

## Summary of the Changes to the

### “Organic Production Systems General Principles and Management Standards” revised version - 2015

*Note: The majority of the changes to the Canadian Organic Standards (COS) served to clarify the intent of provisions, remove ambiguity and use language that is easy to understand. This document highlights the most important changes but does not include all changes to the structure of the documents or all changes not impacting the intent of the standards.*

2015 Version	2006 Version
<b>General</b>	
<p><b>3.9 biobased (biosourcé)</b>  <u>substance that is derived from a plant, animal or microbial source.</u></p>	<p><b>NO PROVISION</b></p>
<p><b>3.10 biodegradable (biodégradable)</b>  capable of microbial decomposition <u>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.</u></p>	<p><b>Biodegradable (Biodégradable)</b>  Capable of biological decomposition into simpler biochemical or chemical components.</p>
<p><b>3.65 synthetic substance (substance synthétique)</b>  manufactured substance, <u>including petrochemicals</u>, formulated by a chemical process or by a process that chemically alters compounds extracted from plant, micro-organisms, animal or mineral sources. This term does not apply to compounds synthesized or produced by physical processing or biological processes, which may include heat and mechanical processing. <u>However, minerals altered through chemical reactions caused by heating or burning shall be classified as synthetic.</u></p>	<p><b>Synthetic Substance (Substance synthétique)</b>  A man-made substance formulated or manufactured by a chemical process or by a process that chemically alters compounds extracted from plant, micro-organisms, and animal or mineral sources. This term does not apply to compounds synthesized or produced by biological processes, including heat and mechanical processing.</p>
<p><b>1.4 Prohibited substances, <u>materials or techniques</u> in organic production and preparation</b></p>	<p><b>1.4 Prohibited Substances, Methods or Ingredients in Organic Production and Handling</b></p>

<p>b) all products, materials or processes intentionally using nanotechnology, as defined in this standard, with the following exceptions:</p> <p>1) naturally occurring nano-sized particles or those produced incidentally through processes such as grinding flour;</p> <p><u>2) contact surfaces, such as equipment, work surfaces, or packaging, where transference of nano-sized particles to organic crops, livestock or products is unintended and unlikely to occur;</u></p>	<p>1. Intentionally manufactured nano-technology products, or nano-processes involving intentional manipulation of matter at the nano scale to achieve new properties or functions that are different than properties and functions of the materials at the macro scale, except naturally occurring nano sized particles, or those produced incidentally through normal processes such as grinding flour, or nano sized particles used in a way that guarantees no transference to product.</p>
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## Crop Production

<p><b>5.1 Land requirements for organic crop production</b></p> <p><b>5.1.1</b> This standard shall be fully applied on a production unit for at least 12 months before the first harvest of organic products. Prohibited substances shall not have been used for at least 36 months before the harvest of an organic crop.</p> <p><u>5.1.2 When new production units are added to an existing organic operation, the operator shall provide records to show that prohibited substances have not been used for at least 36 months (see 5.1.1) and verification shall be conducted before the first harvest of product from this new production unit.</u></p>	<p><b>5.1 Land Requirements for Organic Crop Production</b></p> <p>5.1.1 This standard shall be fully applied on a production unit for at least 12 months before the first harvest of products. Substances prohibited by par. 1.4.1 and substances not in CAN/CGSB-32.311, Organic Production Systems — Permitted Substances Lists, shall not have been used for at least 36 months before the harvest of any organic crop.</p>
<p><u>5.5.2.6 If livestock is used as part of the cropping or pest control program, a management plan shall be in place to ensure that livestock is controlled and that manure or manure related contamination does not reach the portion of the crop intended for harvest.</u></p>	<p><b><i>NO PROVISION</i></b></p>
<p><b>5.7 Irrigation</b></p> <p><u>The irrigation of organic crops is permitted provided that the operator documents precautions taken to prevent contamination</u></p>	<p><b><i>NO PROVISION</i></b></p>

<p><u>of land and products with substances not included in CAN/CGSB-32.311.</u></p>	
<p><u>4.4.4 The operator shall design and implement a risk management plan to prevent GE contamination which may include strategies such as physical barriers, border rows, delayed planting, testing of seeds, isolation distances and equipment and storage sanitation protocols.</u></p>	<p><b><i>NO PROVISION</i></b></p>
<p><b>5.2.2</b> If unintended contact with prohibited substances is possible, distinct buffer zones or other features sufficient to prevent contamination are required:</p> <p>a) buffer zones shall be at least 8 m (26 ft 3 in.) wide;</p> <p>b) permanent hedgerows or windbreaks, artificial windbreaks, permanent roads or other physical barriers may be used instead of buffer zones;</p> <p>c) crops grown in buffer zones shall not be considered organic whether or not they are used on the operation.</p> <p><u>d) crops at risk of contamination from commercialized GE crops shall be protected from cross-pollination. Mitigation strategies such as but not limited to physical barriers, border rows, strategic testing or delayed planting shall be implemented unless generally accepted isolation distances for the at risk crop type are present (see Note below).</u></p> <p><i><u>NOTE Generally accepted isolation distances for crops at risk of contamination from commercialized GE crop types include: soybeans – 10 m, corn – 300 m, canola, alfalfa (for seed production) and apples– 3 km.</u></i></p>	<p>5.1.4 When unintended contact with substances prohibited by par. 1.4.1 is possible, distinct buffer zones or other features sufficient to reasonably prevent contamination are required.</p> <p>a. Buffer zones shall be at least 8 m wide.</p> <p>b. Permanent hedgerows or plant windbreaks, artificial windbreaks, permanent roads or other adequate physical barriers may be used instead of buffer zones.</p> <p>5.1.5 Crops grown in buffer zones shall be considered non-organically grown products whether they are used on the farm or not.</p>
<p><b>Maple/Birch Production</b></p>	
<p><b>7.2.11.3 Storage</b> All equipment that may come into contact with sap or its concentrate and filtrates, such as storage tanks, connections and</p>	<p><b>7.2.11.3 Storage</b> All equipment that may come in contact with the sap or its concentrate and filtrates, such as storage tanks, connections and</p>

<p>transfer systems shall be made of materials suitable for use in the manufacture of food products. This also applies to any surface coatings, such as paints. <u>For new installations or replacement purposes, stainless steel storage tanks with tin-lead soldered joints are prohibited.</u></p>	<p>transfer systems, shall be made with materials suitable for use in the manufacture of food products. This also applies to any surface coatings (e.g. paints), where applicable.</p>
<p><b>7.2.13.2 Osmosis extraction and membranes</b>        Reverse osmosis units and membranes shall first be cleaned using filtrate, according to the time and temperature recommended by the manufacturer.</p> <p>a) Cleaning during the production season:</p> <ol style="list-style-type: none"> <li>1) If a Pure Water Permeability (PWP) test indicates that controlled efficiency is less than 85% of the controlled efficiency recorded at the beginning of the season, <u>a caustic soda-based soap (NaOH) recommended by the manufacturer</u> for membrane cleaning is permitted.</li> <li>2) If PWP test results stay below 75% of the efficiency recorded at the beginning of the season after the use of a <u>NaOH-based soap</u>, citric acid is permitted.</li> <li>3) Cleaning or a cleaning sequence with substances permitted in 1) and 2), shall be followed by a rinse with clean filtrate or potable water. The rinse volume shall be greater than or equal to 40 times the dead (residual) volume of the unit (total volume of the unit and its components after it is drained).</li> <li>4) Daily efficiency readings and calculations shall be recorded. Membrane flush water shall be disposed of in a manner that does not harm the environment.</li> </ol> <p>b) Cleaning after the production season:        Off-season treatment of membranes with citric acid is permitted. Following the citric acid treatment, the use of acetic acid, peracetic acid, and hydrogen peroxide is permitted.</p>	<p><b>7.2.13.2 Osmosis Extraction and Membranes</b>        The reverse osmosis unit and membranes shall only be cleaned using filtrate, according to the time and temperature recommended by the unit's manufacturer. If a Pure Water Permeability (PWP) test indicates that the membrane's controlled efficiency is less than 85% of the controlled efficiency recorded at the beginning of the season, caustic soda (NaOH) may be used to clean it. Following washing with NaOH, the volume of clean water used to rinse the unit shall be greater than or equal to 40 times the dead (residual) volume of the unit, meaning the total volume of the unit and its components once drained. The daily efficiency readings and calculations shall be recorded in a logbook. The membrane flushing water shall be disposed of in a manner that causes no harm to the environment. Off-season treatment of membranes with citric acid is permitted.</p>



<b>Sprout Production</b>	
<p><b>7.4 Sprouts, shoots and micro-greens production</b>  <u>Subclause 7.4 applies to crops that are generally harvested within 30 days of imbibition, either with roots attached (sprouts) or cut from the roots (shoots and micro-greens).</u></p>	<p><b>7.4 Sprout Production</b>   <b><i>NO PROVISION</i></b></p>
<b>Greenhouse Production</b>	
<p><b>7.5.4</b> <u>Soil used in a container system, with the exception of transplants, shall provide nutrients to plants continuously. The soil (growth media) shall contain a mineral fraction (sand, silt or clay) and an organic fraction; it shall support life and ecosystem diversity.</u></p> <p><b>7.5.5</b> <u>The following conditions apply to containerized, staked crops (for example, tomatoes, sweet peppers, cucumbers, eggplant):</u></p> <p>a) <u>at the start of production, the total volume of soil shall consist of at least 10% compost;</u></p> <p>b) <u>compost shall be included in the fertility program;</u></p> <p>c) <u>containers shall be at least 30 cm (12 in.) high; and</u></p> <p>d) <u>the soil volume shall be at least 70 L/m<sup>2</sup> (15.4 gal./10.8 ft<sup>2</sup>), based on the total growing area.</u></p>	<p><b><i>NO PROVISION</i></b></p>
<b>Livestock Production</b>	
<p><b>6.1.3 Livestock production is a land-related activity.</b></p> <p>a) Herbivores shall have access to pasture during the grazing season and access to the open air at other times whenever weather conditions permit:</p> <p>1) calculated on the basis of dry matter intake, the consumption of grazed forage by ruminants that have reached sexual maturity shall represent a minimum of 30% of the total forage intake;</p> <p><u>2) consumption of grazed forage shall rise above 30% during high forage</u></p>	<p><b>6.1.3 Livestock production is a land-related activity.</b></p> <p>a. Herbivores shall have access to pasture during the grazing season and access to the open air at other times whenever weather conditions permit. Calculated on the basis of dry matter intake, the consumption of grazed forage during the grazing season of the region shall represent a minimum of 30% of the total forage intake during this period for ruminants that have reached sexual maturity. On all farms a minimum of 0.13 h</p>

<p><u>growth periods;</u></p> <p>3) a minimum of 0.13 ha (0.33 ac.)/animal unit shall be devoted to grazing. [One animal unit = one cow or one bull, or two calves, each 102 to 227 kg (225 to 500 lb) or five calves, each less than 102 kg (225 lb), or four ewes and their lambs, or six does and their kids];</p> <p><u>c) Winter-only production of poultry is restricted to operations that are able to comply with land-related requirements for the specific livestock type, regardless of the time of year (see 6.13.9);</u></p>	<p>(1/3 acre) per animal unit must be devoted to grazing. (One animal unit = one cow or one bull or two calves (each 225 to 500 kg) or five calves (each less than 225 kg) or four ewes and their lambs or six does and their kids).</p> <p><b>NO PROVISION</b></p>
<p><u>6.1.6 As a general principle, the operator shall demonstrate their commitment to animal welfare. When an animal welfare issue is identified, the operator shall develop a corrective action plan. The operator shall document demonstrated improvements in animal welfare practices and shall make available upon request any documents or assessments mandated by industry associations.</u></p>	<p><b>NO PROVISION</b></p>
<p><b>6.2.2</b> Livestock breeders shall</p> <p>a) use natural methods of reproduction. Artificial insemination is permitted, <u>including the use of sexed semen if it is mechanically separated;</u></p> <p>b) not use embryo transfer techniques or breeding techniques using genetic engineering or related technology;</p> <p>c) not use reproductive hormones to trigger and synchronize estrus.</p>	<p><b>6.5</b> Breeding — Breeding methods shall conform to the principles of organic production in this standard. The operator shall</p> <p>a. select breeds and types of livestock that are suitable for site-specific conditions within the local environment and production system and that are resistant to prevalent diseases and parasites;</p> <p>b. use natural methods of reproduction; however, artificial insemination is permitted;</p> <p>c. not use embryo transfer techniques or breeding techniques using genetic engineering or related technology;</p> <p>d. not use reproductive hormones to trigger and synchronize estrus.</p>
<p><b>6.7 Livestock living conditions</b></p> <p><b>6.7.1</b> The operator shall establish and</p>	<p><b>6.8 Livestock Living Conditions</b></p> <p><b>6.8.1</b> The operator of an organic livestock</p>

<p>maintain animal living conditions that accommodate the health and natural behaviour of animals, including:</p> <p>f) good air quality. Humidity, dust particles and ammonia levels shall not impair the well-being of animals. <u>Ammonia levels shall not exceed 25 ppm. If levels exceed 25 ppm, remedial action shall be taken;</u></p> <p><u>i) animals that give birth indoors shall be provided with sufficient space and a clean, dry, well-bedded space with stable footing. Birthing facilities must allow for separation from other animals and all the mother's needs shall be accommodated, including milking and nursing, until the mother is recovered from the birthing process. Animals shall not be tied or tethered when giving birth;</u></p>	<p>operation shall establish and maintain animal living-conditions that accommodate the health and natural behaviour of all animals, including</p> <p>f. air quality including moisture and dust content shall not prejudice the well-being of the herd/flock;</p> <p><i>NO PROVISION</i></p>								
<p><b>6.7.2</b> Access to the outdoors and freedom of movement may be restricted for the following reasons, provided that confinement is temporary:</p> <p>a) inclement weather;</p> <p>b) conditions in which livestock health or safety is jeopardized, given the stage of production; and</p> <p>c) soil, water or plant quality would be compromised.</p> <p><u>The operator shall document the reasons for and duration of confinement.</u></p>	<p><b>6.8.2</b> The operator of an organic livestock operation may provide temporary confinement for livestock owing to</p> <p>a. inclement weather;</p> <p>b. conditions where the health, safety or well-being of the animal could be jeopardized given its stage of production;</p> <p>c. risks relating to soil, water or plant quality.</p>								
<p><b>Rabbits</b></p>									
<p><b>6.14 Additional requirements for rabbits</b></p> <p>6.14.1 If required for comfort and security, rabbits may be temporarily confined, for example, overnight, in cages or hutches. Continuous confinement is prohibited.</p> <p><u>6.14.2 The use of mobile pasture pens is permitted, provided that pens do not restrict natural behaviour and they are moved at least once every three days.</u></p>	<p><b>6.8.12 Rabbits</b></p> <p>6.8.12.1 The keeping of rabbits in cages is not permitted.</p> <p>6.8.12.2 The minimum indoor and outdoor space requirements for rabbits are as follows:</p> <table border="0"> <tr> <td>Indoor Space</td> <td>Outdoor Runs and Pens</td> </tr> <tr> <td>Young rabbits 0.3 m<sup>2</sup>/head</td> <td>2 m<sup>2</sup>/head</td> </tr> <tr> <td>Pregnant does 0.5 m<sup>2</sup>/head</td> <td>2 m<sup>2</sup>/head</td> </tr> <tr> <td>Does and offspring</td> <td>0.7 m<sup>2</sup> of floor</td> </tr> </table>	Indoor Space	Outdoor Runs and Pens	Young rabbits 0.3 m <sup>2</sup> /head	2 m <sup>2</sup> /head	Pregnant does 0.5 m <sup>2</sup> /head	2 m <sup>2</sup> /head	Does and offspring	0.7 m <sup>2</sup> of floor
Indoor Space	Outdoor Runs and Pens								
Young rabbits 0.3 m <sup>2</sup> /head	2 m <sup>2</sup> /head								
Pregnant does 0.5 m <sup>2</sup> /head	2 m <sup>2</sup> /head								
Does and offspring	0.7 m <sup>2</sup> of floor								

<p><u>6.14.3 Rabbits shall have space to run, hop and dig, and to sit upright on their back legs with ears erect.</u> The minimum indoor and outdoor space requirements are shown in <u>Table 5.</u></p>	<p>space/doe and offspring 2 m<sup>2</sup>/head Bucks 0.3 m<sup>2</sup>/head 2 m<sup>2</sup>/head</p>
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**Table 5 — Minimum indoor and outdoor space requirements for rabbits**

Rabbits	Indoor space	Outdoor – runs and concrete exercise areas	Outdoor – pasture	Mobile pens
<b>From weaning to slaughter</b>	0.3 m <sup>2</sup> (3.23 ft <sup>2</sup> )/head	2 m <sup>2</sup> (22 ft <sup>2</sup> ) / head	<u>5 m<sup>2</sup> (54 ft<sup>2</sup>)/ head</u>	<u>0.4 m<sup>2</sup> (4.3 ft<sup>2</sup>)/ head</u>
<b>Pregnant does</b>	0.5 m <sup>2</sup> (5.4 ft <sup>2</sup> )/ head	2 m <sup>2</sup> (22 ft <sup>2</sup> ) / head	<u>5 m<sup>2</sup> (54 ft<sup>2</sup>)/ head</u>	<u>0.5 m<sup>2</sup> (5.4 ft<sup>2</sup>)/ head</u>
<b>Does and litters</b>	0.7 m <sup>2</sup> (7.5 ft <sup>2</sup> )	2 m <sup>2</sup> (22 ft <sup>2</sup> )	—	<u>0.4 m<sup>2</sup> (4.3 ft<sup>2</sup>)/ head in shelter</u> <u>2.4 m<sup>2</sup> (26 ft<sup>2</sup>) for grazing area</u>
<b>Bucks</b>	0.3 m <sup>2</sup> (3.23 ft <sup>2</sup> )/head	2 m <sup>2</sup> (22 ft <sup>2</sup> ) / head	<u>5 m<sup>2</sup> (54 ft<sup>2</sup>)/ head</u>	<u>0.4 m<sup>2</sup> (4.3 ft<sup>2</sup>)/ head</u>

<p><u>6.14.4 Rabbits shall not be subjected to continuous lighting or kept in permanent darkness. During the day, rabbits shall be able to clearly see each other and their surroundings.</u></p> <p><u>6.14.5 Does about to give birth shall be given secluded individual burrows or nest boxes for kindling (birthing).</u></p> <p><u>6.14.6 The doe and litter shall have free access to outdoor range and foraging areas once the kits reach 21 days of age.</u></p> <p><u>6.14.7 Weaning before the kits are 30 days of age is prohibited. However, if the welfare of the doe or kits is compromised, earlier weaning is permitted.</u></p>	<p><b>NO PROVISION</b></p>
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**Pigs / Wild Boar (farm-raised)**

<p><b>6.15.3</b> Sows and gilts shall be kept in groups, with the following exceptions:</p> <p><u>d) the use of farrowing crates as a means of restraint is prohibited.</u></p>	<p><b>NO PROVISION</b></p>
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**Table 6 — Minimum indoor and outdoor space requirements for pigs and boars**



<b>Pigs and boars</b>	<b>Indoor space</b>	<b>Outdoor runs and pens</b>
<b>Sow and piglets (up to 40 days old).</b>	7.5 m <sup>2</sup> (81 ft <sup>2</sup> ) for each sow and litter	Not required
<b>Growing pigs</b>		
<b>a) up to 30 kg (66 lb)</b>	<u>0.6 m<sup>2</sup> (6.5 ft<sup>2</sup>)/ head</u>	<u>0.4 m<sup>2</sup> (4.3 ft<sup>2</sup>)/ head</u>
<b>b) 30–50 kg (66–110 lb)</b>	<u>0.8 m<sup>2</sup> (8.6 ft<sup>2</sup>)/ head</u>	<u>0.6 m<sup>2</sup> (6.5 ft<sup>2</sup>)/ head</u>
<b>c) 50–85 kg (110–187 lb)</b>	<u>1.1 m<sup>2</sup> (12 ft<sup>2</sup>)/ head</u>	<u>0.8 m<sup>2</sup> (8.6 ft<sup>2</sup>)/ head</u>
<b>d) &gt;85 kg (187 lb)</b>	<u>1.3 m<sup>2</sup> (14 ft<sup>2</sup>)/ head</u>	<u>1.0 m<sup>2</sup> (10.76 ft<sup>2</sup>)/ head</u>
<b>Sows in group pens</b>	<u>3 m<sup>2</sup> (32.3 ft<sup>2</sup>)/ head</u>	<u>3 m<sup>2</sup> (32.3 ft<sup>2</sup>)/ head</u>
<b>Boars in individual pens</b>	<u>9 m<sup>2</sup> (97 ft<sup>2</sup>)/ head</u>	<u>9 m<sup>2</sup> (97 ft<sup>2</sup>)/ head</u>

## Dairy

<p><b>6.12 Additional requirements for dairy cattle housing</b></p> <p><b>6.12.1 Dairy cattle housing</b></p> <p><b>6.12.1.1</b> Tie stalls, in existing dairy barns, may be used for lactating dairy cows, and for a period of one month for the training of heifers raised in loose housing. <u>Tie stalls are prohibited in new construction and major renovations.</u></p> <p>a) If tie stalls are used during the winter season, dairy cows shall have an exercise period every day whenever possible, or at least twice a week.</p> <p><u>b) If construction of new infrastructure is required in order to comply with 6.12.1.1, operators are granted an exemption that permits the use of existing infrastructure for five years following the date of publication of this standard, provided that a plan for the new construction or renovation is in place one year after the publication and:</u></p> <p><u>1) tethered cows shall have an exercise period every day, whenever possible, but at least twice a week, OR</u></p> <p><u>2) there shall be no tethering of heifers or dry cows.</u></p>	<p><b>6.8.3</b> Except for lactating cows, the continuous tethering of livestock is not permitted. When tie stalls are used in dairy barns in the winter season, cows shall be allowed a period of exercise each day, when possible, and at least twice a week.</p>
<p><b>6.12.1.3</b> <u>Electric trainers are allowed on existing tie-stall operations and prohibited in new constructions or major barn renovations. All use of electric trainers shall be discontinued within five years from the date of publication.</u></p> <p>a) <u>When electric trainers are used, the applicable requirements and recommendations of the Code of Practice</u></p>	<p><b><i>NO PROVISION</i></b></p>

for the care and handling of dairy cattle shall be followed. In addition, the following restrictions apply:  
1) Electric cow trainers shall only be continually activated for the first week that cows are spending nights in the barn, and thereafter shall only be switched on for a maximum of two days per week to reinforce the initial training;  
2) Electric trainers shall be located above a contact safety bar to alert the cow that she is getting close to the trainer.

**Table 1 – Minimum indoor and outdoor space requirements for cattle**

Cattle	Indoor space	Outdoor runs and pens
<b>Adult beef cows</b>	6 m <sup>2</sup> (65 ft <sup>2</sup> )/head	9 m <sup>2</sup> (97 ft <sup>2</sup> )/head
<b>Dairy cows – tie stalls</b>	<u>Stall size appropriate for size of cow</u>	<u>6.5 m<sup>2</sup> (70 ft<sup>2</sup>)/head in spring and fall when not on pasture</u>
<b>Dairy cows – bedded pack</b>	<u>11 m<sup>2</sup> (118 ft<sup>2</sup>)/head</u>	<u>No minimum area required</u>
<b>Dairy cows – individual maternity pens<sub>a</sub></b> NOTE 1 maternity pen per 35 cows is recommended	<u>15 m<sup>2</sup> (161 ft<sup>2</sup>)/head</u>	—
<b>Dairy cow – group maternity pens<sub>b</sub></b>	<u>11 m<sup>2</sup> (118 ft<sup>2</sup>)/head</u>	—
<b>Calves and young cattle</b>	2.5 m <sup>2</sup> (27 ft <sup>2</sup> )/head for young calves; increasing to 5 m <sup>2</sup> (54 ft <sup>2</sup> )/head for growing steers and heifers (12 months old)	5 m <sup>2</sup> (54 ft <sup>2</sup> )/head to 9 m <sup>2</sup> (97 ft <sup>2</sup> )/head, depending on the size of animals

a With justification, space requirements may be reduced for small breeds of cattle.

b With justification, when new constructions or major renovations are underway, the addition of maternity pens can be integrated into the building plan (see 6.12.1.1 b).

## Poultry

<p><b>6.13 Additional requirements for poultry</b></p> <p><b>6.13.1</b> The operator shall establish and maintain poultry living conditions that accommodate the health and natural behaviour of poultry as follows:</p> <p><u>b) Layer flocks shall be limited to 10 000 birds. More than one flock may be in the same building if flocks are separated and have separate runs;</u></p> <p>c) Poultry shall be reared in open-range conditions and have free access to pasture, open-air runs, and other exercise areas, subject to weather and ground conditions. Outdoor areas shall:</p> <p><u>1) be free of prohibited substances for 36</u></p>	<p>6.8.11.1 The operator of an organic poultry operation shall establish and maintain poultry living conditions that accommodate the health and natural behaviour of poultry.</p> <p>b. Poultry shall be reared in open-range conditions and have free access to pasture, open-air runs, and other exercise areas subject to the weather and ground conditions. Outside areas used for poultry shall</p>
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<p><u>months prior to their use;</u></p> <p>2) be covered with vegetation, seeded if necessary, and periodically left empty to allow vegetation to re-grow and to prevent disease build-up. To facilitate rodent control, a vegetation-free perimeter around poultry houses is permitted;</p> <p>3) provide protection from predators and be managed in a way that encourages use by the birds;</p> <p><u>4) show signs of use as appropriate for the season.</u></p> <p><u>h) Barn-raised meat chickens shall have outdoor access on a daily basis by 25 days of age. Meat chickens raised outdoors in shelters without indoor access shall have access to pasture on a daily basis by four weeks of age, unless weather conditions endanger the health or safety of the birds. Turkeys shall have outdoors access by eight weeks of age.</u></p>	<p>i. be covered with vegetation (seeded if necessary) and periodically left empty to allow vegetation to regrow and to prevent disease build-up. As a means of rodent control, a vegetation free perimeter around poultry houses is allowed;</p> <p>ii. provide protection from predators.</p>			
<p><b>6.13.5</b> Poultry barns shall have sufficient exits (popholes) to ensure that all birds have ready access to the outdoors.</p> <p><b>6.13.5.1</b> Exits shall:</p> <p>a) allow passage for more than one bird at a time, <u>and be evenly distributed along the line of access to the outdoor range;</u></p> <p>b) <u>shall correspond to the requirements shown in Table 3 for the number and size of exits:</u></p>	<p>6.8.11.5 Birds shall have sufficient exit areas to ensure that all birds have ready access to the outdoors. Exits shall allow the passage of more than one bird at a time.</p>			
<p><b>Table 3 – Poultry barns minimum exit numbers and size</b></p>				
<p><u>Poultry</u></p>	<p><u>Combined width of popholes</u></p>	<p><u>Minimum width of each pophole</u></p>	<p><u>Minimum height</u></p>	<p><u>Minimum number</u></p>
<p><u>Layers</u></p>	<p><u>2 m (6.6 ft)/1000 hens</u></p>	<p><u>50 cm (20 in.)</u></p>	<p><u>35 cm (14 in.)</u></p>	<p><u>2</u></p>
<p><u>Broilers</u></p>	<p><u>1 m (3.3 ft)/1000 birds OR all birds within 15 m (49 ft) of an exit</u></p>	<p><u>50 cm (20 in.)</u></p>	<p><u>35 cm (14 in.)</u></p>	<p><u>2</u></p>
<p><u>Turkeys</u></p>	<p><u>2 m (6.6 ft)/1000 birds</u></p>	<p><u>150 cm (59 in.)</u></p>	<p><u>75 cm (30 in.)</u></p>	<p><u>2</u></p>
<p><b>6.13.5.2</b> <u>When existing organic poultry barns do not meet the requirements of 6.13.5.1 b), either the distance from an exit from anywhere in the barn shall be no more</u></p>		<p><i>NO PROVISION</i></p>		

<p><u>than 15 m (49 ft), or the operator shall provide evidence that birds utilize outdoor range. Evidence shall demonstrate that 25-50 % of birds are on range when there are no age or weather constraints.</u></p>	
<p><b>6.13.8</b> Poultry housed indoors shall be provided with natural light either with evenly distributed windows or light permeable fabric. <u>The total window area shall be no less than 1% of the total ground-floor area, unless it can be demonstrated that natural light levels are sufficient to read a document such as a newspaper anywhere in the barn.</u>        If day length is artificially prolonged, the total duration of light shall not exceed 16 h, and shall be terminated by gradual reduction of light intensity <u>followed by 8 h of continuous darkness.</u> The following exceptions are permitted and shall be documented:        a) periods of increased lighting are permitted due to stage of production, for example, arrival of chicks and turkey poults;  <u>b) decreased lighting intensity is permitted due to animal welfare concerns, for example, outbreaks of cannibalism.</u></p>	<p>6.8.11.8 Natural light shall be provided indoors for all poultry. If day length is artificially prolonged, the total duration of light shall not exceed 16 hours and shall be terminated by gradual reduction of light intensity.        a. Exceptions may occur for certain stages of production (e.g. arrival of chicks, turkey poults). Producers shall document periods of increased and decreased lighting periods due to stage of production.</p>
<p><b>6.13.10</b> <u>Multi-level aviary systems for layers shall have no more than three levels or tiers above ground level. Total floor space, for calculation of solid-floor area and bird density requirements, shall include all usable floor levels (see 6.13.6 and 6.13.9). If winter gardens are used to provide required scratching areas, they shall be accessible year-round.</u></p>	
<p><b>6.13.11</b> For pasture-based operations with mobile units, stocking density shall be no more than 2000 layers/ha (800 layers/ac.), 2500 broilers/ha (1000 broilers/ac.) or 1300 large birds (turkeys/geese)/ha (540 large birds/ac.), based on the total amount of land</p>	<p>6.8.11.10 For pasture-based operations and mobile units, the stocking density shall be no more than 2000 layers per hectare (800 per acre), 2500 broilers per hectare (1000 per acre) or 1300 large birds (turkeys/geese) per hectare (540 per</p>

<p>used for rotational poultry pasture. <u>When birds are in moveable field shelters, the shelters shall be moved daily, whenever possible, and at least once every four days, taking into consideration the impact on the birds and on the land. Density within the moveable shelters shall correspond to the indoor densities described in 6.13.9.</u></p>	<p>acre) calculated using the total amount of land available for rotation.</p>
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**Table 4 – Maximum indoor and outdoor densities for poultry**

Poultry	Indoors	Outdoor runs
<b>Layers</b>	6 birds/m <sup>2</sup> (10.76 ft <sup>2</sup> )	4 birds/m <sup>2</sup> (10.76 ft <sup>2</sup> )
<b><u>Pullets 0-8 weeks<sup>a</sup></u></b>	<u>24 birds/m<sup>2</sup> (10.76 ft<sup>2</sup>)</u>	<u>16 birds/m<sup>2</sup> (10.76 ft<sup>2</sup>)</u>
<b><u>Pullets 9-18 weeks<sup>a</sup></u></b>	<u>15 birds/m<sup>2</sup> (10.76 ft<sup>2</sup>)</u>	<u>10 birds/m<sup>2</sup> (10.76 ft<sup>2</sup>)</u>
<b>Broilers</b>	21 kg/m <sup>2</sup> (4.3 lb/ft <sup>2</sup> )	21 kg/m <sup>2</sup> (4.3 lb/ft <sup>2</sup> )
<b>Turkeys/large birds</b>	26 kg/m <sup>2</sup> (5.3 lb/ft <sup>2</sup> )	17 kg/m <sup>2</sup> (3.5 lb/ft <sup>2</sup> )

<sup>a</sup> Outdoor runs are not required when flocks are undergoing an immunization program.

### Apiculture

<p><b>7.1.10</b> Location of hives Where sources or zones of prohibited substances are present, that is, genetically engineered crops or environmental contamination, apiaries shall be protected with a buffer zone of 3 km (1.875 mi.). <u>The following exceptions apply:</u>  <u>a) fertilizers are permitted in the buffer zone, with the exception of sewage sludge; and</u>  <u>b) if natural features that would restrict the likelihood of bee travel (such as forests, hills or waterways) and abundant organic forage are present, buffer zones may be reduced.</u></p>	<p>7.1.9 Location of Hives — Apiaries shall be separated by a buffer zone of 3000 m where sources or zones of substances prohibited by par. 1.4.1, or flower-bearing agricultural crops treated with substances not listed in CAN/CGSB-32.311, Organic Production</p>
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### Insects

<p><b><u>7.7 Organic insects</u></b> <u>All the relevant elements of clauses 1-6 in this standard shall apply.</u></p>	<p><b><i>NO PROVISION</i></b></p>
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### Processing & Preparation

<p><b><u>8.1.2 Incidental additives shall not compromise organic integrity:</u></b> <u>a) hand sanitizer substances, if used in</u></p>	<p><b>8.3.6</b> Any materials in contact with food shall be clean and of food-grade quality.</p>
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<p><u>direct contact with organic products, shall be listed in Table 7.3 of CAN/CGSB-32.311.</u></p> <p><u>b) culinary steam, that is, steam used in direct contact with organic products or packaging, shall only contain:</u></p> <p><u>1) substances listed in Tables 6.3-6.5 of CAN/CGSB-32.311; and/or</u></p> <p><u>2) food-grade cleaners, disinfectants and sanitizers authorized for organic product contact in Table 7.3 of CAN/CGSB-32.311.</u></p> <p><u>c) food-contact lubricants shall be listed in Tables 6.3-6.5 of CAN/CGSB-32.311.</u></p> <p><u>d) use of cleaners, disinfectants and sanitizers shall comply with the requirements in 8.2 of this standard.</u></p>	<p><b>8.3.7</b> Only substances that appear in par. 7.3 of CAN/CGSB-32.311, Organic Production Systems — Permitted Substances Lists, may be used to clean, disinfect or sanitize organic food or food-contact surfaces without a mandatory removal event, provided that the origin and use are consistent with the annotation for that substance.</p>
<p><b>8.1.5</b> If a production unit prepares both organic and non-organic products:</p> <p><u>g) additional measures are required to prevent accidental commingling of bulk at-risk organic seed or grain with non-organic grain which may contain trace GE contamination:</u></p> <p><u>1) Storage bins containing organic crops shall be visibly identified as organic using well-maintained, weather resistant signage.</u></p> <p><u>2) When at-risk organic crops are being moved between bulk storage bins (for example, grain drying, lot mixing), temporary signage shall be attached to the wagon or truck to visibly identify the load in transit as organic.</u></p> <p><u>3) When organic crops are held in bulk bins for drying or roasting, temporary signage shall be attached to the bin to visibly identify the contents as organic.</u></p>	<p><b><i>NO PROVISION</i></b></p>
<p><b>8.1.6</b> Organic product packaging shall</p> <p><u>a) maintain organic product quality and integrity; and</u></p> <p><u>b) be minimal in a manner that is consistent with 8.1.6 a). Packaging materials that minimize harm to the environment</u></p>	<p><b><i>NO PROVISION</i></b></p>

<p><u>throughout their life cycle are preferred; and</u> <u>c) comply with prohibitions in 1.4 a), b), and k).</u></p>	
<p><b>7.1.16.4</b> Heating of honey for extraction shall not exceed 35°C (95°F) and the decrystallization temperature shall not exceed 47°C (116.6°F). <u>If organic honey is heated above those temperatures, then it can only be used as an ingredient in a multi-ingredient product.</u></p>	<p>7.1.15.4 The heating of honey for extraction shall not exceed 35°C, and the decrystallization temperature shall not exceed 47°C.</p>

### Permitted Substances List

*Annotations have been revised to what is permitted, rather than what is prohibited  
Of 380 substances on the Permitted Substances List (PSL), more than 256 have been modified, to streamline or clarify annotations*

<p><u>4.1.2 Use of a listed substance in a manner inconsistent with the scope of the table in which it appears is not permitted, except as specified in substance annotations.</u></p>	<p><b>NO PROVISION</b></p>
<p><b>4.1.3</b> Substances listed in Tables 4.2 and 4.3 shall comply with prohibitions in 1.4 of CAN/CGSB-32.310. <u>The following additional requirements apply to substances produced on substrates or growth media (for example, microorganisms and lactic acid):</u> <u>a) if the substance includes the substrates or growth media, the substrates or growth media ingredients shall be listed in Table 4.2 or 4.3;</u> <u>b) if the substance does not include the substrates or growth media, the substance shall be produced on nongenetically engineered substrates or growth media, if commercially available.</u></p>	<p>4.2 Soil Amendments and Crop Nutrition — Unless otherwise specified, the soil amendments and crop nutrients listed below shall not contain substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems — General Principles and Management Standards, or not permitted by this standard.</p>

### Table 4.2 — Soil amendments and crop nutrition

<p><u>Biochar: Produced through pyrolysis of forestry by-products which have not been treated with or combined with prohibited substances.</u> <u>Recycled biochar from contaminated</u></p>	<p><b>NO PROVISION</b></p>
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<p><u>remediation sites is prohibited.</u></p>	
<p><b>Compost feedstocks:</b> Acceptable feedstocks include:</p> <ul style="list-style-type: none"> <li>a) animal manures conforming to criteria specified in 5.5.1 of CAN/CGSB-32.310;</li> <li>b) animals, animal products and by-products (including fishery);</li> <li>c) plants and plant by-products (including forestry and source-separated yard debris, such as grass clippings and leaves), <u>pomaces and cannery wastes;</u></li> <li>d) soils and minerals that conform to the requirements of this standard and of CAN/CGSB-32.310; and</li> <li>e) <u>paper yard waste bags which contain coloured ink.</u></li> </ul> <p><u>When evidence indicates that composting feedstocks may contain a substance prohibited by 1.4 of CAN/CGSB-32.310 known to be persistent in compost, documentation or testing of the final product may be required.</u></p> <p>The following composting feedstocks are prohibited: sewage sludge; compost starter and feedstocks fortified with substances not included in this standard; leather by-products; glossy paper; waxed cardboard; paper containing coloured ink <u>other than paper yard waste bags;</u> and animals, animal products and animal by-products not guaranteed free of the risk materials specified in Table 4.2 <i>Bone meal</i>.</p>	<p><b>Composting feedstocks:</b> Acceptable feedstocks include</p> <ul style="list-style-type: none"> <li>a. animal manures conforming to par. 5.5.1 of CAN/CGSB-32.310, Organic Production Systems — General Principles and Management Standards;</li> <li>b. animal, animal products and by-products (including fishery);</li> <li>c. plants and plant by-products (including forestry and source-separated yard debris, such as grass clippings and leaves);</li> <li>d. soils and minerals conforming to this standard and CAN/CGSB 32.310, Organic Production Systems — General Principles and Management Standards.</li> </ul> <p>The following are prohibited as composting feedstocks: sewage sludge; compost starter and feedstocks fortified with substances not included in this standard or prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems — General Principles and Management Standards; leather by-products; glossy paper; waxed cardboard; paper containing coloured ink; and animal, animal products and animal by-products that are not guaranteed free of the risk materials specified in Bone meal.</p> <p>Except for animal manures, feedstocks that may be contaminated with substances not included in this standard or prohibited by par. 1.4.1 of CAN/CGSB-32.310, shall require documentation to confirm the absence of these substances OR documentation substantiating the common degradation of such contaminants during the composting process.</p> <p>See Microbial products for information on compost starters.</p>
<p><b><u>Digestate, anaerobic:</u></b> <u>Products of anaerobic digestion may be used for soil amendment, provided that the following conditions are met:</u></p> <ul style="list-style-type: none"> <li>a) <u>the materials added to the digester shall</u></li> </ul>	<p><b><i>NO PROVISION</i></b></p>



<p><u>be listed in Table 4.2. If feedstocks are obtained from off-farm sources, the digestate shall comply with the heavy metal restrictions in Table 4.2 Compost from off-farm sources;</u></p> <p><u>b) the criteria for raw manure land application specified in 5.5.2.3 of CAN/CGSB-32.310 shall be met;</u></p> <p><u>c) anaerobic digestate may be used as a compost feedstock if it is added to other substances which are then composted. See Table 4.2 Composting feedstocks.</u></p>	
<p><u><b>Formulants:</b> Non-synthetic substances shall be used, unless a substance annotation specifies that a synthetic formulant may be used. For example, see Table 4.2 Aquatic plants and plant products; Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles; Humates, humic acid and fulvic acid.</u></p>	<p><b><i>NO PROVISION</i></b></p>
<p><b>Mined minerals, unprocessed:</b> Mined minerals include basalt, pumice, sand, feldspar, mica, granite dust and unprocessed rock dust. <u>Minerals extracted from seawater are permitted.</u> A mined mineral shall not have undergone any change in its molecular structure through heating or combining with other substances and shall not be processed or fortified with synthetic chemicals unless listed in Table 4.2. Sodium nitrate and rock dust that have been mixed with petroleum products, such as those from stone engraving, are prohibited.</p>	<p><b>Mined minerals and unprocessed mined minerals:</b> A mined mineral shall not have undergone any change in its molecular structure through heating or by combining with other substances. Acceptable if the substance is not processed or fortified with synthetic chemicals. Mined minerals are regarded as supplements to a balanced, organic soil-building program. Some of the minerals that are mined can also be made synthetically or are by-products of industry; investigate the source of any new substance. Sodium nitrate is prohibited.</p>
<p><u><b>Meat meal:</b> Shall be processed by drying, heat sterilization and/or composting.</u></p>	<p><b><i>NO PROVISION</i></b></p>
<p><b>Potassium:</b> d) potassium sulphate—<u>shall be produced by combining brines from seabed deposits and mined minerals. Potassium sulphate made using reactants (such as sulphuric</u></p>	<p><b>Potassium sulphate:</b> Only if from langbeinite or other natural sources. See also Mined minerals and unprocessed mined minerals.</p>

<p>acid or ammonia) is prohibited.  <u>Fortification with synthetic chemicals is prohibited.</u></p>	
<b>Table 4.3 – Crop production aids and materials</b>	
<p><b>Acetic acid:</b> <u>Non-synthetic sources.</u>          As an adjuvant, a pH regulator <u>and for weed control.</u></p>	<p><b>Acetic acid:</b> As an adjuvant and pH regulator.</p>
<p><b>Formulants:</b> Formulants may be used in conjunction with substances listed in Table 4.3 as follows:</p> <p>a) Formulants classified in PMRA List 4A or 4B or non-synthetic may be used <u>with the following substances: adhesives for sticky traps and barriers, ammonium carbonate, baits, borate, boric acid, pesticides, dormant oils, hydrogen peroxide and soaps.</u></p> <p>b) Formulants classified in PMRA List 3 may be used with passive pheromone dispensers.</p> <p><u>c) Formulants used with all other substances listed in Table 4.3 shall be non-synthetic unless specified in the annotation as being permitted.</u></p>	<p><b>Formulants:</b> Formulants can only be used in conjunction with substances listed in par. 4.3. Only formulants that are classified by the Pest Management Regulatory Agency (PMRA) in Regulatory Note REG2007-04 as List 4A or 4B or are non-synthetic may be used with substances in par. 4.3 that are applied directly to crops.</p> <p>Formulants classified as List 3 in PMRA Regulatory Note REG2007-04 may be used with passive pheromone dispensers.</p> <p>Formulants classified as List 1 or List 2 in PMRA Regulatory Note REG2007-04 are prohibited.</p>
<p><b>Mulches:</b> Organic plant residues may be used for mulching. If organic plant materials are not readily available, non-organic, non-genetically engineered sources of straw, leaves, grass clippings or hay may be used. Prohibited substances shall not have been used on these materials for at least 60 days before harvest.</p> <p>Sawdust, wood chips and shavings may be used for mulching if they are obtained or derived from wood that has not been treated with paint or prohibited substances.</p> <p>Newspaper and paper mulch: glossy paper and coloured ink are prohibited.</p> <p>Plastic mulches: Non-biodegradable and semi-biodegradable materials shall not be</p>	<p><b>Mulches:</b> Organic plant residue: where organic materials are not readily available, non-organic straw, leaves, grass clippings or hay that are not the products of genetic engineering may be used. Substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems — General Principles and Management Standards, shall not have been used on these materials for at least 60 days before harvest.</p> <p>Sawdust, wood chips and shavings: permitted for mulching if they are from natural sources or derive from natural substances and if they are from wood, trees or logs that have not been treated with paint or substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production</p>

<p>incorporated into the soil or left in the field to decompose. Use of polyvinyl chloride as plastic mulch or row cover is prohibited.</p> <p><u>Biodegradable mulches: 100% of biodegradable mulch films shall be derived from bio-based sources. Formulants or ingredients shall be listed in Tables 4.2 or 4.3. Biodegradable polymers and Carbon Black from GE or petroleum sources are not permitted. As a temporary exemption, biodegradable mulch film used on organic farms in 2014 but which do not meet the petroleum source requirement may be used without removal until January 1, 2017.</u></p>	<p>Systems — General Principles and Management Standards.</p> <p>Newspaper mulch: glossy paper and coloured ink are prohibited.</p> <p>Paper: glossy paper and coloured ink are prohibited.</p> <p>Plastic mulches: non-biodegradable and semi-biodegradable materials shall not be incorporated into the soil or left in field to decompose; shall be removed at the end of the growing season. Plastic mulches in perennial crops may be left for more than one season but shall be removed before the plastic decomposes. Use of polyvinyl chloride as plastic mulch or row cover is prohibited.</p> <p>Fully biodegradable films: permitted without removal if they do not contain substances prohibited by par. 1.4.1 of CAN/CGSB-32.310, Organic Production Systems — General Principles and Management Standards.</p>
<p><b>Plant extracts, oils and preparations:</b> Permitted extractants include: cocoa butter, lanolin, animal fats, alcohols and water. Extraction with synthetic solvents is prohibited except with, in order of preference:</p> <ul style="list-style-type: none"> <li>a) potassium hydroxide;</li> <li>b) or sodium hydroxide;</li> </ul> <p>provided the amount of solvent used does not exceed the amount necessary for extraction. The manufacturer shall prove the need to use sodium hydroxide.</p> <p>For pest control (disease, weed and insect).</p> <p><u>Clove oil is permitted for sprout inhibition in potatoes.</u></p>	<p><b>Plant extracts, oils and preparations:</b> Allowed for use as production aids unless otherwise specifically restricted or prohibited. Allowed extractants include cocoa butter, lanolin, animal fats, alcohols and water. Allowed for pest (disease, weed and insect) control. Extraction with synthetic solvents is prohibited except for potassium hydroxide or sodium hydroxide, provided the amount of solvent used does not exceed the amount necessary for extraction. Of the two products, potassium hydroxide is the preferred choice; the manufacturer shall prove the need to use sodium hydroxide.</p>
	<p><b>Rotenone:</b> Shall not be combined with</p>

<b><u>Removed</u></b>	unacceptable formulants. See also <i>Botanical pesticides</i> for restrictions
<b><u>Salt: Non-synthetic sources of sodium chloride and calcium chloride.</u></b> <b><u>For disease control and prevention in mushroom production.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Shell from aquatic animals:</u></b> <b><u>Includes chitin.</u></b>	<b><i>NO PROVISION</i></b>
<b>Table 5.3 – Health care products and production aids</b>	
<b><u>Acids for water treatments : Non-synthetic acids may be used on farm to neutralize the pH of livestock drinking water.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Formulants (inerts, excipients):</u></b> <b><u>Shall be used in conjunction with substances listed in Table 5.3.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Micro-organisms and Yeasts: If organic sources of yeast are not commercially available, non-synthetic yeast sources, including yeast autolysate, shall be used.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Paraffin: Shall be food-grade. For use in hives.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Physical teat seals: Synthetic and non-synthetic ingredients are permitted. Shall be free from antibiotics.</u></b> <b><u>For post-lactation use. Shall be completely removed prior to nursing or milking.</u></b> <b><u>Shall be prescribed and administered under veterinary supervision.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Prebiotics: From organic sources if commercially available.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Probiotics: Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.</u></b>	<b><i>NO PROVISION</i></b>
<b><u>Sedatives: Such as xylazine.</u></b>	<b><i>NO PROVISION</i></b>

<p><b><u>Sodium hydroxide: For use in dehorning paste.</u></b></p>	<p><i>NO PROVISION</i></p>
<p><b><u>Removed</u></b></p>	<p><b>Rotenone:</b> For external parasites, rotenone shall not be combined with unacceptable formulants. See also Botanical pesticides in par. 4.3 for restrictions.</p>

**6 Permitted substances lists for preparation**

<p><b>6.2 Restrictions</b>  <b>6.2.1</b> Substances listed in Tables 6.3, 6.4 and 6.5 shall comply with prohibitions in 1.4 of CAN/CGSB-32.310.  <u>The following additional requirements apply to substances produced on substrates or growth media (for example, micro-organisms and lactic acid):</u>  <u>a) if the substance includes the substrates or growth media, the substrate or growth media ingredients shall be listed in Table 6.3, 6.4 or 6.5;</u>  <u>b) if the substance does not include the substrates or growth media, the substance shall be produced on non-genetically engineered substrates or growth media, if commercially available.</u></p>	<p><i>NO PROVISION</i></p>
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**Table 6.3 – Ingredients classified as food additives**

<p><b><u>Anhydrous sulphur dioxide, sulphurous acid (sulphur dioxide, SO<sub>2</sub>):</u></b>          Sulphites from SO<sub>2</sub> bottled gas as liquid SO<sub>2</sub> or liberated from ignition of asbestos-free sulphur wicks are permitted. For use as a preservative in alcoholic beverages; minimal use of SO<sub>2</sub> is recommended. Maximum allowable levels of SO<sub>2</sub> 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</p>	<p><b>Sulphurous acid:</b> For use as a preservative only in alcoholic beverages made from grapes or other fruit; minimum use of SO<sub>2</sub> is recommended. The maximum allowable level of SO<sub>2</sub> in alcoholic beverages with less than 5% residual sugar is 100 parts per million and 30 parts per million for total sulphites and free sulphites respectively; in alcoholic beverages with 5% or more and less than 10% residual sugar, 150 parts per million and 35 parts per million respectively; and in alcoholic beverages with 10% or more residual sugar, 250 parts per million and 45 parts per million respectively. The use of sulphites from SO<sub>2</sub> bottled gas, as liquid SO<sub>2</sub>, or liberated from the ignition of asbestos-free sulphur wicks is acceptable.</p>
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<p>than 10% or more residual sugar, 250 ppm and 45 ppm for total and free sulphites, respectively</p>	
<p><b><u>Extraction solvents, carriers and precipitation Aids.</u></b> <u>The following may be used to derive substances listed in Tables 5.2, 6.3, 6.4 and 6.5:</u></p> <p>a) <u>water;</u>  b) <u>culinary steam, as described in 8.1.2 b) of CAN/CGSB-32.310;</u>  c) <u>fats, oils and alcohols other than isopropyl alcohol;</u>  d) <u>supercritical CO<sub>2</sub>; and</u>  e) <u>substances listed in Tables 6.3-6.5 of this standard.</u></p>	<p><i>NO PROVISION</i></p>
<p><b>Lecithin:</b> Shall be organic if commercially available. <u>Bleached form is permitted if processed using food-grade hydrogen peroxide.</u></p>	<p><b>Lecithin:</b> Shall be organic unless the required form is not commercially available. Bleached form is allowed if processed in accordance with the requirement of par. 1.4.1. j. of CAN/CGSB-32.310, Organic Production Systems — General Principles and Management Standards.</p>
<p><b><u>Yeast foods:</u></b> <u>For use in alcoholic beverages:</u></p> <p>a) <u>potassium chloride—permitted for ale, beer, light beer, malt liquor, porter and stout; and</u>  b) <u>dibasic ammonium phosphate (diammonium phosphate, DAP), restricted to 0.3 g/L (0.04 oz./gal.)—permitted for cider, mead and wine.</u></p>	<p><i>NO PROVISION</i></p>
<p><b><u>Meat curing agents:</u></b> <u>Extracts, juice or cultured powder of celery or chard are permitted.</u>  <u>Shall be organic if commercially available.</u></p>	<p><i>NO PROVISION</i></p>
<p><b>Table 6.3 — Ingredients classified as food additives</b></p> <p><b>Waxes:</b> Applied to fresh produce—only organic wax or carnauba wax is permitted. Applications other than fresh produce—If</p>	

<p>organic waxes, such as beeswax, are not commercially available, non-synthetic waxes, such as carnauba wax, shall be used. See Table 6.5 Waxes.</p> <p><b>Table 6.5 – Processing aids</b></p> <p><b>Waxes :</b> <u>If organic waxes, such as beeswax, are not commercially available, non-synthetic sources of wax, such as carnauba wax, shall be used. By exception, paraffin wax may be used to coat cheese, if other non-synthetic waxes are not commercially available. Use of microcrystalline wax, either alone or in formulations with paraffin wax, is prohibited. Wax cheese coatings, except for organic waxes, must be removable and considered inedible, and shall not include synthetic preservatives, synthetic colors, or any bactericide or fungicide.</u></p>	<p><b>6.6 Processing Aids</b></p> <p><b>Waxes:</b> Non-synthetic only: a) carnauba wax and b) wood resin (processing product of resin component).</p> <p><b>6.4 Non-organic Ingredients Not Classified as Food Additives</b></p> <p><b>Waxes:</b> Non-synthetic only: a) carnauba wax and b) wood resin (processing product of resin component).</p>
<p><b>Table 6.4 – Ingredients not classified as food additives</b></p>	
<p><u>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.</u></p> <p><u>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.</u></p> <p><u>Permitted for poultry sausage.</u></p>	<p><i>NO PROVISION</i></p>
<p><b>Vitamins and mineral Nutrients: Shall</b></p>	<p><b>Vitamins and minerals: Minerals</b></p>

<p>be used if legally required.  <u>The following non-dairy substitute products may be fortified on a voluntary basis, if legally permitted: plant-based beverages, products that resemble cheese, and butter substitutes.</u>  <u>Ferrous sulphate—Shall be used if legally required and may be used, on a voluntary basis, if legally permitted.</u></p>	<p>(including trace elements), vitamins and similar isolated ingredients shall not be used except where legally required or a dietary or nutritional deficiency can be demonstrated and shall be documented. Vitamins shall not be derived from organisms from genetic engineering.</p>
<p><b><u>3.60 salt (sel):</u></b>  <u>sodium chloride, or low-sodium and sodium-free substitutes that serve the purpose of providing salt flavour, nutrition or microbial control in a product.</u></p> <p><b>Table 6.4 – Ingredients not classified as food additives</b></p> <p><b>Salt :</b> Substances listed in Tables 6.3 or 6.4 may be added to mined or sea salt.  <u>See Table 6.3 Sodium chloride; Potassium chloride.</u>  <u>See definition of Salt in clause 3 of CAN/CGSB-32.310.</u></p>	<p><b><i>NO PROVISION</i></b></p> <p><b>6.4 Non-organic Ingredients Not Classified as Food Additives</b></p> <p><b>Salt:</b> See also Sodium chloride in par. 6.3. Only substances listed in par. 6.3 or 6.4 may be added to mined or sea salt.</p>
<p><b>7 Permitted substances lists for cleaners, disinfectants and sanitizers</b></p>	
<p><b><u>7.1.3 Substances listed on Safety Data Sheets (SDS) shall be listed in Tables 7.3 or 7.4. To be eligible for use without a removal event, the ingredients of a product used to clean, disinfect or sanitize shall be listed in Table 7.3 if they appear on a SDS and/or a product label. Substances listed in Tables 7.3 and 7.4 shall comply with prohibitions in 1.4 of CAN/CGSB-32.310.</u></b></p>	<p><b><i>NO PROVISION</i></b></p>
<p><b>Table 7.3 – Food-grade cleaners, disinfectants and sanitizers <u>permitted without a mandatory removal event</u></b></p> <p><b>Chlorine compounds:</b> The following chlorine compounds are permitted:</p> <ul style="list-style-type: none"> <li>a) calcium hypochlorite;</li> <li>b) chlorine dioxide;</li> <li>c) sodium hypochlorite.</li> </ul>	



Shall not exceed maximum levels for safe drinking water.

Chlorine compounds may be used:

- a) for wash water in direct contact with crops or food;
- b) in flush water from cleaning irrigation systems, equipment, and storage and/or transport units—application to crops or fields is permitted.

**Table 7.4 – Cleaners, disinfectants and sanitizers permitted on organic product contact surfaces for which a removal event is mandatory**

**Chlorine compounds:** The following chlorine compounds are permitted up to maximum label rates:

- a) calcium hypochlorite;
- b) chlorine dioxide; and
- c) sodium hypochlorite.

**7.4 Cleaners, Disinfectants and Sanitizers Allowed on Food Contact Surfaces including Equipment Provided That Substances Are Removed From Food Contact Surfaces Prior to Organic Production**

**Bleach:**

- a. Calcium hypochlorite;
- b. Chlorine dioxide;
- c. Sodium hypochlorite;
- d. Ozone; and
- e. Hydrogen peroxide.

Not to exceed 10% solution by volume. Free chlorine levels for wash water in direct contact with crops or food, and in flush water from cleaning irrigation systems, that is applied to crops or fields, shall not exceed the maximum limits under the applicable regulations for safe drinking water.