

Rosy apple aphid: Direct control with Neem in organic orchards

Problem

Rosy apple aphid (*Dysaphis plantaginea*) has a fast reproduction cycle and the potential to cause major damage in orchards. Preventive measures such as promoting beneficial insects and pruning are often not sufficient.

Solution

Direct control with Azadirachtin (NeemAza[®]-T/S, also called Neem) decimates the population and keeps damage below the economic damage threshold.

Benefits

Neem penetrates the leaves and is absorbed through the feeding activity of the pest. It also helps to control other aphid species such as *D. devectora* and partially against *Aphis pomi*.

Practical recommendation

- Check for infested leaves regularly in Spring. Rosy apple aphids are black and may appear in large colonies on the lower side of young leaves (Picture 1). The damage threshold is at a single aphid. Damaged fruits remain small and shrivel (Picture 2).
- Apply Neem from BBCH-stage 57 - "Red Bud" (Picture 3, reference cultivar 'Jonagold'¹):
 - Before the stem mothers (fundatrices) develop into adults. None or only a few young aphids will develop and colonies will not form.
 - When stem mothers are already adults. Aphids will not develop to adults unless the fundatrices produce progeny for a prolonged period. In this case, split the application at red bud stage and at the end of blossom. Neem inhibits the early stages of development.
- If aphid colonies are too far advanced in their development, the treatment will not have effect. The correct treatment period is crucial!
- Treat once or twice based on the infestation pressure, the aphid and the vegetation development. With the splitting method, the application rate per treatment can be reduced.

Applicability box

Theme

Crop production, Horticulture, Temperate fruits

Keywords

Disease and pest control, plant protection, biological pest control

Context

Across Europe, where *D. plantaginea* is an issue

Application time

Springtime from development stage "Red Bud" to End of Flowering (BBCH 69)

Period of impact

Spring

Equipment

Neem, sprayer

Best in

Dysaphis plantaginea in organic orchards



Picture 1: Colony of the rosy apple aphid (*D. plantaginea*) on leaf underside (Photo: ESTEBURG Fruit growing Center Jork, 2011).



Picture 2: Fruit damage caused by *D. plantaginea*: The fruits remain small and shriveled due to the sucking activity of the pest. (Photo: ÖON, 2015)



Picture 3: Examples of phenological BBCH-Development stages on apple from BBCH 0 – Hibernation to start of flowering (BBCH 60, Photo: ESTEBURG Fruit growing Center Jork, 2011).

Further information

Further reading

- [Information on the BBCH-scale on Wikipedia](#)
- Kienzle, J.; Schulz, C.; Straub, M.; Schmitt, A.; Weil, B. 1992. [Use of neem products for the regulation of rosy apple aphid \(*Dysaphis plantaginea*\)](#) (in German). Ecofruit Proceedings.

Weblinks

1. [Information on the BBCH-scale for pome fruit on Wikipedia](#)

About this practice abstract

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