

A research study has demonstrated that wildflower plots adjacent to apple orchards were cost-efficient for reducing rosy apple aphid (RAA) and subsequent fruit damage.

RESEARCH SUMMARY

Wildflower plots:

- Reduced spread of RAA on infested trees, up to 50 m away from the flower plot.
- Reduced number of trees with RAA damaged apples from 80% to 50%.
- Are predicted to 'pay for themselves' or provide financial benefits. These benefits could be even greater if there are orchards on either side of the wildflowers.
- Improved diversity of beneficial predators and parasites in the orchards, up to 50 m away from the wildflower plot.
- Did not spread weed species into the orchard.



The wildflower plots were:

- From 2 to 6 years old.
- Sown with four low-growing fine grasses and 15 perennial wildflowers.
- 18 m wide, along the length of the orchard edge.
- Cut short once annually.

Further reading:

- Establishing perennial wildflower areas (Interreg)
- Powerful Flowers (The Applied Ecologist)
- Perennial flower margins reduce orchard fruit damage by rosy apple aphid (Journal of Applied Ecology)
- Flower margins support natural enemies adjacent to apple orchards (ScienceDirect)



This information has been compiled from the results of a Doctoral Training Partnership project carried out by Charlotte Howard at the University of Reading, Cranfield University, Niab and Syngenta. Thank you to the farmers who participated in the project. This work was financially supported by Syngenta and Biotechnology and Biological Sciences Research Council (BBSRC), part of UK Research and Innovation (UKRI) with the FoodBioSystems Doctoral Training Partnership (FBS DTP) (BB/T008776/1). Thank you to the following for the establishment of flower margins; UK Centre for Ecology & Hydrology (CEH) further supported by Avalon Produce, Worldwide Fruit, Syngenta and the Wildlife Farming Company.