Pest and Disease Monitoring for Sustainable Viticulture

FINAL REPORT to
GRAPE AND WINE RESEARCH & DEVELOPMENT CORPORATION

Project Number: **RT 02/41-4**

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Date: **21st March 2003**

Executive Summary:

This one-day vineyard pest & disease practical workshop has filled a niche in our region which allows vineyard staff and owners, who are primarily responsible for monitoring functions in the vineyard, to gain important knowledge in this area. Longer courses are often more directed to vineyard management roles and the length of courses can be a hindrance. This short course provides detailed information about the most important and relevant pests & diseases in vineyards and how to identify them with confidence. Other lesser known examples are also discussed to some extent. The practical nature of the course is most beneficial, allowing close examination of samples during discussions and the presentation as well as on location in a local vineyard.

Expansion of the field trip component is an option since the course does not take a full day, and would provide a better overview, involving different vineyard locations and plantings around Langhorne Creek. Close attention to the growing season may also allow even better timing of such a course to take advantage of field conditions.

Following such a course with suitable further training in spray programming and early detection would provide the most gains from the knowledge gleaned in this course. Ultimately, to optimize spray applications in vineyards through accurate monitoring of pests and diseases will help reduce costs to the grower, risks to employees and the environment and promote sustainable viticulture.

Background:

A similar pilot course run in Langhorne Creek in early November 2002 was very successful, but allowed limited participants. A high level of interest prompted a second course to be conducted.

The course provided participants with the skills-base necessary to establish a system of best practice viticulture in the vineyard through correct and efficient identification of a number of local and foreign pests and diseases, both local to the region as well as foreign. It provided a theoretical background in pest and disease lifecycles, as well as identification and early detection of new diseases not previously identified in the regions (eg: Phylloxera).

The economic and environmental impacts of such identification being a potential reduction in chemical use through more timely and accurate application of appropriate chemicals. Without suitable training, late or incorrect pest and disease identification can often lead to the need for repeat spray regimes.

Objectives:

To provide a short one day quality hands-on training ground suited specifically to persons having monitoring responsibilities within a vineyard.

To train vineyard monitoring workers to identify pests and diseases in their early stages and also understand conditions which may avoid them becoming a problem.

Outcome/Conclusion:

Mr David Braybrook once again delivered the course, based on modules of the Research to Practice IPM workshop, with a focus on hands-on identification and recognition of pests and diseases and how they manifest in vineyards.

Mr. Gerard Hogan provided liaison through CRC for Viticulture. Unfortunately errors with arrangements resulted in some compression of the course delivery due to late changes to flight arrangements for the presenter. Unexpected heavy rains throughout the region the day prior to the course also resulted in several participant cancellations.

Aside from these difficulties the course was conducted successfully and all participants were enthusiastic and appreciative of the day.

Participants received a comprehensive presentation about the biology and activity indicators of numerous important vineyard pests and diseases. This presentation included colour slide images to assist with identification, and allowed participant interaction and questioning.

A focus of the workshop was to allow hands-on identification and study of samples, including an arranged field trip to a local vineyard.

Again, the previous rain did hinder the field trip somewhat, but all participants provided generally very positive feedback about the course, finding it a worthwhile adjunct to their previous training &/or current work requirements. The course provided a sound introduction to the subject matter for those with roles in vineyard monitoring, and in a convenient time frame and at a more affordable price than longer courses.

All participants were provided with course evaluation sheets by CRC for Viticulture. Most participants had undertaken other viticulture training courses in the past on other subjects but had only limited if any experience with pest & disease identification. The detailed discussion and pictures were found most useful, but more field examples would have been appreciated. All considered they had a better understanding of pests and diseases in vineyards and could identify most of those of concern with more confidence. It was also apparent from feedback that inclusion of more images in the supplied course notes would be beneficial. There was a lack of some pest and disease field examples and conducting the course earlier in the growing season would be an advantage.

To benefit most from the course, further supervised on the job practical identification experience and linkage of this course to spray program training and chemical management courses would be most beneficial, and this was mentioned by a number of participants.