



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

FV 400

Biology and control of 'spinach'
mites

Project Number: FV 400

Project Title: Biology and control of 'spinach' mites

Project Leader: Dr Rosemary Collier

Contractor: University of Warwick

Industry Representative: Mr Thane Goodrich, Intercrop Ltd

Start Date: 1st March 2012

End Date: 31st March 2014

Project Cost: £13,939

Project Summary:

During late summer-autumn 2010, outbreaks of mites caused damage to outdoor spinach crops in southern England. These outbreaks occurred at several locations.

It is likely that the mites are a species of *Tyrophagus*, possibly *T. similis*. *T. similis* is a pest of spinach in Japan and there are a number of papers on its biology and control which could provide useful background information. The aim of the project is to develop an understanding of the biology of the mites that infest spinach crops and identify potential control or avoidance methods. The specific objectives are to: 1) confirm the identity of the mites causing damage to spinach crops, 2) develop a laboratory culturing technique to provide mites for experiments on control, 3) collate and summarise information on the biology of the mites that would be relevant to predicting and controlling infestations and 4) identify potential control methods and test them on a small scale.

Aims & Objectives:

(i) *Project aim:*

The aim of the project is to develop an understanding of the biology of the

mites that infest spinach crops and to identify potential control/avoidance methods.

(ii) *Project objectives:*

1. Confirm the identity of the mites causing damage to spinach crops
2. Develop a laboratory culturing technique to provide mites for experiments on control
3. Collate and summarise information on the biology of the mites that would be relevant to predicting and controlling infestations
4. Identify potential control methods and test them on a small scale

Benefits to industry

The results of this project will contribute to an understanding of this damaging, but sporadic, pest and identify possible methods of predicting and controlling infestations. The proposed project is complementary to the LINK project submitted by a consortium led by the HDC: Sustainable Crop and Environment Protection - Targeted Research for Edibles (SCEPTRE).

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