



Bio Suisse information note, February 2005

## **Prevention of contamination of imported Bio Suisse-approved products with GMOs**

Organic agriculture worldwide uses neither genetically modified organisms (GMOs) nor their derivatives. Nevertheless contamination with GMOs is possible given their widespread distribution:

- Genetically modified plants and pollen may spread uncontrolled.
- At collection points, in transport containers, or during processing, inadvertent mixing is possible.
- Non-organic products permitted (as yet) in organic agriculture (feedstuffs, auxiliary inputs for agricultural production) may contain GMOs.
- Numerous genetically modified micro-organisms or their by-products such as enzymes and vitamins are used in food production.

Those involved in agricultural production must therefore adhere to several quality assurance measures on the way from the field to the finished products in order to prevent contamination with GMOs as far as possible.

**This information note will help you to assess and reduce the risk of contamination.**

Further information and documentation is available at

[www.bio-suisse.ch](http://www.bio-suisse.ch)

[www.fibl.org](http://www.fibl.org)

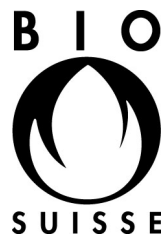
[www.organicxseeds.com](http://www.organicxseeds.com)

[www.infoxgen.com](http://www.infoxgen.com)

[www.omri.org](http://www.omri.org)

[www.gmo-compass.org](http://www.gmo-compass.org)

[www.saveourseeds.org](http://www.saveourseeds.org)



## 1. Legal requirements

The Swiss Ordinance on Foodstuffs requires that products containing more than 0.9 % GMOs must be declared as genetically modified (GM) products. This limit only applies to GM products or plants officially approved in Switzerland<sup>1</sup>. Products containing traces of non-authorized GMOs are assessed by the Swiss Federal Office of Public Health (BAG) on a case-by-case basis.

For foods produced without the use of genetic engineering, all those involved in the supply chain must be able to demonstrate that they have taken every possible precaution to avoid the presence of GMOs in the finished product.

## 2. Requirements of Bio Suisse

Bio Suisse does not define lower threshold values than the above. No one can guarantee that an organic product does not contain any residues. However, the aim is to not have any residues in the products.

Where sensitive products are concerned Bio Suisse checks all imported batches. If any residues are detected, all persons involved in the supply chain must provide evidence showing that they have complied with Bio Suisse standards and have exercised their duty of care. **If this evidence is not available, Bio Suisse reserves the right to stop a batch even if the residues do not exceed the legal threshold value.**

## 3. Risk of contamination and preventive measures

A list of contamination risks has been compiled below as well as a list of the requirements for the prevention of GMO contamination. Bio Suisse-approved operations must comply with legal requirements and should observe the recommendations. In individual cases Bio Suisse may establish additional binding rules.

### Seeds (production)

#### Bio Suisse conditions

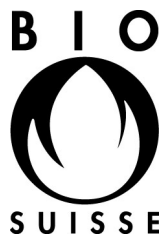
- The quality assurance measures listed under the following points also apply to the production and processing of seeds.

#### Bio Suisse recommendations

- Only produce (organic) seeds in GM-free regions/countries
- Where fodder beet or sugar beet seed or seed potatoes are produced the distances to be kept to GM plots of the same crop as listed below are to be increased by a factor of 100.

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<sup>1</sup> Approved as of February 2005: GTS 40-3-2 Round Up Ready Soy; BT176 Maize; BT11 Maize; Mon810 Maize



## Crops/fields

### Bio Suisse conditions

- Organically propagated seed must be used subject to availability.
- For non-organic seed the trader must submit a declaration assuring that the ban on the use of genetic engineering has been complied with<sup>2</sup>.
- If a crop is grown as a GM crop in a particular country, it is mandatory that organic seed be used for the production of the same crop under organic management.
- All auxiliary inputs used (fertilizers, plant protection products) must be approved for organic farming (authorization of the inspection body, FiBL and OMRI lists of approved substances).
- Third party seeders must be thoroughly cleaned prior to use.
- Observe minimum distances from fields with GM crops.
- Waiting period for new organic plots on which GMOs had previously been cultivated: minimum of two years during which the relevant crop and related species must not be grown.

### Bio Suisse recommendations

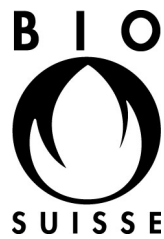
- Producers: only purchase seed from GM-free regions/countries.
- Only use seeders used exclusively on organic holdings.
- Organic production only in GM-free areas.
- Where this is not possible: mutual consideration and planning of crop production in cooperation with the neighbouring farms in order to ensure that GM-plots and organic plots are far enough apart (possibly enter into contractual arrangements with neighbours).
- Recommended minimum distances between GM plots and organic plots with the aim of tolerating a maximum crossing of 0.1% into the crop (further specifications are currently being prepared):

Crop	Safety distance
Maize	1000 m
Potatoes	10 m
Rapeseed	4000 m for male sterile varieties 600 m for male fertile varieties
Sugar and fodder beets	10 m
wheat	100 m for normal line varieties
rye	2000 m
Soya	50 m

- Where new land or new conversion land is concerned: demand evidence regarding previous management
- Where former GM plots are concerned: control volunteers
- Waiting period for organic production of rapeseed following GM rapeseed: 12 years

<sup>2</sup> Upon request the seed trader must be able to furnish the following evidence:

- The seed was grown in GM-free areas or the minimum distances to the nearest GM-field have been observed.
- Quality-assurance systems (ISO or HACCP) have been applied during harvest, cleaning and transport.
- There has been regular checking of samples for GM residues.



## Harvest

The risk of contamination is high with harvesters, since it is almost impossible to thoroughly clean such machines. Even following large segregation batches residues may remain. In countries and regions where GM crops are grown, additional precautionary measures are to be taken.

### **Bio Suisse recommendations**

- Use harvesters exclusively used on organic holdings.
- If other machines are used, it must be guaranteed that:
  - The machine has been cleansed thoroughly before use.
  - The organic crop is harvested first, or
  - a GM free crop was harvested prior to the harvesting of the organic crop.

## Collection, transport, storage

Each time a shipment is reloaded there is an additional risk of contamination (reloading plant and contamination of the transport container). Inadvertent mixing can largely be avoided through chain-of-custody monitoring and by strict separation of organic, non-organic and GM products.

### **Bio Suisse conditions:**

- Collection and transport containers must be thoroughly cleaned. If need be containers can be clad with a plastic sheet.
- Cleanliness controls must be documented.
- Complete documentation of the flow of goods must be presented for Bio Suisse–approved products from the producer to the border, and confirmation by the inspection bodies.

### **Bio Suisse recommendations:**

- Use of closed transport containers used exclusively for organic products.
- Use of closed transport containers (containers, bags) from the harvest site to the Swiss border or beyond.
- Use separate storage rooms exclusively for organic products (ideally this should include loading and unloading devices).
- Reserve reloading sites exclusively for organic products.

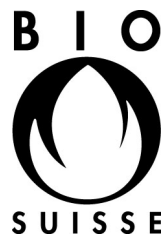
## Processing

Processing and storage plants (mills, cleaning installations, reloading systems) have a high risk potential. A field study in a mill in Switzerland has shown that even following thorough cleaning and very large segregation batches, GMO residues were still being found in the organic flour.

Processing must be carried out without GMOs and/or their derivatives; in particular this concerns processing aids, additives and enzymes (see [www.infoxgen.com](http://www.infoxgen.com)).

### **Bio Suisse conditions:**

- Strict separation of organic, non-organic and GM products must be guaranteed.
- Where temporal separation is used, thorough cleaning and a generous segregation batch is mandatory.
- Organic products must be processed first.
- In the case of approved products with a risk potential, the supplier must present a declaration assuring that the ban on the use of genetic engineering has been complied with.



### **Bio Suisse recommendations**

- Process organic products in installations reserved exclusively for organic products.
- No processing of organic products in companies which also process GM products.

### **Analyses**

The analysis for GMO contamination is the final link in a company's quality assurance chain. With regard to these analyses, particular attention should be paid to the following:

- Choose an approved laboratory (ask the inspection body).
- The quantitative analysis method should have a 0.1% detection limit.
- Sampling should be done in such a way that samples are as homogeneous as possible for each batch.
- For Swiss importers it may be useful to have the analysis carried out in Switzerland, since the costs for the courier transport of the sample and its analysis are often lower than the costs for the analysis alone in the country of origin.