

GM in animal feed

When handling genetically modified produce or produce from genetically modified sources for use in animal feed, you need to be aware of the assessment and authorisation process, this includes when GM organisms are imported for use in feed.

Before a genetically modified organism (GMO) can be marketed or grown in the EU - it must be authorised under the GM Food and Animal Feed [Regulation 1829/2003](#). Find more information about [current authorisations of GM organisms in animal feed](#).

The requirement for authorisation applies to:

- living GMOs, for example, maize and soya
- feed and food ingredients derived from the processing of GM crops

The authorisation procedure is as follows:

- an assessment is carried out by the European Food Safety Authority (EFSA). The panel consider the safety of GMOs and the food or feed derived from them.
- based on the advice by the panel, the Commission and Member States decide whether to grant authorisation of the GMO for use in the EU.
- following these assessments, authorised GM feed should not present more risk to farmed livestock than conventional feed.

GM animal feed, which is very unlikely to contain viable GMOs, is digested by animals in the same way as conventional feed. Food from animals which are fed with authorised GM crops is considered to be as safe as food from animals fed on non-GM crops.

GM labelling in animal feed

Animal feed materials and compound feeds which contain GM or GM-derived material must be indicated on the feed label.

Labelling is not required for animal feed consignments containing unexpected or technically unavoidable traces of GM material – which contains less than 0.9% of GM varieties, which are approved in EU.

According to the European Feed Manufacturers' Association (FEFAC), at least 85% of the EU's compound feed production is labelled to indicate that it contains GM or GM-derived material.

Supplies of GM material to the EU

A larger number of GM plant lines which have not been authorised for use in the EU, have been approved for growing elsewhere in the world, this includes varieties of:

- cotton
- maize
- oilseed rape
- rice
- soya bean

FEFAC estimates that the EU feed industry imports more than 70% of its maize, soya and rapeseed requirements each year. Significant quantities of maize, in the form of distillers' dried grains and corn gluten feed, are imported from the USA and much of this will be GM. The USA also supplies the UK with GM sugar beet.

The segregation of GM and non-GM crops after harvest, during transport, storage and subsequent use is not routinely practised by commodity-exporting countries, but can be achieved at a premium. The additional price paid will vary according to the state of the commodity markets and the nature of demand for the end products - this includes milk, meat and eggs for human consumption.

To deal with the possible presence of unauthorised varieties in imports of commodity crops for feed use, the EU adopted a measure in [Regulation 619/2011](#) which set a tolerance level of 0.1% for certain varieties for which a valid application for an EU authorisation has been made.

Transfer of GM material from animal feed

There have been a number of studies that have considered the possibility that functional transgenes from GM derived feed materials might be incorporated into livestock products for human consumption, for example, milk, meat and eggs.

Biologically active genes and proteins are common constituents of food and feed, but digestion in both animals and humans is known to rapidly degrade their DNA. The subsequent uptake of DNA fragments from the intestinal tract into the body is a normal physiological process.

In 2007, EFSA advised that a large number of experimental studies with livestock have shown that recombinant DNA fragments, or proteins derived from GM plants, were not detected in tissues, fluids or edible products of farm animals – including broilers, cattle, pigs or quails. Broilers are chickens bred for meat production, and are not egg-laying hens.

It is possible that DNA fragments derived from GM plant materials may occasionally be detected in animal tissues, in the same way that DNA fragments derived from non-GM plant materials can be detected in these same tissues.

EFSA noted that no technique is currently available to enable a valid and reliable tracing of animal products including meat, milk and eggs when the producer animals have been fed a diet incorporating GM plants.

Resources

[Guidance notes from FSA and DEFRA](#) (987.33 KB)