

Monitoring and mass trapping of cherry fruit flies (*Rhagoletis cerasi* and *R. cingulata*) in organic orchards

Problem

Both sweet and sour cherries fruits are damaged by fruit flies, with yield losses of up to 100%. Control measures must be performed for adult flies, as the other biological phases of the fruit fly are challenging to target.

Solution

A practical solution is using traps with lures to monitor adults' occurrence and mass trapping, either as a stand-alone method or integrated with other control measures, like spraying with effective, organic-approved plant protection products.

Benefits

Monitoring with traps helps to detect the proper timing for mass trapping of flies, which can reduce their populations.

Practical recommendation

- Yellow sticky traps (Picture 1) can be used to monitor the presence of flies by hanging them just before the period of adults' flight and also determine the best timing for deploying mass traps.
- Hang the traps for mass trapping in the orchard when the first individuals are found on sticky traps.
- Homemade traps can be prepared by making 3-4 holes in the upper part of plastic bottles and filling them with a 4% solution of ammonium-phosphate fertiliser to $\frac{1}{2}$ - $\frac{3}{4}$ of the bottle height (the liquid level below the holes). A wire hook can be made through the cap (Picture 2), or a special cap containing a hook for hanging on the tree can be used (Picture 3).
- Deploy 80-100 traps per ha of orchard to achieve sufficient control, preferably on a height of 3-4 m.
- Commercial traps are available (Picture 4). *R. cerasi* was caught with these traps with an attractant designed for the Mediterranean fruit fly (*Ceratitis capitata*) with good results.

Applicability box

Theme

Crop production, Environment and society

Keywords

Disease and pest control, Plant protection

Context

All Europe

Application time

Just before the occurrence of the flies

Required time

One month

Period of impact

In the year of application

Equipment

Plastic bottles, ammonium-phosphate fertiliser, commercial traps

Best in

Sweet and sour cherry orchards and berry plantations (e.g., sea buckthorn) where *Rhagoletis* flies are present



Picture 1. Yellow sticky trap used for monitoring cherry flies *R. cerasi* and *R. cingulata*. Photo: M. Tartanus, Inhort.



Picture 2. Homemade trap containing a 4% solution of ammonium-phosphate fertiliser. Photo: M. Tartanus, Inhort.



Picture 3. Special bottle cap for easy hanging of the homemade trap. Photo: M. Tartanus, Inhort.



Picture 4. Commercial trap for mass trapping. Photo: M. Tartanus, Inhort.

Further information

Video

- Monitoring and mass trapping of cherry fruit flies in organic orchards (PL and EN) ongoing.

Weblinks

- Check the [Organic Farm Knowledge platform](#) for more practical recommendations.

About this practice abstract

Publisher: National Institute of Horticultural Research (IO-PIB)
ul. Konstytucji 3 Maja 1/3
96-100 Skierniewice, Poland
www.inhort.pl

Authors: Małgorzata Tartanus, Eligio Malusa



Contact: Malgorzata.tartanus@inhort.pl, eligio.malusa@inhort.pl

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

Permalink: [Organic-farmknowledge.org/tool/44995](https://organic-farmknowledge.org/tool/44995)

Project name: This practice abstract was elaborated BIOFRUITNET

Project website: <https://biofruitnet.eu> © 2022