

Preventing GMO contamination in imported “Bud” products

August 2013

1. The purpose of this information note

This information note is meant to help you assess the risk that imported organic products may be contaminated by genetically modified organisms (GMOs) or their derivatives (GM material), and to assist you in complying with Bio Suisse requirements. Here you will find

- information on the legal framework
- Bio Suisse requirements
- a list of the information that Bio Suisse requires to confirm that measures to avoid GMO contamination have been taken
- recommendations for preventing the commingling of organic and genetically modified products

Further information on legal provisions, Bio Suisse requirements for imported products and measures to prevent contamination with GM material may be found on the Bio Suisse website under the heading “GMO”. This section comprises the following materials related to GMOs:

- the information note “Knospe ohne Gentechnik” / “Le Bourgeon sans manipulations génétiques” (German and French only)
- an explanation of the prohibition of genetic engineering
- The InfoXgen form for the confirmation of freedom from GMOs
- the information note “GVO-kritische Lebens- und Futtermittelkomponenten” / “Composants de denrées alimentaires et d’aliments fourragers comportant un risque OGM” (German and French only)

The organic sector aims to prevent the use of GM material at all levels. The costs of preventive measures are currently borne by the organic sector. Bio Suisse endeavours to enforce the polluter pays principle at every level in the event that GM material is detected in organic products. However, there is reason to assume that in many countries the aims of organic production are not supported. This means that organic producers must be vigilant to avoid inadvertent contamination with GMOs or GM material.

2. Organic farming and genetic engineering: Basic principles

Organic food is produced around the world without the use of genetic engineering. This is in line with the self-image of organic producers and traders, and it meets consumer expectations.

Furthermore, the use of GMOs and their derivatives in organic production is prohibited by Swiss laws (SR 910.18 and SR 910.181). This prohibition also extends to those organic products that are produced in accordance with European law (Council Regulation [EC] 834/2007). Organic feedstuffs, non-organic ingredients in organic products (SR 910.181, List C and Commission Regulation [EC] 889/2008, Appendix 8, Implementing Provisions) and imported organic products must similarly comply with Swiss requirements (SR 910.181).

Inadvertent contamination of organic products with GMOs or GM material may occur during production, since organic farming does not take place in a vacuum! Due to the possibility of drift from neighbouring fields (e.g., pollen) or inadvertent commingling during harvesting, transport or processing, the risk of contamination can never be entirely ruled out.

While non-organic products may contain undeclared admixtures of up to 0.9% GM material under Swiss law, this tolerance threshold may not simply be applied to Bio Suisse “Bud” products. Bio Suisse aims for organic products to contain either no amount or only minute traces of GM material. This includes imported raw ingredients and

processed products that are sold in Switzerland under the "Bud" label. The tolerance threshold for "Bud" crops that are delivered to collection points is 0.1% GMOs (as of May 1, 2009).

If any traces of GMOs are detected in a "Bud" product, then Bio Suisse must be notified.

Bio Suisse requirements deliberately and verifiably enforce the prohibition of genetic engineering during production and processing. Compliance with Bio Suisse requirements is closely monitored by an independent inspection system.

Organic products may not be sold in Switzerland bearing the claim "*ohne Gentechnik hergestellt*" ("produced without genetic engineering"), even if they meet the stringent food legislation requirements attached to this claim (Swiss Ordinance on Foodstuffs and Consumer Products [SR 817.02], Article 10, paragraph 2, b1). Products that are labelled "organic" may bear the claim "*entsprechend den gesetzlichen Vorgaben zu biologischem Landbau/zur biologischen Landwirtschaft werden Bio-Lebensmittel ohne Einsatz von Gentechnik hergestellt*" ("produced in accordance with the legal requirements placed on organic agriculture / in organic agriculture, organic food is produced without the use of genetic engineering" or "*gemäss Bio-Verordnung wird auf den Einsatz von GVO grundsätzlich verzichtet*" ("No use of GMOs in compliance with the Swiss Ordinance on Organic Farming [SR 910.18]"). Before applying this claim, the exact wording should be checked with the appropriate authorities (as of January 2014).

"Gentechnikfrei" ("free of genetic engineering") is not a legal claim in Switzerland, although it is used in some countries of the EU (Austria and Germany).

3. Legal provisions governing the use of GMOs

Importers¹ of raw ingredients or auxiliary inputs to be used in organic farming must know the basic legal framework governing the use of genetically modified organisms. The basic laws are:

- the Swiss Federal Department of Home Affairs (FDHA) Ordinance on Genetically Modified Foodstuffs (SR 817.022.51)
- the Swiss Federal Office for Agriculture Ordinance on GMO Feed Lists (SR 916.307.11)
- the Swiss Ordinance on the Production and Marketing of Feedstuffs (SR 916.307)

For the following sections, it is important to note that Bio Suisse has not set its own tolerance thresholds for GMO contamination in food or feedstuffs. The tolerance threshold values determined by the Swiss Ordinances SR 817.022.51 and SR 916.307 apply. However, a Bio Suisse tolerance threshold value of 0.1% GMOs applies to field crops that are delivered to collection points (this rule has been in effect since May 1, 2009).

If any traces of GM material are detected in "Bud" products, then Bio Suisse must be notified. In addition, evidence must be furnished that contamination was avoided as much as possible throughout the entire delivery system.

3.1. Food derived from GMOs

In Switzerland only GMOs or GM material that have been approved by the Swiss Federal Office of Public Health (FOPH) may be contained in food as per SR 817.022.51. These currently include certain varieties of soy and maize as well as vitamins B₂ and B₁₂. A list of approved GM products may be found [here](#) (German, French and Italian only).

The Swiss FDHA Ordinance on Genetically Modified Foodstuffs (SR 817.022.51) further stipulates that food products composed of source materials containing more than 0.9% GM material (DNA, protein²) must bear the declaration "genetically modified" in the list of ingredients. This designation and the organic label are mutually exclusive throughout Europe.

The above-mentioned 0.9% tolerance threshold for GM material applies only to GMOs that are permitted in Switzerland. Products containing traces of up to 0.5% prohibited GM material will be decided upon by the Swiss Federal Office of Public Health on a case-by-case basis, and possibly tolerated.

If prohibited GM material is detected in a "Bud" product, then Bio Suisse must be notified. Bio Suisse will decide on a case-by-case basis whether to allow the continued use of the "Bud" logo on such products that are deemed acceptable by the Swiss Federal Office of Public Health.

¹Organic products imported to Switzerland must meet the requirements of the Swiss Ordinance on Organic Farming (SR 910.18).

² In the case of oils, the source material must be tested.

3.2. Feedstuffs derived from GMOs

In Switzerland only GMOs and GM material that have been approved by or are tolerated by the Swiss Federal Office for Agriculture (FOAG) may be contained in feedstuffs. Just as for food products, the FOAG has currently approved certain varieties of GM soy and GM maize. These varieties have been approved both as whole seeds as well as in processed form.

Other GMOs have also been approved by the FOAG, but only in processed form and not as germinable products. These include the following processed products: maize cob meal, maize gluten or maize gluten feed. The list of GMOs approved by the FOAG may be found at this [website](#) (German only). Feedstuffs containing more than 0.9% GM material must be declared "genetically modified". If the percentage is less than 0.9%, and if the detected GM material is approved or tolerated by the FOAG, then the declaration is unnecessary. In addition, in Switzerland there is also a tolerance threshold for unapproved GMOs in feedstuffs (Art. 68, SR 916.307). The tolerance threshold of 0.5% applies to GM material that is approved in Canada and the USA, but not in Switzerland. It applies to varieties of soy, maize, rapeseed, cotton, alfalfa, potatoes and sugar beets. The Swiss Federal Office for Agriculture publishes this information on the same list at the website given above. The tolerance threshold of 0.5% also applies to all GMOs that may be legally sold as feedstuffs in Canada or the USA. The FOAG publishes a list of these GMOs as well, which may be found at this [website](#) (German only).

3.3. Additives and processing agents that were produced "by GMOs"

Produced "by GMOs" refers to products that were obtained in such a way that the last living organism used in the production process was a GMO. However, such products do not consist of GMOs, do not contain GMOs, and were not produced from GMOs in the legal sense³. Products falling under this category include many vitamins, flavourings, rennet substitutes, etc., if these were produced through the use of genetically modified microorganisms. Such products are also subject to approval for use in food or feedstuffs. In Switzerland, these include vitamins⁴ B2 and B12, "ice structuring proteins" (ISP) derived from genetically modified baker's yeast (*Saccharomyces cerevisiae*), and chymosin. These products need not be declared. However, the use of these products is greatly restricted in the organic sector.

3.4. Honey

Honey must be produced in such a way that no GMO crops are grown within a 3 km radius from the apiary site. In Switzerland, genetically modified pollen is not considered to be an ingredient in honey and therefore need not be declared.

4. Bio Suisse requirements regarding the prevention of contamination with GM material

Bio Suisse has set high quality standards for organic products that bear the "Bud" logo. When products that are approved by Bio Suisse are imported, they must consistently meet the requirements of the Swiss Ordinance on Organic Farming (SR 910.18). Importers must be able to document that Bio Suisse requirements have been met all the way from the farm to consumers in Switzerland, and this must be confirmed by the inspection bodies⁵.

The prohibition of the use of GMOs applies to nearly all substances that are directly used in the production and processing of organic food and feedstuffs.

Suspicious imported organic products must be tested for GMOs and GM material, and the measures taken to prevent contamination of organic products by GM material should be evaluated. Specifically, this means that entire imported lots of susceptible "Bud" products such as maize, maize gluten, rapeseed and soy must be checked by

³Produced "from GMOs" refers to products that were derived from GMOs but neither contain nor consist of GMOs. For example, oils, lecithin, cracked grains and flour may be produced from GMOs.

⁴The FOAG permits the use of vitamins B2 and B12 in feedstuffs although these are not included in the relevant lists.

⁵Importers of organic products who wish to trade with "Bud" products must have the following:

- a licence contract concluded with Bio Suisse, including the relevant appendix and an import permit
- a product that has been approved by Bio Suisse, or an approved supplier (all of the companies involved, from farm to export, must have Bio Suisse approval)
- if necessary, an individual permit issued by the Swiss Federal Office for Agriculture (FOAG)

Importers of organic products who wish to trade with "Bud" products must furnish the following for each delivery:

- a "certificate of inspection for the import of products from organic production" issued by the exporter's/producer's inspection body
- a quantity-based Bio Suisse "Bud" stamp of approval on the inspection certificate

For more information on import requirements, please see the Bio Suisse homepage under the headings "Import" and "Export".

means of PCR tests. **If any GM material is detected in a lot, then Bio Suisse must be notified** and all parties involved in the supply chain must furnish proof that they have met the Bio Suisse requirements and fulfilled their due diligence obligations. If this is impossible to prove, then Bio Suisse is entitled to suspend the lot. The avoidance of certain ingredients, additives and processing agents produced by GMOs in closed systems presents a special challenge. No direct evidence of genetic modification can be detected in the final product. Furthermore, approval requirements have not been clarified in the EU, and these products are not subject to declaration in the EU or in Switzerland. Since the use of these ingredients and additives is greatly restricted in organic farming, the problem can be contained and currently only concerns a few non-organic products that are permissible in organic farming, for instance vitamins B2 and B12 in animal feed. Processing agents (Art. 16, Swiss Ordinance on Foodstuffs and Consumer Products [SR 817.02]) that are no longer contained in the final product pose a greater problem. For "Bud" products, proof must be furnished that no GMOs were used to produce non-stick baking grease, enzymes, or potato starch used for filtering. In the case of non-organic enzymes that are permitted in organic production, evidence that they were not produced by GM microorganisms must be furnished. Culture media for growing microorganisms do not count, however. Starter cultures for dairy products or sausages may neither contain nor be derived from GMOs, excluding the culture media.

All operations that have been approved by Bio Suisse must adhere to the measures for avoiding contamination of organic products with GM material listed in the following sections. In certain cases Bio Suisse may impose additional mandatory conditions or waive particular conditions. The conditions ensure that "Bud" products do not inadvertently contain GM material, that consumers can trust organic products, and that the measures taken will protect the added value of the organic products.

5. Products and countries at risk of GMO contamination

Every year, Bio Suisse assesses the status of GMO cultivation and the risk of contamination in individual countries. On the basis of this assessment, certain crops and countries are deemed to be at risk, and appropriate tests are ordered⁶.

5.1. Countries where GM crops were grown in 2012/13

Argentina, Australia, Brazil, Bolivia, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, the Czech Republic, Egypt, Honduras, India, Mexico, Myanmar, Pakistan, Paraguay, the Philippines, Poland, Portugal, Romania, Slovakia, South Africa, Spain, Ukraine, Uruguay, the USA. The situation in the former states of the Soviet Union remains unclear.

5.2. Crops grown as GM varieties

Cotton, potatoes, pumpkins, alfalfa, maize (corn), papayas, rapeseed, soy, tomatoes, sugar beets.

All of these GM crops are grown in the USA. The situation is different in the other places where GM crops are grown: Outside of the USA, the following crops are considered "at risk for GMOs":

- soy (Canada, Mexico, South America, South Africa)
- maize (Canada, Europe, South Africa, South America and the Philippines)
- rapeseed (Canada, Australia)
- cotton (Australia, Burkina Faso, China, India, Indonesia, Mexico, South Africa and South America)

Because huge amounts of GM soy, maize and rapeseed are now grown, stored, processed and traded throughout the world, the danger of commingling has become more acute. Therefore, PCR test results must be submitted for every imported lot of "Bud" soy, maize or rapeseed. In the case of imported alfalfa, linseed, mustard or papayas, the requirements laid out in the Bio Suisse import manual ([German](#), [French](#) and [Italian](#) only) shall apply. Please refer to table 4 for the exact testing requirements.

⁶ See table 4 for a summary.

6. Traceability documentation requirements

Here you will find the Bio Suisse requirements for preventing contamination with GMOs and GM material, as well as further recommendations. All operations that have been approved by Bio Suisse are obliged to meet these requirements. They must also follow the recommendations given and document all measures taken. In certain cases Bio Suisse may impose additional mandatory conditions or waive conditions.

6.1. Seed propagation

Bio Suisse requirements:

During seed production and processing, the following points must additionally be observed for the purpose of quality assurance.

Bio Suisse requirement:

- Non-organic source material must be tested.

Bio Suisse recommendations:

- Keep samples of the source material.
- Only produce (organic) seed in regions/countries that are free of GMOs.
- Where seed for fodder beets and sugar beets or seed potatoes are produced, the distance to GMO fields in which the same crops are grown (listed below) should be increased by a factor of 100.

6.2. Production

Organic farmers must be able to demonstrate to customers which measures are taken to prevent contamination with GM material (due diligence obligations). The measures depend on (i) the crop; (ii) the extent of GMO cultivation in the region; (iii) the proximity to fields with GM crops; and (iv) topographic and meteorological conditions.

Individual cases will be discussed below.

If a neighbouring farmer sows genetically modified crops of the same species as those sown by an organic producer, this presents a particular risk and may render the production of organic crops impossible. Therefore, it is necessary to determine at sowing time whether neighbouring farms are producing genetically modified crops. The production of organic crops in direct proximity to a field where genetically modified crops of the same species are grown is prohibited.

Bio Suisse requirements for farmers who produce in a country where GM plants are cultivated:

- A map must be furnished showing where GM crops are grown and which crops are being cultivated.
- Proof must be furnished that organically propagated seed was used, subject to availability.
- If the use of non-organic seed is permitted, then a declaration of assurance must be furnished that the prohibition of the use of genetic engineering was complied with.
- If genetically modified crops of the same species are sown in the vicinity, then the distances given in table 2 must be maintained. Production in direct proximity to GM crops of the same species is prohibited.
- If sowing, harvesting or transport equipment belonging to a third party is used: Documentation must be furnished that the equipment is thoroughly cleaned before use.
- For plots on which GM crops were previously grown, confirmation must be furnished that the waiting period was observed (table 1).
- PCR or protein test results must show less than 0.1% GMOs when the harvested crop is delivered to the collection point.

Bio Suisse recommendations for farmers who produce in a country where GM plants are cultivated:

- If the use of non-organic seed is permitted, then the results of a test for the presence of GMOs (ELISA, PCR) must be submitted in addition to the declaration of assurance that the prohibition of the use of genetic engineering was complied with.
- Only purchase organic seed from a GMO-free region/country of origin.
- Purchase seed from suppliers who do not offer GMO seed of the same crop.
- Producers who breed their own seed should regularly check to make sure that it is free of GMOs.
- Keep samples of seed.

- Keep samples of the harvested crop.
- Producers should use their own machines or only machines that have been used by other organic producers or on operations that are free of GMOs (for sowing / harvesting / transport).
- Do not produce crops with compost, manure or slurry from operations that use GMO feed.
- Check for escaped populations of GM crops (e.g., rapeseed) in the general vicinity.

Table 1 Waiting periods for newly acquired plots on which GM crops were previously sown; these are also subject to the general Bio Suisse requirements for conversion.

Waiting periods		
Crop	Waiting period	Reason
Maize (corn)	Dependent on locality; not required in central and northern Europe Elsewhere: 2 years	Risk of second-generation or volunteer crops in regions with mild winters (southern Europe).
Rapeseed	15 years if no specific control occurs 2 years if specific control of second-generation crops occurs	Rapeseed is hardy and remains germinable for a very long time (15 years). Volunteer and second-generation rapeseed crops are frequent.
Soy	2 years	
Cotton	2 years	
Sugar beets	10 years if no specific control occurs 1 year if specific control occurs	Seeds can survive in the ground for more than 10 years. However, seeds are only produced by bolters or in the second year.

Distances may only be reduced in consultation with Bio Suisse, provided that the following conditions are met:

- the organic fields are large (at least 5 ha)
- in the case of maize in southern Europe: the sowing time is postponed until 3 weeks after GM crops are sown; confirmation must be furnished
- the organic fields are geographically well isolated/secluded (bordered by woods, lakes or rivers, situated in a valley)
- seed that is free of GM material is available; test results must be furnished
- producers use only their own sowing and harvesting equipment
- the results of GMO tests must be available before delivery to the collection point

Table 2 Safety distances between organic and GM crops with the aim of limiting contamination to less than 0.1%

Safety distances	
Crop	Safety distance
Maize (corn)	600 m
Potatoes	10 m
Rapeseed	4,000 m for male sterile varieties; 600 m for male fertile varieties
Soy	100 m

6.2.1. Cultivation

Bio Suisse requirements:

- All of the auxiliary inputs used (fertilizer, plant protection products, etc.) must be approved for use in organic farming (approved by the inspection body or entered on the appropriate FiBL and OMRI list of approved substances).

6.2.2. Harvesting

The risk of contamination through harvesters is high because such machines cannot be completely cleaned. Even after large segregation batches, residues may remain. If producers have their own harvesters, the risk of contamination is negligible, provided the machines are only used on organic operations. If machines are jointly used by members of machinery rings or harvesting is outsourced to subcontractors, special measures are necessary, as outlined below.

Bio Suisse requirements for subcontractors / machinery rings that operate in regions where GM crops are grown:

Where third-party machinery is used, it must be documented that

- the machine was thoroughly cleaned before use and the organic crop was harvested first, or the machine was thoroughly cleaned before use and a GMO-free crop was harvested prior to harvesting the organic crop. A cleaning certificate must be furnished.
- the crop was conveyed to the collection point in a cleaned vehicle / transport container. A cleaning certificate must be furnished.

Bio Suisse recommendation

- Use harvesters/vehicles that are used exclusively on organic operations.

6.2.3. Collection, transport, storage

Each time a shipment is reloaded, there is an additional risk of contamination (due to residues on the reloading equipment, contamination of the transport container, human error). Inadvertent commingling can largely be avoided if organic, non-organic and GM products are strictly and verifiably segregated.

Bio Suisse requirements for collection points, purchasers and exporters

- Collection points and exporters of Bio Suisse products must hold a Bio Suisse license / have Bio Suisse approval.
- Collection and transport containers must be thoroughly cleaned (cleaning certificates for three prior loads must be furnished). In addition, the containers must be lined with plastic foil.
- Shipments overseas / by rail may only be made in containers used solely for organic products.
- In addition to the shipping documents, GMO test results are required for each at-risk lot (see table in the appendix).

Bio Suisse recommendations for collection points, purchasers and exporters

- Deliver organic products within limited periods or at clearly designated times separate from deliveries of non-organic products.
- Train employees about contamination issues and about separating the flow of goods.
- Clearly mark entrances to organic storage bins.
- Reserve reloading sites for organic products only.
- Use closed shipping units (containers, big bags, sacks) from the harvesting site to the Swiss border and beyond.
- Use closed shipping units that are used exclusively for organic products, from the collection point onwards.
- Take samples from every delivery.
- Reserve separate storerooms for organic products only (ideally, these should include separate loading and unloading equipment).

6.3. Processing

Processing and storage facilities (mills, cleaning facilities, reloading systems) bear a high risk potential. Temporal separation may not always be the best solution. A field study in a mill in Switzerland showed that even after thorough cleaning and very large segregation batches, GMO residues were still detected in organic flour. It is therefore advisable to conduct test runs to quantify residue levels. Where organic products and non-organic GMO products are processed simultaneously, the equipment and lines should be kept completely separate.

Bio Suisse requirements for processors and exporters

- Processors of "Bud" products must hold a Bio Suisse license / have Bio Suisse approval.
- Strict spatial separation of organic and GM products must be guaranteed during storage and processing.
- Where there is temporal separation, thorough cleaning and generous segregation batches are mandatory.
- Ensure that organic batches are processed first.
- Take samples.
- Upon delivery of approved at-risk processed products, suppliers must furnish a declaration of assurance that the prohibition of the use of genetic engineering was complied with (the form may be obtained at www.infoxgen.com) (see table 3).

Bio Suisse recommendations

- Only accept products from suppliers who verifiably strive to avoid GMOs.
- Process organic products with equipment that is reserved for organic products only.
- Organic products should not be processed by companies which also process GM products.
- Conduct GMO testing regularly.
- Processing should take place without the use of GMOs or GM material. This especially applies to processing agents, additives and enzymes.

Table 3 Examples of non-organic additives and ingredients that are permitted by Bio Suisse and which require an InfoXgen form confirming freedom from GMOs (this table is not exhaustive)

Examples of non-organic additives und ingredients	
Product group	The InfoXgen form must be furnished for non-organic products
Fruit and vegetable products, fruit juices	Lactic acid (E270), citric acid (E330), cultures, pectinases
Bread and baked goods	Amylase, hemicellulases, pure vegetable oils and fats, including non-stick baking grease, citric acid (E330), tartaric acid (E334): for use as excipients in baking powder
Syrups	Amylases, lactic acid (E270), citric acid (E330)
Wine and sparkling wine, fruit wine	Cultures, pectinases, tartaric acid (E334)
Distilled alcoholic beverages	Cultures, lactic acid (E270), enzymes
Vinegar	Cultures, pectinases
Soy products	<i>Aspergillus sojae</i> , <i>Pediococcus halophilus</i> , <i>Saccharomyces rouxii</i>
Yoghurt / cream products	Cultured pectin, lactic acid bacteria
Cheese	Rennet and rennet substitutes, lactic acid, cultures
Sausages	Lactic acid, cultures, sodium citrate
Baby food / infant formula	Vitamin B2
Feedstuffs	Brewer's yeast, lecithins, dextrose, pectins, cultures, tocopherol, vitamins

7. Testing requirements

The applicable public and private law standards for organic products do not define the quality of organic products, but instead govern the production processes or conditions under which organic products are produced. The importance and usage of laboratory testing should be considered in this context. The purpose of testing is not to determine whether organic products are completely free of GMOs or of derivatives "from" or "by" GMOs. Rather, the aim is to detect and eliminate contamination that may occur along the supply chain or during processing—within the scope of responsibility of one's own company as well as that of the supplier. Laboratory testing serves to:

- provide information about the status of GMO contamination
- guarantee process quality
- meet customer requirements

Testing for GMO contamination is the final link in a company's quality assurance chain. Protein tests are less suitable than PCR tests for the low limit of detection required for organic agriculture. Real-time PCR tests are therefore recommended. Please observe the following testing instructions:

- Choose a trusted laboratory (ask your inspection body).
- Although an ELISA protein test would suffice to detect contamination in raw products, imports into Switzerland require real-time PCR test results.
- The analytical equipment must have a detection limit at least as low as 0.03% (35S promoter) or 0.01% (NOS terminator).
- The quantitative analytical method should have a detection limit at least as low as 0.1%.
- The method of sampling should ensure that samples of each lot are as homogeneous as possible.⁷
- The minimum sample size for maize, soy and rapeseed is 10,000 seeds.
- If a test result exceeds 0.1%, then the GM plant/event must be precisely identified.

Forward the following data to Bio Suisse:

- A description of the sampling method and sample amount
- Information about the analytical laboratory and methods of analysis
- Test results
- Information about the detection limit of the analytical equipment
- Inspection certificates and delivery notes (incl. lot numbers); each test result must be clearly identifiable by delivery and inspection certificate.

If the PCR test is positive, then Bio Suisse must be notified so that a decision can be made as to whether the product in question is saleable.

⁷ For more details on sampling and analysis, see: http://bioxen.de/fileadmin/bxg/documents/2012/bxg_AV_5.pdf (German only).

Table 4 Summary of requirements regarding GMO testing and traceability documentation for imports (for exact instructions on sampling, see also: www.bioxgen.de; German only)

GMO testing Bio Suisse must always be notified in the event of a positive PCR or ELISA test result. The product is only saleable upon consultation with Bio Suisse. If traces of a GMO that is prohibited in Switzerland are detected, then the product may not bear the "Bud" logo.			
Import	Sampling/testing	PCR/ELISA test requirements	Information required by Bio Suisse
Soy Organic soy as an ingredient or primary component of food and feedstuffs <ul style="list-style-type: none"> – whole or ground – in multi-ingredient products Organic lecithin Non-organic soy products such as tocopherol, vegetable oil used for non-stick baking grease, non-organic lecithin	Every import must be tested PCR test of the source material, since lecithin hardly contains any DNA PCR test of the source material, since products hardly contain any DNA	Verification of soy cultivar identity <ul style="list-style-type: none"> – Standard GMO screening test for GM soy – In the event of a positive screening test result, the GM variety or varieties and amounts must be determined 	<ul style="list-style-type: none"> – The place of origin / site where the soy was grown must be made known – Traceability documentation – PCR test results – Verification that organic seed was used: required for all countries mentioned in sections 2.2 and 2.3 of the information note "GVO-kritische Lebens- und Futtermittelkomponenten" / "Composants de denrées alimentaires et d'aliments fourragers comportant un risque OGM" (German and French only) – If the use of non-organic seed is permitted, then the seed supplier must furnish a declaration of assurance that the prohibition of the use of genetic engineering was complied with – PCR test results – Organic certification / traceability documentation – InfoXgen form – PCR test results
Maize (corn) Organic maize <ul style="list-style-type: none"> – whole or ground – in multi-ingredient products 	Every import must be tested	Verification of maize cultivar identity <ul style="list-style-type: none"> – Standard GMO screening test for GM maize 	<ul style="list-style-type: none"> – PCR or ELISA test results – Organic certification / traceability documentation – Verification that organic seed was used: required for all countries mentioned in sections 2.2 and 2.3 of the

	<ul style="list-style-type: none"> - in feedstuffs in the form of kernels, bran or middlings - as germ - as gluten 		<ul style="list-style-type: none"> - In the event of a positive screening test result, the GM variety or varieties and amounts must be determined 	<p>information note "GVO-kritische Lebens- und Futtermittelkomponenten" / "Composants de denrées alimentaires et d'aliments fourragers comportant un risque OGM" (German and French only)</p> <ul style="list-style-type: none"> - If the use of non-organic seed is permitted, then the seed supplier must furnish a declaration of assurance that the prohibition of the use of genetic engineering was complied with
	Organic dextrose, glucose, glucose syrup, starch	PCR test of source material for dextrose, glucose, glucose syrup and starch		<ul style="list-style-type: none"> - Verification of organic dextrose / organic glucose / organic starch - Results of PCR/ELISA test of source material
	Approved non-organic dextrose, glucose, starch	PCR test of source material for dextrose, glucose and starch		<ul style="list-style-type: none"> - PCR test results - InfoXgen certificate
Rapeseed	Organic rapeseed <ul style="list-style-type: none"> - whole or pressed - in multi-ingredient products - in feedstuffs in the form of kernels, press cake 	Every import must be tested	<p>Verification of rapeseed cultivar identity</p> <ul style="list-style-type: none"> - Standard GMO screening test for GM rapeseed - In the event of a positive screening test result, CaMV must be excluded and the GM variety or varieties and amounts must be determined 	<ul style="list-style-type: none"> - PCR test results - Organic certification / traceability documentation - Verification that organic seed was used: for all countries that require PCR testing
	No non-organic rapeseed products are permitted	-	-	-
Sugar beets	Organic sugar beets	-	-	<ul style="list-style-type: none"> - Organic certification / traceability documentation
	Molasses from non-organic sugar production	-	-	<ul style="list-style-type: none"> - InfoXgen certificate for the molasses

<p>Linseed</p>		<p>Verification of linseed cultivar identity</p> <ul style="list-style-type: none"> - Standard GMO screening for GM plants - In the event of a positive screening test result, the GM variety or varieties and amounts must be determined - The product is only permitted upon consultation with Bio Suisse. <p>If a prohibited GM variety is detected, the product must be suspended</p>	<p>Linseed</p>
<p>Potatoes</p> <p>Organic potatoes for food and feedstuffs</p> <p>Non-organic potato protein</p>	<p>-</p> <p>-</p>	<p>-</p> <p>-</p>	<ul style="list-style-type: none"> - Organic certification - InfoXgen certificate
<p>Alfalfa</p> <p>Organic alfalfa</p>	<p>Every import from the USA must be tested; random tests for imports from all other countries</p>	<p>Verification of alfalfa cultivar identity</p> <ul style="list-style-type: none"> - Standard GMO screening for GM plants - In the event of a positive screening test result, the GMO variety or varieties and amounts must be determined - The product is only permitted upon consultation with Bio Suisse. <p>If a prohibited GM variety is detected, the product must be</p>	<ul style="list-style-type: none"> - Organic certification / traceability documentation - PCR test results

			suspended	
Papayas Cotton	Organic papayas Organic cotton / cottonseed oil	Papayas: Every import from Hawaii must be tested; random tests for imports from China and Thailand	Verification of cultivar identity – Standard GMO screening test for GM plants – If the test result is positive, then the product is not saleable	– Organic certification / traceability documentation – PCR test results
Mustard Pumpkins Zucchini Plums	Organic mustard Organic pumpkins Organic pumpkin seeds Organic zucchini Organic plums	Mustard: Random PCR tests are required for imports from all countries	Verification of cultivar identity – Standard GMO screening test for GM plants – If the test result is positive, then the product is not saleable	– Organic certification / traceability documentation – PCR test results
Honey	–	–	–	– Map with a description of the area, incl. GMOs within a 3 km radius from the apiary site