

Rosy apple aphid: Prevent infestation using flower strips

Problem

Rosy apple aphid (*Dysaphis plantaginea*) damages fruits, young branches, and leaves and compromises the fruit's yield and quality.

Solution

Sowing perennial flower strips promote rosy apple aphids natural enemies (spiders, predator bugs, hoverfly larvae, ladybirds and earwigs). This can act as an effective solution to prevent infestation; however, this must be supplemented with other control methods.

Benefits

Reduction of the damage by pests, often below the economic damage threshold. Moreover, it supports bees (wild and honeybees) feeding and increases the success of pollination of the fruit flowers.

Applicability box

Theme

Horticulture, temperate fruits

Keywords

Apple, natural enemies, functional biodiversity

Context

All Europe

Application time

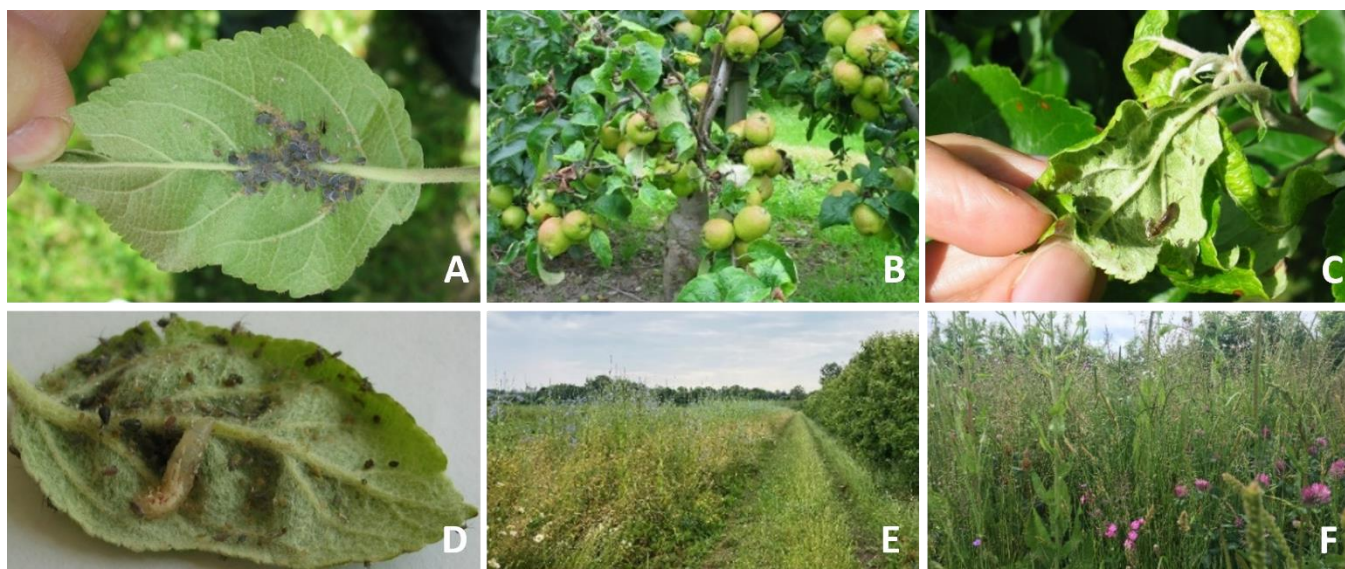
All year

Period of impact

Spring

Practical recommendation

- Establish flower strips in the alleyways or areas besides the orchard.
- Leave corners of the orchards untouched to allow the growth of wild plants (weeds).
- Do not sow the flower strips in the tree row: this helps avoid water and nutrients competition and risks associated with frost damage during flowering and rodents.
- A perfect seedbed is needed for the establishment of successful flower strips. Sow in August/September or April/May. After sowing, roll to ensure good contact between seed and soil.
- Use a seed mixture with different species. Some species will grow better than others depending on soil characteristics.
- Mix seeds with sand or vermiculite and use wild resident species produced locally, 1-4 g. seed per m².
- Avoid grass or other dominant species like Chicory (*Cichorium intybus*).
- In the first year, cut the strip back to a plant height of 30-40 cm after 1-2 months. A second cut may be necessary 6-8 weeks later.
- In the following years, the strips must be cut for mulching 3-4 times per year. Remove the cuts 2-3 days later.



Picture 1. (A) Colony of Rosy apple aphids on leaf underside. Photo: M. Bojesen, HortiAdvice; (B) Leaves, shoots, and fruits damaged by Rosy apple aphids. Photo: M. Bojesen; (C) Earwig (Dermaptera) is an important predator on aphids. Photo: M. Bojesen; (D) Hoverfly larvae (Syrphidae) is the most important predator on Rosy apple aphid. Photo: M. Bojesen; (E) A high permanent flower strip close to the apple orchard. Photo: Helle Mathiasen; (F) A high permanent flower strip with a high diversity of flowering species. Photo: Helle Mathiasen

Further information

Video

- [Webinar - Promoting Pollination from the BEESPOKE project](#) (from 00:51 to 1:19:00)

Further reading

- FiBL technical guide [“Perennial flower strips – a tool for improving pest control in fruit orchards”](#)
- Cahenzli, F., Sigsgaard, L., Daniel, C., Herz, A., Jamar, L., Kelderer, M., Kramer Jacobsen, S., Kruczyńska, D., Matray, S., Porcel, M., Sekrecka, M., Świergiel, W., Tasin, M., Telfser, J., Pfiffner, L. 2019. [Perennial flower strips for pest control in organic apple orchards - A pan-European study](#). Agriculture, Ecosystems & Environment, Volume 278, 2019, Pages 43-53.
- BEESPOKE guide [“How to successfully establish perennial wildflowers areas”](#)

About this practice abstract

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