

Interpretation of the ban of the use of genetic engineering in the production and processing of organic foods

Goal

The goal of this interpretation is to make a contribution towards a more complete comprehension of the ban on the use of genetic engineering for the production and manufacture of organic foods, as contained in the **EU Council Regulation nr. 2092/91** (EWG).

Fundamentals

In the **1999 amendment (1804/99EG) to EU Council Regulation nr. 2092/91** (EWG), the European Union passed a regulation prohibiting the use of genetic engineering in organic foods.

The Council of the European Union – [...] in consideration of the following reasons ...
(10) Genetically modified organisms (GMOs) and their derivatives are incompatible with the principles of organic agriculture. In order to maintain the consumer's trust in organic production, genetically modified organisms, parts thereof or products manufactured with the use thereof are not to be used in products labeled as from organic agriculture.

The lawmaker forbids the use of GMOs and their derivatives in organic foods. The prohibition of the use of GMOs is further confirmed in the legal details contained in the regulation.

Scope of the prohibition

The definition of Article 4, paragraph 14 of the regulation contains a fairly complete explanation of which conventional non-agricultural supplies and ingredients and which technical supplies fall under the prohibition of the use of genetic engineering.

14. "Use of GMOs and GMO derivatives(products derived from GMOs)" : the use thereof as foodstuffs, food ingredients (including additives and flavourings), processing aids (including extraction solvents), feedstuffs, compound feedstuffs, feed materials, feed additives, processing aids for feedingstuffs, certain products used in animal nutrition under Directive 82/471/EEC (), pesticides, veterinary medicinal products, fertilizers, soil conditioners, seeds, vegetative reproductive material and livestock.*
() ABl. L 213 from 21.7.1982, p.8. Regulation last modified by Regulation 1999/20/EG (AbL. L 80 from 25.3.1999, p.20)*

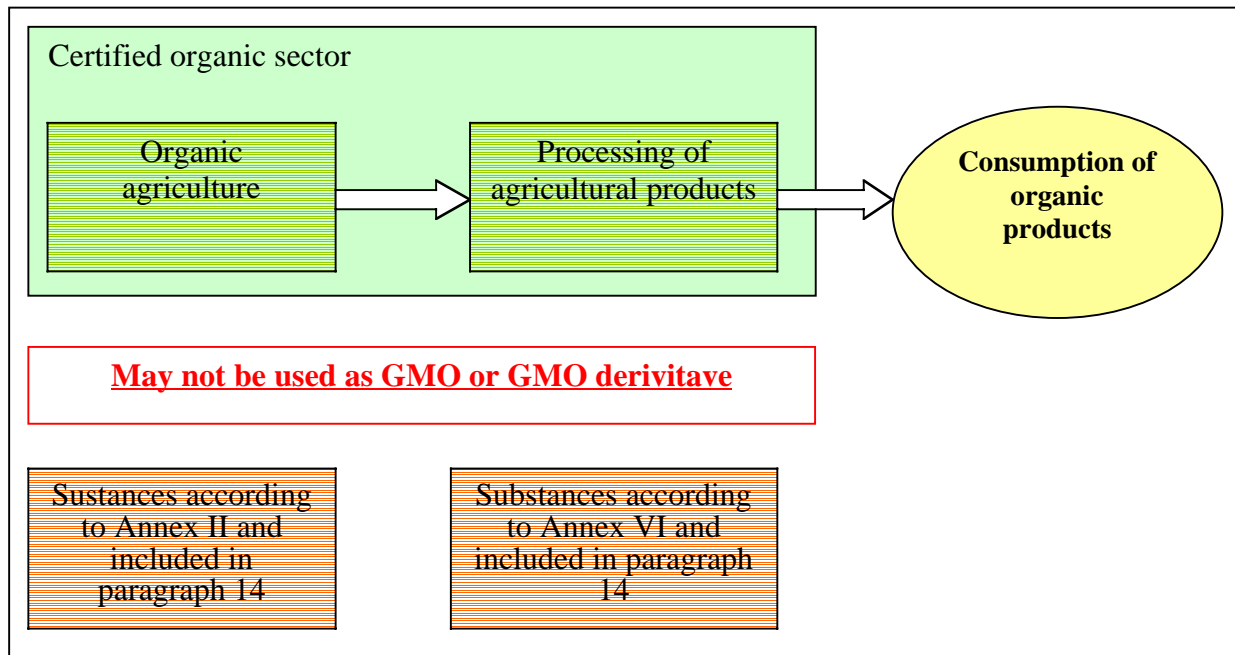
This definition is a differentiation of the organic food production “system”, which is subject to the legal inspection system for organic agriculture. It describes which technical fields to which the ban applies and excludes other areas, like cleaning agents, equipment and fuels.

Article 6, paragraph 1d) rescinds the prohibition for veterinary pharmaceuticals with the words: “... with the exception of veterinary pharmaceuticals...”

The production chain of organic foods, from agriculture all the way to the end product, is closely observed within the context of inspection and certification. The use of GMOs or their derivatives is forbidden in each step of this production chain.

The practical implementation of these guidelines demands intense concentration on those areas **where the organic production chain comes in contact with conventional production**. These areas, according to **Annex II and VI, are those conventional supplies, ingredients and technical aids** permitted for use which are considered relevant for consideration according to Article 4, paragraph 14. (See also overview table for paragraph 14)

Overview table for Article 4, paragraph 14



Depth of the ban on GMO use

None of the substances included in Annex II/VI and under Article 4, paragraph 14 may be GMOs.

The definition in Article 4, paragraph 12 determines what is understood as a GMO:

12. „genetically modified organism (GMO)“ shall mean any organism as defined in Article 2 of Council Directive (EEC) 90/220 of 23 April 1990 on the deliberate release into the environment of genetically modified organisms ABl. L 117 from 8.5.1990, p.15. Regulation last modified by Regulation 97/35/EG (ABl. L 169 from 27.6.1997, p.72).

GMO is defined here as only the organism capable of reproduction that can pass on its genetic information. Should the organism be rendered incapable of reproduction, e.g. through chopping, drying or heating, then it becomes a GMO derivative. A transgenic corn kernel is considered to be a GMO as long as a new corn plant can be grown from it, and becomes a GMO derivative as soon as it loses this attribute.

None of the substances included in Annex II/VI and under Article 4, paragraph 14 may be a GMO derivative.

A **GMO derivative** (product derived from GMOs) is considered to be any substance which is either produced from or produced by GMOs, but does not contain them.

Below the definition according to Article 4, paragraph 13.

13. „GMO derivative” (product derived from GMOs) shall mean any substance which is either produced from or produced by GMOs, but does not contain them.

In order to determine whether a substance (agricultural supply, ingredient, technical aid) is a GMO derivative, the manufacturing process must be re-traced, starting **from the end product, backwards until the first time an organism is encountered that is capable of reproduction**, from which either the substance in question is derived or which produced the substance. If this substance is not a GMO, then the derivative in question is appropriate for use in organic agriculture.

Support products such as feedstuffs, plant care products or technical aids *the help of which was used to manufacture the conventional products as in Article 4, par. 14, need not be taken into consideration.* This is because these conventional agricultural supplies, ingredients and technical aids are not considered to be *made from or by* the support products. This defines the field of observation.

Composite products

In **composite products (formulations), every component** (ingredient, filler, culture medium...) **must fulfill the requirements** included in paragraphs 12 and 13. Technically unavoidable residues need not be taken into consideration.

Examples

According to the interpretation, the following standards, as demonstrated by examples, shall apply to conventional agricultural supplies, ingredients and technical aids included in the production chain:

E.g. conventional vegetable oils: Only the organism from which the oil originates must be considered. Pesticides, fertilizers, soil conditioners etc., used in the production of conventional agricultural products, in this case the plant from which the oil is derived, need not be taken into consideration.

E.g. conv. pectin: Fertilizers and pesticides used in the production of the apples, from which the pectin is derived, need not be taken into consideration.

E.g. conv. rennet: Feedstuffs fed the calves, from whose stomachs the rennet is derived, need not be taken into consideration.

E.g. conv. fructose: Enzymes used are not taken into consideration. The starch used may not be from GMOs.

Consideration limitations, some examples:

Product /component

Examples Annex II A)	(Organism to be taken into account)
Straw	Grain
Manure	Cow
Filter cake	Oil seed
Pomace	Fruit
By-products of animal origin	Source animal
Examples Annex II B)	
Vegetable oil	Source plant
Lecithin	Oil seed plant (e.g. soy)
Microorganism cultures	Microorganism (strain culture)
Examples Annex II C)	
Oil seeds, oil fruits and by-products	Source plant (oil seeds, oil fruits)
Grain, products and by-products	Grain plant (e.g. corn)
Seed legumes, products and by-products	Source plant (e.g. soy)
Tubers, roots, and by-products	Source plant (e.g. potato)
Other plants, e.g. molasses	Source organism (e.g. sugar beet)
Milk and milk products	Cow
Fish, other seafood	Fish, animal

Examples Annex II D)

Vitamin B12	Source organism
Enzyme	Microorganism
Microorganism cultures	Microorganism (strain culture)

Examples Annex VI A)

Ascorbic acid	Starch producing plant
Extracts containing large amts. of tocopherol	Oil plant
Lecithin	Oil seed plant (e.g.. soy)
Citric acid	Microorganism
Vitamins	Source plants/ Microorganisms
Microorganism cultures	Microorganism (Strain culture)

Examples Annex VI B)

Citric acid	Microorganism
Rice meal	Rice
Protein albumin	Animal
Casein	Cow
Gelatin	Source animal
Fish glue	Fish
Vegetable oils	Source plant
Microorganism cultures	Microorganism (Strain culture)
Enzyme	Microorganism

Examples Annex VI C)

Fats and oils	Source plant
Beet sugar	Beet
Rice paper	Rice
Rice and wax corn starch	Rice and corn
Fructose	Starch producing plant
Buttermilk powder	Cow
Gelatin	Source animal