

## GWRDC Final Report

<b>Project Title</b>	Impact of nematodes on viticulture - current status and future directions
<b>Project Code</b>	UA 96/2
<b>Organisation</b>	The University of Adelaide
<b>Location</b>	Department of Horticulture, Viticulture and Oenology Waite Campus, University of Adelaide PMB 1, Glen Osmond SA 5064
<b>Supervisors</b>	Dr R van Heeswijk
<b>Research staff</b>	Dr J Nicol
<b>Funding</b>	\$ 20,000 (1996/97)
<b>Time span</b>	1996/97

### Objectives

1. Review of current and past research on the impact of nematodes on Viticulture.
2. Establishment of collaborative links with other researchers where appropriate.
3. Development of future research priorities for Viticultural nematology in Australia.
4. Dissemination of findings to Industry.

### Outcomes

1. This aim of this project was to explore and document the current status of research in grapevine nematology and develop future research priorities in this area. Links with viticulturists and researchers overseas, and access to their research and extension information, much of which remains unpublished, was achieved through attendance of Dr Nicol at the Third International Congress in Nematology in 1996, followed by a study tour of relevant institutions in the United States of America, France and South Africa.. The information gathered on this tour, together with an exhaustive review of the published literature, are compiled in a manuscript which is in preparation (see 4.).
2. During compilation of the results from this project a number of research priorities were identified in the area of viticultural nematology. In order to address some of these priorities, proposals for future research projects, including collaborative links with other researchers, were prepared and submitted to GWRDC in the normal round of funding applications for 1997/98, and 1998/99. Funding was approved for the project 'Molecular breeding of grapevines for resistance to major root pests' (CS97/1), starting February 1999. This project involves collaboration with CSIRO Plant Industry (as part of the Grapevines for the New Millennium Program), Professor B.L. Moller (Royal Danish Agricultural and Veterinary University, Denmark) and Dr D. Mc. Bird (North Carolina State University, USA).
3. The information gathered on the study tour conducted by Dr J Nicol, together with an exhaustive review of the published literature, are compiled in a manuscript which is in preparation (draft attached). This draft has been viewed by the editor of the Australian Journal of Grape and Wine Research who has indicated that it will be suitable for publication in that Journal, subject to further revision. It is expected to be published late in 1999.

Some of the more practical aspects of the information gathered during the conduct of this project have been disseminated to Industry in a number of ways:

- A presentation by Dr Nicol to the Annual Meeting of the Australian Vine Improvement Society in Berri, 1996.

- Publication of an article in the 1997 Annual Technical Issue of the Australian Grapegrower and Winemaker (Nicol, J. and van Heeswijck, R (1997) Grapevine nematodes: Types, symptoms, sampling and control. Australian Grape Grower and Winemaker 402a:139-151).
- Preparation of a module on 'Nematodes' for the Integrated Pest Management (IPM) Research to Practice™ workshops jointly conducted by GWRDC, the CRCV and Agriculture Victoria. Both Dr Nicol and Dr van Heeswijck have also participated as presenters of this, and other modules, in a number of these workshops.

### **Publications**

1. Nicol, J. and van Heeswijck, R. (1997) Grapevine nematodes: Types, symptoms, sampling and control. Australian Grape Grower and Winemaker 402a:139-151).
2. Nicol, J.M, Stirling, G.R, Rose, B.J., May, P. and van Heeswijck, R. The impact of nematodes on viticulture: Current knowledge and future directions with special reference to Australia. Manuscript in preparation - to be submitted to Australian Journal of Grape and Wine Research.

### **Extension activity**

1. A presentation by Dr Nicol to the Annual Meeting of the Australian Vine Improvement Society in Berri, 1996.
2. Preparation of a module on 'Nematodes' for the Integrated Pest Management (IPM) Research to Practice™ workshops jointly conducted by GWRDC, the CRCV and Agriculture Victoria. Both Dr Nicol and Dr van Heeswijck have also participated as presenters of this, and other modules, in a number of these workshops.

**Robyn van Heeswijck**  
**26.3.99**