allowed With Restrictions**
Class: CF
Sulphates, oxides, oxysulphates, carbonates, chlorides, citrates, tartrates or permitted chelates of manganese are allowed. May be chelated with substances listed under Table 4.2 Chelates. Nitrates, amino acid chelates and ammonia-manganese complexes are not permitted. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. See also CHELATES.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Manure, composted
Class: CF
See COMPOST.

Manure, dried **Allowed**
Class: CF
Dried manure may be pelleted or granulated. The operator shall be able to demonstrate that best practices known to eliminate human pathogens have been used in the production process, or demonstrate that the product meets criteria for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality, or follow the application restrictions in 5.5.2.5 of CAN/CGSB-32.310. See also DIGESTATE, ANAEROBIC, MANURE SOURCE; MANURE, UNPROCESSED.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Manure, unprocessed **Allowed With Restrictions**
Class: CF
From organic sources. Includes solid manure (manure mixed with bedding), liquid manure and slurry. Concentrated nutrient extracts, such as those produced by distillation, are not considered animal manure. Manure sources shall comply with the requirements specified in 5.4.2b)3) and 5.5.1 of CAN/CGSB-32.310. On-farm nutrient cycling is an important principle of organic production. The organic matter produced on the operation shall be used first. When all available manure is used up, organic manure from other sources may be used. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption. As an exception, the manure may be incorporated into the soil at least 70 days before the harvest of grain crops that do not come into contact with soil and are intended for human consumption when not consumed in their raw state; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles.
CGSB Reference: *32.310 Subclause 5.5; 32.311 Table 4.2 (column 1); COR SIC 438*

Manure, unprocessed **Allowed With Restrictions**
Class: CF
From non-organic sources. May be used when organic manure is not commercially available, provided that: a) the non-organic source is not a fully caged system in which livestock cannot turn 360°; and b) livestock is not permanently kept in the dark; and c) the source and quantity of manure, type of livestock, and evaluation of the criteria in CAN/CGSB-32.310 5.5.1.1 a) and 5.5.1.1 b) shall be recorded. Includes solid manure (manure mixed with bedding), liquid manure and slurry. Concentrated nutrient extracts, such as those produced by distillation, are not considered animal manure. Manure sources shall comply with the requirements specified in 5.4.2b)3) and 5.5.1 of CAN/CGSB-32.310. Shall be incorporated into the soil at least 90 days before the harvest of crops that do not come into contact with soil and are intended for human consumption. As an exception, the manure may be incorporated into the soil at least 70 days before the harvest of grain crops that do not come into contact with soil and are intended for human consumption when not consumed in their raw state; or incorporated into the soil at least 120 days before the harvest of crops that have edible parts that come into direct contact with the surface of the soil or with soil particles. May only be used if organic sources are not commercially available. See also COMPOST; MANURE, DRIED.
CGSB Reference: *32.310 Subclause 5.5; 32.311 Table 4.2 (column 1); COR SIC 438*

Manure, unprocessed, from onsite sources
Class: CF
Includes solid manure (manure mixed with bedding), liquid manure and slurry. Manure sources shall comply with the requirements specified in 5.4.2b)3) and 5.5.1 of CAN/CGSB-32.310. Concentrated nutrient extracts, such as those produced by distillation, are not considered animal manure. Animal manure, whether from organic animals or not, produced on the farm shall be used first. When all available manure is used up, organic manure from other sources may be used.
CGSB Reference: *32.310 Subclause 5.5; 32.311 Table 4.2 (column 1); COR SIC 438*

Meat Meal **Allowed**
Class: CF
Shall be processed by drying, heat sterilization or composted.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Mica
Class: CF
See MINED MINERALS; POTASSIUM.

Microbial Extracts **Allowed With Restrictions**
Class: CP
Extracts of microorganisms (viruses, bacteria, protozoa, phages and fungi), such as spinosad. Products may contain dead microorganisms and substances in Table 4.2 (column 1 or 2). If the growth substrate includes substances not listed in Table 4.2 (column 1), the growth substances (substrate) shall not be present in the final product, or be present at levels which have no material functional effect. Sewage sludge is prohibited. Carriers or substances added to or expected to be present in the final product shall be listed in Table 4.2 (column 1). Pharmaceuticals made from biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered as pesticides. Does not include nutrient extracts such as nitrogen extracted from microorganisms. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also MICROORGANISMS AND MICROBIAL PRODUCTS; MICROBIAL FERTILIZERS.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Microbial Fertilizers **Allowed With Restrictions**
Class: CF
Microbial biomass that is the by-product of food processing. Examples include bacterial biomass and yeast press cake. If the growth substrate includes substances not listed in Table 4.2 (column 1), the growth substances (substrate) shall not be present in the final product, or be present at levels that have no material functional effect. Carriers or substances added to or expected to be present in the final product shall be listed in Table 4.2 (column 1). Shall not exceed the limits (category C1") for acceptable levels (mg/kg) of arsenic, cadmium, chromium, lead and mercury, as specified in Guidelines for the Beneficial Use of Fertilizing Residuals. Does not include substances extracted from microorganisms or produced by fermentation. Shall not cause a build-up of heavy metals or micronutrients in the soil. See also MICROORGANISMS AND MICROBIAL PRODUCTS; MICROBIAL EXTRACTS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Micronutrients
Class: CF
See specific annotations for Boron; Silicon; Cobalt; Copper (plant nutrition); Iron; Manganese; Molybdenum, Selenium and Zinc in Table 4.2. See BORON; IRON; ZINC; CHELATES; MOLYBDENUM; COPPER (PLANT NUTRITION); MANGANESE; COBALT; SELENIUM.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Microorganisms (sanitizers, disinfectants or cleaners) **Allowed**
Class: CT
Living or dead biological organisms, such as viruses, phages, bacteria, protozoa, fungi, etc. May contain additional formulants derived from biological or mineral sources or substances permitted on PSL Table 4.2 with the exception of Formulants used in Crop Production Aids. See also FORMULANTS USED IN SOIL AMENDMENTS.
CGSB Reference: *32.311 Table 4.2; 7.3*

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

Microorganisms (sanitizers, disinfectants or cleaners) **Allowed With Restrictions**

Class: CT

Living or dead biological organisms, such as viruses, phages, bacteria, protozoa, fungi, etc. May contain additional formulants derived from biological or mineral sources or restricted substances on PSL Table 4.2 with the exception of Formulants used in Crop Production Aids. Refer to specific ingredient categories for applicable use restrictions. See also FORMULANTS USED IN SOIL AMENDMENTS.

CGSB Reference: *32.311 Table 4.2; 7.3*

Microorganisms and Microbial Products **Allowed**

Class: CF, CT

Living microorganisms, such as viruses, bacteria, protozoa, phages, and fungi. Microbial products may contain substances in Table 4.2 (Column 1 or 2). Examples include: rhizobium bacteria; mycorrhizal fungi; yeast; *Bacillus thuringiensis;* virus and virus sprays (e.g., granulosis). If the growth substrate includes substances not listed in Table 4.2, the growth substances (substrate) shall not be present in the final product, or be at levels which have no material functional effect. Sewage sludge is prohibited. Carriers or substances added to or expected to be present in the final product shall be listed in Table 4.2. Ionizing radiation is permitted for use on peat moss carrier, before the addition of microbial inoculants. Radiation is otherwise prohibited. Pharmaceuticals made from biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered pesticides.

CGSB Reference: *32.311 Table 4.2 (column 1)*

Microorganisms and Microbial Products **Allowed With Restrictions**

Class: CP

Living microorganisms, such as viruses, bacteria, protozoa, phages, and fungi. Microbial products may contain substances in Table 4.2 (Column 1 or 2). Examples include: rhizobium bacteria; mycorrhizal fungi; yeast; *Bacillus thuringiensis;* virus and virus sprays (e.g., granulosis). If the growth substrate includes substances not listed in Table 4.2, the growth substances (substrate) shall not be present in the final product, or be at levels which have no material functional effect. Sewage sludge is prohibited. Carriers or substances added to or expected to be present in the final product shall be listed in Table 4.2. Ionizing radiation is permitted for use on a peat moss carrier before the addition of microbial inoculants. Radiation is otherwise prohibited. Pharmaceuticals made from biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered as pesticides. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also MICROBIAL EXTRACTS; MICROBIAL FERTILIZERS.

CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Microorganisms and Microbial Products **Allowed With Restrictions**

Class: CF, CT

Living microorganisms, such as viruses, bacteria, protozoa, phages, and fungi. Microbial products may contain substances in Table 4.2 (Column 1 or 2). Examples include: rhizobium bacteria; mycorrhizal fungi; yeast; *Bacillus thuringiensis;* virus and virus sprays (e.g., granulosis). If the growth substrate includes substances not listed in Table 4.2, the growth substances (substrate) shall not be present in the final product, or be at levels which have no material functional effect. Sewage sludge is prohibited. Carriers or substances added to or expected to be present in the final product shall be listed in Table 4.2. Ionizing radiation is permitted for use on peat moss carrier, before the addition of microbial inoculants. Radiation is otherwise prohibited. Pharmaceuticals made from biological sources, such as natamycin, penicillin and streptomycin, are prohibited even if registered pesticides. Contains one or more substances with a source or use restriction. Refer to specific ingredient categories for applicable use restrictions. See also MICROBIAL EXTRACTS; MICROBIAL FERTILIZERS.

CGSB Reference: *32.311 Table 4.2 (column 1)*

Milk and Milk By-Products **Allowed**

Class: CF

CGSB Reference: *32.311 Table 4.2 (column 1)*

Mined Minerals **Allowed**

Class: CF

Mined minerals include basalt, pumice, sand, feldspar, mica, granite dust and other unprocessed rock dust. Minerals extracted from seawater are permitted. To be allowed as a mined mineral, the product shall not have undergone any change in its molecular structure through heating, processing, ion exchange or combining with other substances. Sodium nitrate is prohibited. Rock dust mixed with petroleum products, such as those from stone engraving, is prohibited. See annotations for specific minerals in Table 4.2 (column 1).

CGSB Reference: *32.311 Table 4.2 (column 1)*

Molasses **Allowed**

Class: CF

From organic sources. Non-organic molasses is prohibited.

CGSB Reference: *32.311 Table 4.2 (column 1)*

Molybdenum **Allowed With Restrictions**

Class: CF

Sodium molybdate and molybdenum trioxide are permitted. May be chelated with substances listed under Table 4.2 Chelates. Ammonium molybdate and amino acid chelates/complexes are not permitted. For use when soil and plant deficiencies are documented by visual symptoms or by testing of soil and/or plant tissue, or when the need for a preventative application can be documented. See also CHELATES.

CGSB Reference: *32.311 Table 4.2 (column 1)*

Mulches **Prohibited**

Class: CP, CT

Prohibited mulch material includes, but is not limited to, polyvinyl chloride, glossy paper and paper with coloured ink, sawdust, wood chips, bark and shavings that is treated or processed with Formulants used in crop production aids or with substances, such as herbicides, preservatives and glues, not listed in CAN/CGSB-32.311 Table 4.2 (Column 1 or 2).

CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Mulches, biodegradable biobased films **Allowed**
Class: CP, CT
Biodegradable mulches: 100% of biodegradable mulch films shall be derived from bio-based sources. Formulants or ingredients shall be listed in Table 4.2 (Column 1 or 2). Biodegradable polymers and Carbon Black from GE or petroleum sources are not permitted. See also CARDBOARD; MULCHES, FROM NEWSPAPER OR PAPER; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Mulches, from newspaper or paper **Allowed**
Class: CP, CT
Newspaper and paper mulch are permitted; glossy paper and coloured ink are prohibited. See also CARDBOARD; MULCHES, BIODEGRADABLE BIOBASED FILMS; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Mulches, non-organic sources **Allowed With Restrictions**
Class: CP, CT
From non-organic sources. Biological materials from non-organic sources are permitted. Non-genetically engineered sources may be used provided that prohibited substances have not been used on these materials for at least 60 days before harvest. May only be used if organic sources are not commercially available. See also CARDBOARD; MULCHES, BIODEGRADABLE BIOBASED FILMS; MULCHES, FROM NEWSPAPER OR PAPER; MULCHES, ORGANIC SOURCES; MULCHES, PLASTIC; MULCHES.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Mulches, non-organic sources **Allowed With Restrictions**
Class: CF
Contains one or more substances with a source or use restriction. Biological materials from non-organic sources are permitted. Non-genetically engineered sources may be used provided that prohibited substances have not been used on these materials for at least 60 days before harvest. Refer to specific ingredient categories for applicable use restrictions. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Mulches, organic sources **Allowed**
Class: CT
From organic sources. Biological materials from organic sources are permitted (e.g., straw, leaves, grass clippings, hay, wool or untreated burlap). See also CARDBOARD; MULCHES, NON-ORGANIC SOURCES; MULCHES, PLASTIC.
CGSB Reference: *32.310 Subclause 5.6.1; 32.311 Table 4.2 (column 1); 4.2 (column 2)*

Mulches, plastic **Allowed With Restrictions**
Class: CT
Use of polyvinyl chloride as plastic mulch or row cover is prohibited. Shall not be incorporated into the soil or left in the field to decompose. See also CARDBOARD; MULCHES, ORGANIC SOURCES.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Mushroom Compost
Class: CF
See COMPOST.

Mushroom Spawn **Allowed With Restrictions**
Class: CF
From non-organic sources. Spawn grown or treated with substances listed in Table 4.2 (column 2) of CAN/CGSB-32.311 may be used if organic spawn is neither a) available from within the production unit or b) commercially available. OMRI does not review or list organic mushroom spawn, which must be certified organic by a CFIA accredited certification body. May only be used if organic sources are not commercially available.
CGSB Reference: *32.310 Subclause 7.3.3*

Mushroom Substrate and/or Spawn Media **Allowed**
Class: CF, CT Agricultural/Nonagricultural
Composted manure; wood-based materials such as logs and sawdust that have not been treated with prohibited substances; and agricultural materials that have been organically produced are allowed in mushroom substrate and mushroom spawn media.
CGSB Reference: *32.310 Subclause 7.3.2*

Mushroom Substrate and/or Spawn Media **Allowed With Restrictions**
Class: CF, CT Agricultural/Nonagricultural
Composted non-organic agricultural substances such as straw, grains, or feather meal; composted manure; wood-based materials such as logs and sawdust that have not been treated with prohibited substances; and agricultural materials that have been organically produced are permitted in mushroom substrate and mushroom spawn media. Composted non-organic agricultural materials are permitted when organic sources are not commercially available. Refer to specific ingredient categories for applicable use restrictions.
CGSB Reference: *32.310 Subclause 7.3.2*

Nitrogen Gas **Allowed With Restrictions**
Class: CT
For controlled atmosphere storage.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Non-ionizing Radiation
Class: CP
See Glossary for definition of "radiation, non-ionizing."
CGSB Reference: *32.311 Table 4.2 (column 2); 32.310 Subclause 5.6.2*

Oilseed Meals **Allowed**
Class: CF
From organic sources. Shall be organic if commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Oilseed Meals **Allowed With Restrictions**
Class: CF
From non-organic sources. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Oxygen **Allowed With Restrictions**
Class: CT
For controlled atmosphere storage.
CGSB Reference: *32.311 Table 4.2 (column 2)*

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

Oyster Shell Lime
Class: CF
See CALCIUM; LIMESTONE.

Ozonated Water **Allowed With Restrictions**
Class: CP
Water saturated with ozone gas. For control of microbial pathogens in crops as a foliar application. Neither ozonated water nor the gas is permitted for weed control or soil fumigation. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Peat Moss **Allowed**
Class: CF
CGSB Reference: *32.311 Table 4.2 (column 1)*

Peracetic Acid/Peroxyacetic Acid **Allowed With Restrictions**
Class: CP
Formulations of peracetic acid may include unreacted residual reagents and catalysts, such as hydrogen peroxide, acetic acid and sulphuric acid. For use in: a) pest control; and b) disinfecting and cleaning seeds and plant stock. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Perlite
Class: CF
See CLAY; MINED MINERALS.

Pheromones and other semiochemicals **Allowed With Restrictions**
Class: CP
All sources are permitted. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. For use as a pest control.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Phosphate Rock **Allowed**
Class: CF
May be fortified or processed with substances listed in Table 4.2 (column 1), with the exception that treatment with acid prior to application is not permitted. Cadmium shall not exceed 90 mg/kg P_2O_5.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Plant extracts, oils and preparations **Allowed With Restrictions**
Class: CP
Permitted extractants include fats and oils (such as cocoa butter, lanolin and animal fats); alcohols; water; or substances listed on Table 4.2 (Column 2) other than Formulants used in crop production aids. Extraction with other solvents is prohibited except with, in order of preference: a) potassium hydroxide; b) sodium hydroxide; provided the amount of solvent used does not exceed the amount necessary for extraction. The operator shall provide an affidavit from the manufacturer that proves the need to use sodium hydroxide. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also CLOVE OIL.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Plant Material **Allowed**
Class: CF
Aquatic or terrestrial plant biomass including cover crops, green manures, crop wastes, hay, straw, leaves, peat, forestry by-products, hulls, and grain screenings. Does not include plant-based food products or by-products of food processing (including fermentation or chemical treatment, such as corn steep liquor or resulting concentrated nutrient extracts. Such products may be permitted under separate listings in Table 4.2. Wastes from crops that have been treated or produced with prohibited substances are permitted as compost feedstocks only (subject to Compost feedstock restrictions). Prohibited plant materials include sawdust, wood chips, bark and shavings that are treated or processed with Formulants used in crop production aids or with substances, such as herbicides, preservatives and glues, not listed in Table 4.2 (column 1 or 2). See also LIGNIN AND LIGNIN SULPHONATES (LIGNOSULPHONATES); PLANT EXTRACTS, OILS AND PREPARATIONS; EXTRACTANTS; MOLASSES; OILSEED MEALS; POMACES; CANNERY WASTES.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Plant Protectants **Allowed With Restrictions**
Class: CT
Mineral and biological substances including, but not limited to: calcium carbonate (from chalk, limestone, etc.); diatomaceous earth; kaolin clay; pine oil; pine resin; and yucca. Permitted to protect plants from harsh environmental conditions (such as frost and sunburn), infection, the build-up of dirt on leaf surfaces, or injury by an invertebrate pest or disease.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Plastic for row covers and solarization **Allowed With Restrictions**
Class: CT
Use of polyvinyl chloride as plastic mulch or row cover is prohibited. Shall not be incorporated into the soil or left in the field to decompose. See also MULCHES, PLASTIC.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Polyoxin D Zinc Salt **Allowed With Restrictions**
Class: CP
May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Pomaces **Allowed**
Class: CF
Feedstocks shall be from organically grown fruits or vegetables. Non-organic pomaces shall be composted. See also COMPOST FEEDSTOCKS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Potassium **Allowed**
Class: CF
The following potassium sources are permitted: a) mined potassium magnesium sulphate (langbeinite) and mined potassium magnesium chlorides (sylvinite and kainite); b) potassium rock powder - includes basalt, biotite, mica, feldspar, granite, glauconite and greensand; c) potassium sulphate - shall be produced by evaporating brines from seabed deposits or combining mined minerals using ion exchange. Potassium sulphate made using sulphuric acid as a reactant is prohibited. See also POTASSIUM CHLORIDE.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Potassium Bicarbonate **Allowed With Restrictions**
Class: CP
For pest and disease control for crops grown in greenhouses and other structures, and for other crops. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Potassium Chloride **Allowed With Restrictions**
Class: CF
Muriate of potash and rock potash. Shall not cause salt buildup in soil through repeated application. See also POTASSIUM.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Potassium Rock Powders
Class: CF
See MINED MINERALS; POTASSIUM.

Potassium Sulphate
Class: CF
See MINED MINERALS; POTASSIUM.

Potassium Sulphate Magnesia
Class: CF
See MINED MINERALS; POTASSIUM.

Pumice
Class: CF
See MINED MINERALS.

Pyrethrum **Allowed With Restrictions**
Class: CP
May be combined with acceptable formulants listed in Table 4.2 Formulants used in crop production aids. For use in conjunction with a biorational pest management program. Shall not be the primary method of pest control. 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 only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also BOTANICAL PESTICIDES.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Quicklime (Calcium Oxide) **Allowed With Restrictions**
Class: CP
Shall not be used as a fertilizer or as a soil amendment. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Repellents **Allowed With Restrictions**
Class: CP
Shall be derived from biological sources, such as sterilized blood meal, rotten eggs, hair or predator scents. May contain substances listed in Table 4.2 column 2. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Rock Dust
Class: CF
See MINED MINERALS.

Rotenone
Class: CP
Rotenone is a substance that qualifies as a botanical pesticide. However, in countries such as Canada, where rotenone products are no longer registered for agricultural use, rotenone cannot be used for organic production. See BOTANICAL PESTICIDES.
CGSB Reference: *COR SIC 308*

Salt **Allowed With Restrictions**
Class: CP
Sodium chloride, calcium chloride, or potassium chloride. Shall be mined or derived from sources of natural brine; the effluent from ion exchange water softener regeneration may also be used. For use as a pest control. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Sand
Class: CF
See MINED MINERALS.

Seaweed **Allowed**
Class: CF, CP, CT
Includes kelp, algae and other seaweed-based products that have not been alkali extracted or otherwise chemically processed in other ways. See also AQUATIC PLANT EXTRACTS; PLANT MATERIAL.

Seed Lubricants **Allowed**
Class: CT
Talc and graphite are permitted, and other substances listed in Table 4.2 (column 1 and 2).
CGSB Reference: *32.311 Table 4.2 (column 2)*

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

Seed Treatments **Allowed**
Class: CT
Microbial products, kelp, yucca, gypsum, clays and botanicals. May contain substances listed in Table 4.2 (Column 1 or 2) or Table 7.3. See also CHLORINE COMPOUNDS; PERACETIC ACID/PEROXYACETIC ACID.
CGSB Reference: *32.310 Subclause 5.3.2; 32.311 Table 4.2 (column 1); 4.2 (column 2)*

Seed Treatments **Allowed With Restrictions**
Class: CP
Microbial products, kelp, yucca, gypsum, clays and botanicals. May contain substances listed in Table 4.2 (Column 1 or 2) or Table 7.3. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also CHLORINE COMPOUNDS; PERACETIC ACID/PEROXYACETIC ACID.
CGSB Reference: *32.310 Subclause 5.6.2; 5.3.2; 32.311 Table 4.2 (column 2)*

Selenium **Allowed With Restrictions**
Class: CF
Sodium selenate and sodium selenite are permitted. For use when 1) soil and plant deficiencies are documented by visual symptoms, 2) testing of soil or plant tissue indicates deficiencies, or 3) when the need for a preventative application to maintain plant, animal or human health can be documented.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Shell from aquatic animals **Allowed**
Class: CF, CT
Includes chitin.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Shell from aquatic animals **Allowed With Restrictions**
Class: CP
Includes chitin. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Silicic Acids, including potassium and sodium salts of silicic acid **Allowed With Restrictions**
Class: CP
Includes potassium and sodium silicates (and associated hydrates), and silicic acids such as monosilicic acid. May be pH adjusted with sodium or potassium hydroxide, or with acids listed in Table 4.2. Formulations shall not contain more than 0.1% P_2O_5 (dry basis) and not more than 0.1% N (dry basis). May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also MINED MINERALS; DIATOMACEOUS EARTH.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Soaps **Allowed With Restrictions**
Class: CP
Soaps (including insecticidal soaps) shall consist of fatty acids derived from animal or vegetable oils. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Soaps, Ammonium **Allowed With Restrictions**
Class: CP
For use as a large animal repellent. Direct contact with organic food or crops is prohibited. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Sodium Bicarbonate **Allowed With Restrictions**
Class: CP
For pest and disease control for crops grown in greenhouses and other structures, and for other crops. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Sodium Hypochlorite Seed Treatment
Class: CT
See CHLORINE COMPOUNDS.
CGSB Reference: *32.311 Table Table 4.2 (column 1); 4.2 (column 2)*

Sodium Nitrate **Prohibited**
Class: CF
Although the United States and Canada have an organic equivalency arrangement, the use of sodium nitrate is prohibited under the COR and agricultural products produced using sodium nitrate shall not be marketed as organic in Canada. This is known as a critical variance in the equivalency arrangement. See also MINED MINERALS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Soil **Allowed**
Class: CF
From organic sources. Shall comply with restrictions specified in 5.1.2 of CAN/CGSB-32.310. Soil is defined in Clause 3 of CAN/CGSB-32.310 as: mixture of minerals, organic matter and living organisms.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Sphagnum Moss **Allowed**
Class: CF
May contain wetting agents that are listed in Table 4.2 Surfactants.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Spinosad **Allowed With Restrictions**
Class: CP
Derived from the bacterium Saccharopolyspora spinosa. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also MICROORGANISMS AND MICROBIAL PRODUCTS.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Sterile Insects
Class: CP
See INVERTEBRATES; BIOLOGICAL ORGANISMS.

Sticky traps **Allowed With Restrictions**
Class: CP
Within the sugar bush, substances listed in Table 4.2 (column 2) of CAN/CGSB-32.311, are permitted for disease and insect control. Within preparation facilities, mechanical and sticky traps are permitted for rodents and other destructive pests, as are natural repellents listed in Table 8.1 of CAN/CGSB-32.311. If an infestation occurs, pests may be hunted. Poisons of any kind are prohibited. For rodents and other destructive pests within the sugar bush and within preparation facilities (maple products production).
CGSB Reference: *32.310 Subclause 7.2.9.5; 32.311 Table 4.2 (column 2)*

Struvite (Magnesium Ammonium Phosphate) **Allowed With Restrictions**
Class: CF
Obtained through precipitation from one or more of the following: a) liquid animal manure as described in CAN/CGSB-32.311 Table 4.2 (column 1) Animal Manure, unprocessed, and in 5.5.1 of CAN/CGSB-32.310; b) anaerobic digestate as described in Table 4.2 (column 1); c) liquid waste from the processing of foods, beverages, pet foods or animal feeds; d) wastes from the processing of ethanol or biodiesel from plant-based agricultural feedstock; and/or e) municipal wastewater that has undergone advanced treatment processes/systems capable of reducing impurities to levels below those attainable through conventional secondary or biological treatment. The type of wastewater stream and exact location(s) of the wastewater facilities shall be documented. May contain incidental precipitated phosphate salts. Struvite products from non-organic source animal manure (a) and/or municipal wastewater (e) shall contain: a) a phosphorus content (expressed as P_2O_5) between 25% and 30% (dry matter basis); b) a maximum organic carbon content of 1.5% (dry matter basis); c) a nitrogen content between 4% and 6% (dry matter basis); and d) a magnesium content (expressed as Mg) between 8% and 11% (dry matter basis). Shall not exceed the maximum acceptable levels of arsenic, cadmium, chromium, lead and mercury (mg/kg) and foreign matter outlined for unrestricted use compost (Category A), as specified in Guidelines for Compost Quality. Shall meet criteria for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality. Struvite from municipal wastewater (e): a) shall not exceed total aluminum 0.1% (dry matter basis); b) shall not exceed total iron 1% (dry matter basis); and c) shall have no more than 6 mg/kg of any substance classified as a PAH (polycyclic aromatic hydrocarbon) as defined in the Toxic Substances List (schedule 1) of the Canadian Environmental Protection Act (1999). For the evaluation of aluminum, iron and PAHs, struvite shall be measured using vacuum drying at 40°C until a constant weight to avoid the loss of crystal-bound water. Derivatives from struvite are prohibited. Shall not cause a build-up of heavy metals or micronutrients in the soil.
CGSB Reference: *32.311 Table 4.2 (column 1)*

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

Sugar **Allowed**
Class: CF, CT
From organic sources. Organic sugars (e.g., sucrose, glucose, fructose are permitted.
CGSB Reference: *32.311 Table 4.2 (column 1); 4.2 (column 2)*

Sulphate of Potash Magnesia
Class: CF
See MINED MINERALS; POTASSIUM.

Sulphur smoke bombs **Allowed With Restrictions**
Class: CP
For use in conjunction with other methods used for rodent control when a full pest control program is maintained but temporarily overwhelmed. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Sulphur, elemental **Allowed**
Class: CF
Both mined and reclaimed sources of elemental sulphur are permitted.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Sulphur, elemental **Allowed With Restrictions**
Class: CP
Both mined and reclaimed sources of elemental sulphur are permitted. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Summer Oils **Allowed With Restrictions**
Class: CP
For use on foliage, as suffocating or stylet oils. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Surfactants **Allowed**
Class: CF
Includes plant-derived saponins, such as Yucca schidigera and Quillaja saponaria, or substances listed in Table 4.2 Formulants used in soil amendments. See also FORMULANTS USED IN SOIL AMENDMENTS; VEGETABLE OILS; WETTING AGENTS.
CGSB Reference: *32.311 Table 4.2 (column 1)*

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

Surfactants **Allowed With Restrictions**
Class: CP, CT
Includes substances listed in Table 4.2 Formulants used in crop production aids; Soaps. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also FORMULANTS USED IN CROP PRODUCTION AIDS; SOAPS.
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Trace elements (micronutrients)
Class: CF
See MICRONUTRIENTS.

Transplant Media, Potting Soil and Potting Media **Allowed**
Class: CF
Shall be composed entirely of permitted substances listed in Table 4.2 (column 1 or 2). Soil from the field may be used provided that prohibited substances have not been used on the soil for at least 36 months. See also SOIL.
CGSB Reference: *32.310 Subclause 5.1.2; 32.311 Table 4.2 (column 1)*

Transplant Media, Potting Soil and Potting Media **Allowed With Restrictions**
Class: CF
Shall be composed entirely of permitted substances listed in Table 4.2 (column 1 or 2). Soil from the field may be used provided that prohibited substances have not been used on the soil for at least 36 months. Contains one or more substances with a source or use restriction. Refer to specific ingredient categories for applicable use restrictions. See also TRANSPLANT MEDIA, POTTING SOIL AND POTTING MEDIA.
CGSB Reference: *32.310 Subclause 5.1.2; 32.311 Table 4.2 (column 1)*

Treated Seed
Class: CP, CT
Seed treated with biological management agents is permitted. Seed pelletized with clay, gypsum, biological organisms (such as Rhizobium) or other allowed coatings is permitted. Plastic polymer pelletization of seed is prohibited. Organic seed and planting stock may be treated, primed, pelleted, or coated with substances listed in Table 4.2 (Column 1 or 2) or Table 7.3 of CAN/CGSB-32.311. OMRI does not review or list treated seed. See SEED TREATMENTS.
CGSB Reference: *32.310 Subclause 5.3*

Tree seals **Allowed With Restrictions**
Class: CT
Plant or milk-based paints are permitted. May only be combined with substances listed in Table 4.2 (column 1 or 2). For planting stock: synthetic grafting materials are permitted, provided that plants are maintained in accordance with requirements of CAN/CGSB-32.310 for at least 12 months prior to harvest of organic products. See also PLANT PROTECTANTS.
CGSB Reference: *32.311 Table 4.2 (column 2)*

Vegetable Oils
Class: CT
See DUST SUPPRESSANTS; EXTRACTANTS.

Vermicasts
Class: CF
See WORM CASTINGS.

Vermiculite **Allowed**
Class: CF
CGSB Reference: *32.311 Table 4.2 (column 1)*

Vinegar
Class: CT
See ACETIC ACID.

Virus Sprays
Class: CP
See MICROORGANISMS AND MICROBIAL PRODUCTS.

Vitamins **Allowed**
Class: CF
Biological and mineral sources of all vitamins are permitted. Non-biological and non-mineral sources of vitamins B_1, C (ascorbic acid) and E are permitted.
CGSB Reference: *32.311 Table 4.2 (column 1)*

Vitamins **Allowed With Restrictions**
Class: CP
Biological and mineral sources of all vitamins are permitted. Non-biological and non-mineral sources of vitamins B_1, C (ascorbic acid) and E are permitted. May only be used if the requirements of CAN/CGSB-32.310 subclause 5.6.2 are met, which require the use of organic management practices and mechanical techniques. See also ASCORBIC ACID (VITAMIN C).
CGSB Reference: *32.310 Subclause 5.6.2; 32.311 Table 4.2 (column 2)*

Water **Allowed**
Class: CT
CGSB Reference: *32.311 Table 4.2 (column 2)*

Water, Recycled
Class: CT
Recycled water shall only contain substances listed in CAN/CGSB-32.311 Tables 4.2 (column 1 or 2), 7.3 and 7.4. Recycled wash water from all organic operations, including dairy operations, may be spread on crop lands. Requirements for land application, as specified in 5.5.2.5 of CAN/CGSB-32.310, shall be met. In all other uses, recycled water shall meet applicable irrigation water regulatory requirements. *OMRI does not list products in this category. Wastewater from sewage or industrial treatment plants are not permitted.
CGSB Reference: *32.310 Subclause 5.5.2.5; 32.311 Table 4.2 (column 1); (column 2)*

Wetting Agents
Class: CT
See SURFACTANTS.

Wood Ash
Class: CF
See ASH.

Worm Castings **Allowed**

Class: CF

Worm castings (also called vermicompost, worm compost, vermicasts, worm humus or worm manure) are the end product of the breakdown of organic matter and compounds by some earthworm species. Feedstocks for earthworms shall meet the criteria in COMPOST FEEDSTOCKS. The operator shall be able to demonstrate that: a) worm castings produced either on the farm or obtained from off-farm sources meet the limits for acceptable levels (MPN/g total solids) of human pathogens as specified in Guidelines for Compost Quality; or b) best practices known to eliminate human pathogens during vermicomposting have been used. See also MICROORGANISMS AND MICROBIAL PRODUCTS.

CGSB Reference: *32.311 Table 4.2 (column 1)*

Yeast

Class: CF

See MICROORGANISMS AND MICROBIAL PRODUCTS.

Zeolite

Class: CF

See MINED MINERALS.

Zinc **Allowed With Restrictions**

Class: CF

Sulphates, oxides, oxysulphates, carbonates, chlorides, citrates, lignosulphonates or permitted chelates are permitted. May be chelated with substances listed under Table 4.2 Chelates. Nitrates, amino acid chelates, ammonia-manganese complexes and polyphosphates are not permitted. May only be used when soil and plant deficiencies are documented by visual symptoms or by testing of soil or plant tissue, or when the need for a preventative application can be documented. See also CHELATES.

CGSB Reference: *32.311 Table 4.2 (column 1)*

Class Codes

CF: Crop Fertilizers and Soil Amendments

CP: Crop Pest, Weed, and Disease Control

CT: Crop Management Tools and Production Aids

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). Feed additives and supplements must comply with the livestock feed standards contained in CAN/CGSB-32.310 (par 6.4.5). Livestock producers must not provide feed supplements or additives in amounts greater than those needed for adequate nutrition and health maintenance for the species at its specific stage of life. 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 or non-nutritional need (e.g., essential nutrients in the form of amino acids, vitamins and minerals, and non-nutritive additives such as anticaking agents and antioxidants)." A feed supplement is "a feed that is used with another feed to improve the nutritive balance of the total and that is intended to be a) fed undiluted as a supplement to other feeds; b) offered free choice with other parts of the ration separately available; or c) further diluted and mixed to produce a complete feed." Feed and feed additives, including amino acids and feed supplements, may not contain substances not in accordance with CAN/CGSB-32.311. In Canada, livestock feed shall meet the compositional and labeling standards of the Canada Feeds Regulations. Ingredients used in livestock feed must be approved and listed in the Canada Feeds Regulations. 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.

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 the COS, the use of biological, cultural, and physical treatments and practices is permitted in accordance with the PSL when preventive practices and vaccines are inadequate to prevent sickness or injury, and where disease and health problems require treatment. Use of veterinary medicinal substances shall comply with Par. 6.6.10 of CAN/CGSB-32.310. Use of parasiticides not on Table 5.3 of the PSL must comply with Par. 6.6.11 of CAN/CGSB-32.310.

Livestock External Parasiticides and Pesticides (LP) include all pesticides that are used to manage ticks, flies and other external parasites and pests. They include pesticides used in barns, poultry houses, and other livestock facilities. These substances are listed in Table 5.3 of the PSL. Other substances for control of vertebrate, invertebrate, and nematode range and pasture pests are covered under Crop Pest, Weed and Disease Control, PSL Table 4.2 (column 2). Use of these substances must comply with subclauses 6.7 and 6.8 (Livestock Health Care and Livestock Living Conditions) of CAN/CGSB-32.310. In Canada, these substances are also subject to regulation under the Pest Management Regulatory Agency (PMRA) Pest Control Products Act.

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

Table of Contents

Status

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

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

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

Listings

Acetylsalicylic acid **Allowed**
Class: LH
Aspirin.
CGSB Reference: *32.311 Table 5.3*

Acid Activators for Chlorine Dioxide **Allowed With Restrictions**
Class: LT
For the generation of chlorine dioxide. Use of resulting chlorine dioxide must comply with CAN/CGSB-32.311. Must not exceed maximum levels for safe drinking water when used in direct contact with organic products and product contact surfaces without a removal event, including: a) for wash water in direct contact with crops or food, or b) in flush water from cleaning irrigation systems, equipment, and storage and/or transport units - application to crops or fields is permitted. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production. See also CHLORINE COMPOUNDS.
CGSB Reference: *32.311 Table 7.3; 7.4*

Acids **Allowed**
Class: LH, LP, LT
Ascorbic, acetic, propionic, citric, formic and lactic acids and vinegar. Permitted for all uses including livestock drinking water treatment and bedding.
CGSB Reference: *32.311 Table 5.3*

Activated Charcoal **Allowed**
Class: LH, LT
Shall be of plant origin.
CGSB Reference: *32.311 Table 5.3*

Alcohol, Ethyl (Ethanol) **Allowed With Restrictions**
Class: LH, LT
For use as a disinfectant. For use as a sanitizer.
CGSB Reference: *32.311 Table 5.3*

Alcohol, isopropyl **Allowed With Restrictions**
Class: LH, LT
For use as a disinfectant.
CGSB Reference: *32.311 Table 5.3*

Amino Acids **Allowed**
Class: LF
Organic protein feeds and non-organic feed additives that are listed in Table 5.2 are permitted. See also YEAST.
CGSB Reference: *32.311 Table 5.2*

Amino Acids, isolated **Allowed With Restrictions**
Class: LF
Isolated amino acids are permitted as an exception to 5.1.2 (CAN/CGSB-32.311) and 1.4 a) of CAN/CGSB-32.310. All isolated amino acids are permitted regardless of source and production method. For use when organic protein feeds and non-organic feed additives that are listed in Table 5.2 cannot meet amino acid requirements to produce a balanced feed as per 6.4.1 and 6.4.2 of CAN/CGSB-32.310. See also YEAST.
CGSB Reference: *32.311 Table 5.2; 5.1.2*

Antibiotics **Allowed With Restrictions**
Class: LH
Shall be used in compliance with subclause 6.6 of CAN/CGSB-32.310 pertaining to antibiotic use in livestock. See also ANTIBIOTICS, OXYTETRACYCLINE.
CGSB Reference: *32.310 Subclause 6.6; 32.311 Table 5.3*

Antibiotics, oxytetracycline **Allowed With Restrictions**
Class: LH
For emergency use for bees. The equipment shall be destroyed, in accordance with 7.1.15.7 of CAN/CGSB-32.310; treated bees do not need to be destroyed if they are taken out of organic production.
CGSB Reference: *32.310 Subclause 7.1.15.7; 32.311 Table 5.3*

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

Anti-inflammatories **Allowed With Restrictions**
Class: LH
Non-steroid anti-inflammatories such as ketoprofen. See 6.6.4.1 of CAN/CGSB-32.310. Preference shall be given to alternative products, such as those listed in CAN/CGSB-32.311 Table 5.3 Botanical compounds; and Homeopathy and biotherapies. For use as an anti-inflammatory. See also BOTANICAL COMPOUNDS, DIRECT FED; HOMEOPATHY AND BIOTHERAPIES.
CGSB Reference: *32.310 Subclause 6.6.4.1; 32.311 Table 5.3*

Antioxidants **Allowed**
Class: LF
Derived from materials produced by living organisms (such as, but not limited to, plants, animals and microorganisms) using substances listed in Table 6.3 Extraction solvents and precipitation aids. Example: tocopherols derived from plants. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 5.2*

Bedding **Allowed**
Class: LT Nonagricultural
Bedding material must be capable of absorbing excrement. Non-agricultural, absorbent bedding sources (for example, minerals, cellulose, sawdust, and wood shavings) can be used for livestock bedding as long as they meet the requirements in 1.4 and 1.5, and do not contain, or have not been treated with, prohibited substances.
CGSB Reference: *32.310 Subclause 6.7.1.g*

Bedding **Allowed With Restrictions**
Class: LT Agricultural
From non-organic sources. Bedding material must be capable of absorbing excrement. Bedding material must be non-genetically engineered and free of prohibited substances for at least 60 days prior to harvest. May only be used if organic sources are not commercially available.
CGSB Reference: *32.310 Subclause 6.7.1.g*

Biologics **Allowed With Restrictions**
Class: LH
Biologics are permitted as a preventative livestock health care practice. They include vaccines, bacterins, bacterin-toxoids, immunoglobulin products, diagnostic kits, etc. OMRI does not review or list vaccines that do not comply with 5.1.2 of CAN/CGSB-32.311. Vaccines may only be used if it has been documented that the targeted diseases are communicable to livestock on the production unit and/or operation and cannot be combated by other means. This restriction does not apply to non-vaccine biologics. See also VACCINES, OTHER; VACCINES, COMPLIANT WITH 5.1.2 OF CAN/CGSB-32.311.
CGSB Reference: *32.310 Subclause 6.6.1(f); 32.311 Table 5.3*

Botanical Compounds **Allowed**
Class: LT
Includes odor control products or other production aids not fed to livestock.
CGSB Reference: *32.311 Table 5.3*

Botanical Compounds, direct fed **Allowed With Restrictions**
Class: LH, LP
Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants. May not contain petroleum-derived formulants, such as propylene glycol. Must be used according to label specifications.
CGSB Reference: *32.311 Table 5.3*

Botanical Compounds, external use **Allowed With Restrictions**
Class: LH, LP
Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants. Includes substances containing petroleum-derived formulants, such as propylene glycol. Shall not be fed to livestock. Must be used according to label specifications.
CGSB Reference: *32.311 Table 5.3*

Calcium Borogluconate **Allowed With Restrictions**
Class: LH
For treatment of milk fever. No withdrawal period required.
CGSB Reference: *32.311 Table 5.3*

Chlorhexidine **Allowed With Restrictions**
Class: LH
For surgical procedures conducted by a veterinarian. To be used as a post-milking teat dip when alternative germicidal agents and physical barriers have lost their effectiveness. See also TEAT DIPS AND UDDER WASH.
CGSB Reference: *32.311 Table 5.3*

Chlorine Compounds **Allowed With Restrictions**
Class: LT
Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, hypochlorous acid generated via electrolyzed water, and sodium hypochlorite. When used in direct contact with organic products and product contact surfaces without a removal event, shall not exceed the maximum level of chlorine in potable water, as per the Guidelines for Canadian Drinking Water Quality published by Health Canada, as well as any applicable provincial requirements. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production.
CGSB Reference: *32.311 Table 7.3; 7.4*

Colostral whey **Allowed**
Class: LH
Probiotic.
CGSB Reference: *32.311 Table 5.3*

Colostrum **Allowed**
Class: LH
From organic sources. Shall be organic unless commercially unavailable.
CGSB Reference: *32.311 Table 5.3*

Colostrum **Allowed With Restrictions**
Class: LH
From non-organic sources. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.3*

Table of Contents

Colouring Agents **Allowed**
Class: LF
From biological sources.
CGSB Reference: *32.311 Table 5.2*

Copper Sulphate **Allowed With Restrictions**
Class: LH
For use as an essential nutrient (source of copper and sulphur) and for topical use (foot baths).
CGSB Reference: *32.311 Table 5.3*

Diatomaceous Earth **Allowed With Restrictions**
Class: LF
Must be food grade (non-calcined). May be given free choice, or up to 2% of total diet, or as an anti-caking agent in the feed ration.
CGSB Reference: *32.311 Table 5.2*

Diatomaceous Earth **Allowed With Restrictions**
Class: LP
Including non-food grade and calcined forms. For the control of external parasites.
CGSB Reference: *32.311 Table 5.3*

Diatomaceous Earth, external use **Allowed With Restrictions**
Class: LH
For the control of external parasites.
CGSB Reference: *32.311 Table 5.3*

Diatomaceous Earth, internal use **Allowed With Restrictions**
Class: LH
For internal use, diatomaceous earth shall be food grade (non-calcined). As a preventative practice for control of internal parasites.
CGSB Reference: *32.311 Table 5.3*

Electrolytes **Allowed**
Class: LH
Including, but not limited to: CMPK (Calcium, Magnesium, Phosphorus, Potassium), calcium propionate and calcium sulphate. Shall not contain antibiotics. Orally or by injection.
CGSB Reference: *32.311 Table 5.3*

Energy feeds and forage concentrates and roughages **Allowed**
Class: LF
Shall be obtained from organic sources. May include silage preservation products. See also HAY OR SILAGE PRESERVATION PRODUCTS.
CGSB Reference: *32.311 Table 5.2*

Enzymes **Allowed**
Class: LF
Enzymes originating from plants, animals, or microorganisms are permitted, including bromelain, bovine liver catalase, ficin, animal lipase, malt, pancreatin, pepsin, trypsin, proteases and carbohydrases. Animal-derived enzymes shall be 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. See also PHYTASE.
CGSB Reference: *32.311 Table 5.2*

Feed Processing Aids **Allowed**
Class: LF
Includes products used as steam conditioners, products used as processing lubricants or products having other non-nutritive feed processing functions. May contain organic agricultural ingredients and substances permitted by PSL Table 5.2.
CGSB Reference: *32.310 Subclause 6.4.4; 32.311 Table 5.2*

Fishmeal **Allowed**
Class: LF
From organic sources.
CGSB Reference: *32.311 Table 5.2*

Fishmeal **Allowed With Restrictions**
Class: LF
From non-organic sources. All preservatives and other ingredients shall be listed in Table 5.2. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.2*

Flavours **Allowed**
Class: LF
Shall be organic.
CGSB Reference: *32.311 Table 5.2*

Food Waste **Allowed**
Class: LF
From organic sources. Organic food for human consumption or by-products from organic food production (excluding abattoir waste).
CGSB Reference: *32.311 Table 5.2*

Formic Acid **Allowed With Restrictions**
Class: LP
For apicultural use to control parasitic mites. The use of this substance shall be discontinued 14 days before harvesting the hive products.
CGSB Reference: *32.311 Table 5.3*

Formulants (inerts, excipients) **Allowed With Restrictions**
Class: LT
Formulants (inerts, excipients) are not subject to 1.4 or 1.5 of CAN/CGSB-32.310 or CAN/CGSB-32.311 5.1.2. For use as a formulant with substances listed in CAN/CGSB-32.311 Table 5.3.
CGSB Reference: *32.311 Table 5.3*

Glucose **Allowed**
Class: LH, LT
CGSB Reference: *32.311 Table 5.3*

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

Glycerol (glycerine, glycerin) **Allowed**
Class: LH, LT
From organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis.
CGSB Reference: *32.311 Table 5.3*

Glycerol (glycerine, glycerin) **Allowed With Restrictions**
Class: LH, LT
From non-organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.3*

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

Homeopathy and biotherapies **Allowed**
Class: LH
CGSB Reference: *32.311 Table 5.3*

Honey **Allowed**
Class: LH, LP, LT
From organic sources.
CGSB Reference: *32.311 Table 5.3*

Hydrated Lime (Calcium Hydroxide) **Allowed With Restrictions**
Class: LH, LT
Shall not be used to deodorize animal wastes.
CGSB Reference: *32.311 Table 5.3*

Hydrogen Peroxide, food-grade **Allowed With Restrictions**
Class: LF
For internal use only (e.g., added to livestock drinking water).
CGSB Reference: *32.311 Table 5.3*

Hydrogen Peroxide, pharmaceutical grade **Allowed With Restrictions**
Class: LH
Permitted for external use (disinfectant).
CGSB Reference: *32.311 Table 5.3*

Iodine **Allowed With Restrictions**
Class: LH
Permitted sources include potassium iodide and elemental iodine. For use as a topical disinfectant.
CGSB Reference: *32.311 Table 5.3*

Iodine **Allowed With Restrictions**
Class: LT
Non-elemental iodine. Iodine shall not exceed 5% solution by volume (example: iodophors). For use as a cleaning agent. Use shall be followed by a hot water rinse.
CGSB Reference: *32.311 Table 5.3*

Iron Products **Allowed**
Class: LH
May be supplied by ferric phosphate, ferric pyrophosphate, ferrous lactate, ferrous sulphate, iron carbonate, iron gluconate, iron oxide, iron phosphate, iron sulphate or reduced iron.
CGSB Reference: *32.311 Table 5.3*

Lanolin **Allowed With Restrictions**
Class: LH, LT
For external use only, such as udder balm (ointment).
CGSB Reference: *32.311 Table 5.3*

Local Anesthetics, pharmaceutical **Allowed With Restrictions**
Class: LH
Such as lidocaine. Use of pharmaceutical local anesthetics shall be followed by withdrawal periods of 90 days for livestock intended for slaughter, and seven days for dairy animals. Preference shall be given to alternatives, such as clove oil, listed in Table 5.3 Botanical compounds; Homeopathy and biotherapies. See also LOCAL ANESTHETICS, PREFERRED SOURCES.
CGSB Reference: *32.311 Table 5.3*

Local Anesthetics, preferred sources **Allowed**
Class: LH
Preference shall be given to alternatives, such as clove oil, listed in Table 5.3 Botanical compounds; Homeopathy and biotherapies. See also BOTANICAL COMPOUNDS, EXTERNAL USE; HOMEOPATHY AND BIOTHERAPIES.
CGSB Reference: *32.311 Table 5.3*

Lysine
Class: LF
See AMINO ACIDS; AMINO ACIDS, ISOLATED.
CGSB Reference: *32.311 Table 5.2*

Magnesium Sulphate **Allowed**
Class: LH, LT
Mined sources. A source of magnesium and sulphur.
CGSB Reference: *32.311 Table 5.3*

Mammalian or avian slaughter by-products **Allowed With Restrictions**
Class: LF
From organic sources and guaranteed free of Specified Risk Materials (SRM). Shall be used only to feed insects.
CGSB Reference: *32.310 Subclause 7.7.2; 32.311 Table 5.2*

Manure or other animal waste **Allowed With Restrictions**
Class: LF
Sourced from organic livestock operations Shall be used only as a component of feed formulas for insects.
CGSB Reference: *32.310 Subclause 7.7.2; 32.311 Table 5.2*

Methionine
Class: LF
See AMINO ACIDS; AMINO ACIDS, ISOLATED.
CGSB Reference: *32.311 Table 5.2*

Microorganisms **Allowed**
Class: LT
Living or dead biological organisms, such as viruses, phages, bacteria, protozoa, fungi, etc. Includes odor control products or other production aids not fed to livestock.
CGSB Reference: *32.311 Table 5.3; 32.310 Subclause 6.7.4*

Microorganisms **Allowed**
Class: LF, LH
See also YEAST.
CGSB Reference: *32.311 Table 5.2; 5.3*

Milk Replacer **Allowed With Restrictions**
Class: LF
From non-organic sources. Without antibiotics and animal fats or by-products. For emergency use only. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.2*

Milk Replacer **Allowed With Restrictions**
Class: LF
From organic sources. Shall be organic if commercially available. Without antibiotics and animal fats or by-products. For emergency use only.
CGSB Reference: *32.311 Table 5.2*

Mineral Oil **Allowed With Restrictions**
Class: LH, LT
For external use.
CGSB Reference: *32.311 Table 5.3*

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

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

Minerals, trace minerals, elements **Allowed With Restrictions**
Class: LT Synthetic
May only be used if non-synthetic sources are not commercially available.
CGSB Reference: *32.311 Table 5.3*

Minerals, trace minerals, elements, other sources **Allowed With Restrictions**
Class: LF
Forms other than: unprocessed rock dusts; ground animal or plant material; and seawater. Chelated and sulphated forms are permitted. May not contain blood or bone meal, or be produced with EDTA and EDDHA. Shall not be used to stimulate growth or production. May only be used if unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater sources are not commercially available. See also MINERALS, TRACE MINERALS, ELEMENTS, PREFERRED SOURCES.
CGSB Reference: *32.310 Subclause 6.4.4(e); 32.311 Table 5.2*

Minerals, trace minerals, elements, preferred sources **Allowed With Restrictions**
Class: LF
Unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater are preferred sources. Chelated and sulphated forms of these sources are permitted. Shall not be used to stimulate growth or production.
CGSB Reference: *32.310 Subclause 6.4.4(e); 32.311 Table 5.2*

Molasses **Allowed With Restrictions**
Class: LF
From organic sources. Non-organic molasses is prohibited. For use as a flavouring agent.
CGSB Reference: *32.311 Table 5.2*

Oxalic acid **Allowed With Restrictions**
Class: LP
For mite control in honeybee colonies.
CGSB Reference: *32.311 Table 5.3*

Oxytocin **Allowed With Restrictions**
Class: LH
For post-parturition therapeutic use. Meat from treated animals will not lose its organic status. See 6.6.10 d) of CAN/CGSB-32.310, for criteria pertaining to the mandatory withdrawal period.
CGSB Reference: *32.311 Table 5.3*

Paints **Allowed With Restrictions**
Class: LT
Exterior surfaces may be painted with non-lead-based paints. For use on exterior surfaces of honeybee hives.
CGSB Reference: *32.310 Subclause 7.1.13.2*

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

Parasiticides and anti-microbials
Class: LH
See DIATOMACEOUS EARTH, INTERNAL USE; DIATOMACEOUS EARTH, EXTERNAL USE; SULPHUR; PLANT OILS.
CGSB Reference: *32.310 Subclause 6.6; 32.311 Table 5.3*

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

Physical Teat Seals **Allowed With Restrictions**
Class: LH
All sources are permitted. Shall be free from antibiotics. For post-lactation use. Shall be completely removed prior to nursing or milking. Shall be prescribed and administered under veterinary supervision.
CGSB Reference: *32.311 Table 5.3*

Phytase **Allowed With Restrictions**
Class: LF
GE-derived sources of phytase are allowed even though they are not compliant to 5.1.2 of CAN/CGSB-32.311 or 1.4 a) of CAN/CGSB-32.310. Permitted when feed supplementation with phytase is recommended to reduce the phosphorus level in manure and thereby reduce the potential environmental consequence.
CGSB Reference: *32.311 Table 5.2*

Plant Oils **Allowed With Restrictions**
Class: LH, LP
For the control of external parasites.
CGSB Reference: *32.311 Table 5.3*

Prebiotics **Allowed**
Class: LH
From organic sources.
CGSB Reference: *32.311 Table 5.3*

Prebiotics **Allowed With Restrictions**
Class: LH
From non-organic sources. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.3*

Pre-mixes **Allowed With Restrictions**
Class: LF
From organic sources. Concentrated mixture of minerals and vitamins. All ingredients in pre-mixes shall be listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic. Must be essential for animal nutrition.
CGSB Reference: *32.311 Table 5.2*

Pre-mixes **Allowed With Restrictions**
Class: LF
From non-organic sources. Concentrated mixture of minerals and vitamins. Ingredients listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic. May only be used if organic sources are not commercially available. Must be essential for animal nutrition.
CGSB Reference: *32.311 Table 5.2*

Probiotics **Allowed With Restrictions**
Class: LF, LH
May be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
CGSB Reference: *32.311 Table 5.2; 5.3*

Propylene Glycol **Allowed With Restrictions**
Class: LT
May only be used as an ingredient in foot baths.
CGSB Reference: *32.311 Table 5.3*

Protein feeds **Allowed**
Class: LF
Shall be from organic sources.
CGSB Reference: *32.311 Table 5.2*

Rotenone
Class: LP
Rotenone is a substance that qualifies as botanical pesticides. However, in countries such as Canada, where rotenone products are no longer registered for agricultural use, they cannot be used for organic production.
CGSB Reference: *COR SIC 308*

Seaweed Meal **Allowed**
Class: LF
From organic sources.
CGSB Reference: *32.311 Table 5.2*

Seaweed Meal **Allowed With Restrictions**
Class: LF
From non-organic sources. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.2*

Sedatives **Allowed With Restrictions**
Class: LH
Such as xylazine. For minimizing pain, stress and suffering during physical alterations permitted under CAN/CGSB 32.210 section 6.6.4, 6.6.6 and 6.6.10.
CGSB Reference: *32.310 Subclause 6.6.4.1; 32.311 Table 5.3*

Selenium Products **Allowed With Restrictions**
Class: LH
Derived from sodium selenate or sodium selenite. May be used to address documented deficiencies in the stock, soils or feed supplies. See also MINERALS, TRACE MINERALS, ELEMENTS.
CGSB Reference: *32.311 Table 5.3*

Selenium Yeast **Allowed With Restrictions**
Class: LF
Yeast that is grown on selenium-rich media. May only be used if organic sources are not commercially available. May only be used if unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater sources are not commercially available. Shall not be used to stimulate growth or production. See also MINERALS, TRACE MINERALS, ELEMENTS, OTHER SOURCES; MINERALS, TRACE MINERALS, ELEMENTS, PREFERRED SOURCES; MICROORGANISMS.
CGSB Reference: *32.311 Table 5.2*

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

Sulphur **Allowed With Restrictions**
Class: LP
For the control of external parasites.
CGSB Reference: *32.311 Table 5.3*

Teat Dips and Udder Wash **Allowed With Restrictions**
Class: LH, LP
Includes disinfectants such as alcohol, iodine, hydrogen peroxide, chlorine dioxide and ozone. May be used for a pre- or post-teat dip or udder wash if registered for this use by Canada's Food and Drug Regulations. See also CHLORHEXIDINE.
CGSB Reference: *32.311 Table 5.3*

Thymol **Allowed With Restrictions**
Class: LH, LP
Thymol derived from non-botanical sources. See Botanical Compounds, Direct Fed (LH, LP) for thymol derived from botanical sources. For use in foot baths only. See also BOTANICAL COMPOUNDS, DIRECT FED.
CGSB Reference: *32.311 Table 5.3*

Vaccines, compliant with 5.1.2 of CAN/CGSB-32.311 **Allowed With Restrictions**
Class: LH
Vaccines compliant with 5.1.2 of CAN/CGSB-32.311. For use in the prevention of disease. May only be used if it has been documented that the targeted diseases are communicable to livestock on the production unit and/or operation and cannot be combated by other means.
CGSB Reference: *32.310 Subclause 6.6.1; 32.311 Table 5.3; COR SIC 298*

Vaccines, other
Class: LH
If vaccines compliant to 5.1.2 of CAN/CGSB–32.311 are not commercially available, or are ineffective, vaccines not compliant to 5.1.2 are permitted. Vaccines that are not compliant with 5.1.2 of CAN/CGSB-32.311 may be used on day-old birds and fertilized eggs. May only be used if it has been documented that the targeted diseases are communicable to livestock on the production unit and/or operation and cannot be combated by other means. OMRI does not review or list sources of vaccines that do not comply with 5.1.2 of CAN/CGSB–32.311.
CGSB Reference: *32.310 Subclause 6.6.1; 32.311 Table 5.3; COR SIC 298*

Vitamins **Allowed**
Class: LF
Permitted for enrichment or fortification. Vitamin formulants that comply with Canadian regulations are accepted, including those containing non-organic agricultural carriers. Vitamins not compliant to 5.1.2 of CAN/CGSB-32.311 are permitted.
CGSB Reference: *32.311 Table 5.2*

Vitamins **Allowed**
Class: LH
Vitamin formulants that comply with Canadian regulations are accepted, including those containing non-organic agricultural carriers. Vitamins not compliant to CAN/CGSB-32.311 5.1.2 are permitted. Orally, topically or by injection.
CGSB Reference: *32.311 Table 5.3*

Yeast **Allowed**
Class: LF, LH
From organic sources.
CGSB Reference: *32.311 Table 5.2; 5.3*

Yeast **Allowed With Restrictions**
Class: LF, LH
From non-organic sources. Non-organic yeast sources, including yeast autolysate. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 5.2; 5.3*

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

Processing
& HANDLING CATEGORIES

Class Coding

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

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

Processing Ingredients and Aids (PI) include non-organic food additives and other ingredients and processing aids permitted in organic products. Processing ingredients classified as food additives by the Canada Food and Drug Regulations are listed in Table 6.3 of the PSL. Other permitted processing ingredients that are not considered food additives are listed in Table 6.4 of the PSL. Processing aids appear in Table 6.5 of the PSL.

Organic commercial availability requirements specified in the PSL apply to substances used in products composed of 95% or more organic content. Non-synthetic commercial availability requirements specified in the PSL apply to substances used in products composed of 70% or more organic content.

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

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

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

Status

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

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

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

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

Listings

Acer pennsylvanicum **Allowed With Restrictions**
Class: PI
For use as an anti-foaming agent in maple syrup production.
CGSB Reference: *32.311 Table 6.5*

Acetic Acid **Allowed**
Class: PS
Must be produced by microbial fermentation of natural carbohydrate sources (sugars, wood, etc.). Example: apple cider vinegar. May be filtered or unfiltered. Permitted on organic products and on organic product contact surfaces.
CGSB Reference: *32.311 Table 7.3*

Acetic Acid **Allowed With Restrictions**
Class: PS
From sources produced using methods other than microbial fermentation of natural carbohydrate sources. For use on organic product contact surfaces. Direct contact with organic products is prohibited.
CGSB Reference: *32.311 Table 7.3*

Acids **Allowed**
Class: PI
Including the following sources: a) alginic; b) citric—from fruit and vegetable products or produced by microbial fermentation of carbohydrate substances; and c) lactic.
CGSB Reference: *32.311 Table 6.3; 6.5*

Activated Charcoal **Allowed With Restrictions**
Class: PI
Shall be of plant origin. Prohibited for use in the production of maple syrup.
CGSB Reference: *32.311 Table 6.3; 6.5*

Agar **Allowed**
Class: PI
See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.3*

Alcohol **Allowed**
Class: PS
From organic sources.
CGSB Reference: *32.311 Table 7.3*

Alcohol, Ethyl (Ethanol) **Allowed**
Class: PI
From organic sources. Organic alcohol is permitted as a processing aid.
CGSB Reference: *32.311 Table 6.5*

Alcohol, Ethyl (Ethanol) **Allowed With Restrictions**
Class: PI
From non-organic sources. As a processing aid. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.5*

Alcohol, Ethyl (Ethanol) **Allowed With Restrictions**
Class: PS
For use on organic product contact surfaces.
CGSB Reference: *32.311 Table 7.3*

Alcohol, isopropyl **Allowed With Restrictions**
Class: PS
For use on organic product contact surfaces.
CGSB Reference: *32.311 Table 7.3*

Algal Oil
Class: PI
See LONG-CHAIN POLYUNSATURATED FATTY ACIDS.
CGSB Reference: *32.311 Table 6.4*

Alginates **Allowed**
Class: PI
The following alginates are permitted: a) alginic acid; b) potassium alginate; and c) sodium alginate.
CGSB Reference: *32.311 Table 6.3*

Amino Acids **Allowed With Restrictions**
Class: PI
For use if legally permitted in infant formula and formulated liquid diets to achieve the levels of protein required.
CGSB Reference: *32.311 Table Table 6.4*

Ammonium Bicarbonate **Allowed With Restrictions**
Class: PI
For use as a leavening agent.
CGSB Reference: *32.311 Table 6.3*

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

Ammonium Carbonate **Allowed With Restrictions**
Class: PI
For use as a leavening agent.
CGSB Reference: *32.311 Table 6.3*

Ammonium Carbonate **Allowed With Restrictions**
Class: PP
For use as an attractant in insect traps.
CGSB Reference: *32.311 Table 8.2*

Antifoaming Agents **Allowed**
Class: PI
Antifoaming agents composed of organic agricultural ingredients and substances permitted on Tables 6.3 and 6.5 are permitted.
CGSB Reference: *32.311 Table 6.3; 6.5*

Argon **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3; 6.5*

Ascorbic Acid (Vitamin C) **Allowed**
Class: PI
May be used as a food additive.
CGSB Reference: *32.311 Table 6.3*

Ascorbic Acid (Vitamin C) **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Ascorbic Acid (Vitamin C) **Allowed With Restrictions**
Class: PI
For use as an anti-browning agent prior to the extraction or concentration of fruit or vegetable juice.
CGSB Reference: *32.311 Table 6.5*

Baits for rodent control **Allowed With Restrictions**
Class: PP
Non-poisonous baits are permitted. For use with rodent control devices in enclosed tamper-proof containers, in locations where there is no potential for contamination of organic products, crops, or fields with prohibited substances.
CGSB Reference: *32.311 Table 8.2; 32.310 Subclause 8.3.5*

Bentonite **Allowed With Restrictions**
Class: PI
For use as a processing aid.
CGSB Reference: *32.311 Table 6.5*

Bleach
Class: PS
See OZONE.

Boric Acid **Allowed With Restrictions**
Class: PP
For structural pest control (example: for ants). Direct contact with organic products is prohibited.
CGSB Reference: *32.311 Table 8.2*

Botanical oils **Allowed With Restrictions**
Class: PP
Oils from the Lamiaceae (mint family), Apiaceae/Umbelliferae (celery family) and Myrtaceae (clove family) are permitted. For post-harvest use as a sprout inhibitor.
CGSB Reference: *32.311 Table 8.3*

Calcium Carbonate **Allowed With Restrictions**
Class: PI
For use as a food additive or a processing aid, except that use as a colouring agent is prohibited.
CGSB Reference: *32.311 Table 6.3; 6.5*

Calcium Chloride **Allowed With Restrictions**
Class: PI
For use in: a) milk products; b) fat products; c) soybean products; d) fruits and vegetables and e) beer brewing to adjust calcium level.
CGSB Reference: *32.311 Table 6.3*

Calcium Citrate **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3*

Calcium Hydroxide (Lime) **Allowed With Restrictions**
Class: PI
For use as a processing aid.
CGSB Reference: *32.311 Table 6.5*

Calcium Phosphates **Allowed**
Class: PI
Mono-, di-, and tri-basic forms.
CGSB Reference: *32.311 Table 6.3*

Calcium Sulphate (Gypsum) **Allowed**
Class: PI
Mined sources; calcium sulphate produced using sulphuric acid is prohibited.
CGSB Reference: *32.311 Table 6.3*

Calcium Sulphate (Gypsum) **Allowed With Restrictions**
Class: PI
Sulphates produced using sulphuric acid are prohibited. May be used: a) as a carrier for cakes and biscuits; b) for soybean products; and c) for bakers' yeast.
CGSB Reference: *32.311 Table 6.5*

Carbon dioxide **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Carbon dioxide (CO_2) **Allowed With Restrictions**
Class: PP, PI
Prohibited as food additive for the carbonation of wine or mead. For use as a processing aid. For use in facility pest management. For use in controlled atmosphere storage in post-harvest handling.
CGSB Reference: *32.311 Table 6.3; 6.5; 8.2; 8.3*

Carrageenan (Irish moss) **Allowed**
Class: PI
For use as a food additive or as a processing aid. When used as a food additive, substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids as well as isopropyl alcohol may be used to derive carrageenan. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.3; 6.5*

Carriers **Allowed With Restrictions**
Class: PI
From non-organic sources. Carriers of non-agricultural origin may be used if listed on CAN/CGSB-32.311 Tables 6.3, 6.4 or 6.5. Non-organic carriers may only be used if ingredients or processing aids containing organic carriers are not commercially available.
CGSB Reference: *32.311 Table 6.3; 6.4*

Casein **Allowed**
Class: PI
From organic sources. Organic casein is permitted as a processing aid.
CGSB Reference: *32.311 Table 6.5*

Casein **Allowed With Restrictions**
Class: PI
From non-organic sources. Non-organic casein shall be derived from the milk of animals not treated with rBGH (recombinant bovine growth hormone). For use as a production aid. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.5*

Cellulose **Allowed With Restrictions**
Class: PI
The TCF (Totally Chlorine Free) method of bleaching is permitted. For use as a filtering aid (non-chlorine bleached). For use in inedible regenerative sausage casings.
CGSB Reference: *32.311 Table 6.5*

Chlorine Compounds **Allowed With Restrictions**
Class: PS
Includes the following chlorine compounds: calcium hypochlorite, chlorine dioxide, hypochlorous acid generated via electrolyzed water, and sodium hypochlorite. When used in direct contact with organic products and product contact surfaces without a removal event, shall not exceed the maximum level of chlorine in potable water, as per the Guidelines for Canadian Drinking Water Quality published by Health Canada, as well as any applicable provincial requirements. May be used up to maximum label rates on organic product contact surfaces provided that a removal event has eliminated the substance prior to organic production.
CGSB Reference: *32.311 Table 7.3; 7.4*

Cholecalciferol (Vitamin D_3) **Allowed With Restrictions**
Class: PP
Prohibited inside organic food processing and food storage facilities.
CGSB Reference: *32.311 Table 8.2*

Citric Acid
Class: PI
See ACIDS.

Citric Acid **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Clay Dust **Allowed With Restrictions**
Class: PI
For use as a filtering agent in maple syrup production.
CGSB Reference: *32.311 Table 6.5*

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

Colouring Agents **Allowed**
Class: PI
From biological sources such as spices, annatto, juices made from plant sources, etc. derived using approved methods (see CAN/CGSB-32.310 Table 12 B (1) and (2), Origin and mode of production), and substances in CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids. May contain permitted carriers at CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS; CARRIERS.
CGSB Reference: *32.311 Table 6.3*

Cornstarch **Allowed**
Class: PI
From organic sources. May contain substances that are plant-derived or listed in Tables 6.3, 6.4 or 6.5.
CGSB Reference: *32.311 Table 6.4*

Cornstarch **Allowed With Restrictions**
Class: PI
From non-organic sources. May contain substances that are plant-derived or listed in Tables 6.3, 6.4 or 6.5. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.4*

Cultures
Class: PI
See MICROORGANISMS; YEAST.

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

Defoamers, agricultural source **Allowed With Restrictions**
Class: PI Agricultural
From non-organic sources. Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems-Permitted Substances List, allowed for use as food additives or processing aids. May only be used if organic sources are not commercially available. Prohibited for use in the production of maple syrup.
CGSB Reference: *32.311 Table 6.3; 6.5; 32.310 Subclause 7.2.12.5*

Defoamers, maple production **Allowed**
Class: PI
From organic sources. Plant-based organic anti-foaming products are permitted (e.g., organic vegetable oils with no allergenic potential). Pennsylvania maple wood from the organic operation (*Acer pennsylvanicum,* also known as striped maple) can also be used.
CGSB Reference: *32.311 Table 6.5; 32.310 Subclause 7.2.12.5*

Defoamers, non-agricultural source **Allowed With Restrictions**
Class: PI Nonagricultural
Must be composed entirely of substances appearing on CAN/CGSB-32.311, Organic Production Systems - Permitted Substances List, allowed for use as food additives or processing aids. Prohibited for use in the production of maple syrup.
CGSB Reference: *32.311 Table 6.3; 6.5; 32.310 Subclause 7.2.12.5*

Detergents **Allowed With Restrictions**
Class: PS
Detergent products shall be: 1) readily, ultimately or inherently biodegradable as per the Organisation for Economic Cooperation and Development (OECD) definitions; 2) composed of substances listed in Tables 7.3 or 7.4, if surfactants are added they will meet the OECD definition of biodegradable; or 3) readily eliminated during wastewater treatment such that harm to the environment is minimized. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Diatomaceous Earth **Allowed**
Class: PP
Direct contact with organic products is permitted.
CGSB Reference: *32.311 Table 8.2*

Diatomaceous Earth **Allowed With Restrictions**
Class: PI
For use as a clarifying agent. For use as a filtering aid.
CGSB Reference: *32.311 Table 6.5*

Dibasic Ammonium Phosphate **Allowed With Restrictions**
Class: PI
Also known as diammonium phosphate or DAP. As a yeast and bacterial food for vinegar and alcohol production restricted to 0.3 g/L (0.04 oz./gal.). Not to be added to a final vinegar or alcohol product.
CGSB Reference: *32.311 Table 6.3*

Enzymes **Allowed With Restrictions**
Class: PI
From non-organic sources. Enzymes originating from animals shall be organic if commercially available: rennet; catalase from 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. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.3; 6.5*

Enzymes, egg white lysozyme **Allowed**
Class: PI
See also ENZYMES, PLANT OR ORGANIC ANIMAL DERIVED.
CGSB Reference: *32.311 Table 6.3; 6.5*

Enzymes, plant or organic animal derived **Allowed**
Class: PI
Any preparations of enzymes normally used in food processing originating from edible, non-toxic plants, non-pathogenic fungi or nonpathogenic bacteria. Includes organic enzymes originating from animals: rennet; catalase from 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.
CGSB Reference: *32.311 Table 6.3; 6.5*

Essential oils **Allowed With Restrictions**
Class: PS
Derived from plant sources using substances on CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids. May contain carriers permitted on CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Ethylene **Allowed With Restrictions**
Class: PI
For post-harvest ripening of tropical fruit and degreening of citrus and to control sprouting of potatoes post-harvest in holding bins.
CGSB Reference: *32.311 Table 8.3*

Extraction solvents and precipitation aids **Allowed With Restrictions**
Class: PI
The following may be used: a) Water; b) culinary steam, containing only substances listed in CAN/CGSB-32.311 Tables 6.3-6.5 and food-grade cleaners, disinfectants and sanitizers authorized for organic product contact in Table 7.3 of CAN/CGSB-32.311; c) fats, oils and alcohols other than isopropyl alcohol; d) supercritical CO_2; and e) substances listed in CAN/CGSB-32.311 Tables 6.3-6.5. Precipitation aids derived from biological sources (such as plant proteins, albumin, casein, and gelatin) may also be used. In addition, non-biological precipitation aids, such as bentonite, silicon dioxide, etc., may be used if listed in CAN/CGSB-32.311 Tables 6.3-6.5. If listed in CAN/CGSB-32.311 Tables 6.3-6.5, precipitation aids shall meet any annotation restrictions therein. For deriving substances listed in CAN/CGSB-32.311 Tables 5.2, 6.3, 6.4 and 6.5.
CGSB Reference: *32.311 Table 6.3; 32.310 Subclause 8.1.2.b*

Fatty Acids **Allowed With Restrictions**
Class: PI
From organic sources. Omega-3 and Omega-6 fatty acids are permitted. For use in infant formulas to achieve the levels of fatty acids legally required.
CGSB Reference: *32.311 Table 6.4*

Fatty Acids **Allowed With Restrictions**
Class: PI
From non-organic sources. Omega-3 and Omega-6 fatty acids are permitted. For use in infant formulas to achieve the levels of fatty acids legally required. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.4*

Ferrous sulphate **Allowed With Restrictions**
Class: PI
Shall be used if legally required and may be used, on a voluntary basis, if legally permitted.
CGSB Reference: *32.311 Table 6.4*

Flavours **Allowed**
Class: PI
Derived from biological sources using approved methods (see Table 12 B (1) & (2) of CAN/CGSB-32.310), and substances (see CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids). Includes alternative substances derived from biological sources that impart flavour and are permitted by Table 12 B (3) in CAN/CGSB-32.310. May contain permitted carriers on CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.4*

Formulants, PMRA List 1 and 2 **Prohibited**
Class: PP
Formulants classified as List 1 or 2 by PMRA are prohibited.
CGSB Reference: *32.311 Table 8.2*

Formulants, PMRA List 3 **Allowed With Restrictions**
Class: PP
Formulants classified as List 3 by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with passive pheromone dispensers. See also PHEROMONES AND OTHER SEMIOCHEMICALS.
CGSB Reference: *32.311 Table 8.2*

Formulants, PMRA List 4A and 4B **Allowed With Restrictions**
Class: PP
Only formulants classified as List 4A or 4B by the Pest Management Regulatory Agency (PMRA) or derived from biological or mineral sources may be used with substances in Table 8.1 or 8.2. Formulants classified as List 4A or 4B by PMRA are not subject to 1.4 or 1.5 of CAN/CGSB-32.310. For use as a formulant with substances listed in CAN/CGSB-32.311 Table 8.2 or 8.3.
CGSB Reference: *32.311 Table 8.2; 8.3*

Gelatine **Allowed**
Class: PI
From organic sources. Plant sources are permitted.
CGSB Reference: *32.311 Table 6.3; 6.5*

Gelatine **Allowed With Restrictions**
Class: PI
From non-organic sources. Permitted sources are: a) plants; and b) animals. If originating from cattle, gelatine shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. May only be used if organic sources are not commercially available. Animal gelatine may be used as a processing aid in preparations of canned meat or as a gelling agent for gummed candy. Permitted as a food additive, with no additional restriction.
CGSB Reference: *32.311 Table 6.3; 6.5*

Gelatine **Allowed With Restrictions**
Class: PI
From organic sources. If originating from cattle, gelatine shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of cattle aged 30 months or older; and the distal ileum (portion of the small intestine) of cattle of all ages. Animal gelatine may be used as a processing aid in preparations of canned meat or as a gelling agent for gummed candy. Permitted as a food additive, with no additional restriction.
CGSB Reference: *32.311 Table 6.3; 6.5*

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

Glycerides, Mono- and Di- **Allowed With Restrictions**
Class: PI
From non-organic sources. For use in drum drying of products. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.3*

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

Glycerides, Mono- and Di- **Allowed With Restrictions**
Class: PI
From organic sources. For use in drum drying of products.
CGSB Reference: *32.311 Table 6.3*

Glycerol (glycerine, glycerin) **Allowed**
Class: PI
From organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis.
CGSB Reference: *32.311 Table 6.3*

Glycerol (glycerine, glycerin) **Allowed**
Class: PS
May be used on organic product contact surfaces, including hands. May be used on organic products if sourced from vegetable oil or animal fat and produced using fermentation or by hydrolysis.
CGSB Reference: *32.311 Table 7.3*

Glycerol (glycerine, glycerin) **Allowed With Restrictions**
Class: PI
From non-organic sources. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.3*

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

Hydrogen Peroxide **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Iodine **Allowed With Restrictions**
Class: PS
Non-elemental iodine. Shall not exceed 5% solution by volume (example: iodophors). May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Isinglass **Allowed With Restrictions**
Class: PI
For use as a fining agent.
CGSB Reference: *32.311 Table 6.5*

Kaolin **Allowed With Restrictions**
Class: PI
For use as a clarifying agent.
CGSB Reference: *32.311 Table 6.5*

Kelp and kelp products **Allowed With Restrictions**
Class: PI
For use as a thickener and dietary supplement.
CGSB Reference: *32.311 Table 6.3*

Lactic acid
Class: PI
See ACIDS.

Lactic acid **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Lecithin **Allowed**
Class: PI
From organic sources. Bleached form is permitted if processed using food-grade hydrogen peroxide.
CGSB Reference: *32.311 Table 6.3; 6.5*

Lecithin **Allowed With Restrictions**
Class: PI
From non-organic sources. Bleached form is permitted if processed using food-grade hydrogen peroxide. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.3; 6.5*

Lime **Allowed With Restrictions**
Class: PS
All forms of lime, including calcium carbonate, calcium hydroxide and calcium oxide. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Long-Chain Polyunsaturated Fatty Acids **Allowed With Restrictions**
Class: PI
From organic sources. Also known as LCPUFAs. Includes: a) docosahexaenoic acid (DHA) – from algal sources; b) arachidonic acid (ARA) – from fungal sources. For use in infant formulas to achieve the levels of fatty acids legally required.
CGSB Reference: *32.311 Table 6.4*

Long-Chain Polyunsaturated Fatty Acids **Allowed With Restrictions**
Class: PI
From non-organic sources. Also known as LCPUFAs. Includes: a) docosahexaenoic acid (DHA) – from algal sources; b) arachidonic acid (ARA) – from fungal sources. May only be used if organic sources are not commercially available. For use in infant formulas to achieve the levels of fatty acids legally required.
CGSB Reference: *32.311 Table 6.4*

Magnesium Carbonate **Allowed With Restrictions**
Class: PI
For use as an anti-caking agent in non-standardized dry mixes (e.g., seasonings) used in meat products with 70-95% organic content.
CGSB Reference: *32.311 Table 6.3*

Magnesium Chloride (nigari) **Allowed**
Class: PI
Derived from seawater.
CGSB Reference: *32.311 Table 6.3*

Magnesium Stearate **Allowed With Restrictions**
Class: PI
For use as an anti-caking or releasing agent. May only be used in products whose contents are 70 percent or more, and less than 95 percent organic ingredients.
CGSB Reference: *32.311 Table 6.3*

Magnesium Sulphate **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Magnesium Sulphate **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3*

Malic acid **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3*

Meat curing agents **Allowed**
Class: PI
From organic sources. Organic extracts, juice or cultured powder of celery or chard are permitted.
CGSB Reference: *32.311 Table 6.3*

Meat curing agents **Allowed With Restrictions**
Class: PI
From non-organic sources. Extracts, juice or cultured powder of celery or chard are permitted. May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.3*

Methanesulphonic acid **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4*

Microorganisms **Allowed**
Class: PI
Microbial preparations may contain substrates derived from agricultural or biological substances such as milk, lactose, soy, agar, etc. May also contain permitted carriers listed in CAN/CGSB-32.311 Tables 6.3 and 6.4 Carriers. Includes starter and dairy cultures and other preparations of microorganisms normally used in product processing. See also CARRIERS.
CGSB Reference: *32.311 Table 6.4*

Microorganisms **Allowed**
Class: PS
Living or dead biological organisms, such as viruses, phages, bacteria, protozoa, fungi, etc.
CGSB Reference: *32.311 Table 7.3*

Neem oil **Allowed**
Class: PP
CGSB Reference: *32.311 Table 8.2*

Nitrogen Gas **Allowed With Restrictions**
Class: PI
For controlled atmosphere storage. For use in post-harvest handling.
CGSB Reference: *32.311 Table 8.3*

Nitrogen Gas, food-grade **Allowed**
Class: PI
Shall be food-grade quality.
CGSB Reference: *32.311 Table 6.4; 6.5*

Octanoic acid (caprylic acid) **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

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

Ozone **Allowed**
Class: PS, PI
CGSB Reference: *32.311 Table 6.3; 6.5; 7.3*

Packaging Materials **Allowed**
Class: PC
If producing or preparing organic products, the following substances, materials or techniques are prohibited since they are incompatible with the general principles of organic production: equipment, harvest and storage containers, storage facilities and packaging materials treated with fungicides, preservatives, fumigants and pesticides not listed in CAN/CGSB-32.311, except as permitted in 8.2.3 and 8.3.3 of CAN/CGSB-32.310. OMRI does not review or list packaging materials treated with substances permitted under CAN/CGSB-32.310 §8.3.3. Intentional use of materials or products derived from nanotechnology in packaging materials is not allowed if transference of nano-particles to organic products is likely to occur.
CGSB Reference: *32.310 Subclause 1.4.b.2; 1.4.e*

Pectin **Allowed**
Class: PI
High-methoxyl and low-methoxyl pectin sources are permitted.
CGSB Reference: *32.311 Table 6.3*

Peracetic Acid/ Peroxyacetic Acid **Allowed With Restrictions**
Class: PS
For use in wash or rinse water on food and plants, including as a carcass wash. For use on food contact surfaces.
CGSB Reference: *32.311 Table 7.3; 6.5*

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

Perlite **Allowed With Restrictions**
Class: PI
For use as a filtering aid.
CGSB Reference: *32.311 Table 6.5*

Peroxyoctanoic acid (POOA) **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Pheromones and other semiochemicals **Allowed With Restrictions**
Class: PP
Formulants classified in List 3 by PMRA may be used with passive pheromone dispensers. For use as a pest control in pheromone traps or passive dispensers.
CGSB Reference: *32.311 Table 8.2*

Phosphoric Acid **Allowed With Restrictions**
Class: PS
For use on dairy equipment. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Potassium Acid Tartrate **Allowed**
Class: PI
KC4H5O6. From grapes/wine-making.
CGSB Reference: *32.311 Table 6.3*

Potassium Bicarbonate **Allowed With Restrictions**
Class: PS
For use on organic product contact surfaces.
CGSB Reference: *32.311 Table 7.3*

Potassium Bisulphite and Metabisulphite
Class: PI
See SULPHUR DIOXIDE, ANHYDROUS (SO_2).
CGSB Reference: *32.311 Table 6.3*

Potassium Carbonate **Allowed**
Class: PI
Mono- and bi- forms may be used as a food additive. Potassium carbonate may also be used as a processing aid.
CGSB Reference: *32.311 Table 6.3; 6.5*

Potassium Carbonate **Allowed With Restrictions**
Class: PS
Documentation shall demonstrate that effluent discharge was neutralized to minimize negative environmental impact. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Potassium Chloride **Allowed**
Class: PI
From mined sources such as sylvite, carnalite, and potash. May be used for all types of food production, including as food for yeast and bacteria in vinegar and alcohol production.
CGSB Reference: *32.311 Table 6.3; 6.4*

Potassium Citrate **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3*

Potassium hydroxide (caustic potash) **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Potassium hydroxide (caustic potash) **Allowed With Restrictions**
Class: PI
For use as a processing aid. Prohibited for use in lye peeling of fruits and vegetables.
CGSB Reference: *32.311 Table 6.5*

Potassium Iodide **Allowed With Restrictions**
Class: PI
Shall be used if legally required or permitted.
CGSB Reference: *32.311 Table 6.4*

Potassium Metabisulphite, maple production **Allowed With Restrictions**
Class: PS
Also known as PMBS. For use only in off-season microbial control during storage of osmosis membranes used for maple syrup production. The membrane must be rinsed with a volume of water equal to the hourly capacity of the membrane before the next use.
CGSB Reference: *32.310 Subclause 7.2.12.3*

Potassium Permanganate **Allowed With Restrictions**
Class: PS
Shall not exceed 1% solution by volume. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Potassium Phosphate (mono-, di-, and tribasic forms) **Allowed With Restrictions**
Class: PI
May only be used in products whose contents are 70 percent or more, and less than 95 percent organic ingredients.
CGSB Reference: *32.311 Table 6.3*

Potassium Tartrate **Allowed**
Class: PI
K2C4H4O6. INS 336.
CGSB Reference: *32.311 Table 6.3*

Pyrethrins **Allowed With Restrictions**
Class: PP
Without piperonyl butoxide. Direct contact with organic products is prohibited.
CGSB Reference: *32.311 Table 8.2*

Radiation, non-ionizing
Class: PS
May be used to manage pest loads on product and product contact surfaces, including facilities and equipment, and empty hives. See Glossary for definition of radiation, non-ionizing.
CGSB Reference: *32.311 Table 7.3*

Repellents **Allowed With Restrictions**
Class: PP
Shall be derived from a biological source, such as sterilized blood meal, rotten eggs, hair or predator scents. May contain other biological components and PMRA 4a- or 4b-listed formulants. For facility pest management. Shall be used in conjunction with the practices enumerated in CAN/CGSB-32.310 8.3.1 (a-c).
CGSB Reference: *32.310 Subclause 8.3.2; 32.311 Table 8.2*

Salt **Allowed**
Class: PI
Substances listed in CAN/CGSB-32.311 Tables 6.3 or 6.4 may be added to mined or sea salt. See Glossary for definition of "salt." See also SODIUM CHLORIDE; POTASSIUM CHLORIDE.
CGSB Reference: *32.311 Table 6.4*

Sanitizers, Disinfectants and Cleaners
Class: PS
OMRI does not review or list cleaners, disinfectants and/or sanitizers which may be allowed in Canadian organic production under CAN/CGSB-32.310 subclause 8.2.3. A certification body must determine if and how these materials may be used. For use as a cleaner, disinfectant and sanitizer on organic food-contact surfaces if substances in Tables 7.3 and 7.4 are ineffective, provided that documentation demonstrates: a) the efficacy of the alternative substance(s); and b) removal event(s) have eliminated the alternative substance(s) from organic product contact surfaces prior to organic production; and c) that effluent discharge was neutralized to minimize negative impact on the environment.
CGSB Reference: *32.310 Subclause 8.2.1; 8.2.2; 8.2.3*

Saponin **Allowed With Restrictions**
Class: PS
Derived from plants such as Yucca schidigera and Quillaja saponaria. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Silicon dioxide (silica) **Allowed With Restrictions**
Class: PI
When used in maple syrup production, may only be used with a filter press to remove suspended solids. See also SYRUP FILTRATION AND OTHER TREATMENTS.
CGSB Reference: *32.311 Table 6.3; 6.5; 32.310 Subclause 7.2.12.6*

Smoke Flavour
Class: PI
See YEAST.

Soap-based Algicide (demossers) **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Soaps **Allowed With Restrictions**
Class: PS
Soaps shall consist of fatty acids derived from animal or vegetable oils. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Soaps, Ammonium **Allowed With Restrictions**
Class: PP
For use as a large animal repellent. Direct contact with organic products is prohibited.
CGSB Reference: *32.311 Table 8.2*

Sodium Acid Pyrophosphate **Allowed With Restrictions**
Class: PI
For use as a leavening agent.
CGSB Reference: *32.311 Table 6.3*

Sodium bicarbonate (baking soda) **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Sodium bicarbonate (baking soda) **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3; 6.5*

Sodium borate **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Sodium carbonate (soda ash) **Allowed**
Class: PS
Only biological or mined sources may be used on food or food contact surfaces without a mandatory removal event.
CGSB Reference: *32.311 Table 7.3*

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

Sodium carbonate (soda ash) **Allowed**
Class: PI
From biological or mined sources.
CGSB Reference: *32.311 Table 6.3*

Sodium carbonate (soda ash) **Allowed With Restrictions**
Class: PI
May only be used if biological or mined sources are not commercially available.
CGSB Reference: *32.311 Table 6.3*

Sodium carbonate (soda ash) **Allowed With Restrictions**
Class: PS Synthetic
Synthetic sources. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Sodium Chloride **Allowed**
Class: PI
CGSB Reference: *32.311 Table 6.3*

Sodium Citrate **Allowed**
Class: PS, PI
CGSB Reference: *32.311 Table 6.3; 7.3*

Sodium hydroxide (lye or caustic soda) **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Sodium hydroxide (lye or caustic soda) **Allowed With Restrictions**
Class: PI
Prohibited for use in lye peeling of fruits and vegetables.
CGSB Reference: *32.311 Table 6.3; 6.5*

Sodium Metabisulphite, maple production **Allowed With Restrictions**
Class: PS
Also known as SMBS. For use only in off-season microbial control during storage of osmosis membranes used for maple syrup production. The membrane must be rinsed with a volume of water equal to the hourly capacity of the membrane before the next use.
CGSB Reference: *32.310 Subclause 7.2.12.3*

Sodium Percarbonate **Allowed With Restrictions**
Class: PS
May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Sodium Phosphates **Allowed With Restrictions**
Class: PI
For use in dairy products.
CGSB Reference: *32.311 Table 6.3*

Sodium Silicate **Allowed With Restrictions**
Class: PS
For use in detergents. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also DETERGENTS.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Starch **Allowed**
Class: PI
From rice. Shall be derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents and precipitation aids, where applicable. Starch shall not be modified by chemicals. Starch may be modified using physical or enzymatic methods. See also CORNSTARCH.
CGSB Reference: *32.311 Table 6.4*

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

Sulphur dioxide, anhydrous (SO_2) **Allowed With Restrictions**
Class: PI
Sulphites from SO_2-bottled gas; as liquid SO_2; or liberated from ignition of asbestos-free sulphur wicks are permitted. Sulphurous acid (aqueous sulphur dioxide), potassium bisulphite and potassium metabisulphite are also permitted. For use as a preservative in alcoholic beverages; minimal use of SO_2 is recommended. Maximum allowable levels of SO_2 in parts per million (ppm) are: a) in alcoholic beverages containing less than 5% residual sugar, 100 ppm and 30 ppm for total sulphites and free sulphites, respectively; b) in alcoholic beverages containing 5% - 10% residual sugar, 150 ppm and 35 ppm for total and free sulphites, respectively; and c) in alcoholic beverages containing more than 10% residual sugar, 250 ppm and 45 ppm for total and free sulphites, respectively.
CGSB Reference: *32.311 Table 6.3*

Sulphurous acid (aqueous sulphur dioxide)
Class: PI
See SULPHUR DIOXIDE, ANHYDROUS (SO_2).

Surfactants **Allowed With Restrictions**
Class: PS
Surfactants either stand alone or when formulated with substances permitted by Table 7.3 and/or 7.4 to create cleaning products including detergents, soaps, degreasers, and disinfectants, shall be readily, ultimately or inherently biodegradable as per the Organisation for Economic Co-operation and Development (OECD) definitions, or readily eliminated during wastewater treatment such that harm to the environment is minimized. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also SOAPS; DETERGENTS.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Surfactants, biodegradable **Allowed With Restrictions**
Class: PS
Surfactants either stand alone or when formulated with substances permitted by Table 7.3 shall be readily, ultimately or inherently biodegradable as per the Organisation for Economic Co-operation and Development (OECD) definitions. For use in egg washing.
CGSB Reference: *32.311 Table 7.3*

Syrup filtration and other treatments
Class: PI
Organic maple syrup shall not be refined by artificial means, bleached or lightened in colour. Simple filtration via the following methods is permitted: through cloth or paper, a filter press or food-grade diatomaceous earth, or use of silica powder or clay dust with a filter press to remove suspended solids. *OMRI does not list products in this category. See SILICON DIOXIDE (SILICA); CLAY DUST; DIATOMACEOUS EARTH.
CGSB Reference: *32.310 Subclause 7.2.12.6*

Talc **Allowed With Restrictions**
Class: PI
For use as a filtering aid.
CGSB Reference: *32.311 Table 6.5*

Tannic Acid **Allowed With Restrictions**
Class: PI
From non-organic sources. For use as a filtration aid for wines. May only be used if organic sources are not commercially available. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.5*

Tannic Acid **Allowed With Restrictions**
Class: PI
From organic sources. Shall be derived using substances listed in Table 6.3 Extraction solvents and precipitation aids. For use as a filtration aid for wines. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.5*

Tartaric Acid **Allowed With Restrictions**
Class: PI
From wine lees. For use in beverages.
CGSB Reference: *32.311 Table 6.3; 6.5*

Tocopherols and mixed natural concentrates **Allowed**
Class: PI
Derived from vegetable oil when rosemary extracts are not a suitable alternative.
CGSB Reference: *32.311 Table 6.3*

Vegetable Oils **Allowed With Restrictions**
Class: PI
From organic sources. Derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. Vegetable oils used in maple syrup production shall not have allergenic potential. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.3; 6.5*

Vegetable Oils **Allowed With Restrictions**
Class: PI
From non-organic sources. Non-organic vegetable oils derived using substances listed in CAN/CGSB-32.311 Table 6.3 Extraction solvents, carriers and precipitation aids. May only be used if organic sources are not commercially available. Prohibited for use in the production of maple syrup. See also EXTRACTION SOLVENTS AND PRECIPITATION AIDS.
CGSB Reference: *32.311 Table 6.3; 6.5*

Vinegar **Allowed**
Class: PS
CGSB Reference: *32.311 Table 7.3*

Vitamins and mineral nutrients **Allowed With Restrictions**
Class: PI
For use on a voluntary basis, if legally permitted, in the following non-dairy substitute products: plant-based beverages, products that resemble cheese, and butter substitutes. Shall be used if legally required (e.g., fluid milk, white flour, infant formula, meal replacement, etc.). See also FERROUS SULPHATE.
CGSB Reference: *32.311 Table 6.4*

Waxes **Allowed With Restrictions**
Class: PC
From non-organic sources. Non-edible, fully removable (i.e., no knife is needed to cut or peel the wax away from the cheese), non-organic cheese wax may be used and shall be considered packaging per CAN/CGSB-32.310 8.1.6. May only be used if organic sources are not commercially available. May only be used as non-edible, fully removable cheese wax. See also WAXES, CHEESE COATING, EDIBLE.
CGSB Reference: *32.311 Table 6.5*

Waxes **Allowed With Restrictions**
Class: PI
From non-organic sources. Waxes derived from biological sources may be used. May only be used if organic waxes are not commercially available. See also WAXES, PRODUCE; WAXES, CHEESE COATING, EDIBLE.
CGSB Reference: *32.311 Table 6.5*

Waxes, cheese coating, edible **Allowed With Restrictions**
Class: PI
From non-organic sources. Edible wax cheese coatings that require a knife to cut or peel the wax away shall not contain paraffin, microcrystalline wax, non-listed preservatives, colours, bactericides, or fungicides. May only be used if organic waxes, such as beeswax or carnauba, are not commercially available.
CGSB Reference: *32.311 Table 6.5*

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

Waxes, produce **Allowed**
Class: PI
From organic sources. Organic beeswax and organic carnauba wax may be used to wax produce.
CGSB Reference: *32.311 Table 6.3*

Waxes, produce **Allowed With Restrictions**
Class: PI
From non-organic sources. Non-organic wax may be used to wax produce. May only be used if organic sources are not commercially available.
CGSB Reference: *32.310 Subclause 9.2.1.d; 32.311 Table 6.3*

Wetting Agents **Allowed With Restrictions**
Class: PS
Substances listed in Table 4.2 or 7.3, including saponins and microbial wetting agents. May be used on organic product contact surfaces provided that documentation demonstrates removal event(s) eliminate the substance(s) from organic product contact surfaces prior to organic production. See also SOAPS; DETERGENTS.
CGSB Reference: *32.311 Table 7.4; 32.310 Subclause 8.2.2*

Yeast **Allowed**
Class: PI
From organic sources.
CGSB Reference: *32.311 Table 6.3; 6.4*

Yeast **Allowed With Restrictions**
Class: PI
From non-organic sources. When organic sources of yeast are not commercially available, these alternative sources of yeast may be used: a) autolysate; b) bakers' (may contain lecithin, as listed in CAN/CGSB-32.311 Table 6.3); c) brewers'; d) nutritional; and e) torula. Growth on petrochemical substrate and sulphite waste liquor is prohibited. Yeast may be smoked or smoke flavoured. When smoked, the smoke must come from concentrated, condensed smoke from wood without additional ingredients (unless listed in CAN/CGSB-32.311 Tables 6.3, 6.4 or 6.5). May only be used if organic sources are not commercially available.
CGSB Reference: *32.311 Table 6.3; 6.4*

OMRI Canada Standards Manual Glossary

Agricultural Products, Agricultural Ingredients – Pertaining to crops and livestock and any products, including processed ingredients, resulting from crops and livestock. Processed agricultural ingredients and products may be manipulated physically or biologically but are no longer considered to be agricultural products or agricultural ingredients if they are more than minimally processed or if they are chemically altered in a way that creates new compounds. For guidance on what is considered "minimal processing," see CAN/CGSB-32.310 Annex D – Minimum processes.

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

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

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

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 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" section of the Canadian Organic Standards, which lists substances allowed in organic production systems. This regulation is also referred to as the PSL. It is available online at 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) and Livestock Feed Ingredients (LF).

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

Derived from Biological or Mineral Sources – Isolated/extracted from primary biological or mineral sources (or derived from a named biological or mineral source) without creating new chemical compounds. See CAN/CGSB-32.310 Annex B Permitted Substances Decision Tree.

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

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

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

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

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

Formulant, Production Aid – Any component of a production aid (CAN/CGSB-32.311 Table 4.2 Column 2) added for its functional effect on the input substance, such as stabilizers, surfactants, or spreaders. These formulants will not have an active effect on pests.

Formulant, Soil Amendment – Any component added to a soil amendment (CAN/CGSB-32.311 Table 4.2 Column 1) for its functional effect on the input substance, such as preservatives or pH adjusters. These formulants will not chemically react with the active components or otherwise modify the soil amendment's capacity to change soil fertility, chemistry or tilth.

Frass – A mixture of insect excreta, insect parts and exoskeletons, as well as undigested feed and bedding.

Genetic Engineering – Also commonly known as resulting in Genetically Modified Organisms (GMOs). The artificial manipulation of living cells for the purpose of altering its genome constitutes genetic engineering and refers to a set of techniques from modern biotechnology by which the genetic material of an organism is changed in a way that does not occur other than through traditional breeding by multiplication or natural recombination. The genome is considered an indivisible entity; artificial technical/physical insertions, deletions, or rearrangements of elements of the genome constitute genetic engineering. Techniques developed in the future may be considered genetic engineering.

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

Hydroponic Production – Plants grown in hydroponic production systems mainly draw their nutrients from supplied solutions of soluble nutrients. The hydroponic growing system is characterized by a growing medium which can vary and can be as diverse as an aqueous matrix, or an inert material (e.g., rockwool), or carbon-based material (e.g., coir) and any combination thereof, and may or may not contain soil.

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

Inert Ingredient – See *Formulant.*

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

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

Irradiation – Treatment with ionizing radiation.

Mushroom Mycelium – The main vegetative body of a fungus, consisting of a network of thread-like filaments called hyphae, from which mushrooms fruit or grow. In commercial mushroom production, mycelium is also used to colonize or inoculate spawn media to produce spawn and a subsequent crop of mushrooms (fruiting bodies).

Mushroom Spawn – A combination of mycelium and substrate or growth media used to inoculate substrate to propagate mycelium and mushrooms.

Nanotechnology – Manipulation of matter at atomic, molecular, or macromolecular dimensions typically between 1 and 100 nm to create materials, devices and systems with fundamentally new properties and functions. Nanoscale chemical substances, or nanomaterials, behave differently from their macroscale counterparts, exhibiting different mechanical, optical, magnetic and electronic properties.

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

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

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

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

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

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

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

Probiotics – Microorganisms that provide health benefits when consumed.

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

Radiation, Ionizing – Any type of electromagnetic radiation that is capable of freeing electrons from an atom, causing the atom to become charged (or ionized). Ionizing radiation includes X-rays and gamma rays. Irradiated food is typically exposed to ionizing radiation generated 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.

Radiation, Non-ionizing – Any type of electromagnetic radiation that does not carry enough energy to ionize atoms. Has longer wavelengths (>100 nm), lower frequencies, and lower energy (mega-electron volts (MeV)) than ionizing radiation. Includes ultraviolet light, visible light, infra-red, microwaves, radio frequencies, and low, very low and extremely low frequencies.

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

Salt – Sodium chloride, or low-sodium and sodium-free substitutes that serve the purpose of providing salt flavor, nutrition or microbial control in a product. When used as a soil amendment, the term "salt" also includes calcium chloride and potassium chloride.

Sewage Sludge – Solid, semi-solid and liquid fractions generated by municipal or industrial sewage treatment facilities, including but not limited to, domestic septage; scum or solids (biosolids).

Specified risk material (SRM) – 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.

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

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

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

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

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

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

OMRI • P.O. Box 11558, Eugene, OR 97440-3758, USA • P: 541.343.7600 • F: 541.343.8971 • info@omri.org • OMRI.org