BIOFRUITNET
Boosting Innovation in ORGANIC FRUIT production through stronger networks

föko
Fördergemeinschaft Ökologischer Obstbau e.V.

PRACTICE ABSTRACT

Control of pear leaf blister moth in organic fruit production

Problem

The pear leaf blister moth (*Leucoptera malifoliella*) affects organic orchards leading to impaired photosynthetic performance and loss of fruit quality if infestations are severe.

Solution

Preventative measure: Promotion of natural antagonists by implementing flower strips in the tree alleys and/or along the plantation[1].

Direct control: Use of Azadirachtine (NeemAzal®-T/S) against acute infestation.

Benefits

Flower strips can help to enhance the parasitation rate and reduce the needed usage of NeemAzal®-T/S. They can also positively affect the control of other pests, such as green or woolly apple aphids.

Practical recommendation

Use of NeemAzal®-T/S:

- Apply NeemAzal®-T/S shortly before the peak of hatching of *L. malifoliella*
- Eggs are laid on the undersides of leaves; mass hatching takes place from early to mid-June (northern Germany). To choose the correct application date, use flight monitoring with pheromone traps, visual control of larval hatching (Binocular) and the temperature sum model according to GOTTWALD.
- The active ingredient of NeemAzal®-T/S is absorbed via the sucking activity of the larvae before it enters the leaf. It is very important to apply shortly before the larvae hatch, as the adults and eggs are not affected.
- Larvae development is inhibited, as well as in their feeding activity. The damages on the leaves, also known as mines, remain small, and the next generation is reduced.

Beneficial insect promotion:

- The main predators of *L. malifoliella* are parasitoids of the family Chalcidoidea. Most of them attack larval and pupal stages. Also, earwigs are important in the control of this pest. Thus, it is crucial to apply control measures which do not harm these predators. The parasitoids may benefit from flowering strips.
- Do not use broad spectrum insecticides during the flight period of the parasitoids.

Applicability box

Theme

Crop production, Horticulture, Temperate fruits

Keywords

Plant protection, Pest control, Biological pest control

Context

Central Europe

Application time

Spring/early summer

Required time

Immediately

Period of impact

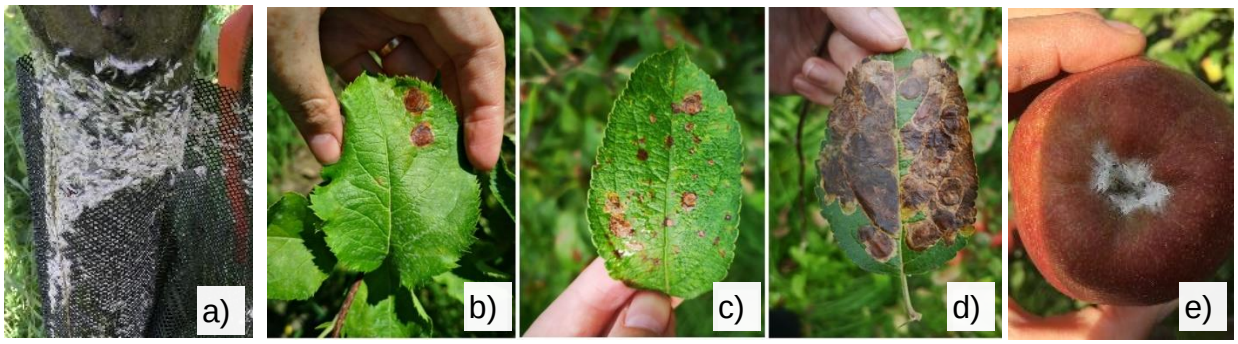
Spring/early summer

Equipment

NeemAzal®-T/S

Best in

L. malifoliella in organic apples



Picture. 1: a) Overwintering larvae (cocoons) on stem behind plastic trunk guard; leaves with b) Weak, c) Medium, and d) Strong infestation, e) Cocoons in the pit on fruits (Photos: A.L. Rau, FÖKO)

Further information

Further reading

- Potential for antagonists and direct tools for a control strategy of Leucoptera scitella L. in organic apple orchards in Southern Germany
- Control of the spotted leaf miner Leucoptera scitella L. in organic fruit growing in Germany

Weblinks

- Die Pfennigminiermotte (D. Steinle, C. P.W. Zebitz, University of Hohenheim) (DE)

1. Adolphi, C., Oeser, N. 2022. Practice abstract Integration of high-perennial fringes along edge structures in organic orchards. FÖKO. BIOFRUITNET.

- Check the Organic Farm Knowledge platform for more practical recommendations.

About this practice abstract

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Traubenplatz 5, D-74189 Weinsberg
foeko@foeko.de, www.foeko.de

Author: Christina Adolphi, Niklas Oeser

Contact: niklas.oeser@esteburg.de

Review: Ambra De Simone (IFOAM Organics Europe), Lauren Dietemann (FiBL)

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