

New Project

CP 067

Biology and control of currant-lettuce
aphid (*Nasonovia ribisnigri*)

Project Number:	CP 067
Project Title:	Biology and control of currant-lettuce aphid (<i>Nasonovia ribisnigri</i>)
Project Leader:	Dr Rosemary Collier
Contractor:	The University of Warwick
Industry Representative:	David Norman
Start Date:	1 st October 2009
End Date:	31 st December 2012
Project Cost:	£63,150

Project Summary:

UK lettuce crops are infested commonly by four species of aphid. Of these, the currant-lettuce aphid, *Nasonovia ribisnigri*, is of greatest economic importance, being difficult to control, particularly on crops that are close to maturity.

Imidacloprid seed treatment (Gaucho) is effective against *N. ribisnigri*, although it may not persist for the full life of the crop. Whilst they may be effective early on, insecticides applied as foliar sprays to hearted crops often have relatively little effect because the aphids are hidden within the foliage. There is evidence that some populations of *N. ribisnigri* have reduced sensitivity to pirimicarb or to pyrethroid insecticides.

Several new insecticides may soon become available to lettuce growers through full or off-label approvals. Some of these appear to be more effective against *N. ribisnigri* than older active ingredients, but may still not give complete control on maturing crops. In addition, there is concern that some insecticides may be withdrawn in the future as a result of the EU thematic strategy for pesticides.

Although, in recent years, lettuce varieties with resistance to *N. ribisnigri* have been developed and released commercially, many growers still grow susceptible varieties and reliance on insecticides is likely to be important for many years to come. In addition, there are reports that, in continental Europe, certain clones of *N. ribisnigri* have overcome the resistance, which is based on a single gene, so it is important to continue to develop an integrated control strategy for this pest.

Aims & Objectives:

The overall aim of the project is to quantify aspects of the life-cycle of the currant-lettuce aphid to inform the development of a more effective and targeted control strategy. The project should provide growers with 1) quantification of the life-cycle of the currant-lettuce aphid and, in particular, its overwintering biology; 2) a forecast of the timing of key events in the life-cycle/population development of the currant-lettuce aphid and 3) information on currant-lettuce aphid biology (e.g. the mid-summer crash, important natural enemies, alternative hosts) that can be used to improve the control strategy for this pest.

Benefits to industry:

The aim of the project is to provide information on the factors regulating aphid infestations that can be used to improve control strategies.

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