Inputs consultation for Northern Ireland 2024
Supporting technical information

Contents

Feed inputs – supporting technical information

We propose to prohibit propylene glycol as a feed additive.

Propylene Glycol

The Soil Association has reviewed the new permission for propylene glycol in the EU organic regulation. It is our view that it should continue to be seen as a veterinary intervention, rather than classed as a feed input. Propylene glycol can currently be used as part of a veterinary treatment plan for animal health and welfare on a case-by-case basis within organic systems and we believe that this is the right approach.

We are therefore proposing not to add propylene glycol as a permitted feed additive in Soil Association's organic standards. This will mean that it is can only be used on a case-by-case basis as part of a veterinary treatment plan.

Propylene glycol is a synthetic liquid substance, produced through the hydrolysis of high-purity propylene oxide (also used to make plastic). It is used in diets to reduce the risk of ketosis[1] in conventional farming,

The best strategy for preventing ketosis is not to over-condition cows before calving; to develop suitable diets to minimise the drop in feed intake before calving and optimising ruminal conditions after calving.

Further details on propylene glycol can be found in the Final report on Feed (VII) and pet food (II).

[1] Ketosis is a metabolic disorder that occurs in mammals when energy demands (e.g. high milk production) exceed energy intake and result in a negative energy balance. Ketotic cows often have low blood glucose (blood sugar) concentrations. (The Cattle Site)

We propose to allow the following inputs as feed additives.

Selenised yeast

Based on recommendations from EGTOP[2] regarding feed, we agreed that selenised yeast should be authorised for use in organic production.

Selenised yeast is already authorised for use in organic farming. However, this product differs from the already authorised version because its new formulation consists of an increased concentration of selenium.

Selenium is essential for human and animal health in trace amounts, playing key roles in antioxidant activity, thyroid function, and immune system maintenance. Selenium content in plants varies based on soil and plant species, with deficiencies leading to issues like muscle degeneration and reduced productivity, while excess intake causes acute or chronic selenosis, leading to hair loss, hoof lesions, and emaciation. Selenium-enriched yeast is more bioavailable and less toxic than inorganic forms, making it a safer supplement.

The EGTOP group reflect that selenised yeast is produced in the same conditions as other selenised yeast currently authorised for use in organic farming. The benefit for the environment is clear, due to the higher bioavailability, limiting the emissions in the environment.

Further details on selenised yeast can be found in the Final Report on Feed (VII) and Pet Food (II).

Algal oil

Based on recommendations from EGTOP regarding feed, we support the authorisation for algal oil in organic feed production, with the condition that oil is obtained by extraction from microalgae through fermentation, and the growing medium for the fermentation process must not be of GMO origin and should be from organic raw materials, if available.

Studies have shown that farmed animals (e.g. chickens, cows, and fish) need the fatty acids for good health but can't produce enough on their own, and alternatives to fish oil sources are needed (as there is a limited supply).

The allowance of algal oil supports the EU's Farm to Fork strategy, reducing reliance on fish oil for the growing organic aquaculture market.

Further details can be found in the Final report on Feed (VII) and pet food (II).

Calcium Chloride

Based on recommendations from EGTOP regarding feed, we support the authorisation of calcium chloride for use in organic feed production, with the condition that it is used for the particular purpose to reduce the risk of milk fever and subclinical hypocalcaemia in dairy cows. It is restricted to selective application (only for individual animals in need and for a limited period), and the calcium chloride should be purified from naturally occurring brine, if available.

[2] EGTOP stands for the Expert Group for Technical Advice on Organic Production. The group provide advice to European Institutions. It draws on outside experience to make sure that the EU rules on organics are effective and proportionate. (Co-operation and expert advice)

Calcium chloride is an inorganic, non-toxic salt of natural origin. It is a nutritional source of calcium; however, it can be more caustic than other calcium sources.

Further details on calcium chloride can be found in the Final report on Feed (VII) and pet food (II).

We understand that there are other ways to manage animals so that they can naturally mobilise calcium, and there are sources of calcium already permitted within the organic regulation and standards.

However, we do not see any reason to restrict the use of calcium chloride in the Soil Association higher standards, so we are proposing to permit it. We would like to understand more broadly how organic and non-organic farmers manage their animals to mobilise calcium, and we are inviting feedback on this through our standards consultation.

Addition of trace elements – copper (II) chelate, Iron (II) chelate, manganese chelate, zinc chelate

Based on recommendations from EGTOP regarding feed we agree that the following trace elements should be authorised for use in organic farming: iron chelate, copper chelate, manganese chelates, and zinc chelates.

The four chelates are intended to be used in all animal species as organic sources of copper, iron, manganese and zinc, and shall be incorporated in the feed as a premixture[3], and the intention of use is to compensate for potential deficiencies of the essential trace elements in the diet.

Copper

Copper is an essential micro-mineral crucial for enzyme regulation, iron metabolism, red blood cell maturation, and bone health in animals, humans, and plants. Deficiency can lead to issues like muscle weakness, anemia, bone abnormalities, neurological defects, and cardiac malfunction.

Available alternatives are the already authorised copper trace elements, which you can see in the Soil Association Organic Feed Standards for Northern Ireland[4].

Iron

Iron is the most abundant trace element in mammals, serving as a key component of proteins like haemoglobin and enzymes essential for aerobic metabolism and electron transport. It plays a crucial role in oxygen transport and our body carefully controls how much iron is absorbed from food and how much is stored.

[3] premixtures' means mixtures of feed additives or mixtures of one or more feed additives with feed materials or water used as carriers, not intended for direct feeding to animals. (Regulation (EC) No 1831/2003). Premixture is incorporated at levels typically between 0.2 to 0.5% in the compound feed. (FEFAC).

[4] *SA NI 9.1.13 Products and Substances permitted for use in livestock feed* (SA organic feed standards for NI)

Available alternatives are the already authorised iron trace elements, which you can see in the Soil Association Organic Feed Standards for Northern Ireland[5].

Manganese

Manganese is an essential mineral involved in enzyme functions and the metabolism of amino acids, lipids, and carbohydrates, playing a key role in bone formation and overall growth. If animals don't get enough manganese, it can lead to problems like poor growth, bone issues, reproductive problems, trouble walking in newborns, and issues with processing fats and carbohydrates.

Available alternatives are the already authorised iron trace elements, which you can see in the Soil Association Organic Feed Standards for Northern Ireland[6].

Zinc

Zinc is essential for all living organisms, playing a role in enzyme activity, cell signalling, metabolism, and immune and nervous system functions.

Available alternatives are the already authorised iron trace elements, which you can see in the Soil Association Organic Feed Standards for Northern Ireland[7].

The EGTOP group reflected that supplementation of feed for organic farming with trace element compounds enables them to balance the diet and avoid deficiencies. There are maximum limits set by the authorisation act for a complete diet that must not be exceeded by trace elements in feed. There are several inorganic compounds of copper, iron, manganese and zinc authorised in organic farming but the allowance of chelates will enable the use of these trace elements in organic form.

Further details on these trace elements can be found in the Final Report on Feed (VII) and Pet Food (II).

We recognise that the chelated versions of these supplements create less environmental risk and that the current forms allowed in organic are often less widely available than the chelates.

We are therefore proposing to permit the use of these additional trace elements in the Soil Association higher standards. We are however interested to understand more broadly if organic and non-organic farmers are regularly supplementing livestock feed and find out about the other husbandry practices that farmers use to ensure livestock receive adequate levels of trace elements.

Iron dextran 10%

We do not believe there is a need for iron dextran in organic systems because all organic piglets must have access to soil and manure, which will give them plentiful iron from their natural environment.

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[5] *SA NI 9.1.13 Products and Substances permitted for use in livestock feed* (SA organic feed standards for NI)

[6] *SA NI 9.1.13 Products and Substances permitted for use in livestock feed* (SA organic feed standards for NI)

[7] *SA NI 9.1.13 Products and Substances permitted for use in livestock feed* (SA organic feed standards for NI)

We seek to understand the use of iron dextran in non-organic pig farming systems, and if there is a need in the organic farming systems, which is reflected in the consultation questionnaire.

Based on recommendations from EGTOP regarding feed, iron dextran is authorised for use in organic production.

Only piglets that grow outdoors (on outdoor farms) with access to soil can find enough iron in their natural environment, by foraging and ingesting soil. The EGTOP group reflect that iron supplementation is necessary for indoor reared piglets, but not for outdoors, except for soils where the content of bioavailable iron is very low.

Alternatives allowed within organic include iron sulphate and carbonate. However, the EGTOP report states that iron sources with better bioavailability for newborn piglets are essential.

Further details on iron dextran can be found in the Final Report on Feed (VII) and Pet Food (II).

Crop inputs – supporting technical information

Low-risk substances

All low-risk substances from plant or animal origin (not from GMO origin) may be used in organic production without prior evaluation by EGTOP[8], if they are in accordance with Regulation (EC) 1107/2009.

This proposal is limited to substances from plant or animal origin[9], because there might be low risk substances of synthetic origin, the use of which would not necessarily be in line with the objectives and principles of organic production.

The approach proposed for *low-risk active substances* is analogous to the approach already implemented in *basic substances*.

Further details can be found in the Final Report on Plant Protection (VII) and Fertilisers (V).

Please see **Annex 1** for the current list of low-risk active substances of plant or animal origin.

Composted or fermented mixture of household waste

Based on recommendations from EGTOP, the entry 'Composted or fermented mixture of household waste' should be expanded to allow additional sources of composted or fermented bio-waste to be used in organic production.

The change from household waste to bio-waste will allow the inclusion of raw materials from additional sources. The term 'bio-waste' is defined as 'biodegradable garden and park waste, food and kitchen waste from households, restaurant, caterers and retail premises and comparable waste from food processing plants'[10].

[8] EGTOP stands for the Expert Group for Technical Advice on Organic Production. The group provide advice to European Institutions. It draws on outside experience to make sure that the EU rules on organics are effective and proportionate. (Co-operation and expert advice)
[9] Plants are defined as residing within the groups Archaeplastida or Phaeophyceae. Animals are defined as residing in the group Metazoa.
[10] From Article 3(4) in Directive 2008/98/EC. (Directive 2008/98/EC)

Further details can be found in the Final Report on Plant Protection (VII) and Fertilisers (V).

The Soil Association supports this recategorisation, as recycling of organic wastes is an important step towards a more sustainable agri-food chain.

Selenium Salts

The use of selenium salts in case of deficiency of the soils employed for animal rearing and/or grazing has been found to be in line with the objectives and principles of organic production, and the use of the substance has been authorised in organic production.

The use of selenium is not essential for plants but is required for many physiological functions in animals. The scope of use is to supply sufficient amount of selenium to grazing animals (pasturing and rearing on fertilised areas). The use of selenium on soil is reported to improve animal health on deficient locations and is already added to organic feed as sodium selenite, sodium selenate and selenised yeast inactivated.

Further details of selenium salts can be found in the Final report on Fertilisers (IV) and Plant Protection Products (VI).

There is also research to suggest that spreading selenium salt not only benefits the grazing animals, but also stays within the soil and grassland to be absorbed into future crops.

Food and drink inputs – supporting technical information

Ascorbic Acid

Based on recommendations from EGTOP[11] regarding food, we support the use of ascorbic acid on meat preparations to which ingredients other than additives or salt have been added.

Ascorbic acid is already authorised as a food additive in organic products for meat products. Ascorbic acid occurs naturally in many fresh fruits and vegetables, from citrus fruits and grapefruits to broccoli and brussels sprouts. It is a reducing agent, and the reducing properties prevent oxidation, which is responsible for discolouration in meat during storage, and the formation of metmyoglobin[12].

Further details of ascorbic acid can be found in the Final Report on Food VIII.

Ascorbic acid is only allowed in meat products or meat preparations (e.g. burgers, minced beef), so it could not be added to fresh meat (e.g. steak, chicken breast or joints).

Lecithins

Based on recommendations from EGTOP regarding food, we support the extension of use for lecithins on animal products in organic production.

Lecithins are already authorised as a food additive in organic products of plant origin. Lecithins have several purposes in food processing, e.g., as a natural emulsifier that can replace

[11] EGTOP stands for the Expert Group for Technical Advice on Organic Production. The group provide advice to European Institutions. It draws on outside experience to make sure that the EU rules on organics are effective and proportionate. (Co-operation and expert advice)

[12] Meat colour is due to the concentration of the pigments myoglobin and hemoglobin. When oxidised, it produces metmyoglobin, which causes the meat to is visually turn brown or grey-brown. (ScienceDirect)

synthetic emulsifiers, and there are no known suitable alternatives approved for organic production. The freeze-drying process was considered a potential and preferred alternative, but concerns emerged over its high energy requirements.

Further details on lecithins can be found in the Final Report on Food VIII.

Potassium Sodium Tartrate

Based on recommendations from EGTOP regarding food, we agreed that potassium sodium tartrate should be authorised for use in organic production, and only if it is from organic production (from 1 January 2027). We are interested to understand how readily available organic potassium sodium tartrate is at present.

Potassium sodium tartrate is used as an acidity regulator for jellies, jams, marmalades, and sweets and also as backing powder. The components that combine to create potassium sodium tartrate are all currently permitted within organic regulation and SA standards.

EGTOP recommended that potassium sodium tartrate be permitted, and used the opportunity to introduce the request for all tartrate salts to be organic, as the production process and the availability of raw material would allow so.

Further details on potassium sodium tartrate can be found in the Final Report on Food VIII.

Administrative change to potassium tartrates and sodium tartrates

As mentioned in the section for potassium sodium tartrate, the EGTOP group took the opportunity to introduce the request that all tartrate salts be from organic origin (from 1 January 2027).

The internal expert group agreed that this was a strengthening of the regulation and in the future will consult on the inclusion of this addition to Soil Association's GB organic standards. The group are interested to understand more broadly how readily available organic potassium sodium tartrate is.

Annex 1: List of low-risk active substances of plant or animal origin allowed in organic production.

Ampelomyces quisqualis strain AQ10
Bacillus amyloliquefaciens strain FZB24
COS-OGA
Clonostachys rosea strain J1446 (Gliocladium catenulatum strain J1446)
Coniothyrium minitans Strain CON/M/91-08 (DSM 9660)
Laminarin
Metarhizium brunneum strain Ma 43 (formerly Metarhizium anisopliae var anisopliae)
Repellents by smell of animal or plant origin/ sheep fat

Correct as of 4 October 2024.