Comparison between
CAN/CGSB-32.311-2015 amended 2018 and CAN-CGSB-32.311-2020

Tables 5.2 - Feed, feed additives and feed supplements

and 5.3 - Health care products and production aids

Changes are highlighted in yellow

CAN/CGSB-32.311-2015

Table 5.2 – Feed, feed additives and feed supplements

Substance name(s)	Origin and usage
Amino acids	Non-synthetic sources. Amino acids are considered non-synthetic if they are produced by plants, animals and micro-organisms and are extracted, or isolated, by hydrolysis or by physical or other non-chemical means. Exceptions: a) L-lysine extracted using biofermentation and not produced from genetically engineered organisms shall be permitted if the need to supplement hog or poultry feed with lysine can be demonstrated; and b) synthetic DL-methionine, DL-methionine—hydroxy analog and DL-methionine—hydroxy analog calcium. NOTE These exceptions shall be reviewed at the next full revision of the standard.

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Table 5.2 – Feed, feed additives and feed supplements

Substance name(s)	Origin and usage
Amino acids	Organic sources, such as fishmeal, insect meal, brewer's yeast, potato protein, corn gluten and distillers' grains, shall be the first preference. When the supplementation with these organic sources does not meet amino acid requirements to produce a balanced feed as per 6.4.1 and 6.4.2 of CAN/CGSB-32.310, then: a) amino acids derived from biological sources by biofermentation and extracted, or isolated, by hydrolysis or by physical or other non-chemical means may be used; b) when such forms of lysine and methionine are not commercially available for use in monogastrics feeding, as an exception to 5.1.2 (CAN/CGSB-32.311) and 1.4 a) of CAN/CGSB-32.310, all sources of lysine and methionine may be used. This annotation will be reviewed at the next revision of the standard. See Table 5.2 Fishmeal.

Antioxidants	Non-synthetic sources. Derived using substances listed in Table 6.3 *Extraction solvents, carriers and precipitation aids.*
Diatomaceous earth	Approved as an anti-caking agent in feed to a maximum of 2% of the total diet.
Energy feeds and forage concentrates (grains) and roughages (hay, silage, fodder, straw)	Shall be obtained from organic sources. May include silage preservation products. See Table 5.2 *Hay or silage preservation products*.
Enzymes	Non-synthetic enzymes are permitted, including bromelain, catalase—bovine liver, ficin, animal lipase, malt, pancreatin, pepsin, trypsin, proteases and carbohydrases. Animal-derived enzymes shall be guaranteed free of specified risk materials including the skull, brain, trigeminal ganglia (nerves attached to the brain), eyes, tonsils, spinal cord and dorsal root ganglia (nerves attached to the spinal cord) of ruminants aged 30 months or older; and the distal ileum (portion of the small intestine) of ruminants of all ages.

Antioxidants	Derived from materials produced by living organisms (such as, but not limited to, plants, animals and microorganisms) using substances listed in Table 6.3 Extraction solvents and precipitation aids. Example: tocopherols derived from plants.
Colouring agents	From biological sources.
Diatomaceous earth	As a preventative livestock health care practice for control of internal parasites, and as an anti-caking agent. Shall be food grade (non-calcined). As free choice, or up to 2% of total diet, or as an anti-caking agent in feed ration.
Energy feeds and forage concentrates (grains) and roughages (hay, silage, fodder, straw)	Shall be obtained from organic sources. May include silage preservation products. See Table 5.2 Hay or silage preservation products.
Enzymes	Derived from plants, animals or microorganisms. Examples include, but are not limited to, bromelain, bovine liver catalase, ficin, animal lipase, malt, pancreatin, pepsin, trypsin, proteases and carbohydrases. Animal-derived enzymes shall be free of Specified Risk Material (SRM). This annotation will be reviewed at the next revision of the standard. See Table 5.2 Phytase.
Fishmeal	All preservatives and other ingredients shall be listed in Table 5.2.
Flavours	Shall be organic.
Food waste	Organic food for human consumption or by-products from organic food production (excluding abattoir waste).

Hay or silage preservation products	Preference should be given to bacterial or enzymatic additives derived from bacteria, fungi and plants and food by-products (such as molasses and whey). The following acids may be used: lactic, propionic and formic.
Micro-organisms and yeasts	If organic sources of yeast are not commercially available, non-synthetic yeast sources, including yeast autolysate, shall be used.
Milk replacer	Shall be organic if commercially available. Permitted for emergency use. Without antibiotics and animal fats or by-products.
Minerals, trace minerals, elements	Non-synthetic chelated or sulphated minerals. Examples include oyster shell, calcium chloride or magnesium oxide. Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available.
Molasses	Shall be organic.
Pre-mixes	Concentrated mixture of minerals and vitamins. From organic sources if commercially available. All ingredients in pre-mixes shall be essential for animal nutrition, and listed in Table 5.2. Non GE fillers, for example rice hulls, may be non-organic.

Hay or silage preservation products	Preference should be given to bacterial or enzymatic additives derived from bacteria, fungi and plants and food by-products (such as molasses and whey). The following acids may be used: lactic, propionic and formic.
Microorganisms and yeasts	If organic sources of yeast are not commercially available, non-organic yeast sources, including yeast autolysate, shall be used.
Milk replacer	Shall be organic if commercially available. Permitted for emergency use. Without antibiotics and animal fats or by-products.
Minerals, trace minerals, elements	Unprocessed rock dusts; ground animal or plant material (other than blood or bone meal); and seawater are preferred sources. Chelated and sulphated forms are permitted. If none of the aforementioned sources are commercially available, other versions are permitted except for forms containing or produced with EDTA or EDDHA.
Molasses	Shall be organic.
Phytase	Permitted when feed supplementation with phytase is recommended to reduce the phosphorus level in manure and thereby reduce the potential environmental consequence. As an exception, GE-derived sources of phytase are allowed even though they are not compliant to 5.1.2 of CAN/CGSB-32.311 or 1.4 a) of CAN/CGSB-32.310. This substance and annotation will be reviewed at the next revision of the standard.
Pre-mixes	Concentrated mixture of minerals and vitamins. From organic sources if commercially available. All ingredients in pre-mixes shall be essential for animal nutrition, and listed in Table 5.2. Non-GE fillers, for example rice hulls, may be non-organic.

Probiotics	Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
Protein feeds	Shall be from organic sources.
Seaweed meal	
Vitamins	Permitted for enrichment or fortification.

Table 5.3 – **Health care products and production aids**

Substance name(s)	Origin and usage
Acetylsalicylic acid	Aspirin.
Acids	Non-synthetic sources. Permitted for all uses including water treatment.
Activated charcoal	Shall be of plant origin.
Alcohol, ethyl (ethanol)	Permitted as a disinfectant and sanitizer.
Alcohol, isopropyl	Permitted as a disinfectant.
Antibiotics	See 6.6 of CAN/CGSB-32.310, for conditions pertaining to antibiotic use in livestock. See Table 5.3 *Antibiotics, oxytetracycline.*

Probiotics	Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
Protein feeds	Shall be from organic sources.
Seaweed meal	
Vitamins	Permitted for enrichment or fortification. Vitamin formulants that comply with Canadian regulations are accepted. Vitamins not compliant to 5.1.2 of CAN/CGSB-32.311 are permitted.

Table 5.3 – **Health care products and production aids**

Substance name(s)	Origin and usage
Acetylsalicylic acid	Aspirin.
Acids	Ascorbic, acetic, propionic, citric, formic and lactic acids and vinegar. Permitted for all uses such as treatment of water and bedding.
Activated charcoal	Shall be of plant origin.
Alcohol, ethyl (ethanol)	Permitted as a disinfectant and sanitizer.
Alcohol, isopropyl	Permitted as a disinfectant.
Antibiotics	See 6.6 of CAN/CGSB-32.310, for conditions pertaining to antibiotic use in livestock. See Table 5.3 Antibiotics, oxytetracycline.

Antibiotics, oxytetracycline	For emergency use for bees. The equipment shall be destroyed, in accordance with 7.1.15.7 of CAN/CGSB-32.310*;* treated bees do not need to be destroyed if they are taken out of organic production.
Anti-inflammatories	Non-steroid anti-inflammatories such as ketoprofen. Preference shall be given to non-synthetic alternatives. To reduce inflammation. See 6.6.4 c) 2) of CAN/CGSB-32.310.
Biologics, including vaccines	
Botanical compounds	Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants shall be used according to label specifications.
Calcium borogluconate	For milk fever. No withdrawal period required.
Chlorohexidine	For surgical procedures conducted by a veterinarian. To be used as a post-milking teat dip when alternative germicidal agents and physical barriers have lost their effectiveness.
Colostral whey	Probiotic.
Colostrum	Shall be organic if commercially available.
Copper sulphate	As an essential nutrient (source of copper and sulphur) and for topical use (foot baths).
Diatomaceous earth	For use in control of external parasites.

Antibiotics, oxytetracycline	For emergency use for bees. The equipment shall be destroyed in accordance with 7.1.15.7 of CAN/CGSB-32.310*;* treated bees do not need to be destroyed if they are taken out of organic production.
Anti-inflammatories	Non-steroid anti-inflammatories such as ketoprofen. Preference shall be given to alternative products, such as those listed in Table 5.3, Botanical compounds; and Homeopathy and biotherapies. To reduce inflammation. See 6.6.4 c) 2) of CAN/CGSB-32.310.
Biologics	
Botanical compounds	Botanical preparations, such as atropine, butorphanol and other medicines from herbaceous plants shall be used according to label specifications. Substances containing petroleum-derived formulants, such as propylene glycol, shall not be fed to livestock.
Calcium borogluconate	For milk fever. No withdrawal period required.
Chlorhexidine	For surgical procedures conducted by a veterinarian. To be used as a post-milking teat dip when alternative germicidal agents and physical barriers have lost their effectiveness. See Table 5.3 Teat dips and udder wash.
Colostral whey	Probiotic.
Colostrum	Shall be organic if commercially available.
Copper sulphate	As an essential nutrient (source of copper and sulphur) and for topical use (foot baths).
Diatomaceous earth	For use in control of external parasites and as a preventative practice for control of internal parasites. For internal use, diatomaceous earth shall be food grade (non-calcined).

Electrolytes	Including, but not limited to: CMPK (Calcium, Magnesium, Phosphorus, Potassium), calcium propionate and calcium sulphate. Shall not contain antibiotics. Orally or by injection.
Formic acid	For apicultural use, to control parasitic mites. This substance may be used after the last honey harvest of the season and shall be discontinued 30 days before the addition of honey supers.
Formulants (inerts, excipients)	Shall be used in conjunction with substances listed in Table 5.3. Formulants are not subject to 1.4 of CAN/CGSB-32.310 or 5.1.2 of this standard.
Glucose	
Glycerol (glycerine, glycerin)	Shall be from organic sources if commercially available. Shall be from vegetable or animal fats and/or oils. Shall be produced using fermentation or by hydrolysis.
Homeopathy and biotherapies	
Honey	Shall be organic.
~~Lime, hydrated~~	~~Shall not be used to deodorize animal wastes.~~ [See Hydrated Lime]
Hydrogen peroxide	Pharmaceutical grade hydrogen peroxide is permitted for external use (disinfectant). Food-grade hydrogen peroxide is permitted for internal use (for example, added to livestock drinking water).
Iodine	If used as a topical disinfectant: permitted iodine sources include potassium iodide and elemental iodine. If used as a cleaning agent: non-elemental iodine shall be used; iodine shall not exceed 5% solution by volume (example: iodophors). Use shall be followed by a hot-water rinse.

Electrolytes	Including, but not limited to: CMPK (Calcium, Magnesium, Phosphorus, Potassium), calcium propionate and calcium sulphate. Shall not contain antibiotics. Orally or by injection.
Formic acid	For apicultural use, to control parasitic mites. This substance may be used after the last honey harvest of the season and shall be discontinued 30 days before the addition of honey supers.
Formulants (inerts, excipients)	Shall be used in conjunction with substances listed in Table 5.3. Formulants are not subject to 1.4 or 1.5 of CAN/CGSB-32.310 or 5.1.2 of this standard.
Glucose	
Glycerol (glycerine, glycerin)	Shall be from organic sources if commercially available. Shall be from vegetable oil or animal fat. Shall be produced using fermentation or by hydrolysis.
Homeopathy and biotherapies	
Honey	Shall be organic.
Hydrated lime (calcium hydroxide)	Shall not be used to deodorize animal wastes.
Hydrogen peroxide	Pharmaceutical grade hydrogen peroxide is permitted for external use (disinfectant). Food-grade hydrogen peroxide is permitted for internal use (for example, added to livestock drinking water).
Iodine	If used as a topical disinfectant: permitted iodine sources include potassium iodide and elemental iodine. If used as a cleaning agent: non-elemental iodine shall be used; iodine shall not exceed 5% solution by volume (example: iodophors). Use shall be followed by a hot-water rinse.

Iron products	May be supplied by ferric phosphate, ferric pyrophosphate, ferrous lactate, ferrous sulphate, iron carbonate, iron gluconate, iron oxide, iron phosphate, iron sulphate or reduced iron.
~~Lime, hydrated~~	~~Shall not be used to deodorize animal wastes.~~ [See Hydrated Lime]
Local anesthetics	Such as lidocaine. Preference shall be given to non-synthetic alternatives. Use shall be followed by withdrawal periods of 90 days for livestock intended for slaughter, and seven days for dairy animals.
Magnesium sulphate	Mined sources. A source of magnesium and sulphur.
Mineral oil	For external use.
Minerals, trace minerals, elements	Non-synthetic chelated or sulphated minerals. Examples include oyster shell, calcium choride and magnesium oxide. Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available. Minerals from any source are permitted for medical use.
Micro-organisms and yeasts	If organic sources of yeast are not commercially available, non-synthetic yeast sources, including yeast autolysate, shall be used.
Oxalic acid	For mite control in honeybee colonies.
Oxytocin	For post-parturition therapeutic use. Meat from treated animals will not lose its organic status. See 6.6.10 d) of CAN/CGSB-32.310, for criteria pertaining to the mandatory withdrawal period.
Paraffin	Shall be food-grade. For use in hives.

Iron products	May be supplied by ferric phosphate, ferric pyrophosphate, ferrous lactate, ferrous sulphate, iron carbonate, iron gluconate, iron oxide, iron phosphate, iron sulphate or reduced iron.
Lanolin	For external use only, such as udder balm (ointment).
Local anesthetics	Such as lidocaine. Use of pharmaceutical local anesthetics shall be followed by withdrawal periods of 90 days for livestock intended for slaughter, and seven days for dairy animals. Preference shall be given to alternatives, such as clove oil, listed in Table 5.3 Botanical compounds; Homeopathy and biotherapies.
Magnesium sulphate	Mined sources. A source of magnesium and sulphur.
Mineral oil	For external use.
Minerals, trace minerals, elements	Non-synthetic chelated or sulphated minerals. Examples include oyster shell, calcium chloride and magnesium oxide. Synthetic nutrient minerals may be used if non-synthetic sources are not commercially available. Minerals from any source are permitted for medical use.
Microorganisms and yeasts	If organic sources of yeast are not commercially available, non-organic yeast sources derived from living yeast, including yeast autolysate, shall be used.
Oxalic acid	For mite control in honeybee colonies.
Oxytocin	For post-parturition therapeutic use. Meat from treated animals will not lose its organic status. See 6.6.10 d) of CAN/CGSB-32.310, for criteria pertaining to the mandatory withdrawal period.
Paraffin	Shall be food-grade. For use in hives.

Parasiticides and anti-microbials	Shall respect requirements set out in 6.6 of CAN/CGSB-32.310 with regard to the use of internal parasiticides.
Physical teat seals	Synthetic and non-synthetic ingredients are permitted. Shall be free from antibiotics. For post-lactation use. Shall be completely removed prior to nursing or milking. Shall be prescribed and administered under veterinary supervision.
Plant oils	To control external parasites.
Prebiotics	From organic sources if commercially available.
Probiotics	Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
Sedatives	Such as xylazine.
Selenium products	Derived from sodium selenate or sodium selenite. May be used to address documented deficiencies in the stock, soils or feed supplies. See Table 5.3 *Minerals, trace minerals, elements*.
Sodium hydroxide	For use in dehorning paste.
Sulphur	For control of external parasites.

Parasiticides and anti-microbials	Shall respect requirements set out in 6.6 of CAN/CGSB-32.310 with regard to the use of internal parasiticides.
Physical teat seals	All sources are permitted. Shall be free from antibiotics. For post-lactation use. Shall be completely removed prior to nursing or milking. Shall be prescribed and administered under veterinary supervision.
Plant oils	To control external parasites.
Prebiotics	From organic sources if commercially available.
Probiotics	Probiotics may be administered orally, as dietary supplements, via pharmaceutical preparations in the form of capsules, tablets, alginate gels, or dry powder.
Propylene glycol	May only be used as an ingredient in foot baths.
Sedatives	Such as xylazine.
Selenium products	Derived from sodium selenate or sodium selenite. May be used to address documented deficiencies in the stock, soils or feed supplies. See Table 5.3 Minerals, trace minerals, elements.
Sodium hydroxide	For use in dehorning paste. See 6.4 of CAN/CGSB 32.310.
Sulphur	For control of external parasites.
Teat dips and udder wash	Substances, such as alcohol, iodine, hydrogen peroxide, chlorine dioxide and ozone, can be used as disinfectants for a pre- or post-teat dip or udder wash if they are registered for this use by Canada's *Food and Drug Regulations*. Chlorhexidine can be used as a post-milking teat dip if alternative germicidal agents and physical barriers have lost their effectiveness. See Table 5.3 Chlorhexidine.

Vaccines	See Table 5.3 *Biologics, including vaccines*.
Vitamins	Vitamin formulants that comply with Canadian regulations are accepted. Orally, topically or by injection.

Thymol	See Table 5.3 Botanical compounds for thymol derived from botanical sources. Thymol that is not derived from botanical sources may only be used in foot baths.
Vaccines	Vaccines may be used in prevention of diseases. If vaccines compliant to 5.1.2 of this standard are not commercially available, or are ineffective, vaccines not compliant to 5.1.2 are permitted.
Vitamins	Vitamin formulants that comply with Canadian regulations are accepted. Vitamins not compliant to 5.1.2 of this standard are permitted. Orally, topically or by injection.