PRACTICE ABSTRACT

Bamboo and deadwood: Get them out! Preventive measures to reduce codling moth in organic orchards

Problem

Ideal winter hiding places for the diapausing larvae of codling moth (Cydia pomonella) are deadwood piles, cracked softwood poles and bamboo poles.

Solution

Plant hygiene plays an important role and should be considered a component of codling moth control.

Benefits

To avoid mass reproduction of the codling moth in organic orchards (and to keep population levels sustainably below the economic damage threshold), regulation must include a combined strategy of monitoring, confusion, nematodes, plant hygiene, and the use of granuloviruses.

Applicability box

Theme

Crop production, Horticulture, Temperate fruits

Keywords

Plant protection; Pest control, Biological pest control

Context

Central Europe

Period of impact

Autumn, winter

Equipment

Bamboo poles, deadwood pile

Best in

Pome fruits

Practical recommendations

- Control of the first generation of codling moth is crucial for containment.
- Bamboo sticks, used in the scaffold system for stableness, are often very worn or cracked after a short period of time. As a result, they offer ideal overwintering quarters for the diapausing larvae of the codling moth.
- In orchards with a high codling moth infestation, it can be assumed that existing bamboo poles in the orchard are strongly colonized by the codling moth and can promote codling moth populations.
- In new orchards (especially in infested orchards), if possible, no more bamboo poles should be used. In old orchards, the support structure should be checked and replaced if necessary.
- Another problem in old orchards is storing old wood next to commercial orchards; when plants are cleared, codling moth larvae remain in the support structure and in/on the trees.
- Old wood piles, especially from infested plants, should not be stored near apple orchards over winter.

Picture. 1-4: Tunneling codling moth, diapausing larvae in bamboo poles, old wood piles at plant edge, codling moth infestation on fruit (Photos: C. Adolphi).

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Weblinks

- Zimmer, J., Kienzle, J. 2020. Regulation of codling moths. (German)
- Rank, H., Schmadlak, S. 2020. Bamboo poles and codling moth - a dangerous alliance (German)

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