Questions and Answers Regarding

Canadian National Standards for Organic Agriculture

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General principles and management standards

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General principles and management standards
CAN/CGSB 32.310

1 Scope

1.4 Prohibited substances, materials or techniques in organic production and preparation

GMOs – Substrates and growth media

Can inputs, which have been produced using substrates from GE plants, be used in organic food production? (88)
Yes and no. Inputs from GE plants are prohibited with the following allowances for input substrates (growth media).
If the substance (input) includes the substrate or growth media, the ingredients contained in the substrate must be listed on Tables 4.2 or 4.3 for crop inputs; 5.2 or 5.3 for livestock inputs and 6.3, 6.4 or 6.5 for prepared products. All substance annotations apply. If the substance does not include the substrate or growth media, and that is confirmed in writing from the supplier, the substance has to have been produced on a non-GE substrate or growth media, if commercially available. Refer to 4.1.3, 5.1.2 and 6.2.1 of CAN/CGSB-32.311.

Mutagenesis - cisgenesis

Do seeds resulting from mutagenesis or cisgenenis fall within the standard's prohibition of Genetic Modification? (255)
Mutagenesis and cisgenesis are not prohibited by the standard. The use of these techniques is limited to combining plant materials that will cross or breed through natural processes"

3 Terms and definitions

Genetic engineering – Cell fusion

Is cell fusion allowed in organic production? (199)
No. Cell fusion which combines plants of different taxonomic families (such as sagebrush and grape) is not allowed. Cell fusion is only allowed between members of the same taxonomic family. See the definition of 'Genetic Engineering' in Section 3.

Biodegradability

What is the definition of biodegradability as it pertains to the Canadian Organic Standards? (263)
Biodegradable is defined in the standard as "capable of microbial decomposition within 24 months in soil (with the exception of plant biomass), one month in aerated water, two months in anaerobic water, with minimal impact on the environment" (see 3.10 in CAN/CGSB-32.310).

4 Organic plan

Record keeping – Format

Is there is a specific format required for recordkeeping? (100)
No. There is no specific format for record keeping prescribed in the standard. Records must be readily auditable and contain sufficient detail to satisfy the requirements of 4.4.

5 Crop production

5.1 Land requirements for organic crop production

Alternating Between Organic & Non-organic

Are there any exceptions to the rule against alternating between organic and non-organic production outlined in 5.1.7? (6)
The intent of 5.1.7 is to prevent deliberate abuse. CBs may be faced with situations that appear to fall in this definition; but, that do not demonstrate a deliberate abuse of alternating production. In these cases, the CB should note that although the organic certification lapsed for a period of time, the operator has not intentionally violated 5.1.7. These cases could include instances where the loss of certification where the cause was beyond the operator control (e.g. mandated use of a prohibited substance, natural disaster, financial failure of the enterprise) or is unconnected to the management or operational decision-making connected to the organic operation (death of a family member, marital distress, inter-generational transfer).

What is required for a certified farm to retain the possibility of future certification beyond an intervening period when no certification is required for the sale of product? (97)
In the event that the operator has no crops to sell, and wishes to allow certification to lapse, but desires to retain the possibility of certifying again in the future, it would be necessary to maintain records documenting compliance with the standard. The application to re-certify would have to be done in compliance with requirements of the Organic Products Regulations as they apply to new operations. 5.1.7 in CAN/CGSB 32.310 refers to alternating between the use of organic and non-organic production methods, which implies the use of prohibited substance.

Buffers

How should the minimum buffer zone be measured in an orchard? (138.1)
The distance is measured from drip line to drip line between an organic orchard and adjacent non-organic block. If a portion of some of the trees is within the 8 meters, the entire harvest from those trees is sold as non-organic. As tree canopies expand with time such buffer areas need to be checked annually to reaffirm compliance.

Could a buffer zone larger than 8 m. be required in special circumstances, for example when prohibited substances are being applied on the windward side of the organic crop? (138.2)
5.2.2 states that "distinct buffer zones or other features sufficient to prevent contamination are required". If there is a risk of contamination, an 8m or wider buffer (5.2.2 a) or other means (5.2.2 b) such as a fence or hedge must be employed. The choice of methods used and responsibility to employ sufficient means lies with the operator and must be approved by the CB. For isolation distances relevant to GE crops, refer to 5.2.2 d).

Does the crop in a buffer zone need to be visually distinguishable from the organic crop? (272)
No. The same crop can be planted in the buffer zone as long as the buffer crop is harvested and directed out of the organic stream, and such activity is documented.

Parallel production – Seedlings

Is it parallel production if the same seedling type production is separated by time? (57)
The growing of visually indistinguishable crops (organic and non-organic) non-simultaneously does not constitute parallel production. This rule applies equally to all field crops and greenhouse production, including seedlings.

Parallel production

Can parallel production be allowed if management to avoid co-mingling is documented? (1)
The standard (5.1.4) prohibits parallel production of most non-distinguishable crops by the same enterprise. Some exemptions do exist (e.g. perennial crops (already planted), agricultural research facilities, and production of seed, vegetative propagating materials and transplants) with conditions. Refer to 5.1.5 for further details. Post-harvest operations are not subject to this prohibition.

Parallel production – Seeds

Can seeds be considered an input as opposed to a crop, for the purpose of allowing seed companies to practice parallel production? (2)
Seed companies can practice parallel production. Refer to 5.1.4.

Parallel production & Hydroponics

Can an operator engage in hydroponic production (not organic) and produce the same products using organic methods? (261)
5.1.4 does not allow parallel production for greenhouse annual crops. The production of visually indistinguishable products is not allowed, regardless of the non-organic method of production.

Transition – Management change

In the case where there is a change in management is a 12 month transition period necessary? (58)
A change in management or control of an organic operation does not necessitate a 12 month transition period. It is a new operation that requires a minimum of 12 months of supervision by a CB, not a new operator.

Transition – Adding new fields

Does the requirement, in 5.1.1, that land be in compliance with the standard for 12 months prior to harvest apply to new fields added to an existing application? (8)
If it can be verified that no prohibited substances have been applied for the past 36 months, no transition period for new fields for existing operators is required. (Reference, 5.1.2)

5.2 Environmental factors

Isolation distances

How should the note in 5.2.2 on isolation distances for preventing GE contamination be used in the enforcement of 5.2.2 d)? (282)
Isolation distances are one of many strategies that could be used to minimize contamination risk. Shorter distances other than those provided in the 5.2.2 Note may prove to be as effective depending on wind direction, topography, vegetation etc. Other mitigation strategies such as delayed planting, border rows, etc., could also be effective on their own, or in combination with other tactics. It is critical to understand that Notes and examples in the standard are not themselves enforceable, and are used to give insight or direction on how to implement the standard.

Note – 5.2.2 d

Does the note in 5.2.2 d), "(for seed production)", refer to the organic alfalfa or to the GE alfalfa? (282A)
Organic alfalfa seed fields should be 3km from ALL GE alfalfa fields (i.e. both GE seed production fields and GE hay fields).

Corn field is surrounded by GE corn

My sweet corn field is surrounded by GE corn. Since I do multiple plantings, I know that there are times when pollen from the GE corn contaminates my crop, but I have nowhere to locate the corn where this will not be the case. Can this crop still be compliant in light of the new GE risk management criteria in 4.4.4 and 5.2.2 d)? (296)
The product of farms whose operators engage consistently in implementing mitigation strategies aimed at eliminating risks of GE pollen contamination will be considered compliant.

Contamination – Accidental

What are the effects regarding certification, of an unintentional spill of plastic pellets onto an organic field? (67)
The standard requires 36 months transition after the application of a prohibited substance by the operator (5.1.1 - 32.310). Depending on the nature and extent of contamination, buffer strips around the contaminated zone and/or a transition period may be reasonable ways of maintaining the organic integrity (refer to 5.2.2). A prescriptive solution that applies universally to all cases of potential contamination is not possible, but in every case the degree of risk must be assessed and every attempt must be made to mitigate the negative impact on the final product. (see Introduction. III = Organic practices paragraph 5)

Emergency pest treatment

In the case of contamination with a prohibited substance used in a government sponsored pest control program, what are the implications for organic operators regarding suspension of certification? (69)
The standard requires 36 months transition after the application of a prohibited substance by the operator (5.1.1 - 32.310). Depending on the nature and extent of contamination, buffer strips around the contaminated zone and/or a transition period may be reasonable ways of maintaining the organic integrity (refer to 5.2.2). A prescriptive solution that applies universally to all cases of potential contamination is not possible, but in every case the degree of risk must be assessed and every attempt must be made to mitigate the negative impact on the final product (See Introduction. III = Organic practices paragraph 5)

Equipment – Lubricants

Are the lubricants used in harvesting equipment regulated by the standard? (122)
There is no specific reference to the maintenance materials such as lubricants in the standard. But contamination of land with such substances would fall under 5.2.1 of CAN/CGSB 32.310 'Environmental factors' which states "Measures shall be taken to minimize the physical movement of prohibited substances onto organic land and crops from - equipment used for both organic and non-organic crops." Thus equipment must be well maintained to minimize potential contamination.

Equipment – Shared

Are there any guidelines for cleaning farm equipment that is shared with non-organic operators? Could the sharing of equipment jeopardize certification? (147)
5.2.1 states "Measures shall be taken to minimize the movement of prohibited substances onto organic land and crops from – adjacent areas". Where there is a risk that shared equipment could convey prohibited substances, seed, or crop, it must be adequately cleaned to ensure that contamination of organic product is prevented. The operator must document the cleaning process.

Irrigation – Shared

Can a farmer irrigate land from an irrigation system that uses Magnicide, an aquatic weed herbicide? (19)(104)
Active substances included in Magnicide are not allowed for application to organic production units. If the irrigation system can be shown to be free of residues from prohibited substances such as Magnicide, it may be used to irrigate organic farms. (see 5.7 in 32.310)

Treated posts

Would dipping untreated wooden posts in paraffin wax or using a polyethylene sleeve be allowed under 5.2.3? (186)
Yes. Paraffin or polyethylene coverings can be used. The prohibition of wood treatments in 5.2.3 was aimed at eliminating toxins commonly used to prolong the life of wooden posts.

Is the buffer zone around treated posts permanent or transitional? (12)
The standard does not prescribe any buffer zone surrounding treated fence posts. This must be determined on a case by case basis and would be based on installation date.

Is copper sulphate allowed as a treatment for fence-posts on pasture? (9)
No. Copper sulphate is not listed as treatment for wood product; however both copper hydroxide and borate are allowed in table 4.3 of PSL. For new installations or replacement purposes, metal, plastic, concrete, or protective sleeves should be used as alternatives for fence posts. For further information consult 5.2.3 (32.310).

5.3 Seeds and planting stock

Perennials – Transitioning

If perennial planting stock not treated with prohibited pesticides is planted on an organic farm, can the harvest be considered organic in the first year? (200)
No. Not within the first year. The fruit from non-organic perennial planting stock will only be compliant following 1 year (12 months) of organic management (CAN/CGSB 32.310 5.3 b).

)Seed – Buffers

Are seeds produced on buffer strips able to be planted in organic fields? (17.1)
Seeds grown on buffer strips under the standard are the same as those grown on conventional farms (see 5.2.2 c)). Exceptions to the use of organic seeds are specified in CAN/CGSB 32.310 5.3 a).

Seed – Common

Can non-organic common seed be used if organic common seed is not available? (17.2)
Yes. For the purposes of 5.3 a) , "common" could be considered a varietal distinction subject to the exceptions to the use of organic seeds. See 3.13, definition of "commercially available."

Seed for green manure crops

Are the seeds used to grow green manure crops, intended for incorporation into the soil, required to be organic? (269)
Yes. All seeds used in the organic production system, whether the plant is used for food, feed or soil incorporation have the same requirements outlined in 5.3 - *Seeds and planting stock*. They must be organic except under the specific exceptions listed.

Seeds – GMOs

What level of GE contamination would be acceptable in seeds used for production under organic standards? Is it the responsibility of the operator or of the seed trader to check the GE contamination of the seeds sold for organic production? (41)
1.4 a) prohibits the use of all materials produced through genetic engineering. Where there is a risk of GE contamination, the operator is responsible to document (c 4.4)) all potential sources, and the management strategies employed to minimize the risk of contamination (5.2.2 d). Testing is not mandatory, but could be used as a monitoring tool by the operator. Certification Bodies also have the discretion to test when fraud or contamination is suspected.

Seed – Transitional fields

Does the requirement to use organic seed, tubers etc. (5.3) preclude the use of seed grown on transitional land within the same operation? (113)
Seed grown on transitional land is acceptable as it meets the requirement of 5.3, and as it has not been grown using prohibited substances or techniques.

Seed – Treatments

What is the definition of "untreated seed" as it applies to 5.3 a) (32.310)? More specifically, does the use of "bleach cleaning" render the seed outside this definition? (77)
Untreated seed is seed which has not been treated with pesticides prohibited by the standard. It does not denote seeds that have not been cleaned. Table 4.3 lists substances which can be used to clean or disinfect seeds, including peracetic acid for example. Organic seed may not be cleaned with chlorine bleach as it is not listed on Table 4.3 for this purpose.

Tissue culture

Are propagules produced through plant tissue culture micropropagation included within the provisions of CAN/CGSB-32.310 par. 5.3, requiring that they be produced in accordance with the standard? (203)
Yes. 5.3 applies to propagules produced through plant tissue culture micropropagation.

Offspring of GM seeds/plants

Can the offspring of GM seeds/plants be organic? (256)
No. The use of GE plants or seeds is prohibited.

5.4 Soil fertility and crop nutrient management

Crop rotation

Does the definition of crop rotation (3.17) mean that growing the same crop 2 years in a row is inadmissible? (134)
While the standard states that crop rotation shall be as varied as possible, growing the same annual crop two years in a row is not prohibited. 5.4.1 and 5.4.2 require that a soil fertility and crop nutrient management program be maintained. A regular soil monitoring program can be used as evidence of "practices that maintain or increase humus levels, that promote an optimum balance and supply of nutrients, and that stimulate biological activity within the soil".

Hydroponics

Is the prohibition on hydroponics applicable only to greenhouses, or to all types of crop production? (74.2)
The prohibition of hydroponics is universal and not limited to greenhouses. See 5.4 (soil fertility requirements) and 7.5.3 (hydroponic prohibition).

5.5 Manure Management

Manure sources

Can manure from livestock raised in cages be used, if the farm has a nutritional deficit and no other manure is available within a reasonable distance? (83)
As per 5.5.1.a), only manure from caged animals that cannot turn 360º is prohibited (e.g. manure from sows in farrowing crates). There are no exceptions.

Is the manure from a conventional farrowing operation compliant with the standard? (90)
Manure from systems where the sows are in traditional farrowing crates and not able to turn around is prohibited under 5.5.1.a). This is the intent of the standard. The wording of 5.5.1 a) leads to the need for interpretation of the term 'fully caged system'. The part of the operation where traditional farrowing crates are used constitutes a 'fully caged system' under the standard and manure from those animals would be prohibited, notwithstanding the fact that some other animals in the barn are housed differently.

Does the presence of animal droppings in fields, orchards and vineyards require a waiting period as prescribed in 5.5.2.5? (31)(159)
5.5.2.5 does not apply to incidental animal droppings such as those from wild animals or birds, grazing or working animals; however, 5.5.2.4 (a) does apply and requires diligence on the part of the operator to ensure that any activities under his/her control do not cause pathogenic microbial contamination of the crop. 5.5.2.6 clearly states if livestock are part of the cropping or pest control program there has to be a management plan in place regarding manure related contamination and the eatable crop.

6 Livestock production

6.2 Origin of livestock

Breeding stock – Alternating organic and non-organic management

Please clarify the meaning of 6.2.3.2. Does it allow that animals could be repeatedly fed conventionally until the last trimester of pregnancy, and still give birth to offspring compliant with the standard? (87)
6.2.3.2 applies only to herds and individual animals in transition. For animals already under organic management, the feeding of non-organic feed at any time during gestation would render the mother and offspring non-compliant. Beef cattle and dairy breeding herds cannot be rotated in and out of organic production. Refer to 6.2.5.

Breeding stock

Can non-organic animals transitioned to organic management become acceptable a) for breeding? b) for slaughter? (48.1, 48.2)
Breeding animals may be transitioned from conventional to organic management for use in organic production according to the terms specified in the standard. (see 6.2.2, 6.2.3, 6.2.3.2 and 6.2.4). A non-organic animal will never comply with the standard for the purpose of slaughter and use as organic meat. Breeding males used on organic farms do not have to be organic. 1.4 still applies.

Definition of dairy Animal

What is the definition of "dairy animal" under the standard? (24.2)
A dairy animal is any animal in a herd that produces milk for human consumption.

Sexed semen

Can sexed semen be used in organic production? (40)
Yes, the use of sexed semen does not violate the standard (refer to 6.2.2 a).

Embryo transfer

Is embryo transfer (the collection of eggs from one female and subsequent implantation in another animal to complete gestation) allowed? (240)
No. In 6.2.2 b) the standard prohibits embryo transfer techniques in organic livestock.

What are the restrictions to the offspring if a non-organic animal is bred using embryo transfer and then brought onto an organic farm? (214)
None, if the animal complies with the requirements in 6.2.3 and 6.2.4. 6.2.3.2 is also applicable if the offspring will be used for meat.

Fertilized eggs

Can birds hatched from eggs treated with antibiotics be certified organic? (271)
No. 6.2.3.1.2) states "neither day-old chicks nor the fertilized eggs they hatched from shall be given medication other than vaccines".
Note: in the 2006 version of 32.310, poultry used for edible products had to be under continuous management beginning no later than the second day of life. This meant that the treatment of eggs was not the responsibility of the operator. That clause has been revised and operators have one year from the November 25, 2015 date of publication to comply.

Transitioning of dairy calves

Can a dairy calf which is part of an organic operation be fed conventional milk, and then transitioned back to organic status? (see 6.2.3.2.) (259)
No. 6.2.3.2 applies only to herds and individual animals in transition.

Breeding sows – Synchronized estrus

If a producer purchases non-organic non-gestating sows for breeding, brings them into a new operation site, then uses hormones to trigger and synchronize estrus, would the piglets born from these sows on this site be considered «organic» if these females have been under continuous organic management from the beginning of the last third of their gestation period? (195)
While the standard allows for the introduction of non-organic breeding stock into an organic operation, it requires that from the moment of introduction, the operator complies with all the rules for organic livestock husbandry. The use of hormones to trigger estrus is specifically prohibited in 6.2.2 c) therefore the use of this technique would be a serious non-compliance.

Cloning

Is the use of cloned animals allowed? (148)
No. All of the conditions listed in 1.4 are forbidden. The origin or lineage of animals (1.4 h)) needs to be known to ensure that no cloned animals are used.

6.3 Transition to livestock production units to organic production

Pasture – Poultry

Does 6.3.3 apply to pasture used for poultry? In other words can the raising of pullets be timed to coincide with the transition of land rather than waiting until the pasture is CO to start a new flock? (99)
6.3.3 applies to pasture used by a herd or a flock of sheep and not to pasture used for poultry. Pasture for poultry must be free of prohibited substances for 36 months prior to use (6.13.1 c). In other words, land can be in transition still when pullets are started, but the 36-month mark must have been reached and the land deemed to have certified status by the time birds are ready to go out to pasture. Pasture is considered an organic crop and operators making their initial application must be in full compliance with the Standard for at least 12 months before it can be used by organic poultry (5.1.1)

Transition-Outdoor runs

Does the requirement for a 36-month transition of land for crop production apply to the outdoor runs required to permit poultry access to the outdoors? (225)
Yes. Poultry eat when they go outside, even ingesting small amounts of soil. Since organic feed is required (6.4), the 36 month transition period for outdoor poultry runs is mandatory.

Transitional feed

When a beef cow herd is being transitioned to organic, does 6.3.3 give permission to use the transitional feed being produced on the farm, to feed gestating animals whose offspring will be eligible for sale as organic? (179)
Yes. Provided that the timing of the completion of the transition of the land on which the feed has been grown coincides with or precedes the birth of the organic offspring.

Feed from transitional land

Can the use of feed from transitional land allowed in 6.3.3 be extended to apply after the transition of the livestock is complete? (257)
Feed produced on land in the final year of transition (commonly referred to as T-3 feed), is considered as organic within the farm unit while the herd or flock of sheep is in transition. The T- 3 feed produced and harvested before herd transition is complete may continue to be used as organic within the farm after herd transition is completed. T-3 feed harvested after herd transition is complete has no organic status even within the farm.

6.4 Livestock feed

Buffers – Livestock feed

Can livestock feed harvested from the buffer zones around organic cropland be fed to livestock in transition to organic? (149)
As per 5.2.2 c) feed harvested from the buffer zones is non-organic. Feeding buffer zone feed would be the same as feeding conventional feed.

Feed storage – Commingling

A producer is feeding all his organic livestock feeds to non-organic livestock. During storage they may be comingled with non-organic feeds purchased from off the farm. Is there any risk that by doing this the producer would compromise the ability to certify future crops from the same fields? (97.1)
No. At the point in time where separation between organic and non-organic feed is compromised, the feedstuff in question loses organic status. This has no effect on the organic integrity of the field and the capability to produce organic feed in subsequent years. If feeding occurs on the field it must be non GE feed.

Emergency feed

Can you give some guidelines around the use of the 10 day maximum in 6.4.7 a)? (89.2)
Ten consecutive days is the maximum. If the feeding of non-organic feed was broken up into segments, potentially legitimizing a total period of longer than 10 days, each segment would have to be scrutinized separately for approval under 6.4.7 a).

If the conditions outlined in 6.4.7, which allow for temporary use of non-organic feed are met, would this allowance also extend to the use of non-organic bypass fat? (95)
Yes, but only if non-organic bypass fat was part of the farm's feed inventory in advance of the farm catastrophe or regional shortage. The allowance to use non-organic feeds is intended to allow the operator to maintain the health of animals following a farm catastrophe or regional shortages.

Can the allowance of non-organic feed in catastrophic circumstances (6.4.7 a)) be expanded to include commercial or logistical challenges outside the operator's control? (e.g. a shipment is held up by border inspection) (156)
No. The examples of farm scale catastrophic events cited in 6.4.7 a) (fire, flood, extreme climatic conditions) do not extend to commercial or logistical problems.

Is the operator required to obtain pre-approval for use of non-organic feed during a catastrophic event? (89.1)
No, the operator does not need pre-approval. However, the operator should notify their CB and explain the situation as soon as possible. It is the responsibility of the operator to adequately and successfully demonstrate to the CB that 6.4.7 a) is applicable and the instructions laid out there have been met.

6.4.7 b) allows for the feeding of non-organic forage to breeding herds in the case of a regional forage shortage. If a producer anticipates running out of organic forage: (157)

a) **Can they prepare by sourcing the non-organic feed before they run out?**
   Yes. The operator may source the non-organic forage ahead of time, but before feeding, the regional feed shortage must be confirmed by the CB. Also all other conditions of 6.4.7 b) must be addressed including: maintenance of detailed records to track feed and animals fed, to confirm non-GE status of the feed. Animal must be segregated and effort should be taken to use transition feed or at least forage grown without prohibited substances.
b) **Which animals can be fed the non-organic feed and what are the implications for the status of meat and milk?**
   With the agreement of the CB, the non-organic forage may be fed to: 1) non-lactating dairy animals - without affecting their status in future lactation. 2) beef cows or ewes that are not nursing offspring, during the first 2 trimesters, without affecting the status of future offspring in utero.

Use of non-organic feed

Under what circumstances can a dairy operation use non organic feed? (260)
1. Catastrophic event: Following a catastrophic event that directly affects the operation, a dairy herd may be provided non-organic feed for a maximum of ten consecutive days, as specified in 6.4.7 a. In this case there is no interruption of the production of organic milk and all animals retain organic status for sale as meat.

2. During a regional organic shortage, lactating animals must be provided a 100% organic ration for their milk to retain its organic status. In other words, milk from dairy cows provided non-organic forage as a result of a regional organic feed shortage loses its organic status. For milk from these cows to regain organic status: a) these cows must have been provided a minimum of 80% organic feed during the regional organic forage shortage; and b) a three-month transition period in which these cows have been fed 100% organic feed must be completed.

3. Dairy herds in transition to organic production may be provided non-organic feed, in accordance with the rules in 6.3.1 a and b, which allow cows to be fed for 9 months with a minimum of 80% organic feed ration, followed by 3 months of 100% organic feed. Transitional feed in the last year of transition, produced on a farm transitioning its whole dairy herd to organic production may be considered to be organic on the same farm. (32.310-6.3.3)

Feed – Transitional

When a beef cow herd is being transitioned to organic, does 6.3.3 give permission to use the transitional feed being produced on the farm, to feed gestating animals whose offspring will be eligible for sale as organic? (179)
Yes. Provided that the timing of the completion of the transition of the land on which the feed has been grown coincides with or precedes the birth of the organic offspring.

Silage inoculant additives – Colour

If a silage inoculant contains synthetic colouring agents, does that mean that it is prohibited for use in organic livestock feed production? (94)
Yes. The use of synthetic colouring agents (6.4.4 j)) makes the product non-compliant for use in organic feed.

Summer ration – Long-fibre forage

When calculating compliance with 6.4.3 g) & h) of a summer ration for ruminants, can pasture be considered "long-fibre forage"? (194)
No. 6.4.3 g) & h) address feed rations when animals are not on pasture. During the grazing season 6.1.3 a) applies, and requires that sexually mature ruminants obtain a minimum of 30% of their total forage intake from grazing calculated on dry matter basis.

40% grain ration in early lactation

6.4.3 g) allows for increased grain feeding during uncommonly cold conditions or when forage quality is compromised to ensure that nutritional requirements of ruminants are met. Can dairy cows be fed more than 40% grain in early lactation when their energy requirements are highest? (295)
No, dairy cows cannot be fed more than 40% grain to meet their nutritional needs in early lactation. The allowance for feeding more grain in 6.4.3 g) is in exceptional circumstances beyond the control of the operator.

6.6 Livestock health care

Hormone treatments

Is the use of therapeutic hormonal treatment, for example prostaglandins to treat metritis, allowed in dairy animals? If so, what are the restrictions and withdrawal times? (78.1)
For all treatments not listed on the PSL, a minimum withdrawal period of 14 days must be observed - see 6.6.10 d). Therapeutic use of hormones such a prostaglandin which is not listed on the PSL can be used when treatments listed in the PSL are unlikely to be effective, and preventive measures have failed. A 14 day withdrawal period must be observed. If prostaglandin is used in such a manner, as per 6.6.3, the animal is not eligible for use as organic meat, but this event is not counted as one of the dairy animal "treatments" referred to in 6.6.10 e 4) or 6.6.10 e 5), or 6.6.11 e). That 2 treatment restriction is only pertinent to antibiotics & parasiticides.

Can oxytocin be used to treat postpartum complications? If so what are the withdrawal rules? (78.6)
Yes. 6.6.3 specifies that hormones are acceptable if the use is therapeutic, not preventive. For oxytocin, the animal does not lose status for use as organic meat. The withdrawal time is double what is stated on the label or 14 days, whichever is longer. (See PSL Table 5.3 Oxytocin and 6.6.10 d) - 32.310)

Medical treatments – Dairy animals

Do two separate incidents of treatment with antibiotics and paraciticides administered in combination count as one treatment, two treatments, or four? (135)
6.6.10 e 5) and 6.6.11 e) mean that the maximum allowable is a total of two treatments per year including each incident of a combined treatment. For example when a combination of two drugs is supplied at the same time, they count as two treatments. Therefore two separate incidents of a combination dose would count as a total of four treatments.

In the case of antibiotic use in dairy cows, if the operator provides test results to show that there is no residue in the milk, can the compulsory 30 day withdrawal period be shortened? (125)
No. 6.6.10 e 2) states the minimum withdrawal of 30 days after the use of any antibiotics, even topical applications in milking cows. No exceptions are specified.

Medical treatments (Parasiticides) – Slaughter animals

Please clarify the meaning of the standard regarding use of parasiticides in slaughter and milk as to the loss of organic status and withdrawal periods. (78.2) (24.1)
Parasiticides not listed in the PSL may be used on slaughter animals only if

- preventative measures have failed (6.6.11),
- fecal samples confirm the correct diagnosis (6.6.11 a)),
- written instructions from a veterinarian which specify the product and method of parasite control (6.6.11 b)) have been obtained,
- the required withdrawal times is twice the label requirement or 14 days whichever is longer (6.6.11 c)),
- there can only be one treatment for slaughter animals under a year old and a maximum of two treatments in the life of the animal. (6.6.11 d)),
- For dairy animals no more than a total of two treatments a year of antibiotics and, parasiticides in any combination. (6.6.11 e)). (refer to Q&A 135 for further insight on treatment counting).

Medical treatment – Withdrawal period

In the case of using a treatment not listed in 32.311, where no withdrawal time is indicated on the label, must organic operators still observe a withdrawal? (78.4)
6.6.11 c) states that when drugs not listed on the PSL are used, a withdrawal period of 14 days or twice the label withdrawal, whichever is longer, shall be observed. If there is no label withdrawal 14 days must still be observed.

In the case of a medication like ketoprofen, used therapeutically, is there a withdrawal period (78.5)
Yes. See 6.6.11 c). Ketoprofen is not listed in the PSL, therefore a minimum 14 day withdrawal is required.

Spray bandage

Is a spray bandage, sprayed on wounds, replacing traditional bandages, allowed? (292)
A spray bandage, containing ingredients not listed in 32.311, would fall into the category of "prescribed veterinary drugs" (6.6.10 c) and could be used if products permitted by the Standard "are ineffective in combatting illness or injury". Withdrawal period specified in 6.6.10 d) applies, as well as the special provision for poultry and breeding stock in 6.6.12.

Physical alterations – Anti-inflammatories

Are steroid anti-inflammatory drugs allowed during physical alterations? (78.3)
No 6.6.4 c 2), by specifically noting "non-steroid" are permitted, implies that steroid anti-inflammatory drugs are prohibited for minimizing pain and stress during physical alteration.

Physical alterations – Beak trimming

What justification must be given in order for beak-trimming of day-old chicks to be compliant with the Standard? (275)
Since beak trimming is only effective if done before problematic behaviour starts the operator can point to previous experience or to the shared experience of operators to reasonably predict that problems would emerge to justify day-old beak trimming. The procedure for trimming must be minimal (6.6.4 c) and the operator must document the other measures taken to reduce or eliminate behavioural problems in flocks.

Can beak trimming be carried out as a preventive measure or is the allowance for this practice under 6.6.4 c) 4) only relevant after a problem arises? (101)
Yes, the practice of beak trimming is acceptable as a preventive measure to ensure the welfare of poultry if only a very small amount of the beak, the sharp hook, is trimmed or treated (6.6.4 b) 1). In order to remain compliant with the standard, the operator must also document the other measures taken to prevent or control problematic behaviours. Since the standard implies that this is an extraordinary event, it should not become the norm, and operators who employ this technique must review annually with the CB their plans to eliminate the need for beak trimming or treatment.

Physical alterations – Dehorning paste

Is de-horning paste allowed? (29)
Yes, all types of dehorning paste is acceptable under 6.6.4 a 4), but operators must abide by applicable industry *Codes of Practices* (6.6.4 c).

Immunological castration – Pigs

Can immunological castration of pigs during the finishing phase be used to replace castration of young pigs? (218)
No. The substances used would have to be listed on 5.3 of the Permitted Substances Lists in order to be acceptable.

Livestock, vaccines – GMO contamination

What would be the result of an unintended contamination of an organic livestock operation with a GM rabies vaccine? (52)
The note after 8.3.5 addresses the issue of emergency pest or disease treatment. The evaluation of compliance or non-compliance following this theoretical scenario would depend on: the degree of contamination; the precise nature of the contaminant; the ability of the operator to identify and exclude affected animals. How and why the contamination occurred is not relevant to evaluating compliance. Operators need to inform their certification body when such incidences occur.

GE vaccines

Can GE vaccines be used in poultry if the conditions for the use of veterinary drugs (6.6.10) are met? (298)
Vaccines that are products of genetic engineering, as defined in clause 3.27 of 32.310, cannot be used. For example, a vaccine derived from a GE biological entity (virus, bacteria...) may not be used even if there is no commercially available alternative. Vaccines grown on GE substrate may be used if no alternative is commercially available and that no traces of the GE substrate exist in the final product (32.311 - 5.1.2).

List of vaccines - Information on GE status of Vaccines - From Oksana Yaroush, Sr. Veterinary Biologics Evaluator, CFIA.

6.7 Livestock living conditions

Poultry housing – Sunlight

Does housing for broilers require windows for sunlight to enter while the birds are confined? (82)
Yes. As per 6.7.1 a) and 6.13.8, natural light inside the barn is required but windows are not necessarily the only means to satisfy the standard. Light permeable fabrics are an alternative.

Outdoor access – Turkeys

If an operator arbitrarily confines turkeys for one week prior to slaughter, does this constitute non-compliance with the standard? (39)
The standard sets out a number of legitimate reasons for denying outdoor access. Turkeys or other livestock cannot be denied outdoor access for any reason other than those outlined in 6.7.2.

Outdoor access – Pigs

Can the organic operator choose to keep pigs confined, not allowing outdoor access, even when there is no risk to the animal caused by weather or stage of production? (196)
No. Complete confinement of pigs is non-compliant with 6.7.1 a). The standard sets out as the norm for animal husbandry, access to outdoors. It then states in 6.7.2 the specific exceptions to the rule which apply to all livestock. 6.15.2 outlines the outdoor exercise requirement for pigs.

6.11 Additional requirements for cattle, sheep and goats

Outdoor access – Finishing phase

When herbivores are being confined in the final finishing phase (see 6.11.1 b) and are not subject to pasture requirements, must the confinement facility be located on an organic enterprise? (116)
Yes. Compliance to the standard and verification by the CB is required of the areas used for finishing including all buildings, facilities and outdoor access areas which are utilized by the organic livestock. The remainder of the farm is not required to be organic.

6.12 Additional requirements for dairy cattle housing

Tie stalls – Electric trainers

Are electric trainers allowed to manage animals in tie-stalls? (206)
Electric trainers are prohibited by the standard in new constructions and renovations and can only be used in existing dairy tie-stall barns, with restrictions when they are part of a management strategy to keep cows clean and prevent disease, in accordance with the requirements of 6.12.1.3. Use will be prohibited 5 years post publication date of the 2015 standard- November 25th, 2020.

Tie stalls – exercise

Is 6.12.1.1 to be interpreted as a requirement to allow cows housed in tie stalls a period of exercise every day when possible (at least twice a week) or merely a recommendation to do so? (92)
Yes, 6.12.1.1 is a requirement, not merely a recommendation. The intent of the standard is to require exercise for cows on a regular basis during the winter months. For an operator to fail to provide regular exercise would clearly violate the requirement.

Are tie stalls prohibited? (92a)
Installation of tie stalls is prohibited.6.12.1.1 Existing tie stalls may continue to be used for lactating cows and for one month for heifer training before they join the milking herd, as long as the dairy cows are exercised daily whenever possible, or at least twice a week.

What if it is not possible to exercise dairy animals daily or at least twice a week? (92b)
There is a 5 year grace period from the date of publication of the 2015 standard by when operators must have loose housing for heifers and daily exercise for all animals. Within 12 months of publication there must be a plan for the new construction and either tethered cows are exercised daily or a minimum of twice a week OR no heifers or dry cows are ever tethered.

Does the one-year period after the publication of the standard apply to requirements 1 & 2 of section of 6.12.1.1 b)? (291)
By Nov 2016 the operator has to have submitted the plans for the new construction or renovation to address any structural changes needed. Because by Nov 2020 they must be exercising lactating cows at least twice a week and heifers and dry cows can no longer be tethered. So this is how it was to work:
1) As of Nov 2015, tie tall operations had to either start exercising tethered milking cows twice a week, or stop tethering heifers or dry cows.
2) As of Nov 2016, submit their plans;
3) As of Nov 2020, be exercising milking cows twice a week, and no tethering heifers or dry cows.

6.13 Additional requirements for poultry

Space requirements – Poultry

Please clarify the outdoor space requirements for poultry. Can a flock be split so that use of the outdoor area is rotated between groups? If so, does the total area required diminish? (37)
While the standard allows for exceptions to the outdoor access requirements, (temporary confinement) the total area available for birds outdoors must allow for the entire flock to be outside at the same time without exceeding the densities set out in 6.13.9 – table 4 -for all poultry.

Confinement-Laying period

Can hens be confined for part of each day during the laying period? (226)
Restricting outdoor access of laying hens, during day time hours, may only occur during onset of lay as per 6.13.1 f) or for reasons outlined in 6.7.2. Further restriction of outdoor access is not permitted.

7 Specific production requirements

7.1 Apiculture

Buffer zone

Is 36 months of transition (clause 5.1) required for the 3000 metre apiary buffer zone? (124)
No. There is no transition period required for the 3000 meter buffer zone. The requirements in 7.1.10 have to be met - no prohibited substances, excluding fertilizers, can be applied to growing plant material in the 3000 meter buffer zone.

What if substances prohibited in organic crop production are used within the forage buffer zone? (278)
The honey would not qualify as organic if prohibited substances, with the exception of fertilizers, have been used within the 3000 metre buffer zone surrounding the hives, during the same growing season.

How far and under what circumstances may the 3,000 m. buffer zone around organic apiaries be reduced? (276)
The standard maintains 3000 metres as the default buffer zone. It then defines specific criteria for possible reduction of the zone; "natural features that would reduce the likelihood of bee travel such as forests, hills or waterways and abundant forage". The option for allowing organic hives in a location that has conventional agriculture (and the use of substances prohibited by the Standard) within 3,000 m. is based on the assumption that given an abundance of foraging opportunities in close proximity to the hive, bees are unlikely to travel further abroad to collect pollen and nectar which could be exposed to contaminants.

As an example, if the operator is able to demonstrate that throughout the season there is an abundance of forage around the hives, sufficient for the collection potential of the bees, the presence of conventional crops within the 3000 m. zone presents only a minimal risk to the integrity of organic hive products. A buffer zone defined by the outer perimeter of the bees' anticipated foraging area would be deemed appropriate. Within this reduced buffer zone all the restrictions in 7.1.10 apply. No crops treated with prohibited substances and no GE crops can be present.

Does any use of a prohibited substance within 3000 meters of an apiary automatically disqualify the honey from achieving compliance with the standard? (115a)
No - not always. All types of fertilizers are allowed. Sewage sludge, GE crops and agricultural pesticides prohibited by the standard, including systemic seed treatments, are not allowed (7.1.5 in 32.310). Other sources of potential contaminants (for example - products prohibited by the Standard which are being used by households within the buffer zone) should be assessed as to the level of risk they present and may be tolerated.

What potential contaminants are specifically prohibited, and which ones may be assessed according to the risk they pose? (115b)
Agricultural pesticides, herbicides and systemic seed treatments, sewage sludge, as well as GE crops within the buffer zone always result in non-compliance. Potential contaminants used by neighbouring home owners and other non-agricultural prohibited substances can be assessed as to the risk they pose to the bees and the honey. Low density rural residences within the buffer zone may not present a significant risk if it can be established (e.g. with an affidavit) that there is no use of prohibited pesticides or herbicides on forage plants. Organic honey production typically cannot take place if the following are found within the buffer zone: high density housing areas such as subdivisions golf courses, garbage dumps or landfill sites,

industrial complexes, very busy roads, or commercial non organic greenhouses/nurseries. There may be extenuating circumstances that must be assessed by certification agencies in each case. If natural features, such as forests, hills or waterways, restrict the likelihood of bee travel and abundant organic forage are present, buffer zones of 3000 m may be reduced.

Hive coating

Is the use of paraffin wax to treat hive materials acceptable in organic apiaries? (112)
Yes. Food grade paraffin is allowed in hives. (PSL Table 5.3)

Transition

Is 36 months of transition (clause 5.1) required for apiaries? (121)
No. The bee colony and hives and adjacent areas (not to include foraging area) must comply with 7.1.8.1 which specifies that 12 months of organic hive management is required prior to the harvest of organic honey.

Pasteurization of honey

Is it possible to pasteurize organic honey? (229)
If the honey is going to be sold as organic honey, 7.1.16.4 limits the heating of honey to 35°C for extraction and 47°C for decrystallization. If the honey is heated above these temperatures, it can only be used as an ingredient in an organic multi-ingredient product.

7.2 Maple products

Buffer zone

How close to a certified sugar bush can the use of a prohibited substance be allowed, without compromising the certification of the sugar bush? (13)
Sugar bush have the same buffer requirement as other crops. A minimum of 8 metres or less if there are permanent hedge rows, windbreaks, or roads that effectively buffer the sugar bush (5.2.2). In some cases wider than 8 m may be necessary depending on how effective the buffers are.

Use of filtrate for cleaning

Can the filtrate be used to clean evaporators during the season? (215)
Yes, the filtrate (water that passes through the membrane in the osmosis technique of removing water from sap) may be used to clean the evaporator. (7.2.13.2 a 3))

Rinsing and cleaning of osmosis membrane

Is it necessary to verify the quality of water used for cleaning/rinsing the osmosis membrane in maple equipment? (230)
If water is used during the production season potability needs to be confirmed. (7.2.13.2 a 3)).

The Standard allows NaOH (caustic soda) for cleaning membranes (7.2.13.2). Is a cleaner containing NaOH or other allowed substances such as the active ingredient, but also containing other substances (surfactants, etc.) allowed? (251)
Yes, any NaOH based soap is allowed under 7.2.13.2.

7.3 Mushroom production

Disease control

In the production of organic mushrooms, can table salt be used as a spot control measure for disease on mushrooms? (132)
Yes. Refer to the "salt" listing in PSL Table 4.3.

Substrate

Does the substrate for organic mushrooms need to be a) certified organic, b) composted? Can conventional straw be used as compost feedstock for a composted substrate used to grow organic mushrooms? (4) (178)

Standard 7.3.2.1 through 7.3.2.3 outlines the requirements.

MATERIAL TYPE	ORGANIC	COMPOSTED
Wood	No, but must be free of prohibited materials.	No
Manure	5.5.1 (32.310) outlines acceptable sources. Organic must be used if available.	Yes, and: 1) the compost feedstock requirements in PSL Table 4.2 apply: and, 2) Either the 'compost produced on farm' or the 'compost from off-farm sources' criteria in PSL Table 4.2 apply.
Other agricultural substances (hay, straw or grains etc)	Yes if available.	1) If organic is not available then the materials must be composted. 2) If composting the: a) the compost feedstock requirements in PSL Table 4.2 apply; and, b) either the 'compost produced on farm' or the 'compost from off-farm sources' criteria in PSL Table 4.2

7.4 Sprouts, shoots and micro-greens production

Parallel production

Can organic and conventional sprouts be produced in the same facility if grown in visually distinguishable containers? (211)
No. Growing organic and non-organic sprouts of the same plant variety at the same time is parallel production and is prohibited. Where different varieties of the same species are produced simultaneously, the organic and non-organic crop themselves must be visually distinguishable.

Sprouts or shoots

Please describe the difference between shoots and sprouts. (191)
Unlike sprouts, which are usually grown only in water, shoots tend to be grown in a growth medium. Shoots tend to be cut, while sprouts have the roots attached. Production for both must comply with all criteria in 7.4 (Sprouts, shoots and micro-greens production).

Plants sold in pots harvested after 30 days

Plants harvested within 30 days of planting fall under clause 7.4 and require the use of organic seed. What if they are sold in pots to a customer who keeps them beyond the 30 days? Would they still need to be grown from organic seed? (293)
If the plants are not "generally harvested within 30 days of imbibition" they do not fall under 7.4 (shoots and microgreens) and the organic requirements in 5.3 a) apply.

Seed cleaning

Can synthetic acetic acid be used for the cleaning of seeds used for sprouts, as seeds are neither considered as food nor as a plant (PSL Table 7.3)? (210)
No. Only substances listed for seed cleaning in Table 4.3 may be used. (see 7.4.1.5)

Substances for sanitizing seeds for sprouting and sanitizing sprouts, shoots, microgreens

In the Standard, which tables should be referred to when choosing compliant substances for sanitizing seeds for sprouting and for sanitizing sprouts, shoots or microgreens? (303)
Substances used for sanitizing seed for sprouting and sanitizing sprouts, shoots and microgreens shall be limited to the following Table 4.3 substances: hydrogen peroxide and peracetic acid (peracetic acid listing) and hot water (water listing) (32.310 7.4.1.5).

Sprout rinsing

Does the requirement for water quality in 7.4.1.2 and 7.4.1.3 apply to all uses associated with sprout production? Could water for rinsing be exempt from this description? (84)
The provisions apply to all stages of production of sprouts. Water for rinsing is not exempt.

Is the rinsing of sprouts with chlorinated water allowed? If so, in what concentration? (150)
Chlorinated water may be used to rinse sprouts (7.4.1.2) provided the level of chlorine does not exceed the limit for safe drinking water. (see 7.4.3, referring to 8.2, and 8.2.1 connecting to the 'chlorine compounds' listing in PSL Table 7.3).

Can soluble nutrients be added to the water used to grow sprouts? (74.1)
No. Soluble nutrients cannot be used in the water for sprout production (7.4.1.4).

Organic bean sprout production

Can bean sprout grown hydroponically be certified organic? (245)
Hydroponics is defined as the "cultivation of plants in aqueous nutrient solutions without the aid of soil" (3.29). As nutrient solutions cannot be used in organic sprout production (7.4.1.4), it is not considered hydroponics. 7.4 addresses the production of sprouts.

7.5 Greenhouse crops

Soil/soil-less mix

Can a greenhouse operator take soil from outside and move it into the greenhouse? (267)
Yes, providing the soil has not been exposed to substances prohibited by the Standard for 36 months.

Does the use of a "peat moss/compost etc. mix" satisfy the requirements of 7.5.4 for "soil used in a container system"? (25)
No. 7.5.4 allows for container grown production with soil. A compost and peat moss mixture is missing the mineral fraction that is required for a "soil used in a container system." (see 3.62, definition of soil). Soil as defined in the standard is not required for plant propagation or for transplant production.

Does the use of culture medium (which is soil-less, but otherwise comprised of organic matter) during the initial phase of propagation (2 – 3 weeks) preclude this type of production from organic certification as per the requirements of 7.5.4? (204)
The use of a culture medium, which does not meet the definition of soil but complies with the standard, is allowed in the case of plant propagation.

Soil volume

Under section 7.5.5 d. of 32.310, how should the soil volume of 70 L/M2 be defined and how should the total growing area be defined? (286)
The calculation for soil volume requirement shall be done on the total area available in the greenhouse for photosynthesis by plants. This includes not only the surface of containers but also the surface of alleys between rows of plants. It does not include header houses, service alleys (perpendicular to the rows), staff rooms, offices, propagation houses, or storage areas. The soil volume requirement is expressed this way so that growers have a certain freedom depending on the staked crops they grow (tomatoes, cucumbers, peppers, eggplants), the varieties they grow, the planting density they choose, the alley width they prefer, etc. The requirement must be met upon inspection of the operation, i.e. the inspector shall find an effective soil volume in place in the container, not a purchased volume. If part of the greenhouse is not occupied by crop production but could be, it can be excluded from the calculation.

Compost requirement

Under section 7.5.5 a) of 32.310, is the requirement of 10% compost by weight or by volume? (287)
The compost requirement of 7.5.5 a) is calculated by volume.

Container size

Under section 7.5.5 c. of 32.310, what does the container height of 12 inches mean? (288)
The 30 cm (12 inches) minimum is measured vertically from the deepest point of the soil to the topmost edge of the container. This requirement does not mean that the container needs to be filled up to 30 cm all the time if the volume requirement is met otherwise. In case of a greenhouse system where soil is contained in other ways (for example, using troughs and soil mounding), the 30 cm is measured from the deepest point of the soil to the topmost.

Parallel production

Is parallel production allowed in greenhouse production? (57)
No. Under 5.1.4, parallel production is prohibited in greenhouse production.

Does the exemption from the rule prohibiting parallel production allow greenhouses to transition only part of their operation? (109)
Yes, the propagation portion of the operation may practice parallel production per 5.1.4.

Is parallel production prohibited for greenhouse crops? (285)
The Standard prohibits parallel production in annual crops including those grown in greenhouses with exceptions outlined in 5.1.4. However, if visually distinguishable organic and non-organic crops are grown, this is considered to be split production (5.1.3), which is permitted if: greenhouse systems (air, water, etc.) are sufficiently segregated so as to eliminate contamination risk of the organic crop by prohibited substances (1.4).

7.6 Wild Crops

Wild seaweed

Can wild seaweed meal be certified? (244)
Yes, seaweed meal can be certified under Section 7.6 Wild crops if it is for a food or feed use.

8 Maintaining organic integrity during cleaning, preparation and transportation

Staff training

Are CB's required to verify that staff working in facilities where both organic and conventional foods are processed have the necessary training to result in compliance with the standard? (130)
CB's are required to verify compliance with the standard. If in the course of inspecting a facility, it becomes apparent that staff who are responsible for maintaining organic integrity lack the necessary training needed to differentiate between organic and conventional processes, this could be the basis of a report of non-compliance. (see 32.310 – 4.4, and 8)

X-rays – irradiation

Does the use of x-rays (at customs inspection) constitute irradiation under the standard? (45)
No. X-ray technology used to inspect at border crossings is not irradiation as defined in 3.33 and prohibited by 1.4 c).

Use of microwave

Is the use of a microwave oven in organic food preparation compliant with the standard? (220)
Yes. While the standard prohibits ionizing radiation, the use of non-ionizing radiation such as that generated by a microwave oven is not prohibited. It is prohibited to boil maple syrup or products using microwaves. (7.2.14)

Water – Filtration

Can water that has been processed through an alkaline filtration system be used in the preparation or processing of an organic food product? (185)
Providing the resulting water falls within Health Canada's Guidelines for Drinking Water; pH 6.5 to 8.5 and no substances or processes prohibited by the standard are used or added, the water is acceptable.

8.2 Cleaning, disinfecting and sanitizing

Water – Vegetable rinsing

What are the requirements for water quality, where the water is used to wash organic vegetables? (128)
Water must meet the requirements for potability as per local, provincial or federal authorities.

Can chlorine be used to wash organic produce? (5)
Chlorinated water, up to the concentration permitted in municipal drinking water systems, is acceptable for washing organic vegetables and does not require rinsing. (see the chlorine compound listing in PSL Table 7.3).

Cleaners – Required removal

What are the requirements for removal when cleaners are approved for use under the provisions of 8.2.3 and are not listed on 7.3 or 7.4 of the PSL? (106)
The operator is required to document that the substances are efficacious and that the product has been effectively removed before organic products come into contact with the surface. Examples of acceptable removal events include rinsing with potable water, letting surfaces drip dry and purging lines with organic product. . The operator is also required to neutralize any product before disposal to minimize environmental impact. Refer to 8.2.3 c. and 3.59 – the removal event definition.

Cleaners – Milking equipment

What is the distinction between acceptable cleaning agents for milking equipment on farms vs. those used in processing facilities? (209)
8.2 gives direction for cleaning food contact surfaces which would be appropriate both on dairy farms and in off-farm dairy processing facilities.

Cleaning – Milk trucks

Is it necessary to wash milk trucks at a processing facility under the supervision of a certifying body in order to maintain certification of the milk? (108)
No. There is no requirement to wash bulk milk trucks specifically at a processing facility placed under the supervision of a certifying body. In order to comply with the standard, documentation that substances used in the cleaning process have been removed, must be maintained to demonstrate compliance to 8.2.

8.3 Facility pest management and post-harvest management

Pest control – Bait station location

When pesticides allowed under 8.3.3 (not listed in PSL) are used in a facility, is the fact that the bait stations are clamped to the wall sufficient to ensure that no contact occurs? (38)
No. Where a pesticide not listed in PSL Table 8.3 is dispensed using a "fixed bait station" the operator must ensure that neither the pesticide nor the contaminated pest could come in contact with the organic product. For indoor use, no organic products or packaging materials may be present during the use of the pesticide.

Pest management - indoor/outdoor

Does 8.3.3 only apply to substances for pest control used inside facilities or also to substances used on the exterior? (212)
8.3.3 applies to both indoor and exterior pest control for all operations that handle, store and transport organic products. The indoor/outdoor requirement is reiterated in the PSL (8.1.1). It is essential that pest control used around farm buildings and storage areas does not compromise organic product integrity or the surrounding farm environment. 8.3.3 does not apply to situations involving exterior pest control at facilities where it is unlikely that organic product integrity will be compromised, or the surrounding environment contaminated.

9 Organic product composition

9.2 Product composition

5% non-organic content

What are the restrictions on the up to 5% of non-organic ingredients allowed in production of organic products in the OPR? (16)
The use of non-organic ingredients should be kept to a minimum (9.1.1 in 32.310). If and when they are used, the 5% of non-organic ingredients:

- must respect origin and usage requirements, as annotated in PSL Tables 6.3 and 6.4;
- if not listed on the PSL, must be non-organic agricultural ingredients for which the organic form is not commercially available. Such non-organic ingredients must comply with 1.4 a), c) and h) (see 9.2.1 in CAN/CGSB-32.310).

Constituents of ingredients calculation

In 9.1.2 of the standard, what does the term "constituent of an ingredient" mean? Are incidental components or carriers considered constituents? (131)
Constituents refer to all the components contained in an ingredient. Every constituent or subpart of every ingredient including carriers or preservatives needs to be included in the calculation of constituents' percentages and reviewed with regard to compliance with the PSL.

Ingredients – Organic and non-organic

Does the prohibition against using both the organic and non-organic form of an ingredient (9.2.1) apply to different varieties of grapes used in a wine, or different flours (e.g. barley and wheat) used to bake a single bread? (173)
Under 9.2.1, ingredients that are recognized as having distinct qualities could be considered as separate ingredients, even when they fall into the same general category of ingredients such as "flour" or "grapes". In the examples given, it would be possible to use one ingredient in its

organic form and the other in its non-organic form without violating9.2.1provided the following restrictions are satisfied. For organic products with organic content equal to or >95%, the non-organic content must be less than 5% of the total and commercial unavailability must be confirmed annually for any non-organic agriculture ingredients. For products containing between 70-95% organic content, commercial availability does not apply. In both categories, the organic and the non-organic ingredients must be listed on the label to be compliant with labelling requirements in the OPR and the guidelines from CFIA.

Meal replacement

Is a "meal replacement" certifiable under the COR, given that it contains supplemental minerals and vitamins? (266)
Meal replacement products may be certified organic if produced in accordance with this Standard and if they meet the nutritional profile set out by Canadian regulation for "meal replacement" products.

Livestock feeds – Certification

Can livestock feeds which contain non-agricultural ingredients be certified? (65.1)
Livestock feed must meet the organic product requirements in Section 8 of the 9.1.3 d), and the labelling and advertising requirements in OPR section 24. Livestock feeds may contain necessary feed additives or supplements according to PSL Table 5.2. Refer to 6.3 in CAN/CGSB for complete details on livestock feed.

Lactoserum for feed

Can non organic lactoserum be used as feed if it is documented that organic lactoserum is not commercially available? (258)
No. Livestock feed must contain 100% organic agricultural ingredients. (9.1.3 d)).

Processing aids

When processing a product which will be sold as 70-95% or 95% organic, must the operator use processing aids listed on the PSL (Table 6.5) exclusively? (20)(20b)
When manufacturing a 70-95% or 95% organic product, all non-agricultural processing aids must be listed on in PSL 6.5 and all annotations complied with. Any non-organic agricultural processing aids must comply with 1.4 a, b, c and h, and if listed in PSL 6.5, must satisfy the annotations.

Does the standard require that processing aids in the production of non-organic ingredients be listed on Table 6. 5 PSL? (20a)
No. The processing aids used by manufacturers of non-organic ingredients are not subject to the scrutiny of Certification Bodies.

Sodium free substitutes

Does paragraph 9.1.3 which excludes salt from the calculation of organic percentage, apply only to sodium chloride, or could a sodium free substitute, such as potassium chloride also be excluded? (165)
Yes. If the sodium free substitute serves the same purpose as sodium chloride, specifically to add flavor, nutrition, or microbial control, it may be excluded from the calculation (see 3.60 definition salt).

Ultraviolet radiation

Is the use of ultraviolet radiation to diminish microbial flora admissible in foods such as milk and cheese? (152)
Ultraviolet light is not food irradiation. It may be used to treat organic food such as milk and cheese, but it cannot be used to sterilize tree saps such as maple or birch (7.2.12.2).

Permitted substances lists - CAN/CGSB-32.311

Brand name approval

What is the pathway for approving cleaners, or substances used? (3)
Operators should approach their Certification Bodies to verify brand cleaners comply with the standard. Approval of substances is the mandate of CGSB Technical Committee, through the Permitted Substances Lists working groups (Reference, PSL).

Formulants

For soil amendments and crop production aids, is it enough that the active ingredients are compliant, or does the certifier need to review the list of inert ingredients and formulating agents? (168)
All substances contained in soil amendments and crops production aids must be disclosed by the supplier for review by the CB. Table 4.3, under the heading "Formulants" provides some guidance in evaluating non-active ingredients (inerts) in crop production aids.

Table cross-referencing

Does the inclusion of Calcium Phosphate (monobasic, dibasic and tribasic forms) on table 6.3 for use in processing imply that these substances can also be used as soil amendment or Crop Production Aids? (Tables 4.2 and 4.3) (140)(155)
No. An annotation in one table cannot be applied to a listing in another table. The inclusion of substances on Table 6.3 for preparation does not make them compliant for other uses. However, Table 4.2 does list mined minerals, making the natural form of calcium phosphate (apatite) acceptable as a soil amendment.

Does the process described in Table 4.2 of the PSL (annotation for amino acids) apply to other microbial products, for example yeast, for use as a soil amendment? (57.2)
No. An annotation for one listing cannot be applied to another listing.

4 Permitted substances lists for crop production

4.2 Soil amendments and crop nutrition

Anaerobic digestate

Is the end product from an anaerobic digester or biogas digester acceptable for use as a soil amendment? (30)

Yes but, the feedstocks must be listed in Table 4.2 and if obtained from off-farm the digestate must meet the heavy metal restrictions as listed in Table 4.2 *Compost from off-farm sources*. The product may be used as compost feedstock, or if not composted it needs to meet raw manure land application requirements outlined in 5.5.2. (see Digestate, anaerobic listing in PSL Table 4.2)

Biochar

Can green char be used in organic agriculture? (Biochar) (139)

Yes. But only biochar generated from forestry by-products which have not been treated or combined with prohibited substances. No other feedstock is acceptable. (see biochar PSL Table 4.2)

Blood meal

In Table 4.2 blood meal is allowed only if sterilized. What does it mean for blood meal to be sterilized? (262)
The Fertilizers Act and Regulations requires that fertilizers and supplements not contain any substances likely to be generally detrimental or seriously injurious to domestic animals or public health. Blood meal is defined as "collected blood of slaughtered animals, dried and ground, containing not less than 12% nitrogen». Blood meal is considered to be "sterilized" if it does not 'present a risk of harm to human, animal or plant health or the environment'. Commercial manufacturing of blood meal requires a heating/drying phase to meet the definition of sterilization and the requirements of the Fertilizers Act and Regulations.

Compost feedstocks

Are all the materials used to make compost, including manure, required to be free from toxins, or can it be determined that some or all toxins present in the compost feedstock will break down and be purified during the composting process? (76)
The notes in PSL Table 4.2 (32.311) under the headings "Compost from off-farm sources", "Compost produced on the farm" and "Compost Feedstocks" give extensive instruction as to what is required, permitted or prohibited in the production of compost. The underlying assumption is that the composting process is capable of degrading some contaminants that are present in the original material. When materials are used that may contain persistent prohibited substances, it is the responsibility of the operator to document or "prove" the process of degradation. The notation allows for two possible methods; 1) analysis of the final composted material or 2) reference to scientific literature which establishes the common degradation of contaminants during the composting process. In the case of materials obtained from an urban setting, e.g. leaves or yard waste; it should be assumed that persistent chemicals, including pesticides are present and due diligence as outlined above should be practiced. It is the CB's responsibility to assess the risk and require documentation specific to each situation.

What documentation is required to substantiate common degradation of contaminants during the composting process as implied in PSL Table 4.2 "compost feedstocks"? (133)
Acceptable documentation would consist of published academic studies. Claims made by manufacturers must be verified by independent research. Operators also have the option of analysis of the final product to confirm that no contaminants persist.

If GE plants are used in the production of compost, can that compost be used to fertilize organic farms? We are concerned with families who buy conventional food and add the household waste to their compost. (129)
The presence of GE plant material is strongly discouraged, but the possibility of use as compost feedstock is not eliminated. See Table 4.2, 32.311 "Plant and Plant by-products": "Wastes from crops that have been treated or produced with prohibited substances may be used as composting feedstocks". However compost is subject to the following restrictions under "Compost feedstocks": "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."

Dust suppressants

Can mineral oil be used as a dust suppressant in sulphate of potash? (96)
No. Only non-synthetic substances or substances listed in PSL Tables 4.2 and 4.3, such as lignin sulphonate, molasses, and vegetable oils may be used.

Fish products – Citric acid

What forms of citric acid may be used as a pH adjuster in fish products? (146)
Both non-synthetic and synthetic forms of citric acid may be used. (see Fish meal, fish powder, fish wastes, hydrolysate, emulsions and soluble listing in PSL Table 4.2)

Fish products – Stabilization

The manufacturer of a fish product soil and plant fertilizer desires to stabilize the product by reducing the pH below 3.5. Is this allowable? (114)
Yes. As long as the amount used is not in excess of what is needed to stabilize the product. (see Fish meal, fish powder, fish wastes, hydrolysate, emulsions and solubles listing in PSL Table 4.2)

Fish & kelp products – Preservative

Can potassium sorbate be used as a preservative in kelp and fish products used as fertilizers? (110a)
Potassium sorbate can be used as a preservative in kelp and fish fertilizers provided it meets the non-synthetic definition in 3.39. The origin and usage annotations for both the "Aquatic plants and aquatic plant products" and the "Fish meal, fish powder, fish wastes, hydrolysate, emulsions and soluble" listings, in PSL Table 4.2, prohibit synthetic preservatives.

Minerals – Flotation reagents

Does the use of flotation reagents in extraction & purification of mined minerals render the product prohibited? Is a producer required to demonstrate the absence of flotation reagents in the final product? (189)
Minerals which have been extracted using flotation reagents that are not intended to form part of the mineral substance are allowed. Given that flotation reagents are removed and reused by the mining industry, the operator is not required to prove the purity of the final product.

Meat meal

Can "meat meal" or meal made from animal products or by-products be used as a soil amendment? (144)
Yes. But the meal must be processed. Acceptable processes including composting, heat sterilization or drying. (see Meat meal PSL Table 4.2)

Microbial feedstocks

What are the requirements for feedstock used to create microbial soil amendments? (167b)
The requirements for feedstock used to create microbial soil amendments are distinct for two separate groups of product; i) microbial products containing no residue of the substrate: for these, the feedstock should be non-GE if commercially available. ii) product in which the microbial is delivered along with a remnant of the feedstock : here feedstock materials must be listed on PSL Tables 4.2 or 4.3 and comply with any annotations. (see PSL 4.13)

Molasses

If a blended, multi-ingredient soil amendment contains non-organic molasses, can it be used in organic production? (188)
No. Organic molasses is required (see Molasses PSL Table 4.2)

Paper mill sludge

Can paper mill sludge be used on organic farms? (294)
No. Sludge from paper mills is not listed in CAN/CGSB-32.311, and is therefore not permitted for use on organic farms (32.310 1.4 d). Any synthetic extractants, solvents or additives used when generating plant by-products are prohibited, except as specified in the annotations of substances listed on Table 4.2.

Potassium sulphate

Can potassium sulphate which has not been mined, but manufactured by combining mined potassium chloride, mined sodium sulphate and water, be used as a soil amendment in accordance with the PSL? (166)
Yes. Potassium sulphate produced from combining two mined minerals is permitted; however, mined minerals may not be processed or fortified with synthetic chemicals except where specifically permitted in the annotation. Potassium sulphates made using reactants such as sulfuric acid or ammonia are prohibited. (see Mined Minerals, unprocessed PSL Table 4.2)

Sugar

Is sugar allowed as a soil amendment? (60.1)
Organic sugar only can be used as a soil amendment. An organic substance does not have to be listed on PSL Table 4.2 to be allowed as a soil amendment.

Sulphuric acid

Please outline the application for the use of sulphuric acid under the COS. (98) (50)
Sulphuric acid cannot be used to manufacture calcium sulphate (gypsum), or potassium sulphate (see individual listings in PSL Table 4.2). Nor can it used as a pH buffer (see "pH buffer" in PSL Table 4.2 & 4.3) except in fish products but only if vinegar, non-synthetic citric

acid, phosphoric acid are ineffective. (see "Fish meal, fish powder, fish waste, hydrolysate, emulsions and solubles).

Synthetics in soil amendments

Can fertilizers used as soil amendment in organic production be supplemented with synthetic substances? (167a)
No. If a compliant soil amendment is enhanced or changed using additional substances, those substances must appear on PSL Table 4.2 in order for the resulting soil amendment to be compliant.

Tractor exhaust

Is tractor exhaust, injected into the soil, acceptable under the standard? (32)
Tractor exhaust may be injected into the soil only if all the components of the tractor exhaust comply with the standard and PSL. This means 100% pure biodiesel exhaust would be acceptable while exhaust generated by a petroleum gas engine would not.

4.3 Crop production aids and materials

Acetic acid

Can acetic acid solution be used as a weed control product in organic production? (172)
Yes. Non-synthetic sources of acetic acid may be used for weed control. (see "Acetic acid" PSL Table 4.3). Be sure to follow any applications restrictions on the product label.

Biological organisms

Must biological organisms be living in order to be compliant under table 4.3 "Biological organisms"? (224)
No. Either living, dead or non-viable biological organisms are compliant.

Citric acid

Can citric acid be used as a pH adjuster during the extraction of Fulvic Acid? (248)
Yes. Non-synthetic citric acid would be acceptable. (see Humates, humic acid and fulvic acid PSL Table 4.2)

Combined formulations

Can a pesticide and a fertilizer be combined under the COR? (110c)
Yes. An operator wishing to use a pesticide in a fertilizer formulation must ensure that the requirements of 32.310 5.6.1 and 5.6.2 are fulfilled. Pest control substances listed on the PSL Table 4.3 can only be used when other cultural approaches fail and require the documented presence of the pest organism. Fertilizer applications must be applied according to plant's requirements based upon the plant's growth stage.

Fish products – Fatty acids

If fatty acids are allowed in organic production systems as a pesticide (see Soaps, PSL 4.3), are fatty acids allowable in fish and aquatic plant products used as organic fertilizers? (110b)
Fatty acids from plant and animal sources are allowed in fish and aquatic plant products used as organic fertilizers. They are not allowed if they are from synthetic sources, such as fatty acids extracted using hexane. For a synthetic to be allowed as an ingredient in an organic fertilizer, the substance must be included on the PSL Table 4.2 or 4.3.

Formulants – Non-synthetic

Are non-synthetic formulants allowed in fertilizer formulations? (53.1)
Non synthetic formulants are allowed in fertilizer formulations. Synthetic formulants are also allowed if specifically stated in a substance annotation. (see Formulants PSL Table 4.2)

Formulants – Soil amendments & crop production aids

Can plant oils / plant extracts based herbicides contain PMRA list 4 A and 4 B formulants? (51)
Yes, the formulants listed in PMRA 4A and 4B can be used. (see Formulants PSL Table 4.3)

Insecticidal soaps

Can insecticidal soaps that contain isopropyl alcohol, in addition to the fatty acids derived from animal or vegetable oils, be used in organic production? (75)
Yes, insecticidal soaps containing isopropyl alcohol can be used since isopropyl alcohol (1-Propanol) is a "formulant" (as per PSL Table 4.3) and is listed in 4B of PMRA.

Kaolin clay

Is calcined kaolin clay a permitted substance under Canadian Organic Standards? (223)
Yes. Calcined kaolin clay is allowed, but only if no synthetic chemicals were used or added during the calcination process. (See Kaolin clay PSL Table 4.3)

Pheromones

Is the delivery of pheromones confined to passive dispensers or is spray application allowed? (93)
Yes. The annotation for pheromones limits the delivery to traps or passive dispensers. Spray applications are prohibited. (See Pheromones and other semiochemicals PSL Table 4.3)

Mulches - Biodegradable

Does the listing of "fully biodegradable films" in table 4.3 PSL under mulches include films made from petroleum products? (60.2)
No. Biodegradable polymers and Carbon Black From GE or petroleum sources are prohibited. Only fully 100% biodegradable films composed exclusively of biobased substances plus formulants and ingredients listed in PSL Tables 4.2 and 4.3 may be left to decompose in fields. All other non-biodegradable or semi-biodegradable mulch films or films containing prohibited components must be lifted at the end of the growing cycle.
A temporary exemption though has been created allowing the continued use of biodegradable mulch not meeting these requirements to be left in fields without removal until January 1st, 2017.

For a biobased biodegradable mulch, what are the acceptable processes in the manufacturing of the film? Could a biobased film become non-compliant because of the manufacturing process that would disqualify it from being used on organic farms? (284)
The manufacture of biodegradable biobased mulches may involve physical processing, mechanical processing and biological processes. Heat may also be used in the manufacture of biodegradable biobased mulches, as long as the manufactured mulch product does not include mineral components altered through chemical reactions caused by heating or burning.

Plastic mulch removal

Can you clarify the requirement for removal of plastic mulch from fields? (44)
Only fully 100% biodegradable films composed exclusively of biobased substances plus formulants and ingredients listed in PSL Tables 4.2 and 4.3 may be left to decompose in fields. All other non-biodegradable or semi-biodegradable mulch films or films containing prohibited components such as biodegradable polymers, or Carbon Black from GE or petroleum sources, must be lifted at the end of the growing cycle.
A temporary exemption though has been created allowing the continued use of biodegradable mulch not meeting these requirements to be left in fields without removal until January 1st, 2017.

Are bioplastic mulches, made from corn, accepted as "biodegradable films" that can be left to decompose in the soil? (79) (253)
To be acceptable as biodegradable and left to decompose in the soil, a bioplastic mulch made from corn:
1) cannot be made using GE plant material;
2) cannot contain substances such as biodegradable polymers, Carbon Black from GE or petroleum.
Mulches containing biodegradable polymers and Carbon Black from GE or petroleum sources which were considered to be compliant in 2014 can be used and left in fields without removal as a temporary exemption until January 1, 2017 (see Mulches PSL Table 4.3 in 311 and the definition of biodegradable in 3.10 in 32.310).

Microbial substrates

May a bacteria for use as an organic crop production aid, be produced using prohibited materials in the substrate? (141)
PSL Table 4.3 allows the use of "Biological organisms", which includes bacteria, providing they are not genetically engineered.
The requirements for the substrate on or in which they are propagated fall into two distinct categories; i) microbial products containing no residue of the substrate: for these, the substrate feedstocks should be non-GE if commercially available. ii) product in which the microbial is delivered along with a remnant of the substrate: here feedstock materials must listed on PSL Tables 4.2 or 4.3 and comply with any annotations. (see PSL 4.1.3).

Neem oil

Can neem oil be used to treat powdery mildew in cucumbers? (268)
Registered neem based pesticides can be used as a Crop Production Aid based on the listing in Table 4.3 of the PSL "Botanical Pesticides", with restrictions noted in the "Origin and Usage" column. Formulants included in these pesticides also have to comply with PSL requirements.

Magnesium lignosulphate

Is Magnesium lignosulphate allowed under the listing of lignin sulphonates in Table 4.3 of the Permitted Substances List? (289)
Lignin sulphonates, including magnesium lignosulphate, are allowed as chelating agents for micronutrients, formulant ingredients or dust suppressants

Seawater

It is listed that water is permissible. Can you please tell me if Seawater can be used in crop production? (23)
Yes. Table 4.3 of the PSL allows for water which would include seawater to be used as a crop production aid.

Sprout inhibitor – Clove oil

Is clove oil allowed as an organic sprout inhibitor for potatoes? (27)
Yes. Clove oil is listed in PSL Table 8.4 as a post-harvest sprout inhibitor.

Sprout inhibitor – Ethylene

Is the use of ethylene as a sprout inhibitor for onions and potatoes admissible? (43)
No. The use of ethylene is restricted to tropical fruit ripening and citrus degreening. (see PSL Table 8.3).

Structural PVC tubing

Can PVC tubing be used as structural material to hold insect nets? (136)
Yes. PVC tubing may be used. The prohibition of polyvinyl chloride for mulches and row covers does not apply to the structural material that would be used to suspend the row cover.

Transplant containers

If paper containers are placed in the ground as transplant containers and allowed to decompose, what are the requirements for the paper? (187)
The requirements are the same as for mulch (see Q&As 60.2, 79, & 44). No glossy paper or coloured ink. Must be 100% biodegradable derived from bio-based sources to be left to decompose in the ground. There is a temporary exemption until January 1, 2017 for mulches containing biodegradable polymers and Carbon Black from GE or petroleum sources.

5 Permitted substances lists for livestock production

5.2 Feed, feed additives and feed supplements

Acetic acid – Livestock drinking water

Can acetic acid be used for acidifying drinking water for animals? (201)
If the acetic acid is intended to lower the pH, this is acceptable providing the resulting water falls within Health Canada's Guidelines for Drinking Water: pH 6.5 to 8.5.

Substrate for probiotics

Q: 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)
A: 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 non-genetically engineered substrates or growth media, if commercially available.

Amino acid – Lysine

Is lysine, produced using a fermentation process and a specially selected bacteria synthetic or non-synthetic? Providing the bacteria are non-GE, would this form of lysine be compliant with the standard if used as an ingredient in livestock feed? (145)
Lysine products such as lysine sulphate produced through biological fermentation fall within the standard's definition of non-synthetic and are allowed. The bacteria which are used in the fermentation process must be non-GE If the lysine product includes some of the fermentation substrate or growth media, those ingredients must be listed in PSL Table 5.2 or 5.3, and all annotations apply per ingredient. If it can be substantiated that there is no substrate in the product, the substrate ingredients must be confirmed to be non-GE if commercially available. All forms of lysine HCL are non-compliant due to post fermentation chemical processing. Preference should be given to sourcing high lysine grains, seeds and legumes.

Is L-lysine allowed in the feed for organic birds? (80)
Yes. Table 5.2 allows for the use of non-synthetic amino acids such as L-lysine, if need can be demonstrated. L-lysine is terminology which does not distinguish whether the substance is synthetic or not. Synthetic lysine, such as L-lysine HCL, is not permitted.

Amino acids – DL-methionine

Is the use of DL-methionine from processes involving Genetic Modification allowed? (54)
No. Table 5.2 of the PSL allows for the use of synthetic DL-Methionine, as a special exception subject to review by the CGSB technical committee. 1.4 a) prohibits products from genetic engineering.

Cobalt sulphate

Does the prohibition of sulphates produced with sulphuric acid apply to cobalt sulphate used as a mineral supplement and for medical use? (22.1)
Table 5.2 of the PSL allows synthetic trace elements, such as cobalt sulphate for feed if a non-synthetic form is not commercially available. Table 5.3 allows any source for medical use.

Fish products

Is the use of fish products as feed supplements allowed? (22.2)
Yes. Fish products are allowed as feed supplements, as operators must supply "a feed ration sufficient to meet the nutritional requirements of the livestock" (6.6.1 b)). Feed supplements must not be fed in amounts above those required for health of the animal at its stage of production as per 6.4.4 c). This limits the volume of the fish supplement that can be fed in the ration. Feed supplements are defined in the standard as 'feed that is used in conjunction with other feed to improve the nutrition balance... "(see 3.21 for "feed supplement" definition).

Vitamin & Mineral Premixes – Preservatives

If vitamin and mineral premixes that do not contain preservatives are unavailable, how can organic farmers meet the nutritional needs of their animals? (65.2)
The annotations in the listing of Pre-mixes, Vitamins, and Minerals, trace minerals, elements in table 5.2 (PSL) make it permissible to use pre-mixes that contain preservatives, if no fully compliant product is available. See "Commercially Available" definition - 3.13 (32.310).

Yeast derived protein

Is a yeast derived protein included under the definition of micro-organisms and yeasts in Table 5.2 of the PSL? (120)
A yeast derived protein is not a yeast; it is a protein. Protein for use in organic livestock rations must be organic (see "Protein feeds" PSL Table 5.2), and in compliance with 6.4.4

(32.310). Protein derived from organic yeast could be compliant with the standard, depending on the method of fractionation.

"Yeasts" are listed on Table 5.2. Are the derivatives of yeast, namely the yeast cell wall products, also allowed? (238)
Yes. Yeast and yeast cell wall products are allowed as feed supplements. Non-synthetic versions can be used if organic sources are not commercially available.

5.3 Health care products and production aids

Colloidal silver

Is colloidal silver allowed for use in livestock health care? (273)

Yes, the use of colloidal silver would fall under the "Minerals, trace minerals, elements" listing in PSL table 5.3. But due diligence is required to make sure the form of colloidal silver is acceptable. Colloidal silver produced using electrolysis is allowed, as is colloidal silver produced by a biofermentation process as long as the Genetically Engineered restrictions specified in 1.4 a (32.310) are met. Both of these forms are consistent with the exception pertaining to nanotechnology provided in 1.4 b) 1) of 32.310.

Garlic

Can uncertified garlic be used as a de-wormer in organic livestock operations? (7)
The standard permits the use of uncertified garlic as a de-wormer treatment under 5.3 of the PSL, Botanical compounds.

Lanolin

Is Lanolin allowed for use on dairy cows teats? (55)
Yes. Lanolin is classified as homeopathic medicine by the Health Care Products and Production Aids list published by CFIA and listed in Health Canada's Natural Health Products Ingredient Database. Homeopathy and biotherapies are listed in PSL Table 5.3.

Medical treatment – Fish products

Is the use of fish oil as medical treatment (to treat bloat) prohibited? Are fish based animal health tonics prohibited? (22.3)
Fish oil and fish based health products are allowed as veterinary medicinal substances under 6.6.10 c. (32.310)

Vitamin B

Is it acceptable to inject meat animals with vitamin B for the purpose of improving meat color? (33)
No. Table 5.2 lists vitamins for "enrichment or fortification." Injection to improve the colour of meat is for cosmetic purposes, not enrichment of fortification.

Vitamins – Preservatives

Can a vitamin, containing a synthetic preservative be used in livestock feed? (81)
Yes. Vitamins, with no restrictions, are permitted for feed enrichment or fortification. (See Vitamins PSL Table 5.2)

Eggs – Ink labels

Can ink be used to label organic eggs? (46)
Yes. Ink that does not contain prohibited substances may be used to label egg shells.

Barn sanitizers

Is Citrus extract allowed as a cleaner or disinfectant in buildings for animal production? (68.1)
Yes. Citrus extract, included under botanical compounds in 5.3 (32.311) would be useable as a cleaner in livestock houses. (see 6.7.4 in 32.310).

What is the status of tables 7.3 and 7.4 regarding livestock production? (68.2)
Substances on Tables 7.3 and 7.4 can be used in livestock facilities as can substances in Table 5.3, but cleaning or disinfection of livestock facilities is not confined to these lists. Any effective disinfectant can be used to clean livestock facilities in the event of a reportable disease. See 6.7.4 - 32.310.

Zinc oxide

Is Zinc Oxide allowed as health remedy in organic livestock production? (279)
Yes. Table 5.3 "Health Care Products and Production Aids" lists "Minerals, Trace Minerals, Elements". Zinc Oxide would fall under this listing.

Zinc sulphate

Can Zinc Sulphate be used as a treatment added to foot baths for livestock? (270)
Yes, as it is considered a mineral under the listing in Table 5.3 - *Minerals, Trace Minerals and Elements.*

6 Permitted substances lists for preparation

Bone char

Is the use of bone char allowed in the processing of organic sugar? (192)
No. Although bone char is a form of 'Activated charcoal', it is not allowed because it is not from plant sources as required in Table 6.5 of the PSL.

Cellulose

Can cellulose be used in any other way than the ones specified in tables 6.5 and 6.4 (Collagen casings) of the PSL, for example as a flow agent in grated cheese? (235)
No. Only specified uses are permitted.

Cheese wax

Can a coloured wax containing paraffin waxes (hydrocarbon or microcrystalline wax) and a colouring agent be used to coat organic cheese? (154)
Paraffin wax may be used to coat cheese if other non-synthetic waxes, such carnauba, are not commercially available. (see Waxes PSL Table 6.5) The paraffin cannot contain synthetic colours, preservatives, bactericides or fungicides. Microcrystalline wax is prohibited.

Chymosin

For cheese production, can we use chymosin in a salt brine solution with sodium benzoate added as a preservative? (151)
Chymosin derived from genetically engineered micro-organisms is prohibited as per 1.4 a). Chymosin extracted from calf stomach linings is permitted and should be from an organic source when commercially available (refer to "Enzyme" PSL 6.3 and 6.5). As sodium benzoate is not listed on the PSL, allowed chymosin products may not be preserved with sodium

benzoate. Additional requirements outlined in PSL 6.2.1 must be addressed if the production of allowed chymosin products involves the use of substrates or growth media.

Fermentation-produced chymosin

If a cheese producer makes cheese made with fermentation-produced chymosin FPC, can it still be labelled certified organic? (280)
No. FPC is produced by fermentation processes using bacteria, fungi or yeast that have had bovine rennet-producing genes inserted into them. This means FPC is a product of genetic engineering, which is prohibited for use in organic production (1.4 a) and 3.27 of 32.310).

Collagen casings

Is collagen casing allowed in the production of organic sausage? (105)
Yes. Collagen casings are acceptable for poultry sausages only. If derived from cattle must be guaranteed free of specified risk materials. Any other ingredients added during the manufacturing cannot be genetically engineered. (see "Collagen casing" PSL Table 6.4)

Dextrose

Can Dextrose be used as a flavouring agent in organic products? (236)
Yes. Organic dextrose may be used as a flavouring agent in organic production.

Gelatin – Alternatives

Are there acceptable alternatives to gelatin, such as seaweed and plant derived hypromellose? (118)
Plant substances such as seaweed extracts are acceptable alternatives to animal-derived gelatin. Hypromellose is a synthetic, non-agricultural substance and therefore cannot be used because it is not specifically included in the PSL.

Indirect processing aids

Can products not listed on the PSL be used as "indirect processing aids"? (e.g. – mineral oil on cutter/slicer blades) (61)
Indirect processing aids aka "incidental additives" cannot compromise organic integrity. In short, agricultural products not on the PSL can only be used as processing aids if they are organic. Non-agricultural products must be on the PSL. (see 3.30, "incidental additive" and 8.1.2 in 32.310)

Lecithin

Which forms of lecithin are acceptable, according to the organic standard? (14)
Organic lecithin is preferred when used as an ingredient or as a processing aid. Non organic lecithin satisfying 32.310 1.4 a, may be used if the organic form is not commercially available. If bleached the bleaching agent must be food grade hydrogen peroxide. (see "Lecithin" PSL 6.3 & 6.5)

Mineral salts of ascorbic acid

Can the mineral salts of ascorbic acid (calcium ascorbate and sodium ascorbate) be used as food additives (Table 6.3)? (163)
No. Ascorbates are not the same substance as ascorbic acid, and therefore cannot be used.

Nitrates

Are nitrates forbidden in all processed foods? Is it possible to produce organic bacon? (56)
Nitrates such as those found in celery or chard extracts, juices or cultured powders may be used. Organic supplies must be used if commercially available. (see Meat Curing Agents PSL Table 6.3)

Can the ingredient "cultured celery powder" be used as a source of nitrite? (153)
Yes. Cultured celery powder is an acceptable source from which nitrites can be generated to cure organic meat. An organic supply must be used if commercially available. (see Meat Curing Agents in PSL Table 6.3)

Stevia

Can stevia be used as a sweetener in organic products? Is non-organic stevia admissible under the 5% non-organic ingredients rule? (171)
Stevia is a plant product which can be used in the manufacture of organic products. As stevia is commercially available in organic form, this form must be used.

Vitamin D

Is the use of vitamin D allowed for fluid milk products if it contains a preservative not listed on the PSL? (137)
Organic operations in Canada remain subject to all applicable laws and regulations (PSL Introduction). Since the addition of vitamin D to milk is required by law, it must be included. The source containing a non-approved preservative may be used only if a fully compliant formulation is not commercially available.

Substrate for probiotics

Q: 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)
A: 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 non-genetically engineered substrates or growth media, if commercially available.

Cleaners, Disinfectants and Sanitizer

Chlorine to disinfect poultry carcasses

Can chlorine be used to disinfect poultry carcasses? (254)
Poultry carcasses may be washed with chlorinated water, providing the concentration of chlorine does not exceed the maximum limits applicable under regulations for safe drinking water. See Table 7.3 - Chlorine compounds.

Alternatives to table 7.3 and 7.4

In a facility where both non-organic and organic food is processed, can cleaners not listed in 7.3 or 7.4 be used immediately prior to the processing of the organic product? (91)
Yes – However, the use of cleaners not listed in tables 7.3 or 7.4 (PSL) is permitted under specific conditions laid out in 8.2.3 (32.310): 1) the efficacy of the alternative cleaning substance is documented; 2) the cleaning materials used are effectively removed from the product contact surfaces, by an acceptable removal event (see 3.59 "removal event" definition) and that process documented; 4) the disposal of the effluent has been neutralized to minimize the environmental impact.

Non-food contact surface cleaning

Do Tables 7.3 and 7.4 apply to the cleaning of: dedicated and non-dedicated spraying equipment; of irrigation systems; and non-food contact surfaces such as floors, windows, staff toilets etc.? (21.1) (10)

Tables 7.3 and 7.4 of the Permitted Substances Lists generally apply to product (7.3) and product contact surfaces (7.3 and 7.4). While the cleaners listed in these tables may be used in other applications, and are preferred, cleaning of non-product contact surfaces is not restricted to these cleaners. In the case of use of substances not listed in 7.3 & 7.4, the operator is responsible to ensure that no residual contamination occurs on land and crops.

Cleaners – Formulants

Must formulants, such as surfactant, spreaders, stabilisers, foaming agents, contained in commercial cleaning products be listed on 7.3 and 7.4, or only the active ingredients?? (55.1)
When commercial cleaning products are used without a removal event on direct contact or on contact surfaces with organic products, all the ingredients listed on the Safety Data Sheets (SDS) and the cleaning product label, including any formulants, must be listed in PSL Table 7.3.
When used on product contact surfaces followed by a removal event, only the ingredients on the SDS, including formulants, must be listed in Table 7.3 and/or 7.4.

Colloidal silver

Can colloidal silver be used as a cleaning product for food contact surfaces? (274)
Use of colloidal silver as a cleaning product must comply with 8.2.3 and 1.4 of 32.310.

Neem oil and diatomaceous earth

Can neem oil and diatomaceous earth (listed in table 8.2) be permitted in direct contact with organic food products? (310)
Yes. While the title of 8.2 is "facility pest management substances", there is no restriction on the use of diatomaceous earth, carbon dioxide or neem oil in relation to food contact post-harvest.

Peracetic acid

Peracetic Acid (peroxyacetic acid) is listed on table 7.3 PSL. Are all forms of this substance allowed, regardless of method of production? (221)
Yes. There are no restrictions on the method of production annotation for peracetic acid.

Electrolysed water

Is electrolysed water allowed by the Canada Organic Standards? (290)
Electrolysed water (which may contain hypochlorous acid as a byproduct of either electrolysis or from the dissolution of chlorine compounds in water), is permitted.