Animal feed additives

Feed additives can only be put on the market and used for animal feed within the EU if they have been authorised for use. There are controls which outline additives which are authorised for use in animal feed.

The process for authorisation is set down in EU Regulation 1831/2003 and this requires:

- a scientific evaluation by the [European Food Safety Authority (EFSA)](https://www.efsa.europa.eu)
- European Commission authorisation, in agreement with Member States

Regulation 1831/2003 sets out conditions of use for additives and provisions on the labelling of feed additives or premixtures of additives which must be adhered to. Please note that additives that are authorised in countries outside the EU are not automatically authorised for use in the UK or elsewhere in the EU.

Categories of feed additives

Additives may be put on the market and only used for the purpose stated within the authorisation.

The regulation covers the following feed additive categories:

- technological additives - preservatives
- sensory additives - flavourings and colourings
- nutritional additives - vitamins and minerals
- zootechnical additives - additives used to affect favourably the performance of animals in good health, for example, enzymes and micro-organisms
- coccidiostats and histomonostats

The use of antibiotics as feed additives were previously permitted, but their use - other than coccidiostats and histomonostats - have since been prohibited.

Authorised additives

All authorised feed additives are listed in Annex I of the European Commission’s [Register of Feed Additives](https://ec.europa.eu/food/feed/). The Register of Feed Additives is a useful source of information about the status of feed additives. The register provides information about animals for which the additive has been authorised and the relevant conditions for use. Certain restrictions may include setting maximum permitted levels or for use in drinking water.

If you would like to seek authorisation for a feed additive you will need to submit:

- an application for authorisation to the European Commission
- a technical dossier to the European Food Safety Authority (EFSA)
- three feed additive samples to the [European Reference Laboratories (EURLs)](https://ec.europa.eu/food/)

There are guidelines on the Commission’s website about the process to be followed. EFSA is responsible for evaluating all dossiers and further details can be found on the [EFSA](https://www.efsa.europa.eu) website.
Under Regulation 1831/2003, feed additives are generally authorised for a period of 10 years. Under previous legislation, some feed additives were authorised with no end date for the authorisation. Feed business operators were required to submit an application for re-authorisation of those feed additives by 2010.

See Regulations 2017/1145 on withdrawal from the market of certain feed authorised additives.

**Canthaxanthin in animal feed**

Canthaxanthin may be used in animal feed to colour food products for human consumption, such as in poultry and eggs and enhance coloration of ornamental birds and fish.

Canthaxanthin belongs to a group of naturally-occurring substances called carotenoids. Current EU feed additive forms are synthetically produced, the presence of canthaxanthin is permitted in feed for poultry which can lead to a more intensely-coloured egg yolk and poultry skin/fat.

Canthaxanthin is also permitted in feed to enhance the plumage pigmentation of ornamental birds and the skin pigmentation of ornamental fish. Controls in place for farmed animals are based on safety assessments which consider implications for animals and consumers.

**Maximum levels of canthaxanthin in animal feed**

An assessment for canthaxanthin was last undertaken by the European Food Safety Authority (EFSA) in 2014. This includes determining safe levels of use and maximum levels allowed in feed:

- for egg-laying birds, such as hens, canthaxanthin can be added to feed to a maximum of 8mg per kilogram (mg/kg)
- for other poultry reared for meat production, the maximum level is 25mg/kg and 100mg/kg feed for ornamental fish and birds

Previous use of canthaxanthin as a feed colour for salmon and trout, other fish, pet animals and other non-food-producing animals was withdrawn in 2015.

Canthaxanthin is authorised as a food colourant. At present there are no requirements to label canthaxanthin in food which came from animals that had this substance included in the diet.