FOREWORD

Pest, disease and weed management are fundamental to New Zealand's primary production industries. Our horticulture, forestry and agricultural industries are reliant on exports, therefore strict phytosanitary requirements must be in place, as well as compliance with human health and environmental requirements, while maintaining high product quality. This is a challenge for plant protection researchers in partnership with these industries, who are continually striving to improve production and quality.

New Zealand wants to double the value of its primary sector exports by 2025, but we can't do that unless we protect New Zealand from invasive pests and diseases. The arrival and establishment of exotic pests can seriously jeopardise plant production and our native estate. New Zealand's Plant Protection community is undertaking the research needed to underpin our future biosecurity system, which reinforces the importance of science when developing effective controls in the face of future challenges such as changing trade, increasing tourism and climate change. Government and industry have joined forces to become better prepared for biosecurity threats - the first Operational Agreement under the Government Industry agreement targeting fruit flies was signed in May 2016 outlining how industry and government will work together to deliver better biosecurity outcomes.

The change in the climate is challenging production systems and changing the business-as-usual model. The past autumn was recorded as the second highest temperature on record, with May and June the highest temperatures ever. The usual frosts that help to limit the populations of insects have not occurred. Insects are changing their habits in response. For example, porina normally a pasture pest has for the first time been recorded in Marlborough vineyards. There

is now evidence that these effects are not one-off occurrences, but are likely to persist in the future. Scientists link New Zealand's changing weather to the rise in global greenhouse gas emissions, warmer seas and the predominance of northerly winds. The work of the New Zealand Plant Protection Society is well-positioned to tackle new weed, pest and disease challenges by coming up with improved management programmes and devising new ones when necessary.

The papers presented in this volume of New Zealand Plant Protection summarise some of the underpinning research that informs and enables the development of integrated pest, disease and weed management and biosecurity strategies. This year we appointed our new editor Tom Batchelor, who has done a sterling job editing and compiling the 69th volume of the journal that focuses on understanding pests, diseases and weeds, and developing solutions that best suit growers and suppliers today and into the future. The production of this journal and the annual NZ Plant Protection Conference held in the second week of August each year are the main activities of the society, which aims to pool and exchange information on the biology of pests,

pathogens, weeds and beneficial organisms and methods for modifying their effects.

Our Society also plays a significant role in supporting the NZ Committee on Pesticide Resistance (NZCPR), which develops the resistance management strategies that feature on our website. The development of resistance to pesticides, fungicides and herbicides is an ongoing issue for our productive sectors. We are developing resistance management strategies, identifying the need for updates when necessary and examining new resistance threats to enable future improvements to this valuable resource.

Last year's pre-conference symposium on '*Managing wilding conifers in New Zealand: 12 years on*' outlined the current situation, control methods for the future, working together, community awareness and public involvement. '*New Zealand Psa*' is the subject of our 2016 pre-conference symposium, which provides an opportunity to hear the latest research on how best to control *Pseudomonas syringae* pv. *actinidiae* (Psa) in kiwifruit.

Furtherance of Plant Protection science is a key objective of the society and along with the journal, conference, symposium and NZCPR, the society administers a range of scholarships and awards. This year we have awarded the NZ Plant Protection Scholarship to Jing Liu whose research is focused on a '*Harnessing members of the apple endomicrobiome to protect against European canker*', and the Dan Watkins scholarship to Katie Collins whose research is focused on '*Testing and developing tools for macrophyte management in Canterbury agricultural waterways*'.

In August 2015 the NZPPS Travel Award was awarded to Joel Vanneste at Plant & Food Research to attend the 3rd International Symposium on '*Biological control of bacterial diseases*' which was held in Belgrade, Serbia. Student travel awards were also awarded to Sylvester Atijegbe, Wisnu Wicaksono, Grace Xu, Lisa Watkins, Karyn Froud and Bethanne Smith to help with the costs of attending the 2016 NZPPS Conference.

I'd like to thank the NZPPS executive committee for yet another highly productive year and acknowledge their hard work, enthusiasm and motivation to meet the Society's objectives. All the best for another fruitful year.

Lisa Jamieson
President, NZPPS