

Brassicas: Integrated management of whitefly, *Aleyrodes proletella*

DATES:	2012-2013
FUNDING:	Agriculture and Horticulture Development Board (AHDB)
COUNTRIES:	UK
SCIENTIFIC COLLABORATORS:	
INDUSTRIAL COLLABORATORS:	Allium & Brassica Agronomy Ltd, Emmett UK Ltd
NRI PROJECT LEADER:	Simon Springate/ John Colvin

BACKGROUND

The cabbage whitefly, *Aleyrodes proletella*, has become a pest of increasing significance in European brassica production in recent years. While high numbers can impact on growth and yields, the primary effect is through wax deposits, insect bodies and secretion of sticky honeydew, which provides a substrate for sooty mould growth. All of the above are difficult to remove from spoiled leaves, even with washing, increasing production costs and reducing saleable produce.

A variety of factors are likely to have contributed to these outbreaks. Research at NRI has identified resistance to pyrethroid insecticides in whitefly populations in the U.K., in areas where severe outbreaks have occurred repeatedly. No cross-resistance to systemic neonicotinoids was found. A number of native natural enemies have also been identified in wild populations and some of these evaluated in cage trials.



Aleyrodes proletella

OBJECTIVES

This project will explore the potential of a number of possible IPM component technologies to control the whitefly in field crops. Netting, parasitoid wasps and insecticides will be employed alone and in combination in a field trial on kale in an area of conventional brassica production where high whitefly numbers have previously occurred. Previous work at NRI has emphasised the importance of early introduction of natural enemies for effective whitefly management, so monitoring of population development will be critical. Identification of a greater range of pesticides and alternative control methods will aid in Insecticide Resistance Management, extending the effective lifetime of individual products and reducing the need for applications.

