Crop production – Permitted Substances Lists

Complying with 2020 Canadian Organic Standards

For consultation only

4.2 Column 1: Soil amendments and crop nutrition

Amino acids produced by hydrolysis processes

Are amino acids produced by hydrolysis processes using sulphuric and phosphoric acid permitted? (422) - 19 Apr 2019

No. When used in crop production, amino acids cannot be produced by hydrolysis using chemicals such as sulphuric and phosphoric acid. See 32.311 Table 4.2 (columns 1 and 2) Amino acids.

Testing of ash

Do all sources of ash have to be tested for heavy metals? (448.1) - 21 June 2019

No. Ash from plant and animal sources is permitted without testing if the source is known and not containing heavy metals. Testing is required when the ash source is unknown or it is known there is a possibility of the ash containing prohibited substances. Testing is to ensure the heavy metal levels are within the limits established in the Guideline for the Beneficial Use of Fertilising Residuals.

Activated biochar

Is activated biochar permitted? (377.1)

Yes, if the activation is done with permitted substances. Additional requirements, such as the genetic engineering prohibition (1.4 a in 32.310) and annotation restrictions in the substance listing, would need to be addressed.

Can biochar be used as soil substitute in organic containerized greenhouse production systems? (377.2)

No. Biochar cannot be used as a soil substitute as it does not meet the requirements of a soil/growth medium (see 32.310, 7.5.2.1). It may be used as a soil amendment as listed in Table 4.2 Column 1 of PSL.

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 require 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.

Calcium chloride

Is calcium chloride from a naturally occurring brine permitted by Table 4.2 Calcium listing if the brine is treated with lime prior to the evaporation stage ? (384-621) July 22, 2024

Yes. Calcium chloride derived from a treated natural brine is permitted. Further chemical treatment after evaporation is not permitted.

Evaluation of extractants

For substances used in crop production, does the scope of evaluation for extractants require assessment of all materials used or only those that remain in the final product? (443) - 2 December 2019

For substances used in crop production, only extractants that remain in the final product are subject to evaluation, unless extractants are specifically addressed in the substance annotation.

Processed animal manure

When manure is processed using centrifugation followed by distillation resulting in the isolation of various nutrient rich liquid fractions containing concentrated potassium and ammonia, can the resulting substances be considered as 'Animal Manure, processed' Table 4.2 and be permitted for use in crop production? (543)

The solid fraction resulting from centrifugation, decantation or dehydration can be considered as processed manure. The concentrated liquid fractions obtained from secondary processes, such as distillation, cannot be considered as processed manure. The resulting nutrient dense liquids would feed the plant and not the soil, contrary to organic principles. The intent of the 'Animal manure, processed' listing was to indicate that simple physical processes resulting in a manure product such as heat treated manure or pelleted manure are permitted.

Guano - Dried deposits of guano

What is meant by “Shall be decomposed, dried deposits” in the Guano 4.2 PSL listing? Does it mean fresh dry deposits from wild bats or birds cannot be used? Or does it mean that the guano must have been decomposed in situ, not dried elsewhere? (434) - 21 June 2019

Wild bat and seabird guano must decompose at the site of deposits, not be dried elsewhere, and have been in place for a sufficient time to decompose and dry before collection. Collection shall not impact an active colony.

Multi-ingredient fertilizer- non-organic oilseed meal

When used in a multi-ingredient fertilizer, is the use of non-organic oilseed meal subject to the commercial availability restriction? (387)
Yes. Even when used as a component of a multi-ingredient fertilizer a commercial availability search is required as per the annotation for "Oilseed meals" (Table 4.2). Therefore, an operator wishing to use this fertilizer blend would need to perform a commercial availability search for a fertilizer blend that is fully compliant before using this product.

Definition of wastes from crops

Under "Plants and plant by-products" in PSL 4.2, does the restriction “Wastes from crops that have been treated or produced with prohibited substances may be used as composting feedstocks” apply only to wastes from crops or does it apply to all plant materials? What is the definition of “wastes from crops”? (388)
"Wastes from crops" is referring to vegetal matter (plant and plant waste) from any source.

Compost feedstocks

With regard to materials other than livestock manure, are all the materials used to make compost 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 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 1.4/1.5 of CAN/CGSB 32.310 known to be persistent in compost, documentation or testing of the final product may be required."

Composting obligation

Can the requirement of composting be eliminated if the compost feedstocks are heat treated to a temperature of 55° C for a period of four consecutive days or more? (635) 25 February 2025
No. Compost feedstocks shall be carefully managed in an aerobic process by which biological materials are digested by microorganisms as per the definition of **Compost** (3.19 - CAN/CGSB-32.310) and comply with all conditions set out in the annotations of **Compost feedstocks** and **Compost from off-farm sources**, and **Compost produced on the farm** in CAN/CGSB-32.311**.**

Human waste in compost

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

No. Human waste is not listed as a permitted compost feedstock. See Compost feedstocks, Table 4.2.

Digester feedstock

Do compost feedstocks (Table 4.2) need to be composted if used as feedstock for an anaerobic digester? (526.1) 6 December, 2021

No. The annotation for Digestate, anaerobic (Table 4.2) states that the materials added to the digester shall be listed in Table 4.2 (Column 1), which includes 'Compost feedstocks'

When manure was a feedstock of an anaerobic digestate, can the requirement of manure land application specified in 5.5.2.5 be waived if the digestate is dried or heat treated before being applied to land? (526.2) 6 December, 2021

No. Unless it can be demonstrated that the drying or heating process has eliminated the presence of human pathogens (Table 4.2 Animal manure, processed).

Biodegradable bags as compost feedstocks

Can residential food waste collected in biodegradable bags be used as a compost feedstock? (302)
Yes, as long as the biodegradable bags and the residential food waste decompose effectively during the composting process. If applicable, the absence of petrochemical residues may need to be confirmed by testing. See Table 4.2, column 1, Composting feedstocks.

Coloured ink in compost feedstock

If tests demonstrate acceptable levels of heavy metals, foreign matter and human pathogens, as specified in Guidelines for Compost Quality, is compost made from Municipal Source Separated Organic (SSO) household waste, which is composed mainly of vegetal and animal origin but could contain some coloured newsprint (added to household containers to absorb moisture and odors), and possibly other prohibited substances, permitted? (470) - 17 February 2020
No. Regardless of whether testing indicates acceptable levels of heavy metals, finished compost must conform to the compost feed stocks annotation, which, for example, prohibits paper with coloured ink other than yard waste bags. See 32.311 table 4.2 Compost feedstocks.

Testing of compost used as ingredient

When compost is used as an ingredient in a blended fertilizer product, should the analysis for heavy metals, foreign matter, and pathogens occur on the compost ingredient prior to blending or on the final blended fertilizer? (334)
Compost must meet the required specifications whether it is applied directly to the soil or blended with other ingredients. In the case of a blended product, the compost analysis shall be performed prior to blending with other ingredients.

Forestry by-products as compost feedstocks

Can bark or forestry by-products be used as a compost feedstock? (461.1) - 17 February 2020
Yes. Forestry by-products can be used as compost feedstocks providing it can be demonstrated they do not contain a substance prohibited by 1.4 of CAN/CGSB-32.310 known to be persistent in compost. See Table 4.2 Compost Feedstocks.

Heavy metal analysis of off-farm sourced compost

Is a heavy metal analysis required for each individual compost ingredient used in the manufacture of off-farm sourced compost? (353)

No. It is not necessary to test each ingredient of a compost before the composting process. Heavy metal analysis is required at the end of the composting process. See Compost from off-farm sources, Table 4.2, column 1.

Expanded perlite

Is expanded perlite permitted under the listing of 'Clay' on Table 4.2? (335)
Yes. The physical expansion of perlite during its manufacturing is permitted as the process does not change the molecular structure of the substance.

Fish products – Stabilization

The manufacturer of a fish-based soil and plant fertilizer would like 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 products listing in PSL Table 4.2 (column 1).

Fish & kelp products – Preservative

Can potassium sorbate be used as a preservative in kelp and fish products used as fertilizers? (110.1)
Potassium sorbate can be used as a preservative in water-extracted kelp-based fertilizers as potassium sorbate is specifically mentioned in the 'Aquatic plants and

aquatic plant products' annotation in PSL Table 4.2 (Column 1). But it cannot be used in fish-based fertilizers as it is not listed in 'Fish products' annotation.

Definition of fish farm waste

What is the definition of "fish farm wastes" used in the listing of "Fish products" in Table 4.2 Column 1? Does it need to be composted? (333)

Fish farm wastes consist of sludge and mortal remains (fish, bones, scraps, carcasses, etc.) collected at the fish farm. Such wastes cannot be used raw; it must be composted or processed before use. Manufactured fish by-products, such as processed fish meals or liquid fish fertilizers made with farmed fish and/or fish farm wastes, do not have to be composted before use.

Lactic acid produced by fermentation and extraction

Is lactic acid produced by fermentation and extraction allowed as a formulant in soil amendments and crop production aids under the Canadian Organic Standards? (331.1)

Yes, with a few soil amendment exceptions. In general, lactic acid produced by fermentation and extraction is permitted as a formulant for both soil amendments and crop production aids. It cannot be used as a formulant in soil amendments that have extraction restrictions in their annotation such as "Aquatic plants and plant products"; "Fish products"; and "Humates, humic acid and fulvic acid" (see 'Formulants used in soil amendments' in PSL Table 4.2). With regards to crop production aids, as lactic acid is listed in PMRA Formulant List 4A and is derived from biological sources, it may be used with all crop production aids (see 'Formulants used in crop production aids' in PSL Table 4.2).

Is lactic acid produced by fermentation and extraction considered to be synthetic? (331.2)

The synthetic/non-synthetic criteria is not applicable. When lactic acid is a formulant in either soil amendments or crop production aids, for example, it is the requirements of the pertinent listing as outlined in SIC Q&A 331.1 (above) that must be met. Otherwise, when lactic acid is used as a food additive or as a preservative, it must be derived by fermentation and extraction of a biological source, and the requirements with regard to substrates/growth media must be met.

Gibberellic acid produced by fermentation and extraction

Is gibberellic acid produced by fermentation and extraction allowed under the Canadian Organic Standards? Is that gibberellic acid considered to be synthetic? (332)

Gibberellic acid produced by fermentation and extraction is permitted. Classifying the synthetic / non-synthetic is no longer required as of the 2020 revision of the standard. Confirmation is needed to ensure the gibberellic acid is derived from biological materials.

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.

About fused minerals

Are fused mineral fertilizers (created by heating and blending minerals) compliant to COR? (464) -17 February 2020

No. Unless specifically listed in the PSL, minerals that have undergone such a change are not permitted.

Microbial fertilizers and soil amendments

What are the requirements for substrates used to create microbial fertilizers or microbial soil amendments? (167.2)

As of the 2020 standard, microbial fertilizers and microbial soil amendments may not be derived from municipal sewage sludge (see 'Microorganisms and microbial products' PSL 4.2). In addition, if the product contains the substrate: the feedstock materials must be listed on PSL Table 4.2 and comply with any annotations (4.1.3 a). Or, if they do not contain the substrate, the substrate should be non-GE if commercially available (4.1.3 b).

Polyoxin D zinc salt

Is Polyoxin D zinc salt considered a 'Biological organism' per Table 4.2, resulting in permissibility of the compound for crop production? (544)

No. Polyoxin D would be considered as a microbial product under Microorganisms and microbial products, Table 4.2; however, the addition of zinc resulting in a new compound requires Polyoxin D zinc salt to be listed in Table 4.2.

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 Column 1)

Non-organic spent brewers' grains as amendment

Can non-organic spent brewers' grains be used as a soil amendment? As a compost feedstock? (323)

To be acceptable for use as a soil amendment, non-organic spent brewers' grains must be non-GE and any non-agricultural substances added during the brewing process must be listed on Table 4.2 of 32.311 and comply with 1.4 a and 1.5 a of 32.310. For example, diammonium phosphate (DAP) added during the brewing process would render spent brewers' grains non-compliant for use as a soil amendment in organic production. Non-organic spent brewers' grains from GE sources are an acceptable composting feedstock, as GE residues do not persist after the thermophilic stage of the composting process. See Compost feedstocks in Table 4.2.

Corn steep liquor as an amendment

Is non-organic corn steep liquor allowed as a soil amendment/fertilizer in organic production? (503) - 18 Dec 2020

No. However, organic corn steep liquor would be permitted.

Paper mill sludge

Can paper mill sludge be used on organic farms? (294)

Sludge from standard paper mills contains substances not listed in CAN/CGSB-32.311 and is therefore not permitted for use on organic farms (32.310 1.5 a). If all extractants, solvents or additives (e.g., glues, preservatives, etc.) used when generating the paper are covered by the 'Extractants' or the 'Plants and plant by-products' listings in PSL 4.2 – column 1, then the sludge would be permitted.

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 mined minerals using ion exchange is permitted (see Potassium d), PSL, Table 4.2);. Potassium sulphates made using sulphuric acid as a reactant are prohibited.

Potassium nitrate not allowed

Can potassium nitrate be an allowed fertilizer in organic production, if the nitrogen was derived from compliant anaerobic digestate? (502) - 18 Dec 2020
No. It no longer is a digestate, and neither is it listed in the Potassium listing in PSL, Table 4.2.

Soap in soil amendment

Can a compliant soil amendment contain soap? (397)
No. Soil amendments, such as compost, manure, etc., may not contain soaps as they are restricted to Production aids in PSL, Table 4.2, column 2. See Soaps, PSL, 4.2, column 2.

Fish products – Fatty acids

If fatty acids are allowed in organic production systems as a pesticide (see Soaps, PSL Table 4.2 - column 2), are fatty acids allowable in fish and aquatic plant products used as organic fertilizers? (110.1)
No. Fatty acids, aka soaps, derived from plant and animal sources are not allowed in aquatic plant products or fish products used as fertilizers applied to the soil, as the Soap listing restricts the use of soap to production aids such as pesticide applications or foliar nutrient sprays. See Soaps, PSL, Table 4.2, column 2 and Aquatic plants and aquatic plant products, PSL, Table 4.2, column 1.

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 table 4.2, column 1, to be allowed as a soil amendment.

Sulphuric acid

Please outline the application for the use of sulphuric acid for crops (98) (50)
Sulphuric acid cannot be used to manufacture calcium sulphate (gypsum), or potassium sulphate (see individual listings in PSL Table 4.2 - column 1). Sulphuric acid may be used to stabilize fish products but only if vinegar, citric acid, phosphoric acid are ineffective. See Fish products, Table 4.2 Column 1).

Additives in soil amendments

Can soil amendments be supplemented with non-listed non-organic substances? (167.1)
No. If a compliant soil amendment is enhanced or changed using additional non-

organic substances, those substances must appear on Table 4.2 - column 1 and comply with any annotation restrictions in the applicable substances' listings.

Sodium nitrate

Is sodium nitrate which has not been mixed with petroleum products permitted for use as a soil amendment (per PSL Table 4.2 'Mined mineral, unprocessed' annotation)? (580) (19 December, 2022)
No. Sodium nitrate in any form is prohibited.

Use of silicon, silica and silicates

Are sodium silicate and potassium silicate the only silicon products specifically prohibited as soil amendments under the listing of 'Silicon, silica and silicates' in Table 4.2 of the PSL? (561.1) (19 December, 2022)

No. Any other silicon products that are not from mined sources are prohibited.

Can a silicon product from a mined source be processed and/or combined with other mined minerals? (561.2)

Yes. Providing the process does not chemically alter the resulting compound (per 3.78)

Silicon, silica and silicates mixed with water

When used as a soil amendment, can mined sources of silicon, silica and silicates such as diatomaceous earth (DE) or silicon dioxide be mixed with water before being applied to fields and crops? (598) 29 Apr 2024

Yes, providing the addition of water does not create a new substance or derivative (3.22) that is not listed in Table 4.2 (per 32.310 1.4 & 1.5)

Tractor exhaust

Is tractor exhaust, injected into the soil, acceptable under the standard? (32) 8 August 2022
No. Tractor exhaust, regardless of the fuel source, may not be injected into the soil. Components in tractor exhaust do not comply with the standard as required by 32.310 - 1.5a).

Limestone from sugar processing

Is "lime from sugar processing" in the annotation to Calcium, in table 4.2, column 1, allowed without evaluating the manufacturing process? (306)

Yes. Review of the manufacturing process is not required.>

Rock phosphate

The listing for rock phosphate in table 4.2 restricts cadmium levels to 90 mg/kg P2O5. Is that to be calculated on the total P2O5 or the available P2O5? (305)

The amount of P2O5 used in the calculation is the total amount, not the available amount.

Acidified water

Can acidified water (acid added) or plasma activated water (PAW) be used as a soil amendment or crop aid in organic production? (605) December 13, 2023

Acidified water is allowed only if a permitted acid per Table 4.2 is added to water. Plasma activated water (PAW) is not listed in Table 4.2 therefore is not permitted.

Ammonia water derived/extracted from a digester

Is ammonia water derived or extracted from an anaerobic digester permitted as a soil amendment? (627) October 21, 2024

No. Regardless of the source, ammonia is not listed in Table 4.2; therefore, it is not permitted.

Frass from insects

Should frass from insects (i.e., black soldier fly larvae) be reviewed as per CAN/CGSB32.311 Table 4.2 Worm castings for use as input in crop production? (548.1) 15 June 2022

No. Without a listing in the PSL Table 4.2, insect frass shall be considered as Animal manure, shall be from organic insects if commercially available (32.310 - 5.5.1) and comply with either 5.5.2 or 5.5.3. Insect frass would also be a permitted Compost feedstock (Table 4.2).

Cobalt and selenium as micronutrients

Are the micronutrients permitted by the Canadian Organic Standards limited to the micronutrients as listed under PSL Table 4.2? Are unlisted micronutrients such as cobalt and selenium permitted, and if yes, are there any restrictions to the type of cobalt and selenium that can be used? (553)

The Micronutrients listing has a definitive list, as assessed. Other micronutrients such as cobalt and selenium were not assessed. Micronutrients that are not specifically listed in Table 4.2 are not permitted but may be found in permitted substances such as Mined Minerals, unprocessed (e.g. rock dust), Kelp and kelp products, Manure and Compost.

Wood vinegar

Is wood vinegar (pyroligneous acid) permitted by Table 4.2 under Plant by-products and plants, or under Plant extracts, oils and preparations? (645) 5 May 2005

No. Wood vinegar would require its own listing. It is a distillate of the compounds in the smoke created from the combustion of forestry (or plant) by-products during biochar production and cannot be considered a direct by-product or extract from plant material.

4.2 Column 2: Crop Production Aids and Materials

Acetic acid

Can acetic acid solution be used as a weed control product in organic production? (172)

Yes. Acetic acid not made from petrochemicals may be used for weed control. See Acetic acid, Table 4.2, column 2, PSL.

Use of antibiotics in orchards

Is streptomycin allowed in apple production to control fire blight? (311)

No. The amended standard published MAR 2018 clarifies that antibiotics, including streptomycin, are prohibited in crop production. See Biological organisms, 32.311, Table 4.2 Column 2.

Citric acid

Can citric acid be used as a pH adjuster during the extraction of fulvic acid? (248)

Yes. Citric acid would be acceptable as an extractant. See Humates, humic acid and fulvic acid a), Extractants e) and Citric acid in Table 4.2 Column 2 of PSL.

Combined formulations

Can a pesticide and a fertilizer be combined under the COR? (110.3)

Yes. A pesticide listed in the Table 4.2, column 2 of the PSL can be combined with a fertilizer providing the requirements in 5.6.1 and 5.6.2 in 32.310 are fulfilled and the nutrient load does not exceed the limits of the nutrient management plan. See 3.46 in 32.310.

Formulants – Soil amendments & crop production aids

Are the restrictions in the formulant listings in Table 4.2 only applicable when formulants are specifically mentioned in an annotation? Or do the annotations for formulants apply whenever a substance contains a formulant? Case in point, may repellents contain formulants?(483) - 29 April 2020

The formulant listings apply whenever a substance contains a formulant unless a specific derogation is identified in an annotation. In the case of repellents: PMRA List 4 formulants are allowed in Repellents listed in Table 4.2.

Non-compliant formulants in pesticides

What is the status of a crop on which a pesticide was applied containing an active ingredient listed in Table 4.2 of the PSL but also a formulant from List 3 of PMRA? (326.1)

In most cases the crop cannot be certified because (with the exception of List 3 formulants in passive pheromone dispensers) only formulants from Lists 4a and 4b of PMRA may be used in pesticides allowed by Table 4.2, column 2. However, if the List 3 formulant is covered by a different substance listing in Table 4.2, column 2 (e.g., essential oils and aloe vera gel under Plant extracts, soap under Soaps, etc.), the crop could be certified.

Will a 36-month transition period be required for the land where the pesticide described in 326a was applied? (326.2)

A 36-month transition will not be required if the List 3 formulant is a permitted substance. See Formulants used in crop production aids, Table 4.2.

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 listed in List of formulants 4B of PMRA. See Formulants used in crop production aids, Table 4.2, column 2.

Pheromones

Is the delivery of pheromones confined to passive dispensers or is spraying application allowed? (93)
Yes. All sources are permitted. For pest control.

Hay preservatives with prohibited substances in an organic field

If a hay preservative containing prohibited substances is applied while baling, and the hay is being sold as non-organic, does the field lose its organic status? (445) - 21 June 2019
Yes. The field would lose organic status as there is no means to ensure the field will not become contaminated to some degree. Only hay preservatives approved for organic use or those containing active ingredients listed in 4.2 & 5.2 are permitted.

Acceptable substances in biodegradable mulches

Can biodegradable mulches contain substances listed in PSL Table 4.2? (371.1)
Yes.

If yes, does the annotations for those substances listed in Table 4.2 of the PSL have to be addressed? (371.2)

Annotation restrictions apply even if substances are used as components of a biodegradable mulching material. For example, if embedding micronutrients into the material, the annotation for micronutrients must be addressed.

Processes in the manufacturing of mulches

Could a biobased film become non-compliant because of the manufacturing process that would disqualify it from being used on organic farms? (284)

No. The manufacturing of a biobased biodegradable mulch does not come into scope when a CB reviews a product for use. Biobased biodegradable mulches must meet the requirements listed in Table 4.2 of the PSL.

Plastic mulch removal

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.
3) must meet the biodegradable criteria specified in biodegradable definition (3.11 in 32.310).

Wool as mulch

Can conventional wool be used as mulch? (324)
Yes. Wool is mentioned in the mulch listing in Table 4.2. Organic wool is preferred if commercially available. If organic is not available, conventional wool may be used, provided that the wool has not been treated with prohibited substances 60 days prior to shearing.

Kraft lignin in biodegradable planting containers

Is Kraft lignin allowed as an ingredient in biodegradable planting containers that are left in the soil to decompose? (352)
Yes. Most papers are produced using the Kraft process. If all other ingredients are listed in Table 4.2, planting containers that contain Kraft lignin can be left to decompose in soil. See Table 4.2, column 2 Biodegradable plant containers.

Microbial substrates

May a bacteria for use as an organic crop production aid be produced using prohibited materials in the substrate? (141)

PSL Table 4.2 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) products in which the microbial is delivered along with a remnant of the substrate: here feedstock materials must be listed on PSL Table 4.2 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 4.2, column 2 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 4.2 (Column 2) of the Permitted Substances List? (289)

Lignin forms such as lignosulphonic acid, calcium lignosulphonate, magnesium lignosulphonate, sodium lignin and sodium lignosulphonate are permitted.

Sulphonates manufactured with non-listed substances

Are lignin sulphonates manufactured with non-listed substances (e.g., calcium bisulphate) permitted? (355)
All lignin sulphonates, except ammonium lignin sulphonates, are allowed, as crop production aids, if used as chelating agents, formulants, or as dust suppressants. See Lignin sulphonates,' Table 4.2 and 4.1.1 b) of PSL.

Rotenone

Is rotenone allowed for use in organic production? (308)
Rotenone is a substance that qualifies as botanical pesticides. However, in countries such as Canada, where rotenone products are no longer registered for agricultural use, they cannot be used for organic production.

Seawater

Water is listed as permissible. Can you please confirm if seawater can be used in crop production? (23)
Yes. Table 4.2 (column 2) of the PSL allows for Water which would include seawater to be used as a crop production aid.

Sprout inhibitor – Ethylene

Is the use of ethylene as a sprout inhibitor for onions and potatoes admissible? (43)

Yes and no. The use of ethylene is permitted for potato sprout control, but not onions. See Table 8.3 of PSL.

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 poly vinyl chloride for mulches and row covers does not apply to the structural material.

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&A 79). No glossy paper or coloured ink. Must be 100% biodegradable derived from bio-based sources to be left to decompose in the ground.

Weed barriers

Could a woven polypropylene weed barrier cloth be left in place for 3-5 years in an orchard or vineyard? (347.1)

Yes, it can be left in place as long as it doesn't start to degrade.

Can the same thing be done with 100% coconut fibre mats? (347.2)
If the coconut fibre mats do not contain any prohibited materials, they can be used and left to degrade in place.