



**The Review of the Canadian Organic Standards
A report on the 13th meeting
of the Canadian General Standards Board (CGSB)
Technical Committee (TC) on Organic Agriculture**

By Amy Kremen

From April 13-16, 2014, the TC met to discuss revisions proposed for 3rd Edition of the Canadian Organic Standard. Hugh Martin chaired the meeting. Mark Schuessler of CGSB provided secretarial assistance. Kelly Monaghan, our “organic scribe” kept track of friendly amendments and decisions. Nicole Boudreau coordinated documentation of all meeting materials. Nearly three-quarters of the 46 members of the TC attended the meeting in person, with 5 members participating via teleconference.

The meeting agenda included a presentation by Elizabeth Corrigan of the Canada Organic Office (COO) of upcoming regulations proposed under the Safe Foods for Canadians Act. Lindsay Fernandez-Salvador (OMRI) presented to the group on boiler chemicals. Tony McQuail shared the results of a recent survey (240 responses) in presenting the concerns of small-scale operators with regard to making certification more feasible.

The main business of the meeting involved the presentation by working groups (WG) of 131 recommendations that covered 171 work list items. The main goals of much of the presented work were: to improve text clarity; to better reflect or identify the intended meaning of the Standard; and to provide additional, precise guidance and requirements, notably for certain types of livestock. The meeting discussions touched numerous times on efforts currently underway to improve word choice consistency and readability throughout the Standard.

Most WG recommendations passed as presented or with friendly amendments. Over the course of the two meetings dealing with standards revisions, 115 proposed changes have been accepted, with 106 proposed changes being rejected. These proposals will now be subject to public review, final balloting potentially in December 2014, and the resolution of negative votes and comments from that ballot. Revisions that make it through this process will take effect on the publish date of the 3rd edition of the COS in August 2015. A summary of the key discussions and suggestions for revisions follows.

Table of content

Crop Production	6
Parallel production	6
Treated posts	6
Irrigation water.....	6
Crops--Permitted Substances List	6
Table 4.2 Reorganization.....	6
Microbial products (4.2)	6
Potassium Sulphate (4.2)	7
Sulphates of Zinc or Iron (4.2).....	7
Visual symptoms (4.2).....	7
Reclaimed water (4.3).....	7
Vinegar (4.3).....	7
New substances added.....	8
Anaerobic Digestate (4.2).....	8
Biochar (4.2).....	8
Livestock Production.....	8
6.1.3.d Winter-only poultry production	8
Par. 6.3 to 6.6	8
6.3.3 Transitional feed and animals	8
6.4.3.a.iii Organic milk for young animals	8
6.4.5 Testing-Analysis of livestock water	8
6.5 Age of breeding dairy heifers	9
6.7 Livestock health care.....	9
6.7.2 Physical alterations and timing of castration	9
6.7.2.e Spaying of female beef cattle.....	9
6.7.4 Quarantining sick and medicated animals	9
6.7.6. Use of veterinary medicinal substances.....	9
6.7.6.b & c Chemical allopathic drugs.....	9
6.7.6 c, d and e Veterinary medicinal substances for poultry	9
6.7.7.c & d – 6.7.9.iv & v Wording of “Meat” vs. “Slaughter”	9
Livestock Living Conditions.....	9
6.8 Title change for Section.....	9
6.8.1.i Maternity pens	10
6.8.3, 6.8.10 Exercise for dairy cattle	10
6.8.4 Cleaning products for livestock housing.....	10
6.8.7 b, 6.8.8, 6.8.10.2 Outdoor runs for cattle and space requirements.....	10
6.8.10.2 & 6.8.10.3 Electric trainers	10
6.8.10.2 Free stall ratio	10
6.8.10.4 Milking parlours	10
6.8.11.6 Percentage of solid floor for provision of litter in poultry	11
6.8.11.9 Stocking density for layers	11
6.8.11.10 Pasture or mobile unit flock size.....	11
6.8.13.2 Pasture for pigs	11
About rabbits.....	11
6.2.2, 6.2.3 Non-organic rabbits for breeding.....	11
6.8.12 Space requirements for rabbits.....	11
6.8.12 Lighting and rabbit confinement.....	11

Livestock—Permitted Substances List.....	12
New additions or listings:.....	12
Calcium propionate (5.3).....	12
Lysine (5.2).....	12
Micro organisms (including yeast) (5.3).....	12
Prebiotics (5.3).....	12
Probiotics (5.3).....	12
Revised substance listings.....	13
Enzymes.....	13
Copper sulphate (5.3) and Magnesium sulphate (5.3).....	13
Minerals, trace minerals & elements.....	13
Vitamins.....	13
Rejected proposals for additional substance listings.....	13
Choline (5.2).....	13
Essential Oils (5.2).....	13
Mineral oil (5.2).....	13
Non-synthetic feed additives and preservatives (5.2).....	13
Clay (5.3).....	13
Hydrated lime (5.3).....	13
Propylene Glycol (5.3).....	13
Pyrethrum (5.3).....	14
Citrus extracts (7.4).....	14
Hypochlorous acid (5.3).....	14
Specific production requirements.....	14
Apiculture.....	14
7.1.9 & 7.1.10 Buffer zones and location of hives.....	14
7.1.8 Introduced bees.....	15
Use of Paraffin.....	15
Maple Production.....	15
Cleaning evaporators and membranes.....	15
Sprout Production.....	15
Greenhouse Crops Production.....	15
Preparation and handling.....	16
Permitted substances lists for processing, cleaners, disinfectants and sanitizers.....	16
Bleach and Chlorine compounds (7.4).....	16
Magnesium sulphate.....	17
Potassium carbonate.....	17
Sulphurous acid.....	17
Alcohol, ethyl.....	17
Casein.....	17
Phosphoric Acid.....	17
New substances.....	17
For maple production.....	17
Rejected proposals.....	18
Water.....	18
Collagen casing.....	18
Inulin.....	18
Malolactic bacteria.....	18

Defoamer	18
Potassium metabisulphite	18
Potassium Permanganate	18
Talc & Sodium Borate	18



The Members of the Technical Committee on Organic Agriculture at the Vancouver Meeting:

Rochelle Eisen, Kelly Monaghan, Susan Able, Jacques Dallaire, Jenny Hillard, Linda Labrecque, Maureen Bostock, Susan Smith, Elizabeth Corrigan (partly hidden), Stephanie Wells, Dag Falck, Joyce Kelly, Shannon Jones, Arnold Taylor, Janine Gibson, Ted Zettel, François Labelle, Connie Kehler, Laura Telford, Amy Kremen, Roxanne Beavers, Hugh Martin, Anne Macey, Tim Rundle, Gérard Bouchard, Lindsay Fernandez-Salvador, Ron Hamilton, Mathew Holmes, Priscilla Reimer, Andy Hammermeister, Jean Duval, Mark Schuessler, Serge Lefebvre, Nicole Boudreau.



CROP PRODUCTION

Parallel production

The topic of Parallel production generated considerable, passionate discussion at this meeting. Philosophical and legal questions, practical concerns and potential implications of allowing parallel production (or not) were considered at some length. The merit of using parallel production as a means to encourage transition to organic production was weighed with concerns regarding contamination risk and consumer perceptions. The resulting TC vote—a majority, but not unanimous—was in support of revising 32.310 5.1.2 to allow parallel crop production with the following constraints:

- No use of GE varieties is permitted for the parallel crop;
- Segregation of parallel crops must be complete, maintained and documented.

A future meeting will take up a new work list item proposed in Vancouver that would prohibit split operations from growing any GE crops.

Treated posts

The TC supported the recommendation to revise 5.2.2 b to specify alternatives for new installations and replacement posts such as metal, plastic, concrete, and protective sleeves, subject to commercial availability.

Irrigation water

To address the lack of guidance for irrigation water in 32.310, the TC voted to accept the addition of text (subsection 5.7) that requires operators to document their precautionary efforts made to prevent contamination of land and products with prohibited substances.

CROPS--PERMITTED SUBSTANCES LIST

Table 4.2 Reorganization

Redundant entries for minerals were consolidated. The WG stressed the fact that while these revisions significantly change the Table's appearance, the content and intent of the entire Table was preserved. The WG looks forward to receiving public review feedback prior to going to ballot. The revised Table 4.2 will be presented in the 60 day review period that precedes the ballot.

Microbial products (4.2)

The TC voted to add text to specify that:

- use of microbial products grown on GM-substrates is allowed, provided that the microbial is supplied without the GM substrate and that an analogous product grown on a non-GM substrate is not commercially available; and

- microbial products supplied with substrates may only contain ingredients listed in **32.311 Table 4.2**.

Potassium Sulphate (4.2)

The existing annotation for potassium sulphate was revised to more clearly identify commonly available, acceptable sources, as follows: “Allowed if produced by combining naturally occurring brines or mined minerals. Potassium sulphate made using reactants such as sulphuric acid or ammonia are prohibited.”

Sulphates of Zinc or Iron (4.2)

The WG presented its finding that mined sources of these substances do not exist and thus that it is unrealistic to prohibit the use of zinc or iron sulphates derived using sulphuric acid. In response, the TC voted to eliminate this restriction for Zinc and Iron listings (see **Table 4.2 Reorganisation**, above).



Dr. Andy Hammermeister, representing OACC, checking the quality of the soil.

Visual symptoms (4.2)

The TC endorsed the WG suggestion to add “visual symptoms” to listed methods used to evaluate plant micronutrient deficiency.

Reclaimed water (4.3)

Several comments were made in an earlier revision which had added the adjective “non-potable” in the annotation for reclaimed water. At issue were the needs to:

- clarify the different meanings a reader might assign to the term “reclaimed water” (dairy farm wash water, among others);
- provide a link to applicable irrigation water regulatory requirements; and
- prevent contamination risk with substances prohibited by the COS.

In response, TC voted to revise the reclaimed water annotation as follows: “Reclaimed water from dairy operations may be spread on crop lands as per CAN/CGSB 32.310 5.5.2.5. In all other uses, reclaimed water must meet applicable irrigation water regulatory requirements and only contain substances which are listed on CAN/CGSB 32.311.”

Vinegar (4.3)

TC agreed to delete the phrase “from non-synthetic sources unless commercially unavailable”, in order to reflect that that organic sources of vinegar are readily available. This change provides consistency with the recently revised annotation for Acetic Acid (**4.3**). A new work list item was added to consider the implications of using Acetic Acid and Vinegar as a desiccant.

New substances added

Anaerobic Digestate (4.2)

Allowed with restrictions, this substance differs from compost with regard to nutrient solubility.

Biochar (4.2)

A form of ash, the addition of this specific substance listing guides operators in choosing and using only biochar product(s) that are acceptable for use in organic production. The annotation will appear as follows: “Only produced through pyrolysis of forestry byproducts which have not been treated with or to which no substances have been added that are prohibited by 1.4.1.

Recycled biochar from contaminated remediation sites is not permitted.”



LIVESTOCK PRODUCTION

The livestock WG was hard at work in the lead-up to this meeting. The main themes presented involved the promotion of animal welfare and improved precision and clarity with regard to requirements for living conditions. An overview of the items of greatest significance follows.

6.1.3.d Winter-only poultry production

The TC supported the addition of a sub-clause that permits winter-only poultry production only on farms that are able to fully comply year-round with requirements for the specific livestock type.

Par. 6.3 to 6.6

6.3.3 Transitional feed and animals

The WG determined that fully compliant feed is required for livestock with short life cycles (such as poultry). The TC supported rewording this subsection to clarify that ruminants and pigs in transition to organic production may be fed final-year transitional feed.

6.4.3.a.iii Organic milk for young animals

The TC was supportive of the WG’s proposal to add a new sub-paragraph: “When they are not nursing, young animals shall be fed to their nutritional requirements to achieve optimal growth and health using artificial teats to satisfy their motivation to suck.”

6.4.5 Testing-Analysis of livestock water

The TC supported the addition of new text in the standard for water testing requirements reasonable for both dairy and range cattle.

6.5 Age of breeding dairy heifers

A proposal to require that dairy heifers not be bred before 15 months of age was rejected on the basis that weight and development (maturity) are better criteria than age when evaluating breeding readiness.

6.6.2 – 6.6.5 Transport and Handling

Requirements referencing Code of Practice and Health of Animal recommendations were added for stocking density in transport vehicles, maximum transit times and minimum feed, watering and rest times.

6.7 Livestock health care

6.7.2 Physical alterations and timing of castration

The TC supported the WG recommendation to allow goat castration. A reference to the Codes of Practice providing guidance on age restrictions and methods for performing procedures, including requirements for medications used for pain control, was also added to this section.

6.7.2.e Spaying of female beef cattle

New text prohibits female beef cattle spaying.

6.7.4 Quarantining sick and medicated animals

The TC voted to revise a portion of **6.7.4** to reflect that segregation, rather than to quarantine, is the proper management practice in mitigating health risks posed to other animals or birds.

6.7.6. Use of veterinary medicinal substances

The TC supported text revisions to clarify that while veterinarians must be consulted and prescribe treatment(s), they do need to be present when treatments are administered.



Connie Kehler, representing SHSA

6.7.6.b & c Chemical allopathic drugs

“Chemical allopathic” drugs will now be referred to as “veterinary” drugs.

6.7.6 c, d and e Veterinary medicinal substances for poultry

The TC voted to reject proposals to allow for medicating poultry (antibiotic and parasiticide use) and changing the poultry minimum withholding period.

6.7.7.c & d – 6.7.9.iv & v Wording of “Meat” vs. “Slaughter”

The term “Slaughter” is replaced by “Meat” in these sub-clauses, in light of the fact that meat is just one of several potential products derived from animal slaughter.

Livestock Living Conditions

6.8 Title change for Section

“Housing for Dairy Calves” becomes “Housing for Dairy Cattle”.

6.8.1.i Maternity pens

The TC voted to insert this paragraph: “Animals that birth indoors shall be provided with a clean, dry, well bedded space with stable footing. Birthing facilities must allow for separation from other animals and be able to accommodate all the mother’s needs (including milking and nursing) until the mother is recovered from the birthing process. Animals shall not be tied or tethered when giving birth.”

6.8.3, 6.8.10 Exercise for dairy cattle

This topic, presented early on the first day of the meeting, was subject to intense scrutiny by the TC. A majority (80%) of QC dairy producers, who tether cows in tie stall barns during the winter, cannot comply with **6.8.3** as currently written and simultaneously respect QC’s winter manure collection requirements. These dairy producers, who agree in principle with the intent of **6.8.3**, sought formal validation in the Standard of the time and considerable cost needed to install compliant infrastructure. The TC voted in support of a conditional, temporary derogation to **6.8.3**: operators must have a new plan for construction and/or renovation by August 1, 2016, and be operating in full compliance by 2021.

6.8.4 Cleaning products for livestock housing

Revisions specify which products can be used for equipment that comes in contact with food products and clarifies that products listed in **32.311 5.3** can be used to disinfect housing, pens and runs.

6.8.7 b, 6.8.8, 6.8.10.2 Outdoor runs for cattle and space requirements

The TC voted to approve modifications and/or specifications of space requirements for:

- adult beef cows (with a derogation for a reduction in space allowed for small breeds of cattle);
- the final finishing stage for beef cattle; and
- indoor spaces for dairy cows (bedded pack barns, maternity pens).

A new work list item was created to review the space requirements listed for the indoor space requirements for the finishing phase of beef cattle and maternity pens. Space requirements for smaller animals (sheep and goats, etc.) will also be reviewed.

6.8.10.2 & 6.8.10.3 Electric trainers

(6.8.10.3--current 6.8.10.2 and 6.8.10.3 become 6.8.10.4 and 6.8.10.5): The TC approved an addition of text to forbid the use of electric cow trainers.

6.8.10.2 Free stall ratio

Cows to stalls in a free stall system must not exceed 1:1.

6.8.10.4 Milking parlours

The TC agreed to add the following new paragraph that provides specific expectations for animal treatment and facilities, the latter of which will be important for producers who plan to renovate or construct new dairy barns (see *Exercise for dairy cattle*, above): “When milking parlours are in use:

- a) Operators shall minimize the amount of time that animals have to wait between when they are moved to the holding area to the time they return to the barn or pasture.
- b) Portable mobile milking units shall be available for sick or weak animals who are unable to make it to the milking parlour.
- c) Electric crowd gates shall not be used.
- d) Non-slip flooring shall be used in the holding area, parlour and alleys.

6.8.11.1 Poultry cages

Amended text clarifies types of prohibited cage systems.

6.8.11.6 Percentage of solid floor for provision of litter in poultry

A proposal to eliminate the 30% solid floor area requirement was rejected; The WG plans to revisit this issue periodically.

6.8.11.9 Stocking density for layers

The TC declined to replace the current stocking rate of 6 birds per m² with a reference to the Code of Practice.

6.8.11.10 Pasture or mobile unit flock size

Text revisions offer clearer guidance with regard to moving mobile units and their stocking density.



**Ron Hamilton, raising chicken,
representing Organic Alberta**

6.8.13.2 Pasture for pigs

A request to make pasture mandatory for pigs was rejected, on the basis that:

- outdoor exercise areas that allow for rooting are sufficient for pigs;
- pigs are omnivores requiring feed other than grass;
- unless the land area is very large, pigs will quickly uproot vegetation turning pasture to bare land.

About rabbits

6.2.2, 6.2.3 Non-organic rabbits for breeding

The TC voted to reject a proposal that would impose an age restriction on replacement rabbits.

6.8.12 Space requirements for rabbits

Revisions of this sub-section offer additional guidance for raising and housing rabbits with regard to:

- temporary confinement;
- the use of mobile pens; and
- living conditions (including indoor, outdoor and mobile pen space requirements) necessary for rabbits to exhibit natural behaviour.

6.8.12 Lighting and rabbit confinement

New text, with guidance obtained from the Animal Welfare Approved Standards for rabbits, addresses lighting needs and specific requirements for the living conditions of does and litters.



Ted Zettel, representing the Organic Council of Ontario, and President of the Organic Federation of Canada on the TC.

LIVESTOCK—PERMITTED SUBSTANCES LIST

New additions or listings:

Calcium propionate (5.3)

was listed in a revised annotation for *Electrolytes (5.3)*: “May include but not limited to: CMPK, calcium propionate, calcium sulphate et al. Without antibiotics, orally or by injection.”

Lysine (5.2)

was added to *Amino Acids (5.2)* as follows: “Non-synthetic sources only which includes biofermentation for production of lysine. Exception granted: Lysine, L-lysine which has been extracted using biofermentation and not produced from genetically engineered organisms is allowed only when lysine levels in hog and poultry feed have been demonstrated to need supplementation for porcine and poultry production.”

Micro organisms (including yeast) (5.3)

Includes yeast autolysate; definitions for the terms “yeast” and “yeast autolysate” will be added to 32.310 Section 3.

Prebiotics (5.3)

(must be from organic sources). The term “Prebiotics” will be added and defined in 32.310 Section 3.

Probiotics (5.3)

The term “Probiotics” will be added and defined in 32.310 Section 3.

Revised substance listings

Enzymes

To reflect the fact that organic sources of enzymes are not available, the sentence “Shall be from an organic source unless not commercially available” was deleted from the listing for **Enzymes (5.2)**.



Laura Telford, with a long experience in the organic standard’s review, representing MAFRI

Copper sulphate (5.3) and Magnesium sulphate (5.3)
The prohibition on using Copper sulphate (5.3) and Magnesium sulphate (5.3) sourced using sulphuric acid was removed, because other sources do not exist.

Minerals, trace minerals & elements

Revisions to *Minerals, trace minerals & elements* appear as follows: (5.2) “ Non-synthetic chelated, sulphated minerals or their mineral salts. Synthetic minerals may be used when non-synthetic sources are not commercially available”; (5.3) “Orally or by injection. Non-synthetic chelated, sulphated minerals or their mineral salts. Minerals from any source are allowed for medical use.”

Vitamins

Redundant and unnecessary text was eliminated. Annotations appear as follows: (5.2) “Vitamins for enrichment or fortification” and (5.3) “Orally, topically, or by injection.”

Rejected proposals for additional substance listings

Choline (5.2)

Essential Oils (5.2)

Rejected because *Botanical compounds (5.3)* authorizes the proposed use.

Mineral oil (5.2)

for use in mineral mixes and pre-mixes, rejected because Table 5.2 already provides a sufficient list of ingredients (not derived from petroleum).

Non-synthetic feed additives and preservatives (5.2)

for use in mineral mixes and pre-mixes, rejected because the request was too broad and unnecessary.

Clay (5.3)

rejected on the basis that it is already covered by *Minerals (5.3)*;

Hydrated lime (5.3)

for foot baths is already permitted by *Lime, hydrated (5.3)*;

Propylene Glycol (5.3)

for ketosis, rejected because it is a synthetic substance;



Matthew Holmes, enjoying organic food, representing COTA

Pyrethrum (5.3)

for topical livestock parasite control, rejected because its use is already authorized by *Parasitocides (5.3)*.

Citrus extracts (7.4)

for cleaning livestock facilities, rejected because their use is already authorized by *Botanical compounds (5.3)*.

Hypochlorous acid (5.3)

A work list request to add *Hypochlorous acid (5.3)* to remove biofilm and bacteria from water lines was sent back to the WG for further discussion of this substance and other potential water treatments.

SPECIFIC PRODUCTION REQUIREMENTS

Apiculture

7.1.9 & 7.1.10 Buffer zones and location of hives

At the TC meeting of December 2013, revisions proposed to make *Buffer zones and location of hives (7.1.9, 7.1.10)* less restrictive discussed; the TC issued the following comments: Require the 3-km radius only when crops treated with prohibited substances are in flower. Only some GM crops would be considered to be nectar bearing (GM corn, soy or cereals are *not* considered to be nectar bearing).

1. Add the following text to assess risk if GM crops are present within the 3 km-radius:
“The risk can be determined to be minimal if the following conditions are present:
 - a. there is a continuous abundance of forages preferred by bees in close proximity to the hives to reduce the bees interest in other crops;
 - b. there are abundant clean water sources adjacent to the hives that can fully satisfy the needs of the bees;
 - c. There are natural features such as forests, hills and waterways which reduce the likelihood of bee travel; and
 - d. GE testing of honey can be used to confirm there is no GE contamination.” (*There was no agreement on d within the WG.*)

The Apiculture WG and the Conveners have continued to discuss after the meeting and are now proposing the following revision:

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 Systems - Permitted Substances Lists (i.e. genetic engineering or environmental contaminants), are present.

- a. Fertilizers, with the exception of sewage sludge are allowed within the buffer zone.

b. If the risk to hives and hive products is minimal, because there is sufficient organic forage within the 3000 meter buffer, and the presence of natural features such as forests, hills or waterways reduce the likelihood of bee travel to areas with prohibited substances, minimal incidental use of prohibited substances within the buffer zone by neighboring landowners is allowed.

7.1.8 Introduced bees

Revisions specify that replacement colonies shall be produced within the organic beekeeping operation or come from another established organic beekeeping operation.

Use of Paraffin

In support of the WG's proposal to allow the use of paraffin wax to treat materials in hives, the TC voted to add food grade *Paraffin (32.311 Table 5.3)* only for use in hives. The use of hot paraffin treatment of wood, followed by treatment of hive materials with beeswax are techniques that have been developed in New Zealand, where antibiotics are not used. These methods have proven to be quite effective in controlling American Foulbrood (AFB). Because the NOP does not allow this use of paraffin, this proposed change poses a potential challenge with regard to equivalency.

Maple Production

Cleaning evaporators and membranes

Revision to subsection **7.2.13.2** authorizes the use of NaOH-based products in cleaning osmosis membranes, rather than using NaOH alone, which is less effective. Subsection **7.2.13.3** was edited to allow cleaning of evaporators with filtrate at all times. Vinegar or fermented sap may be used at end of season; a work list request to use vinegar to clean evaporators during the sugaring season was rejected.

Sprout Production

Renaming of Section 7.4: Renamed "*Sprouts and Shoots*", this title better reflects the production activities covered by this section. Inclusion of micro-greens production within the standard was added as a new work list item.

Greenhouse Crops Production

Pre-certification for greenhouses: Revisions of subsection **7.5.1** clarify that the filing date requirement does not apply to new greenhouses built on land that is already certified.

PREPARATION AND HANDLING



The main item presented by this WG was a top-to-bottom revision of Sections 8 and 9. No technical changes were proposed. Section 8 modifications clarify to whom its requirements apply as well as the text pertaining to pest management. Section 9 revisions clean up the text to better clarify the intent and content of this section. Feedback from the public review process is welcomed.

A number of Section 10 recommendations were tabled rather than presented upon the decision to form a committee that will immediately begin work on a substantive review and rewrite of this Section. Central goals of the revision will be to improve Section 10's intent and organization. Questions concerning the use of commercial availability clause and other factors (environmental and social) will also be addressed.

1.4.1 a. The words “and other growth media” were added after “substrates” to clarify that yeasts and enzymes grown on GE substrates, as specified on the PSL, are acceptable for use in organic production.

The TC voted to revise the definitions of *Food additive* and *Food Irradiation* by referencing B.01.001 and B.26.001 of the Food and Drug Regulations, respectively.

PERMITTED SUBSTANCES LISTS FOR PROCESSING, CLEANERS, DISINFECTANTS AND SANITIZERS.

Bleach and Chlorine compounds (7.4)

It should come as no surprise that the ongoing effort to fix the problematic *Bleach* and *Chlorine compounds* (7.4) substance listings was on the agenda. The TC approved the WG proposal to split the existing chlorine compounds substance listing annotation into two parts that pertain to: a. water in contact with food, crops and fields (7.3), and b. chlorine used as a disinfectant/sanitizer for food contact surfaces (7.4). In 7.4, new text that mentions maximum label rates for disinfection and sanitation replaces the current text that refers to 10% chlorine solution (an excessively high concentration of ~100,000 ppm). Further modification is expected following the public review and comment period, as well as in relation to 32.310 Section 8 revisions (see point 5, above). The TC approved the following proposed revisions:

Chlorine compounds (7.3) Calcium hypochlorite, Chlorine dioxide and Sodium hypochlorite. “For wash water in direct contact with crops or food, and in flush water which is applied to crops or fields, e.g. from cleaning irrigation systems, equipment, and storage facilities; shall not exceed maximum levels for safe drinking water.”

Change the name of *Bleach* (7.4) to *Chlorine compounds*, with the annotation: “a. Calcium hypochlorite, b. Chlorine dioxide and c. Sodium hypochlorite. May be used up to maximum label rates for disinfecting and sanitizing facilities, equipment, tools and food contact surfaces.”

Mentions of *Ozone* and *Hydrogen peroxide* were removed from 7.4. *Ozone* will be added to 7.3.

Other revisions

Magnesium sulphate

The annotation prohibiting use of synthetic *Magnesium sulphate* (6.3) was removed, to reflect the current situation in which the only available sources of these substances are derived using sulphuric acid. This change is in alignment with changes discussed above in the crops and livestock sections of this report.

Potassium carbonate

The listing for Potassium carbonate (6.3) was re-named Potassium carbonates (mono and bi).

Sulphurous acid

The *Sulphurous acid* (6.3) annotation now authorizes its use for alcoholic beverages made from grapes, other fruit and mead.

Alcohol, ethyl

The clause “Shall be organic unless commercially unavailable” was added to the annotation for *Alcohol, ethyl* (6.6).

Casein

Casein (6.6) was revised to add text permitting the use of non-organic casein when organic casein is not available, as long as the casein is derived from the milk of animals not treated with rGBH.

Phosphoric Acid

No longer restricted to equipment in the dairy industry, the revised annotation prohibits use of phosphoric acid for maple syrup production.



Dag Falck, representing the Small Scale Food Producers Association

New substances

Glucono delta lactone (6.3)

Glucono delta lactone, used primarily as a tofu coagulant and leavening agent, was added with the following annotation: “Production by the oxidation of D-glucose with bromine water is prohibited.”

For maple production

The following three substances, mentioned in 32.310 (Maple Production), were added to 6.6 with the following annotations:

- a. *Acer pensylvanicum*. As an anti-foaming agent in maple syrup production;
- b. *Silica*. As a filtering agent (food grade powder) in maple syrup production; and
- c. *Clay dust*. As a filtering agent in maple syrup production.

Rejected proposals

Water

Addition of *Water* (6.3) to the PSL was deemed unnecessary;

Collagen casing

Addition of *Collagen casing* (to 6.4 or 6.6) was rejected because the manufacturing process to produce these casings is not compatible with the principles of organic production. Alternative casings are available and the justification for the need of this specific product was not convincing;

Inulin

Addition of *Inulin* (6.4), a prebiotic derived from chicory and other plants, was rejected because organic agricultural products do not get listed on the PSL.

Malolactic bacteria

Addition of *Malolactic bacteria* (6.4), rejected because *Microorganisms* (6.4) already authorizes its use.

Defoamer

Proposals to add a name-brand defoamer (to 6.6) and a name-brand cleaning substance (to 7.3 or 7.4) were rejected because name-brand products can not be listed on the PSL;

Potassium metabisulphite

Addition of *Potassium metabisulphite* to 7.3 was rejected because many alternative effective cleaners exist already on the PSL, with no compelling reason to add this new substance;

Potassium Permanganate

Revision of *Potassium Permanganate* (7.4) was rejected due to a non-persuasive rationale; and

Talc & Sodium Borate

Deletion of *Talc* (6.6) and *Sodium Borate* (7.4) was rejected on the basis that the rationales provided by petitioners were unpersuasive.