



Bio Suisse Position Paper on Residues

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Introduction and Definitions

Discussions about residues in organic products usually refer to chemical-synthetic residues in substances used for crop protection. However, within this context residues of heavy metals, chemicals harmful to the environment, pharmaceuticals and pesticides used to protect stored foodstuffs should also be mentioned. The precise definition of residues only addresses residual quantities of directly applied insecticides and pesticides on foodstuffs. In organic farming this would include substances for crop protection on the list of approved auxiliary inputs. Nevertheless, the term “residues” also refers in general to undesirable substances in foodstuffs arising from unintentional cross-pollution or pollution caused by overall environmental stress (contamination). For the sake of simplicity, the general term “residues” will be used in this document.

Bio Suisse handles genetically modified organisms (GMOs) separately from other topics on residues. This paper does not include GMO themes. On principle, GMO contamination in Bud foodstuffs should be kept as low as possible. For GMO issues special legal principles apply.



Principles

1. A vital factor in caring for nature and the environment is the decision not to use chemical-synthetic pesticides in organic farming. This is fundamental to producing foods that are largely residue-free.
2. A Bud product contains as few residues as possible.
3. Bio Suisse does not guarantee residue-free products. However, the Bud label indicates that much is being done at every level to ensure that Bud products are residue-free.
4. In compliance with the principles of legislation on foodstuffs, producers and processors make it their responsibility to prevent or reduce residue contamination.
5. Residues can be avoided primarily by producers and processors adhering to specific standards and instructions, due diligence and complete chain-of-custody separation from field to market.
6. To prevent residues, measures will be taken in practice, which are both effective and viable.
7. On a long-term basis, both the number of cases where residues are detected and the quantities involved will be reduced through individual clarification of the reported cases and by taking measures to improve the current situation.
8. Analysis results alone are not adequate for evaluating Bud products. Appropriate basic guidelines need to be applied and for this purpose Bio Suisse has evolved special evaluation tools which are continually being adapted to the latest developments (Decision Chart).
9. In close collaboration with the Swiss Research Institute of Organic Agriculture (FiBL), Bio Suisse will work out recommendations and proposals for reducing residues in the areas/sectors concerned.
10. Cooperation with public authorities and inspection bodies is in progress and will be intensified where necessary.
11. Bio Suisse will communicate openly and proactively on this topic.
12. Residues will continue to play a central part in quality assurance for Bud products.



Principles: Details and Explanations

1. A vital element in caring for nature and the environment is the decision not to use chemical-synthetic pesticides in organic farming. This is fundamental to producing foods that are largely residue-free.

Organic growers want to produce top-quality foods. The fundamentals of organic farming include careful soil management, the preservation and promotion of biodiversity and soil fertility as well as preventive crop protection. This also means foregoing the use of chemical-synthetic pesticides that can cause residues in foodstuffs.

2. A Bud product contains as few residues as possible

In accordance with Bio Suisse quality requirements, little or no residues should be found in Bud products. With this principle Bio Suisse intentionally positions its products as high-quality foods. However, agricultural production cannot be dissociated from the local environmental conditions. Fumes from traffic, industries and incineration pollute the environment. Furthermore, organic products are grown in non-organic surroundings (neighbouring non-organic production, non-organic and organic products processed together). Even approved organic substances used for crop protection may leave residues. Bio Suisse has therefore decided against a policy of zero tolerance for residues.

3. Bio Suisse does not guarantee residue-free products. However, the Bud label indicates that much is being done at every level to ensure that Bud products are residue-free.

Consumers, cantonal chemists, trading partners and Bio Suisse all have differing expectations regarding residues in organic products. Among other motives, consumers buy organic products for health reasons and expect a healthier, "chemical-free" product. As far as possible, Bio Suisse expects Bud products to contain little or no residues. The Bud indicates that much is being done at every level to ensure that Bud products are residue-free. The Bud label does not guarantee residue-free products. Thus consumers are not being misled if traces of residues are found in Bud products. This position is endorsed by the Swiss federal court decision published on 6 June 2003 regarding GMO residues, stating that consumers would be misled if the products were guaranteed residue-free.

4. In compliance with the principles of legislation on foodstuffs producers and processors make it their responsibility to prevent or reduce residue contamination.

To uphold the credibility of the Bud label, all participants need to make it their responsibility to prevent or reduce residue contamination of Bud products. Bio Suisse lays down the basic requirements (standards and instructions) to be then implemented by the farms themselves, taking into account their specific circumstances and in accordance with current research. Solutions to problems and any binding requirements for operation-specific QA systems will be worked out in close collaboration case by case.



5. Residues can be prevented primarily by producers and processors adhering to specific standards and instructions, due diligence and complete chain-of-custody separation from field to market.

Bio Suisse Standards address residue prevention in growing crops. The following provisions apply:

- BSS Article 2.3.4: The use of chemical-synthetic and genetically modified crop protection products is prohibited. No residues of such products should be detectable on the organic produce, unless they originate from general pollution of the environment. Plots which are exposed to considerable immission loads of chemically synthesized or genetically engineered crop protection products may be excluded from Bud marketing; or the LCP can impose measures to prevent contamination. Authorized crop protection products are listed in Appendix 2 and appear in the annually updated list of approved substances published by the FiBL (Research Institute of Organic agriculture). The use of any product not specifically mentioned in these lists is prohibited.
- BSS Article 2.1.13 Immission Control: Farms and/or plots that are exposed to high immission levels from unauthorized auxiliary inputs or harmful substances may be excluded from Bud marketing; or the LCP can impose measures to prevent contamination.
- Chain-of-custody separation and precautions for preventing residues from storage protection products are prescribed for licensees in the Bio Suisse instructions.
- Farmers or operators who deal in or process both Bud-quality products and those of different quality standards should ensure that the different levels of quality are sufficiently separated from each other. These measures should be decided upon after consultation with the responsible inspection body that will also monitor them.
- The Bio Suisse requirements for pest management include safety measures to ensure that Bud products cannot be contaminated when non-organic products or empty facilities are treated with pesticides.

6. In practice, measures will be taken to prevent residues that are both effective and viable.

To back up quality claims, effective and viable measures for contamination prevention need to be introduced for the production and processing of Bud-labelled products. In addition, the potential routes of entry should be found and eliminated by means of a risk assessment.

We are aware of the following routes of entry in crop cultivation:

- Entry of pesticides via the wind (drift) from neighbouring farms
- Entry via the soil (previously contaminated soil, heavy metals, persistent pesticides)
- Treatment using approved drugs (e.g. antibiotics)
- Equipment and machines not thoroughly cleaned or not cleaned at all from non-organic farms (pesticides, GMOs)
- Unauthorized organic crop protection products used in the crops concerned
- Residue-contaminated farming aids such as straw, soils, substrates, pots
- Non-organic plants or seed



We are aware of the following routes of entry in processing/transport:

- Entry due to insufficient separation from non-organic goods (reusable containers, transport facilities, inadequately cleaned premises and storage facilities, machines and processing parts, etc.)
- Entry through non-conforming pest management products used for protecting stored foodstuffs
- Entry via working aids (e.g. latex gloves)
- Entry via containers (especially recycled cardboard)

The following real-life examples of how rules on reducing residues can be implemented are worth mentioning:

- If there is a risk of drift from a neighbouring, non-organically farmed plot then the farmer concerned needs to reach an agreement with the neighbour not to carry out any spraying in unfavourable wind conditions. A further way of avoiding contaminated products is to have crops from edge rows exposed to drift marketed as non-organic produce. In extreme cases, plots or farms that prove unsuitable for organic farming because situated too close to strong sources of pollution will be excluded from Bud marketing. Residue testing should be used to ascertain whether the measures taken are working.
- Should we become aware of cases of previously contaminated soil we are then committed to do something about it. We are equally committed to implementing measures for crops that are more likely than others to accumulate persistent pesticides (e.g. pumpkins, cucumbers). Making sure producers and processors are using proper, process-oriented methods is a top priority here. Soils should be tested for contamination. In cases of severe soil contamination croplands/plots should be declared off-limits (possibly only for certain crops). For details, we refer you to the FiBL information notes, 'Avoiding pesticide residues in gourds' (Pestizidrückstände in Kürbisgewächse: Wie vermeiden?)
- Mixed wineries that produce both non-organic and organic wines need to take appropriate measures to keep each type separate from the other, thereby preventing contamination of the organic wines. The wineries should operate in compliance with the FiBL recommendations, especially with regard to carefully cleaning the equipment (incl. filters) prior to processing organic wines. (FiBL information note, 'Avoiding pesticide residues in organic wine' (Pestizidrückstände in Biowein –wie vermeiden).
- The Bio Suisse – FiBL information notes, 'Risks from external equipment', (Risiken beim Einsatz von Fremdmaschinen) clearly explains how residues from badly cleaned external installations can be avoided.



7. On a long-term basis, the number of cases where residues are detected and the quantities involved will be reduced through individual clarification of the reported cases and by taking measures to improve the current situation.

Cases reported to Bio Suisse will be clarified by the QS division. If necessary, cases may be referred to the Research Institute of Organic Agriculture (FiBL) for further assessment. Investigations on residues will be carried out in compliance with self-monitoring mechanisms as imposed by law for trade, processing and farming. Residue findings must be reported to Bio Suisse. Traders, processors and growers will also inform us of any objections made by the cantonal laboratories.

Where cases are under investigation plausibility assessments will be made of the possible sources of contamination and whether it is to be assumed that there has been unauthorized use of auxiliary inputs prohibited under state legislation on organic agriculture or under label standards in the private sector. Clarification entails the following:

- Evaluation of the methods used for sampling and analytical testing
- Ascertainment of the present FIV(*) limit or possibly EU-MRL limit
- Indicated uses for the detected active substance (would the detected active substance be effective on that particular product?)
- Environmental behaviour of the active substance/product
- Chemical-physical properties of the active substance/product
- Residue situation of the active substance on non-organic products
- Consulting the FiBL residue database and pesticides-online for similar cases
- Procuring information through contacts with European inspection and certification bodies

(*FIV = ordinance on impurities and ingredients)

Nowadays, refined methods of analysis enable experts to measure extremely small traces of substances. Not every case of residues is due to improper use. Residues from auxiliary inputs unauthorized in organic farming or from GMOs in organic produce can be attributed to various causes. Besides the improper use of substances, spreading and cross-contamination, or even general pollution of the environment can, lead to residues in organic products.

Should the results of an analysis prove the presence of unauthorized auxiliary inputs, we shall then make a thorough check on the entire quality assurance chain from field to processing. If the investigation shows that the producer or processor concerned has exercised due diligence and the entry routes for the residues were caused unintentionally, appropriate measures for improving quality will be evolved by the farm itself, Bio Suisse or by other bodies; such measures will be compulsory for future production. In the event of violation of due diligence, mixing / inadequate separation or unauthorized use of substances, the products will be banned from the market or in extreme cases the farm will lose its licence.



Should it be proved that an entire sector is affected by residues (e.g. fungicides, in organic wine, previously contaminated soil, pest management products for protecting stored food-stuffs) then, where necessary, weak point analyses will be required along the whole chain-of-custody to ascertain the routes of entry. Parallel to this, monitoring campaigns will be started to determine the baseline contamination for both organically and non-organically produced foodstuffs. These investigations will be carried out by the FiBL within the context of specific projects. Subsequent proceedings will be decided by Bio Suisse together with the affected sector and the authorities from case to case.

8. Analysis results alone are not adequate for evaluating Bud products. Appropriate basic guidelines need to be applied. Bio Suisse will evolve special evaluation tools.

The following general guidelines can be applied to evaluate residues in Bud products:

- FIV max. residue levels do not qualify as the sole basis for evaluating Bud products. They have been conceived for non-organic products and describe the residues yet tolerated by the law in acceptable non-organic production practice.
- Zero tolerance is not practicable. Modern analytical techniques are so refined, i.e. the analytical detection levels are so low, that undesirable chemical products can now be traced in many products. Therefore, the analytical detection level is not suitable for determining whether Bio Suisse guidelines or the Swiss Ordinance on Organic Farming have been violated.
- The residue values are not the only criteria for evaluating Bud products. Just as Bud products with no detected pesticides may be deemed non-organic (e.g. due to a violation of regulations on fertilizers), so Bud products with detected pesticides will not necessarily be excluded from the market.
- Within the FIV maximum residue level, organic status does not necessarily have to be withdrawn if producer, processor and trader have clearly fulfilled the due diligence requirements. Nevertheless, for image reasons we reserve the right not to allow such contaminated products to be marketed under the Bud label.

9. In close collaboration with the Swiss Research Institute of Organic Agriculture (FiBL) Bio Suisse will work out recommendations and proposals for reducing residues in the areas/sectors concerned.

Over the past few years and in collaboration with the Research Institute of Organic Agriculture (FiBL) Bio Suisse has devoted a lot of attention to residue issues. All these efforts aim at achieving greater awareness in the groups concerned for residue problems as well as the need to reduce both the quantities of residues and the number of residue cases occurring in Bud products. Together with the Research Institute, problems affecting entire sectors (e.g. protection of stores) will be integrated in research projects which will endeavour to provide more accurate information and propose solutions for those sectors.



10. Cooperation with authorities and inspection bodies is now in progress and will be intensified where necessary.

Where necessary present cooperation between Bio Suisse, the Research Institute and cantonal laboratories should be expanded to find common solutions for individual problem areas. This kind of cooperation is most important, because the authorities are responsible for implementing these solutions. We can assume that a thorough investigation of individual problem areas will enable us to determine a level of pollution that is typical for the environment. Subsequent action will be agreed upon from case to case.

Cooperation with national and foreign inspection bodies is also in progress in this particular sphere. Good cooperation is essential for achieving effective results in each residue case.

11. Bio Suisse will communicate openly and proactively on this topic.

Bio Suisse attaches great importance to proactive information on this topic. At the end of 2010 a three-part series on residues appeared in the "Bioaktuell" (Organic Farming today) magazine. Relevant information and reports on residues are published on the Bio Suisse home page.

12. Residues will continue to play a central role in quality assurance for Bud products.

Together with the Research Institute for Organic Agriculture (FiBL), Bio Suisse will continue to place great emphasis on prevention. At the same time, reported residues will be individually investigated so that the residue situation will be improved in each case. Prevention will encompass research, advisory services and information.