2020 Revision Work of the Canadian Organic Standards

2nd Consultation with the Organic Industry

The revision of the Canadian Organic Standard is underway. The OFC can now present the decisions made at the third meeting of the Committee on Organic Agriculture of the Canadian General Standards Board (TC) held December 19, 2018.

For each petition, we present the initial proposal, its context, and the rationale for that recommendation.

Since the Organic Standards have a direct impact on your activities, we would like to gather your comments and bring these to the attention of the relevant working groups.

This consultation will allow us to assess the potential impact of the decisions, and then accept or re-evaluate them.

To submit your comments, please:

- identify the number of the decision
- clearly describe your argument
- include your email and phone number so that we contact you if we have questions. Your identity will not be disclosed to the working groups.
- submit your comment to marc-antoine.larrivee@organicfederation.ca

DEADLINE - March 7, 2019

Thank you!

The COS Review Team.

Organic principles and management standards

6 Livestock Production

10.67-6.13 6.7 Outdoor access for poultry

Proposal: Allow 'in-kind' measures to the requirement of outdoor access for poultry. Instead of letting birds outdoors, provide an equivalent exercise area that is accessible year-round. This 'winter-garden' can provide benefits of outdoor access (e.g., forage, soil/compost for scratching, subdued sunlight, perches and playthings) without the hazards associated with outdoor access. A translucent cover will provide dispersed light without shadows and provide the needed barrier for biosecurity. According to the petitioner, "this new model for organic husbandry addresses the threats, hazards and inconveniences of sporadic outdoor access and creates a much-improved living routine for the well-being of the birds."

Background: The petition states that "Layers are hard-wired to be aggressive when in bright light" and easily frightened outside. They scratch and destroy pasture rather than graze. There are many threats outside including Avian flu. Even when given outdoor access, most birds do not leave the barn. Instead, a biosecure place with no shadows, predators or diseases could provide an enhanced environment year-round.

Decision: Rejected.

Rationale:

It is a basic principle of organic agriculture to allow animals to go out in pasture or a range. The issue is to manage the run well so they can go outside in good weather.

7.4 Sprouts, shoots and microgreens production

Proposal:

Item #1

Clarify in 7.4 that Shoots and Microgreens may be grown under 100% artificial light, making it clear the supplemental lighting only criteria in 7.5.6 is not pertinent to SSM.

Item #2

Clarify soil container volume applicable to containerized microgreen production.

Item #3

Clause 7.4.1 “Sprouts, shoots, and microgreens produced in water” should be strengthened to clarify that inert containers, such as stainless steel or food-grade plastic are allowed, but growing media, whether inert or not, is not permitted for water-based production.

Item #4

There seems to be a possible contradiction between 7.4.1.5 (“Substances used for cleaning or sanitation of seed or harvested product shall be limited to substances listed in Table 4.3 of CAN/CGSB-32.311“) and 7.4.3 (“7.4.3 Shoots and microgreens product preparation: Wherever organic product preparation takes place, 8.1 and 8.2 apply.)

Decision and rationale

Revise the section 7.4 as follow

7.4 Sprouts, shoots and microgreens production

Subclause 7.4 applies to crops that are ~~generally~~ harvested within 30 days of imbibition, either consumed with roots attached (e.g. sprouts and nanoshoots) or cut from the roots for consumption (e.g. shoots, living greens and microgreens).

Sprouts, shoots, and microgreens may be produced in water or in a growing media whether they are grown in a growth chamber or vessel, greenhouse or other sheltered structure ~~or outdoors~~.

Rationale: The preamble to 7.4 was clarified to limit harvest to within 30 days to help further differentiate these production systems from in-field mini-veg multi-cut harvesting systems. Most SSM operators harvest within 3-10 days, and some around 26 days under cooler conditions, thus 30 days gives a great deal of latitude.

The word ‘consumed’ was added into the preamble to clarify it is about the eatable portion of the crop being described with roots on or off and examples were added.

The last sentence was added to the preamble to clarify what mediums can be used and where SSM can be produced. The ‘where’ aspect was previously in subclause 7.4.2.2.

The word “or outdoors” from 7.4 to help differentiate 7.4 SSM from 7.5 Protected Crop Structures and Container clause 7.5 (previously called Greenhouse Crops)

~~**7.4.1 Production requirements Sprouts, shoots and microgreens produced in water**~~

Rationale: The two subclauses (7.4.1 “in water” & 7.4.2 “in growing media”) were merged to eliminate the repetitiveness of the previous version.

7.4.1.1 ~~1~~ Organic seed shall be used.

~~7.4.1.2 Water sources (for example, potable water, distilled or processed by osmosis) shall meet or exceed drinking water guidelines for quality, including microbial and chemical contaminant levels.~~

~~7.4.1.3 A water quality monitoring program shall be in place and water shall be analyzed at least twice a year (once every six months).~~

Rationale: Water source verification and biannual testing requirement were removed as other authorities have oversight on these production requirements.

7.4.2~~.1.3~~ Artificial lighting is permitted to supplement or replace natural light.

Rationale: This new subclause was inserted as it was unclear in the 2015 version if shoots and microgreen could be grown without natural light. This insertion addresses the SIC's Q342 petition.

		Water production	Growing media production
7.4.3	Inert containers made of stainless steel and food-grade plastic are	Permitted	Permitted
7.4.4	Containers made of untreated plant-based materials such as but not limited to burlap, coconut coir and fibre are	Prohibited	Permitted
7.4.5	Fertilizers in all stages of growing and harvesting are	Prohibited	Permitted

Rationale: A table outlining acceptable production containers for both water and growing media systems was added to eliminate the guess work on what type of containers may be used and addressing SIC's Q299 petition. A fertilizer element was also included in the table to further show the differences between the two systems. The fertilizer allowance for growth media systems was previously stated in 7.4.1.2.

7.4.6 When growing sprouts, shoots or microgreens in a growing media, substances listed in Tables 4.2 and 4.3 of CAN/CGSB are permitted as the growing media, and for crop nutrition. The physical structure of the growing media shall include both a mineral and organic fraction.

Rationale: This subclause on growing media and nutrients was added to make the SSM clause independent of the Protected Crop Structures and Containers subclause.

Previously 7.4 SSM producers had to flip into 7.5 for details on growing media and crop nutrition. The growing media criterion was also streamlined; but clarity was added regarding the required structure.

~~7.4.1.24 In water production systems, fertilizers are prohibited at all stages of growing and harvesting.~~
~~7.4.2 Shoots and microgreens produced in soil~~
~~7.4.2.1 Subclauses 7.4.1.1, 7.4.1.2, 7.4.1.3 and 7.4.1.5 also apply to shoots and microgreens produced in soil.~~
~~7.4.2.2 Subclause 7.5 applies to shoots and microgreens produced in soil, whether they are grown in a growth chamber, greenhouse or other sheltered structure, or outdoors.~~
7.4.7~~1.5~~ Substances used for cleaning or sanitation of seed shall be limited to substances listed in Table 47.3 of CAN/CGSB-32.311 ~~and acetic acid and hydrogen peroxide~~.

Rationale: Switching the reference to 7.3 means other food-grade cleaners beyond peracetic acid can be used to clean organic seed.

7.4.8~~2.3~~ When growing sprouts, shoots or microgreens the operator shall:

a) use reusable and recyclable containers and flats whenever possible;

b) use substances listed in Table 4.3 of CAN/CGSB-32.311 as crop production aids;

c) use appropriate equipment cleaners, disinfectants and sanitizers listed in Tables 7.3 and 7.4 of CAN/CGSB-32.311.

Rationale: Based on 7.5.8 - the SSM Task Force felt it was helpful if this clause did not just refer to 7.5 Greenhouse as it would reduce the confusion on which elements were pertinent to the different production systems. Therefore 7.5.8 was duplicated here and tweaked appropriately for SSM production. This revision addresses the SIC's Q400 petition.

7.4.9~~3~~ Sprouts, shoots and microgreens product preparation

Wherever harvested organic product preparation takes place, 8.1 and 8.2 apply.

Rationale: Sprouts was added as it was unclear what could be used on harvested sprouts.

The word "harvested" was added to clarify that 8.1 & 8.2 were applicable only once the SSM crops were harvested and that 7.4 substances can be used in SSM harvested crops. This proposal builds on the SIC's Q303 petition.

7.4.10~~4~~ Facility pest management

Subclause 8.3 applies to pest management practices in and around facilities

Final wording approved – clean version

7.4 Sprouts, shoots and microgreens production

Subclause 7.4 applies to crops that are harvested within 30 days of imbibition, either consumed with roots attached (e.g. sprouts and nanoshoots) or cut from the roots for consumption (e.g. shoots, living greens and microgreens).

Sprouts, shoots, and microgreens may be produced in water or in a growing media whether they are grown in a growth chamber or vessel, greenhouse or other sheltered structure.

7.4.1 Organic seed shall be used.

7.4.2 Artificial lighting is permitted to supplement or replace natural light.

		Water production	Growing media production
7.4.3	Inert containers made of stainless steel and food-grade plastic are	Permitted	Permitted
7.4.4	Containers made of untreated plant-based materials such as but not limited to burlap, coconut coir and fibre are	Prohibited	Permitted
7.4.5	Fertilizers in all stages of growing and harvesting are	Prohibited	Permitted

7.4.6 When growing sprouts, shoots or microgreens in a growing media, substances listed in Tables 4.2 and 4.3 of CAN/CGSB are permitted as the growing media, and for crop nutrition. The physical structure of the growing media shall include both a mineral and organic fraction.

7.4.7 Substances used for cleaning or sanitation of seed shall be limited to substances listed in Table 47.3 of CAN/CGSB-32.311.

7.4.8 When growing sprouts, shoots or microgreens the operator shall:

a) use reusable and recyclable containers and flats whenever possible;
b) use substances listed in Table 4.3 of CAN/CGSB-32.311 as crop production aids;
c) use appropriate equipment cleaners, disinfectants and sanitizers listed in Tables 7.3 and 7.4 of CAN/CGSB-32.311.

7.4.9 Sprouts, shoots and microgreens product preparation
Wherever harvested organic product preparation takes place, 8.1 and 8.2 apply.

7.4.10 Facility pest management
Subclause 8.3 applies to pest management practices in and around facilities

Permitted Substances Lists

4 Permitted substances lists for crop production

11.42 Aquatic plants and aquatic plant products

Proposal: Allow sodium benzoate and potassium sorbate as preservatives in aquatic plant products (Table 4.2/4.3).

Background: Seaweed extracts made without synthetic solvents (such as simple water extraction) tend to be less shelf stable. This proposal is to allow two specific synthetic preservatives (sodium benzoate and potassium sorbate) in seaweed extracts. Sodium benzoate is considered safe for human consumption. Potassium sorbate is also considered safe for human consumption and is on PMRA list 4A, and thus currently allowed as a formulant in approved organic crop production aids. Allowing the proposed preservatives will allow manufacturers to produce seaweed extracts without the caustic chemicals that are currently used in most organic-compliant seaweed extracts.

Decision: Revise annotation as described below: [In Table 4.2/4.3]

~~Non-synthetic extracts are permitted. Extraction with synthetic solvents is prohibited except with,~~ May be extracted by using the following substances in order of preference:
a) substances in Table 4.2/4.3 Extractants;
~~a)~~ b) potassium hydroxide;
~~b)~~ c) sodium hydroxide; provided the amount of solvent used does not exceed the amount necessary for extraction. The manufacturer shall prove the need to use sodium hydroxide.
Sodium benzoate and potassium sorbate may be used as a preservative.
Shall not contain synthetic preservatives, such as formaldehyde.

Rationale: The change makes the annotation consistent with the rest of the standards. The proposed synthetic substances are more benign than those currently allowed. Preference should be given to extractants less potent than potassium or sodium hydroxide, even if it means using sodium benzoate or potassium sorbate as preservatives in aquatic plant products. At the same time, there is no will nor need to allow other chemical formulants in these products.

Final wording – clean version

Aquatic plants and aquatic plant products

May be extracted by using the following substances in order of preference:
a) substances in Table 4.2 Extractants;
b) potassium hydroxide;
c) sodium hydroxide; provided the amount of solvent used does not exceed the amount necessary for extraction. The manufacturer shall prove the need to use sodium hydroxide.

Sodium benzoate and potassium sorbate may be used as a preservative.

Shall not contain synthetic preservatives, such as formaldehyde.

11.42 Calcium

Proposal: Modify Calcium annotation in Table 4.2

Background: The revision eliminates confusion caused by the "non-synthetic" term and states examples of sources that can be used. The calcium chloride reference is out of place in Table 4.2 soil amendments and is being moved to Table 4.3 Calcium chloride.

Decision: Revise annotation as described below:
~~The following calcium products are permitted: mined c~~ Calcium carbonate, (calcitic limestone), calcium magnesium carbonate (dolomitic limestone), calcium silicate, and calcium sulphate (gypsum), all from mined sources ~~limestone, dolomite (not slaked) and~~

~~o~~Other non-synthetic sources, ~~including~~ such as shells from aquatic animals (~~such as~~ for example, oyster shell flour), aragonite, eggshell meal and lime from sugar processing.

~~Non-synthetic calcium chloride is permitted for treatment of nutrient deficiencies and physiological disorders.~~

Slaked limestone (calcium hydroxide), calcium sulphate produced using sulphuric acid, and c~~C~~alcium products that have been used in controlled atmosphere storage are prohibited. ~~Shall not cause salt buildup in soil through repeated application. See Table 4.2 Calcium sulphate (gypsum).~~

Rationale: The proposal eliminates the agronomic considerations and focuses on allowed and prohibited sources. All mined sources are listed first, followed by other non-synthetic sources of calcium. All prohibited sources are grouped. A separate entry will be made for

calcium chloride which is mostly used for physiological disorder (4.3). The following format is used: “Chemical name (common name).”

Final wording – clean version

Calcium

Calcium carbonate (calcitic limestone), calcium magnesium carbonate (dolomitic limestone), calcium silicate, and calcium sulphate (gypsum), all from mined sources.

Other non-synthetic sources, such as shells from aquatic animals (e.g. oyster shell flour), aragonite, eggshell meal and lime from sugar processing.

Slaked limestone, calcium sulphate produced using sulphuric acid, and calcium products that have been used in controlled atmosphere storage are prohibited.

11.42 Magnesium

Proposal: In Table 4.2 Magnesium,

Background: Addresses confusing elements. For example, magnesium chloride is not a form of magnesium rock but is derived from brine, and none of the sources should be used if there isn’t a documented magnesium deficiency. Also, langbeinite was added (see Table 4.2 Potassium listing).

Decision: Revise annotation as described below:

~~From non-synthetic substances, without the addition of chemically synthesized substances or chemical treatment.~~ The following sources ~~of magnesium~~ are permitted:
a) mined magnesium rock;
b) ~~magnesium carbonate,~~ magnesium chloride derived from natural brines and not purified;
c) mined calcium magnesium carbonate (~~b)~~ dolomitic limestone) ~~(that has~~ not been slaked~~)~~;
d) potassium magnesium sulphate (langbeinite);
~~c)~~ e) magnesium sulphate ~~(MgSO4)~~, kieserite ~~or synthetic,~~ Epsom salts) may 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 is documented. ~~are permitted if used to correct a documented magnesium deficiency~~

Rationale: The new wording clearly identifies the allowed sources and requirements. The use of magnesium sulphate needs to be restricted because it is a synthetic form (no commercial mined sources exist) and because it is highly soluble. Other sources of Mg are less soluble and need no restrictions.

Final wording – clean version

Magnesium

The following sources are permitted:

a) mined magnesium rock;

b) magnesium chloride derived from seawater and not purified;

c) mined calcium magnesium carbonate (dolomitic limestone) that has not been slaked;

d) langbeinite (potassium magnesium sulphate);

e) magnesium sulphate (kieserite, Epsom salts) is to 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 is documented.

11.42 Micronutrients

Proposal: Allow all oxide and sulfate forms of micronutrients in Table 4.2, plus all forms that are chelated with allowed substances (see Chelates). To clarify that citrate and tartrate forms are allowed, the listing "chelates" should also be updated to specifically list citric and tartaric acids.

Background: The current listing for Micronutrients is not always consistent with the individual listings for each nutrient and is unclear.

Decision: Revise annotation as described below:

Plant micronutrients are Iron, Manganese, Zinc, Copper, Molybdenum, Boron, Chlorine and Silicon.

~~To~~Micronutri~~m~~ents~~ fertilizers 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 is documented.

Chelation with substances listed under "Chelates" is permitted ~~allowed~~. EDTA, DTPA, EDDHA, nitrate and ammonium forms of micronutrients are prohibited. See specific annotations for Boron, Silicon and Chlorine in Table 4.2.

~~Nitrate and ammonium forms of micronutrients are prohibited.~~
~~See Table 4.2 Boron; Copper; Iron; Manganese; Molybdenum; and Zinc.~~

Rationale: The proposal is aimed at making this annotation clearer. First, it states what is considered a micronutrient. This allows to clearly distinguish them from macronutrients (N, P, K) and secondary nutrients (Ca, Mg and S). In the second sentence, the words "micronutrient fertilizers shall only" were added to clarify that we are dealing with concentrated sources of micronutrients, as opposed to less concentrated sources such as seaweed extracts, rock dust, manure or compost.

Finally, most separate entries dealing with micronutrients will simply refer back to "Micronutrients". Exceptions will be for boron, silicon and chlorine. In the case of boron, it will be to help the users. For silicone and chlorine (entries to be created), it will be to restrict certain usages.

Final wording – clean version

> Plant micronutrients are Iron, Manganese, Zinc, Copper, Molybdenum, Boron, Chlorine and Silicon.
>
> Micronutrients fertilizers shall 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 is documented.
>
> Chelation with substances listed under "Chelates" is allowed. EDTA, DTPA, EDDHA, nitrate and ammonium forms of micronutrients are prohibited.
>
> See specific annotations for Boron, Silicon and Chlorine.

6 Permitted substances lists for preparation

10.8.2 & 11.74: Tables of cleaners, disinfectants and sanitizers

Proposal: (1) Change 8.2 to focus on non-rinse sanitizers or cleaners in direct contact with food (i.e., listed in Table 7.3) (2) Delete Table 7.4 — Cleaners, disinfectants and sanitizers permitted on organic product contact surfaces for which a removal event is mandatory.

Background: Table 7.4 is unnecessary because removal events are mandatory. The table and associated information in 8.2.2 is confusing.

Decision: The WG rejected the proposal but decided to modify the text as follows. In 8.2.2, delete the condition "If substances in Table 7.3 are ineffective," and in 8.2.3 add Table 7.3 to the condition (i.e., if substances in Tables 7.3 and 7.4 are ineffective."

Rationale: As both 7.3 and 7.4 are lists of permitted substances (7.3 without a removal event and 7.4 substances with a removal event), having to prove that 7.3 substances are ineffective before being able to use a 7.4 listed substance is redundant and adds an unnecessary burden on stakeholders. The ineffective criteria for 7.3 was moved out of 8.2.2 into 8.2.3.

Final wording approved – clean version

8.2.2 ~~If substances in Table 7.3 are ineffective, e~~Cleaners, disinfectants and/or sanitizers listed in Table 7.4 of CAN/CGSB-32.311 may be used on organic product contact surfaces, provided that documentation demonstrates:
a) they are used as annotated; and
b) removal event(s) have eliminated the substance(s) from organic product contact surfaces prior to organic production.

8.2.3 If substances in Tables 7.3 & 7.4 are ineffective, other cleaners, disinfectants and/or sanitizers may be used on organic product contact surfaces, 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.

11.74 Surfactants and detergents & definition of biodegradable

Proposal: (1) Revise the definition of biodegradable as it relates to biodegradable mulches. (2) Update the definition to include target threshold to which carbon will need to be consumed and timelines referencing EcoLogol UL code (Canadian) and ISO 17088.

Background: The current definition of biodegradable (which is used in reference to mulches, detergents and surfactants) is vague. Also, there is confusion over the difference of soaps, detergents and surfactants.

Decision: Definition of biodegradable is not modified. However, the following terms in 7.4 were clarified as follows:

7.4 'Detergents' - Detergents shall be readily, ultimately or inherently biodegradable per the OECD definitions, or are readily eliminated during wastewater treatment such that ~~any potential~~ harm to the environment is minimized. ~~(see Biodegradable definition in clause 3 of CAN/CGSB-32.310).~~

7.4 'Surfactants' ~~– See Table 7.4 Detergents; Soaps.~~ Surfactants built-in to detergents, or stand-alone, shall be readily, ultimately or inherently biodegradable per the OECD definitions, or are readily eliminated during wastewater treatment such that ~~any potential~~ harm to the environment is minimized.

7.4 'Wetting agents' - Non-synthetic wetting agents, including saponins and microbial wetting agents. ~~See Table 7.4 Detergents; Soaps.~~

7.4 'Sodium silicate' ~~– See Table 7.4 Detergents~~
[OECD: Organisation for Economic Co-operation and Development]

Rationale: The WG agreed that the definition in Clause 3 was not the issue; the references to "Table 7.4 Detergents; Soaps" in the listings for surfactants, sodium silicate and wetting agents annotations created confusion. These substances are commonly 'built' into detergents but it is only the biodegradability of the entire detergent product that needs to be determined – not that of the individual components. Also, referencing the detergent annotation was creating circular logic. Furthermore, soaps are examples of surfactants and, by their nature, biodegradable; therefore, referring to other substances to the soap listing added to the confusion. The annotation for detergents (and surfactants) needed improvement regarding biodegradability.

Final wording approved – clean version

> 7.4 'Detergents' - Detergents shall be readily, ultimately or inherently biodegradable per the OECD definitions, or are readily eliminated during wastewater treatment such that any potential harm to the environment is minimized.
>
> 7.4 'Surfactants'— Surfactants built-in to detergents, or stand-alone, shall be readily, ultimately or inherently biodegradable per the OECD definitions, or are readily eliminated during wastewater treatment such that any potential harm to the environment is minimized.
>
> 7.4 'Wetting agents' - Non-synthetic wetting agents, including saponins and microbial wetting agents.
>
> 7.4 'Sodium silicate'

11.6.3-extract "Extraction solvents, carriers, precipitation aids"

Proposal: Create a separate listing for carriers. Clarify the remaining annotation and address the issue in annotations for colouring agents (6.3) and flavours (6.4).

Background: (1) "Extraction solvents, carriers, precipitation aids" (ES/C/P) doesn't work as a group listing as each has a different function. Carriers are added to help with the delivery of ingredients, while extraction solvents and precipitation aids are used in the making of an ingredient or product. Another confusing factor is the current ES/C/P listing only lists examples of extraction solvents.

(2) The annotation is too restrictive for current circumstances and not precise. The list does not clearly allow the use of materials commonly used as carriers in flavours and colours, specifically dextrins, which are often used as carriers in powdered natural flavours.

Solvents and precipitation aids are unlikely to be listed on specification sheets for gums, agar, carrageenan, and other ingredients because as processing aids, they are not likely to be present in the finished product or require listing in the ingredient statement. This means that additional affidavits will be needed.

(3) Table 6.3, 6.4. and 6.5: Must be looking at harmonization with the NOP. The focus should be on specific restrictions on Extraction solvents, carriers and precipitation aids.

Decision: Accepted with minor modifications:

9.1.2 The ~~E~~evaluation ~~and~~ of product composition shall exclude non-agricultural sub-parts of ingredients listed in Tables 6.3 & 6.4 that have a technical or functional effect on the ingredient but not on the final organic product, and are not declared on the final organic product label. These ingredient sub-parts may be present in the final organic product but only in insignificant amounts. This includes ingredients such as~~, but not limited to~~ anticaking agents, carriers and~~/or~~ fillers, preservatives, stabilizers, pH adjusters or buffers. The calculation of organic percentages shall account for all constituent ingredients or ingredient sub-parts, distinguishing between organic and non-organic components of each ingredient contained in the product.

Extraction solvents, ~~carriers~~ and precipitation aids [In table 6.3]
The following may be used to derive (extract) substances listed in Tables 5.2, 6.3, 6.4 and 6.5:
a) water;
b) culinary steam, as described in 8.1.2 b) of CAN/CGSB-32.310;
c) fats, oils and alcohols other than isopropyl alcohol;
d) supercritical CO2; and
e) substances listed in Tables 6.3-6.5 of this standard.
Precipitation aids derived from biological sources (such as but not limited to plant proteins, albumin, casein, and gelatin) may also be used. In addition, non-biological precipitation aids such as bentonite, silicon dioxide, etc., maybe be used if listed in PSL

Tables 6.3-6.5. If listed in Tables 6.3-6.5 precipitation aids shall meet any annotation restrictions therein.

Carriers [New substance in tables 6.3 & 6.4]
Carriers of non-agricultural origin may be used if listed on Tables 6.3-6.5. Non-organic carriers of agricultural origin (such as~~, but not limited to~~ wheat starch) may be used if ingredients or processing aids containing organic carriers are not commercially available.

Colouring agents [In table 6.3]
~~Obtained from non-synthetic sources.~~ Colouring agents from ~~plant and animal~~ biological sources such as~~, but not limited to~~, spices, annatto, juices made from plant sources, etc. ~~D~~derived using approved methods (see Table 10 B (1) & (2). Origin and mode of production of CAN/CGSB-32.310), and substances in Table 6.3 Extraction solvents~~,~~ ~~carriers~~ and precipitation aids. May contain permitted carriers (see Table 6.3 & 6.4 Carriers).

Flavours [In table 6.4]
Derived from ~~non-synthetic sources (such as plants, meat, seafood, micro-organisms, etc.) plants, animals, and/or micro-organisms~~ biological sources using approved methods (see Table 10 B (1) & (2) Origin and mode of production of CAN/CGSB-32.310), and substances (see Table 6.3 Extraction solvents~~, carriers~~ and precipitation aids). May contain permitted carriers (see Table 6.3 & 6.4 Carriers).

Additional notes:

1) Endangered species - The WG did not include a prohibition on substances derived from endangered species in the draft, but would like to suggest the concept be incorporated at each occurrence as follows "…derived from biological sources, excluding endangered species… " as this aligns with our organic principles.
2) If for whatever reason, a prohibition on synthetic biology is not incorporated into the Genetic Engineering definition, the Preparation WG wants a prohibition clause on synthetic biology to be incorporated into PSL listings that permit substances derived from biological sources as follows. "…derived from biological sources, excluding endangered species or synthetic biological sources… "

Rationale:

- Separating carriers into its own listing and expanding the "Extraction solvents, ~~carriers~~ and precipitation aids" annotation provides clarification.

- Colouring agent and flavours listings in 6.3 are updated to include a reference to the new carrier listings. The confusing use of the term "non-synthetic" is addressed.

In addition, the 10.B reference in flavours was duplicated into colouring agents, and the scope of the reference narrowed to 10.B (1) & (2) dropping (3) as (3) was an unconditional allowance for a synthetic (alternative) form. As neither annotation includes an exemption clause –indirectly including a reference to 10.B (3) was considered misleading and hence its removal.

- 9.1.2 in 310 was teased apart separating ingredient compliance 'evaluation' from calculation.
- An exclusion was added into the evaluation criteria in 9.1.2 for non-agricultural sub-parts (constituents) contained in ingredients listed in 6.3 and 6.4. Due diligence regarding 1.4 prohibitions (GE, nanotechnology, irradiation and sewage sludge) remains in place for agricultural sub-parts of 6.3 and 6.4 substances. The original request was seeking an exclusion for both agricultural and non-agricultural subparts similar to the USDA NOP.
- The vision for Canada based on this proposal is: in addition to commercial availability documentation when required, the ingredient affidavit will have to cover the agricultural ingredients and the agricultural sub-parts (ancillary ingredients) for the GE, Irradiation and Cloning prohibitions. No compliance documentation is therefore required for any non-agricultural sub-parts.

Final wording approved – clean version

9.1.2 (310)
The evaluation of product composition shall exclude non-agricultural sub-parts of ingredients listed in Tables 6.3 & 6.4 that have a technical or functional effect on the ingredient but not on the final organic product, and are not declared on the final organic product label. These ingredient sub-parts may be present in the final organic product but only in insignificant amounts. This includes ingredients such as, but not limited to anticaking agents, carriers and/or fillers, preservatives, stabilizers, pH adjusters or buffers. The calculation of organic percentages shall account for all constituent ingredients or ingredient sub-parts, distinguishing between organic and non-organic components of each ingredient contained in the product.

Table 6.3 (311)
Extraction solvents and precipitation aids

The following may be used to derive (extract) substances listed in Tables 5.2, 6.3, 6.4 and 6.5:
a) water;
b) culinary steam, as described in 8.1.2 b) of CAN/CGSB-32.310;
c) fats, oils and alcohols other than isopropyl alcohol;
d) supercritical CO2; and
e) substances listed in Tables 6.3-6.5 of this standard.

Precipitation aids derived from biological sources (such as but not limited to plant proteins, albumin, casein, and gelatin) may also be used. In addition, non-biological precipitation aids such as bentonite, silicon dioxide, etc., maybe be used if listed in PSL Tables 6.3-6.5. If listed in Tables 6.3-6.5 precipitation aids shall meet any annotation restrictions therein.

Tables 6.3 & 6.4 (311)
Carriers

Carriers of non-agricultural origin may be used if listed on Tables 6.3-6.5. Non-organic carriers of agricultural origin (such as, but not limited to wheat starch) may be used if ingredients or processing aids containing organic carriers are not commercially available.

Table 6.3 (311)
Colouring agents
Colouring agents from biological sources such as, but not limited to, spices, annatto, juices made from plant sources, etc. derived using approved methods (see Table 10 B (1) & (2). Origin and mode of production of CAN/CGSB-32.310), and substances in Table 6.3 Extraction solvents and precipitation aids. May contain permitted carriers (see Table 6.3 & 6.4 Carriers).

Table 6.4 (311)
Flavours
Derived from biological sources using approved methods (see Table 10 B (1) & (2) Origin and mode of production of CAN/CGSB-32.310), and substances (see Table 6.3 Extraction solvents and precipitation aids). May contain permitted carriers (see Table 6.3 & 6.4 Carriers).