Horticultural
Development
Company

New Project

SF 117

Sex pheromone trap for monitoring blackberry leaf midge

Project Number: SF 117

Title: Sex pheromone trap for monitoring blackberry leaf midge

Start and end dates: Start: 01/04/10
End: 31/03/12

Project Leader: David Hall, NRI, University of Greenwich

Project Co-ordinator: Tom Maynard, Windmill Hill Farm, Ticehurst, E Sussex

Location: Natural Resources Institute and East Malling Research

Background and project objectives: Blackberry leaf midge (*Dasineura plicatrix*) has recently developed as a serious pest of blackberry and has now spread to raspberry in the UK and elsewhere in Europe. It attacks the shoot tips killing out the terminals, stunting growth and causing branching. Growers consider that it significantly affects yield in both crops, although no crop damage assessment trials have yet been done. Growers currently have no method of predicting or monitoring the severity of attacks or of timing application of control methods. Timing of application is critical with midge pests as the larvae quickly become protected within the leaf rolls and it important not to disrupt natural biocontrol mechanisms.

Development of a pheromone trap for blackberry leaf midge will provide growers with a highly effective and specific new tool for monitoring of the presence of the pest in their crop at a local level. Information from the traps will be used to more effectively time the application of control measures which is critical for both biological and chemical approaches to control of this pest.

This project aims to complete work on identification of the female sex pheromone of *D. plicatrix* started under HDC studentship CP 38. The two components of the pheromone will be fully identified and synthesised. The pheromone blend will be optimised for attraction of male midges in field tests and the resulting traps and lures made available to growers for evaluation. Effective monitoring of this pest will contribute to HDC project SF102 on the biology and integrated control of blackberry leaf midge on blackberry and raspberry.

The specific objectives are to:

- Complete identification of the chemical structures of the two components of the female sex pheromone of the blackberry leaf midge.
- Synthesise the two components of the sex pheromone and produce lures for field tests.
- Optimise lures and traps for attraction of male midges in growers' fields.

Further information

Email the HDC office (hdc@hdc.org.uk), quoting your HDC number, alternatively contact the HDC at the address below.

AHDB – Horticulture
Stoneleigh Park
Kenilworth
Warwickshire
CV8 2TL