



Horticultural
Development
Company

New Project

HNS 177

Commercial evaluation of
Trichogramma brassicae
parasitoids for long-term
biological control of
Carnation tortrix in HONS.

Project Number: HNS 177

Title: Commercial evaluation of *Trichogramma brassicae* parasitoids for long-term biological control of Carnation tortrix in HONS.

Start and end dates: 1 April 2009 to 31 January 2010 (10 months)

Project Leader: Dr Mike Lole & Dr John Buxton, ADAS Rosemaund, Preston Wynne, Hereford

Project Co-ordinator: John Adlam, Dove Associates & Paul Sopp, Fargro Ltd.

Location: Wyevale nurseries, Kings Acre, Hereford

Background and project objectives

Carnation tortrix moth (*Cacoecimorpha pronubana*) is a serious pest of evergreen HNS subjects such as Daphne, Magnolia, Prunus, Pyracantha and Hypericum. Although the pest can be controlled with insecticides, growers are under pressure to reduce pesticide use, and as many as six insecticide applications per year can be needed to achieve effective control. An alternative biological control would therefore be desirable.

The egg parasitic wasp *Trichogramma* is mass-reared in many countries for the control of a range of moth pest species. HDC project HNS 170 showed that, in cage tests, parasitisation of carnation tortrix of egg masses by *Trichogramma* was very successful, although the age of the egg mass affected the results, with older egg masses being less susceptible. The work done in HNS 170 was the first UK experience of using *Trichogramma* against carnation tortrix.

The aim of the proposed project is to develop the opportunity identified in HNS 170 by investigating the use of *Trichogramma* on a more realistic commercial scale. A polythene tunnel containing liner plants will be selected, and *Trichogramma* parasitoids introduced weekly from early May onwards at the highest commercial rate (20/m²) to the whole tunnel. Intensive monitoring will then be done to determine the percentage parasitism of egg masses, and thus the control of carnation tortrix over time, between May and the end of September.

The results, if positive, will be able to be immediately taken up by growers in order to reduce their dependence on insecticides, and increase the scope of their IPM programmes.

Further information

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

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