

Use of spinosad at BIOSUISSE ORGANIC operations

(version 01/2023)

Introduction

Spinosad is an insecticide derived from natural soil bacteria. It can be used to control various pests in different crops. In direct contact, the freshly sprayed solution is very toxic to bees and other insects. For this reason, the use of spinosad in organic farming is always viewed critically. Application is only permitted when bees are not in flight in the evening or when the spray does not come into contact with flowering plants or plants with honeydew. This also includes the undergrowth of tall crops such as fruit trees. Greenhouse applications in permitted crops are possible at any time provided the greenhouse is closed and no pollinators are present (or pollinators are enclosed in their boxes at the time of application). Spinosad applications must be declared, meaning that the inspection bodies must transfer all applications to the BSO checklist as part of the annual inspection.

Spinosad can make a significant contribution to controlling some important pests. However, its use is subject to frequent criticism because of the risk it poses to bees and other beneficial insects, and it can leave residues in the crop. For this reason, Bio Suisse has decided to limit the use of spinosad as far as possible and only to approve it if it is indispensable, no alternatives are available and it does not concern leafy vegetables that can be eaten raw and are more sensitive to residues. For organic production in Switzerland, Bio Suisse assesses individually for each crop whether the use of spinosad is permissible. Potential risks to humans and the environment are weighed against the necessity and benefits of the application. Permitted applications are listed in the [Input List](#) (only in German/French).

Bud operations, meaning Bio Suisse operations in Switzerland, may only use spinosad in the crops listed there. Bio Suisse operations outside Switzerland (BIOSUISSE ORGANIC operations) must comply with the specific regulations set out in [Part V, Art. 4.2.7.1 e](#)) (see standards extract below). These are explained in detail in the following two sections.

Changes as of 1 January 2024

The use of spinosad in cultivation of field crops is generally prohibited at Bio Suisse operations in Switzerland. This takes into account the large-scale cultivation of these crops and the associated ecological impact of a possible use of spinosad. In addition, organic farming takes a holistic approach to crop protection, which is based primarily on preventing pest infestations and using natural regulatory mechanisms. Long-term experience in Switzerland shows that the use of spinosad is not essential in these crops. From 1 January 2024, this restriction will also apply to BIOSUISSE ORGANIC operations.

Further restrictions on the use of spinosad at BIOSUISSE ORGANIC operations concern selected special crops. From 2024, the use of spinosad will no longer be permitted on lamb's lettuce, other lettuces, rocket and all types of baby leaf lettuce. These crops are usually eaten raw and belong to the leafy vegetables. In the interest of health and ecology, certain quality losses are accepted by dispensing with spinosad. Experience from Switzerland shows that these crops can be grown economically without spinosad. For certain now restricted crops, the spinosad ban may mean that cultivation is not possible in the field, but in the greenhouse or under crop protection nets (e.g. protecting rocket from flea beetles). In the interest of consumers and in order to avoid unfair competition, the ban on spinosad for these crops will now also apply abroad from 1 January 2024.

The maximum levels for individual leafy vegetables were recently lowered. In response, a group of experts re-evaluated the use of spinosad in organic farming for the EU Commission. The experts concluded that spinosad should remain permitted for organic farming because it is indispensable in some crops. However, the group stressed that risks to non-target organisms must be avoided through good application practices ([link to full report](#)).

For questions from BIOSUISSE ORGANIC producers, the local organic advice centre is the first point of contact. If required, the competent inspection body can also be contacted.

New Part V, Chap. 4.2.7 Crop protection

As of 01.01.2023, the changes highlighted in **blue** are valid for BIOSUISSE ORGANIC operations. As of 01.01.2024, further restrictions are expected, these are shown in **green**.

Art. 4.2.7.1 Substances and measures

Basis: applications in cereals, legumes, oilseeds and sugar beet must be declared* and kept to a minimum.

Measures as per Crop health Part II, Chap. 2.6, Page 114 and substances as per Annex I of the EU OFO 2021/1165 are permitted. However, the following are not permitted according to the Bio Suisse Standards:

- Synthetic pyrethroids (incl. in traps)
- Any type of herbicide (incl. the use of vinegar, salt and fatty acids for weed control)
- Plant growth regulators

In individual cases Bio Suisse can request analyses of or information about the composition and/or quality of the plant protection products used.

a) Provisions for copper

With regard to copper preparations, the maximum permitted application rates of pure copper per treated ha and year are as follows:

- Cereals, legumes, oilseeds and sugar beet: no use
- Pome fruit: 1.5 kg (up to 4 kg if applied in conjunction with strategies to combat fire blight)
- Berries: 2 kg
- Stone fruit 3 kg
- Viticulture: Average over the total vineyard area 3 kg. Maximum for individual plots 4 kg. These quantities can be balanced over a period of 5 years. For application quantities above 4 kg per ha and year, there is a mandatory reporting obligation to the certification body.
- Other crops (incl. tropical and subtropical crops): 4 kg

b) Regulation for slug pellets based on iron phosphate

Iron phosphate may be used as follows:

- Cereals, legumes and potatoes: not permitted
- Oilseeds: only permitted for rapeseed, mustard for edible use (no green manure/catch crops) and sunflower
- Other crops: no restriction

c) Provisions for liquid paraffin

Liquid paraffin should be replaced with plant oils wherever possible. If liquid paraffin is used, this must be declared*.

d) Provisions for ethylene

The use of ethylene to induce flowering in pineapple crops is permitted. Only pure manufactured ethylene gas and ethylene gas of natural origin are permitted as sources of ethylene.

The use of ethephon and calcium carbide is prohibited.

e) Provisions for spinosad

The use of spinosad is only permitted if there are no flowers in the crop and must be declared*.

The following restrictions apply:

- No use in cereals, legumes, oilseeds and sugar beet
- No use in the following special crops:
 - Lamb's lettuce, other lettuces, rocket,
 - all types of baby leaf lettuce

The use of spinosad in crops without restriction is permitted in the evening when bees are not in flight or after ensuring that there is no contact between the spray liquid and flowering plants or plants with honeydew. Applications on non-restricted crops in the greenhouse are only possible if the greenhouse is closed and no pollinators are present.

* The declaration obligation is fulfilled if the inspection body records the plant protection application in the BSO checklist as part of the annual inspection.