LBAM is the key insect pest in Adelaide Hills and McLaren Vale vineyards

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Introduction

• *Epiphyas postvittana*, light brown apple moth (LBAM) is considered to be the key insect pest that causes economic damage in Australian vineyards each season.

• LBAM causes damage to flower clusters, resulting in yield losses and damage to berry skins. Damaged skins provide infection sites for moulds like *Botrytis cinerea*, which result in a reduction in fruit quality and yield losses.

• Recent observations suggested that leafroller species of Tortricidae other than *E. postvittana* may be causing damage in Australian vineyards.

• It is not possible to identify larvae of Tortricidae in the field using morphological characters, so analysis of DNA sequences is required for the correct identification of species.

Aims

To identify which species of Tortricidae are present in grapevine canopies of Adelaide Hills and McLaren Vale vineyards.

Methodology

• Larvae of Tortricidae were collected from grapevine canopies.

• Samples were collected weekly from mid-October to mid-December in seasons 2014/15 and 2015/16.

• Specimens were collected from fifteen vineyards and eight wine grape varieties.

• DNA sequences (CO1) from each specimen were used to identify species.

Results

A total of 433 moth larvae were collected from wine grape canopies (64 larvae in 2014/15 and 369 in 2015/16). 407 of these larvae were Tortricidae.

Significance of the study

This is the first time a complex of leafroller larvae that attack grapes has been characterised using molecular biological techniques.

The presence of *E. postvittana* has been well documented in vineyards. However, the presence of other leaf roller species such as *A. rudisana* and *M. divulsana* in grapevine canopies has not been described previously.

These findings will assist wine growers in the management of leafrollers in vineyards

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