PIRSA
Primary Industries and Resources South Australia

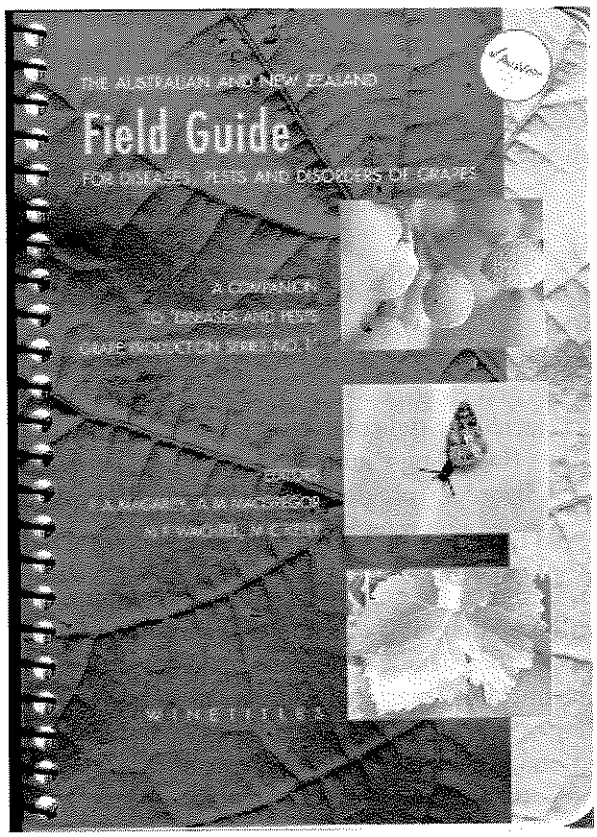
SARDI
SOUTH AUSTRALIAN RESEARCH AND DEVELOPMENT INSTITUTE

Natural Resources and Environment
AGRICULTURE
RESOURCES
CONSERVATION
LAND MANAGEMENT

AGRICULTURE VICTORIA

Grape and Wine Research and Development Corporation

Field Guide to Diseases, Pests and Disorders of Grapes



FINAL REPORT to GWRDC

GRAPE AND WINE RESEARCH & DEVELOPMENT CORPORATION

Project Number: SAR 99/2

Principal Investigator: Mr Peter A. Magarey

Research Organisation:
South Australian Research Development Institute

Loxton Centre, PO Box 411, Loxton SA 5333
Ph: 08 8595 9100; Fax: 08 8595 9199

Date: July 31 2000

Disclaimer
The Grape and Wine Research and Development Corporation in publishing this document, is engaged in disseminating information not rendering professional advice or services. The GWRDC, its authors and editors expressly disclaim any form of liability to any person in respect of anything done or omitted to be done by such person in reliance upon the whole or any part of the contents of this document.

Project Details

Project title	Field Guide for Diseases, Pests and Disorders of Grapes
Project no	SAR 99/2
Organisation	SARDI
Location	Loxton Centre
Supervisor	PA Magarey
Staff	AM MacGregor, MF Wachtel and MC Kelly
Funding	$5,000
Time span	1999-2000

Final Report

Objective

To publish a low-cost field guide for Australian grapegrowers to diagnose diseases, pests and disorders found in the vineyard.

Progress

'How do I identify diseases, pests and disorders in the vineyard?', is a question often asked.

Now the answer is made more accessible through publication of an easy-to-use field guide for grapegrowers in Australia and New Zealand. This wire bound pocket-book contains more than 320 coloured photographs selected for typical expression of symptom of disease or pest in the vineyard. Some 83 diseases or pests (including a number of birds), 23 beneficial insects and 45 disorders (including 13 nutritional disorders) are described. The **Field Guide** comprises 108 pages laminated to resist damage during expected vigorous in-field use.

The **Field Guide** is designed for quick diagnoses of symptoms. As example, a *'Look Here First'* pictorial index with coloured diagrams of symptoms links the user to the most relevant photo in the book. A *'Look for'* section then details symptoms on shoots, leaves and/or bunches in simple language (usually 150 words maximum). Occasional *'Action notes'* and a *'Looks like'* chain-reference system assist diagnosis. The latter refers the reader to a series of similar symptoms elsewhere in the book located in three colour-coded sections: diseases, pests or disorders. A fourth section describes important diseases and pests not yet present in Australia or New Zealand. Handy page-egde markers throughout the book give easy access to contents.

A section on monitoring for diseases and insects, a 'Growth Stage Chart' (based on Coombe's revised assessment chart) and a 'Monitoring Calendar' are features to help growers monitor optimum times with the best methods.

The **Field Guide** is a companion to the widely used GPS1 *Diseases and Pests* published in 1994. Where appropriate, cross references to each disease or pest are included in the pocket-book to indicate which page in GPS1 to turn for more detailed information on diseases and pests and their management.

Entitled ***The Australian and New Zealand Field Guide to Diseases, Pests and Disorders of Grapes***, the field guide was edited by scientists from PIRSA, at Loxton, South Australia and DNRE, at Irymple, Victoria. A number of experienced crop protectionists from many agencies in Australia and New Zealand assisted.

The Field Guide has potential to assist grapegrowers correctly diagnose diseases, pests and disorders – a fundamental aspect of an efficient and effective vineyard disease and pest management

strategy. Its use in the viticultural industries should in a small way, contribute to reducing losses both from disease or pest and to a reduction in use of chemicals in the vineyard.

It is expected that the Field Guide will prove successful particularly among consultants and growers new to the grape industry. It will assist quick and correct diagnosis of a wide array of symptoms encountered in the vineyard. Seven thousand copies were printed and sales have proceeded smoothly. To August 2000, some 5,000 have been sold.

The Field Guide was edited by PA Magarey, AM MacGregor, MF Wachtel and MC Kelly, and was published in December 1999 by Winetitles, Adelaide, SA. It sells at recommended retal price of $27.50 (incl. GST) and is available through offices of PIRSA and DNRE and Winetitles.

Ten copies of the Field Guide were forwarded to GWRDC in January 2000.

Appendix 1:

Publications List re Field Guide - by Year 1994 – 2000.

(*Numbers refer to file numbers including type of publication
where 1 = scientific; 2 = conference; 5 & 9 = extension papers.)

1.28 Nicholas, P.R., Magarey, P.A. and Wachtel, M.F. (1994). (Editors). *'Diseases and Pests'*, Vol. I. Grape Production Series, Nicholas, P.R., Magarey, P.A. and Wachtel, M.F. (Eds). Winetitles, Adelaide, SA., 106 pp. ISBN 1-875130-15-2

5.38 Magarey, P.A., MacGregor, A.M., Wachtel, M.F. and Kelly, M.C. (1998). Downy Mildew Fact Sheet with colour photos, as extracted from a draft of *A field guide for diseases, pests and disorders of grapes in Australia and NZ*, October 1998, Agriculture Western Australia, Midland, WA 8 pp.

1.54 Magarey, P.A., MacGregor, A.M., Wachtel, M.F. and Kelly, M.C. (1999). *The Australian and New Zealand Field Guide to Diseases, Pests and Disorders of Grapes.* A companion to 'Diseases and Pests', Grape Production Series No. 1. Winetitles, Adelaide, S Australia. 108 pp. ISBN 1 875130 33 0. (634.82)

2.102 Magarey, P.A., MacGregor, A.M., Wachtel, M.F. and Kelly, M.C. (1999). Diseases, pests and disorders of grapes: A field guide for Australian and New Zealand vineyards. p.214 Twelfth Biennial Australasian Plant Pathology Society Conference, 27-30th September 1999, Canberra, Australia. 380 pp.(poster and paper).

9.52 Magarey, P.A., MacGregor, A.M., Wachtel, M.F. and Kelly, M.C. (1999). A field guide for diseases, pests and disorders of grapes in Australia and NZ. The Australian Grapegrower and Winemaker, 429 (September 1999): 90-92.

9.57 Magarey, P.A. and MacGregor, A.M. (2000). Pocket guide for pests and diseases. The Murray Pioneer. 18th January 2000.