

**PROCEEDINGS OF THE  
III<sup>rd</sup> INTERNATIONAL  
GRAPEVINE PHYLLOXERA SYMPOSIUM**

**Convener**

**K.S. Powell**

**Fremantle, Australia**

**October 5-7, 2005**

**ISHS Section Vine and Berry Fruits**

**Acta Horticulturae 733  
February 2007**

Acta Horticulturae  
Number 733

Proceedings of the  
Third International  
Grapevine Phylloxera Symposium

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ISSN 0567-7572

ISBN 978 90 6605 170 6, Acta Horticulturae no. 733

Price for non-members of ISHS: € 52,-

Published by ISHS, February 2007

Executive Director of ISHS: J. Van Assche

Technical Processing: R. Lantrade

ISHS Secretariat, PO Box 500, 3001 Leuven 1, Belgium

Printed by Drukkerij Jansen BV, Breesstraat 8, 2311 CR Leiden, The Netherlands

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Photographs on the front cover by courtesy of the Department of Primary Industries, Victoria, Australia

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1. Phylloxera infested vines showing dead replants.
2. Phylloxera infested vines showing reduced vigour.
3. Phylloxera crawlers on root.
4. Phylloxera eggs-nodosity.
5. Phylloxera colony-nodosity.
6. Leaf gall.

## FOREWORD

Phylloxera is still regarded as the world's worst grapevine pest despite the introduction of resistant rootstocks and quarantine protocols in the late XIX<sup>th</sup> century. Outbreaks of phylloxera in countries such as Australia, where quarantine remains the predominant form of management has highlighted the need for research into early detection. Phylloxera predominantly soil-dwelling nature and small size have made its detection problematic, although recent advances in molecular and spectrochemical detection techniques have improved our ability to detect it earlier. Understanding the insects' relationship to soil types is also vital in developing risk maps for surveillance.

Whilst resistant rootstocks remain the major long-term option for phylloxera control, sustainable management of rootstocks involves understanding the physiological and genetic characteristics of the pest. Significant advances have been made in understanding both the genetic characteristics of the phylloxera along with the development in rootstock screening protocols to clonal lineages. Alternative options, including biological and cultural control for phylloxera, are also being explored.

The First International Phylloxera Symposium was held in Melbourne in January 2000, closely followed by a second workshop held at Geisenheim, Germany in August 2001. The Third Symposium was held in Fremantle, Western Australia on 7<sup>th</sup> October 2005 in conjunction with the Seventh International Symposium on Aphids held from 2<sup>nd</sup> - 7<sup>th</sup> October 2005.

I would like to thank all speakers, presenters and chairpersons for making this a successful symposium. International and national collaboration is undoubtedly required to optimise research into phylloxera management and the success of the International Phylloxera symposia to-date has highlighted the strong linkages that can be made.

We acknowledge the support of the Department of Primary Industries - Victoria, The Grape and Wine Research and Development Corporation and the Phylloxera and Grape Industry Board of South Australia and the ISHS.

I particularly thank the staff of the Plant Health group at DPI-Rutherglen and Dr. Owain Edwards, CSIRO for their invaluable assistance in making this symposium successful.

Rutherglen, December 2006

*Kevin S. Powell*  
Convener

## PREFACE

The papers contained in this volume of *Acta Horticulturae* report the Proceedings of the Third International Grapevine Phylloxera Symposium. Keynote speakers and authors of selected contributed oral and poster presentations were given the opportunity to submit a manuscript for publication.

The manuscripts were reviewed by the symposium Editors and Members of the Editorial Committee. Only those papers judged suitable for publication following the authors consideration of reviewer suggestions appear in this volume of *Acta Horticulturae*.

The ISHS acknowledges and appreciates the contribution of all Editors and Reviewers. They have made a significant contribution to improving the quality of this publication.

*The ISHS Board of Directors*

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