# Questions and Answers Regarding National Standards for Organic Agriculture

The Canadian Food Inspection Agency, in partnership with the Organic Federation of Canada, has developed the Organic Standards Interpretation Committee (SIC).

The objective of the Committee is to provide, to the Canada Organic Office, interpretive guidance on issues related to the National Standards for Organic Agriculture (CAN/CGSB 32.310 and CAN/CGSB32.311).

General principles and management standards



Below are proposed answers to questions, raised by organic stakeholders, regarding the National Standards for Organic Agriculture. The proposed responses are subject to a 30 day comment period. All comments regarding these answers should be sent to <a href="mailto:OPR.RPB@inspection.gc.ca">OPR.RPB@inspection.gc.ca</a>

# Comment period – April 25 to May 25 2018

5 Crop produ	action
Urine ad	dded to compost
7.4 Sprouts,	shoots and micro-greens production
Soil volu	ıme in microgreen production
7.5 Greenho	use crops
Type of	plant grown in containers
9 Organic Pro	oduct Composition
Liquid ir	ngredients- solids dissolved in added water
Permitted s	substances lists
Table 4.2 Soi	l amendments and crop nutrition
Soap in	soil amendment
Calcinat	ion of kaolin
Non-syr	thetic mineral fertilizers in ion-exchange systems
Table 5.3 Hea	alth care products and production aids
Vaccine	s with preservatives
Table 6.3 Ing	redients classified as food additives
Sodium	citrate
REWORDED	Q&As
Substrat	te for probiotics

# General principles and management standards

# 5 Crop production

Urine added to compost

Can urine from unmedicated individuals be added into compost which is used in organic certified production? (401)

5.5.1 is specific to animal manure. Human waste is not mentioned - this means it is prohibited.

## 7.4 Sprouts, shoots and micro-greens production

Soil volume in microgreen production

Is the soil container volume criteria outlined in 7.5.5 (32.310) applicable to containerized microgreen production (7.4)? (400)

No. 7.5.5 is applicable to containerized, staked crops grown in greenhouses. The same logic would apply to containerized staked crops grown outdoors. But this definitely does not include microgreens. Nonetheless, if substrate is used for microgreens production, it has to be soil and comply with 7.5.2, 7.5.3 and 7.5.4.

## 7.5 Greenhouse crops

Type of plant grown in containers

Can any type of plant, including perennials, be grown in containers or any off-the-ground structure (e.g. elevated gutters) and be compliant? (396)

Yes. Plants, including perennials, can be grown in containers or any off-the-ground structure in a greenhouse or outside if the growing media substrate meets the requirements of 7.5.2 and the soil definition (3.62 in 32.310). Keep in mind that if the crop is typically trellised / staked - the production system must also comply with the requirements of 7.5.5 of 32.310.

#### 9 Organic Product Composition

#### Liquid ingredients- solids dissolved in added water

When liquid ingredients are composed of solids dissolved in added water, is the added water excluded or included in the percent organic calculation?

Water is excluded from the percent organic calculation when water and other ingredients are combined to create a liquid product. When a liquid product (already combined) is further processed or combined with other ingredients to create a new product, that liquid product is no longer considered "water" and therefore its total mass would be included in the percent organic calculation of the new product. Using organic almond milk as an example, the water used to make the organic almond base WOULD be removed from the calculation of organic percentage of the organic almond base – as that is added water. When the organic almond base is combined with other ingredients to produce organic almond milk products, the entire mass of the almond base would be included in the percent organic calculation. Additional water used at this production stage would be excluded from the calculation.

#### Permitted substances lists

# Table 4.2 Soil amendments and crop nutrition

Soap in soil amendment

#### Can a compliant soil amendment contain soap? (397)

No. Soil amendments may not contain soaps. Although soaps are technically surfactants they do not meet the non-synthetic requirement in the surfactants listings in 4.2 or 4.3

Calcination of kaolin

Is calcined kaolin allowed in crop production if synthetic chemicals are added prior to calcination, such as flocculating agents, bleaching agents, and fluxes? (386)

No. Kaolin clay cannot be processed or fortified into calcined clay with synthetic chemicals unless they are listed in Table 4.2 (see "Mined Minerals, unprocessed" in Table 4.2).

#### Non-synthetic mineral fertilizers in ion-exchange systems

Does running a non-synthetic mineral fertilizer through an ion-exchange system render the mineral fertilizer synthetic? (365)

Yes. The use of an ion exchange system involves chemical reactions and unless specifically permitted by the PSL is prohibited. The word "combining" in PSL table 4.2 for "potassium sulphate" allows potassium sulphate that has gone through an ion-exchange system.

# Table 5.3 Health care products and production aids

Vaccines with preservatives

# Are livestock vaccines containing bacteriostatic or fungistatic preservatives permitted? (402)

Yes. But do not overlook that 1) the vaccine cannot be the product of genetic engineering technology; 2) if there is residual substrate in the vaccines it is composed of listed substances, or address the commercial availability exception in 5.1.2 b) in the PSL for use of GE substrate when it's not included with the vaccine; and 3) in the case of poultry the vaccine is given before the chicks are 2 days old.

#### Table 6.3 Ingredients classified as food additives

Sodium citrate

If non-synthetic sodium citrate is not commercially available (or not available at all), can synthetic sodium citrate be used as a processing aid (table 6.3)? (405a)

No. The annotation for sodium citrate in Table 6.3 does not include a commercial availability clause and clearly restricts the use to the non-synthetic form.

What type of manufacturing process would enable sodium citrate to be considered "non-synthetic" (and thus be compliant with PSL table 6.3)? (405b)

Non-synthetic sodium citrates can be derived by biofermentation of some type of sugar, followed by filtration (physical) and separation by a non-chemical driven precipitation step. Sodium citrate could become prohibited if precipitated by a chemical agent even if the sugar and biofermenting agent are non GE. The synthetic / non-synthetic status of various substances is planned for review during the 2020 revision of the COS.

Note: the SIC answered this question from the perspective of sodium citrate being listed in Table 6.3 which is titled "Ingredients Classified as Food Additives". Sodium citrate would need to be listed in Table 6.5 to be used as a processing aid.

Can a non-organic agricultural substance such as whey be used as the growing media to manufacture probiotics used as a feed supplement or as an ingredient for food? (252)

## **Original answer**

Yes. Non-organic agricultural ingredients such as whey, can be used as the growth media or substrate to manufacture probiotics used as a feed supplement or as an ingredient for food, as long as their use complies with the requirements of 32.311 5.1.2 and 6.2.1, as follows:

- a) if the probiotic includes the substrates or growth media, the substrate or growth media ingredients shall be listed in PSL tables 5.2 (feed), 6.3 or 6.4 (food). If listed in the PSL, any use of non-organic agricultural substances listed in the PSL must comply with substance listing annotations:
- b) if the probiotic does not include the substrates or growth media, it shall be produced on nongenetically engineered substrates or growth media, if commercially available.

#### Revised answer

It depends. Non-organic agricultural ingredients can be used as the growth media or substrate to manufacture probiotics used as a feed supplement or as an ingredient for food, as long as their use complies with the requirements of 32.311 5.1.2 and 6.2.1, as follows:

- a) if the probiotic includes the substrates or growth media, the substrate or growth media ingredients shall be listed in PSL tables 5.2 (feed), 6.3 or 6.4 (food). If listed in the PSL, any use of non-organic agricultural substances listed in the PSL must comply with substance listing annotations;
- b) if the probiotic does not include the substrates or growth media, it shall be produced on non-genetically engineered substrates or growth media, if commercially available. This means each substrate needs to be assessed individually for compliance. With regards to whey in the case where there are whey residues in the probiotic product the product would be prohibited as whey is not listed in the required tables. In the case where there are no whey residues in the probiotic the product would be allowed without a commercially available search as currently there is no milk being produced from genetically engineered animals.