Collaborators

We collaborate with a number of partners in our research to improve control of insect pests.

We welcome enquiries from researchers and commercial organisations with an interest in developing new collaborations.

AHDB Agriculture & Horticulture Development Board

Innovate UK

Rothamsted Research

SASA Science and Advice for Scottish Agriculture

University of Dundee

Scottish Government
Riaghaltas na h-Alba
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Sponsors
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Photographs
Provided by David Riley, Brian Fenton, Carolyn Mitchell and Alison Karley

The James Hutton Institute

Science connecting land and people

Insect Pest Collections and Traps for Underpinning Research

Studying the biology, genetics and control of insect pests in agricultural systems

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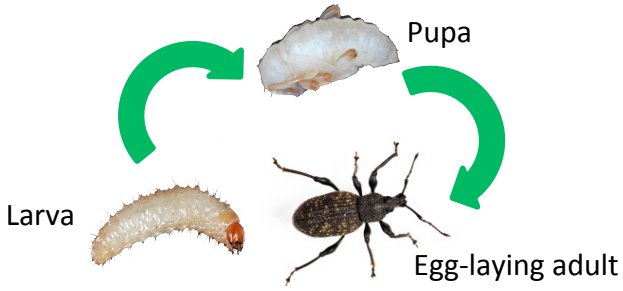
Insect collections

We collect and maintain insect material in culture to preserve live reference collections and to generate insect material for research.

Our aphid culture collections comprise different genotypes of the peach-potato aphid *Myzus persicae* including insecticide-susceptible and -resistant clones. Some of these lineages date back many years and the oldest was collected in 1977. The collection includes almost all of the main 17 genotypes that have been found in the UK for the last 20 years. Most of these clones have now ceased to exist in the field. The responsibility of maintaining this unique aphid material is shared with Rothamsted Research. *M. persicae* has a worldwide distribution and is a vector of many economically-important plant viruses. We also hold cultures of insecticide -resistant clones of the English grain aphid *Sitobion avenae*, and a plant resistance-breaking biotype of the large raspberry aphid *Amphorophora idaei*.

The vine weevil, *Otiorhynchus sulcatus*, a damaging pest in soft fruit plantations, is collected annually and maintained in culture through all stages of its life cycle.



Insect rearing facilities

Our insect cultures are held in dedicated insect-rearing rooms which provide appropriate environment control.

In addition, we use controlled environment cabinets to maintain key insect cultures in duplicate and to provide flexibility to vary environmental conditions at different stages of insect life cycles.

Insect pest research

Our insect collections support a number of research projects funded by the Scottish Government, commercial partners, levy boards and academic funding sources.

Our aphid research is particularly focussed on studying the molecular characterisation of aphids, aphid-plant interactions and the efficiency of virus transmission, control by natural enemies and other methods of integrated pest management.

Our vine weevil research aims to understand plant traits and biological control products that reduce plant injury from adults and root-feeding larvae.