

Psa-V Product Testing – Field Trial Reports

Summary of KVH/Zespri potted plant field trials conducted in 2012/2013

Updated Oct 2013

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Trial #	Name	Objective (s)	Start date	Comments (as at 28 June 2013)
1	Inoculation trial on Gold3	Gold3 had not previously been used in trials of this nature. Therefore the objectives were to identify: -What concentration of Psa-V to inoculate plants with -How long to wet plants for following inoculation	Oct 2012	Trends not as strong as expected. However, generally more leaf spotting found in the plants that were wetted for longest and with the highest concentration of Psa-V. Report to follow.
2	Inoculation trial on Hayward	To confirm what concentration of Psa-V to use for Hayward and how long to wet the plants for.	Oct 2012	Trial abandoned due to a technical problem.
3	Inoculation trial on Hayward (Repeat of above trial)	See above	Nov 2012	Report to follow.
4	Elicitors on Gold3	To test a range of elicitors on Gold3 for the first time	Nov 2012	Very low levels of leaf spotting to date despite the plants having been re-inoculated with a higher concentration of Psa-V. Symptoms will continue to be monitored.
5	Biological control agents (BCAs) on Hayward	To identify the efficacy of a range of BCAs	Dec 2012	Considerable leaf necrosis within a week of inoculation, caused by the Psa-V, is thought to have overwhelmed all treatments. Report available: http://www.kvh.org.nz/vdb/document/91522
6	Yeast mixes in combination with Actigard on Hayward	To field test yeast mixes provided by Plant & Food and Trichoderma provided by the BioProtection Centre. All applied in combination with Actigard.	Dec 2012	Actigard dramatically reduced leaf spotting. The yeast mixes had a synergistic effect when added with Actigard. The efficacy of the yeast mixes when applied alone to be clarified in subsequent trials. Report to follow (currently being reviewed). www.kvh.org.nz/vdb/document/91971
7	Covered plant trial on Hayward	To identify the impacts of: -covering plants immediately following inoculation with Psa-V -inoculating plants using different methods	Dec 2012	Results to date show that covering plants immediately following inoculation has reduced leaf spotting. Also, the level of leaf spotting differed between inoculation methods. Report available: http://www.kvh.org.nz/vdb/document/91473 Similar covered trials were conducted earlier in the season but the covered plants were inoculated differently to the uncovered plants. For more information see http://www.kvh.org.nz/vdb/document/91464
8	Coppers on Hort16A	To compare efficacy of different copper products and different rates	Dec 2012	Lower than expected levels of leaf spotting observed. That said, coppers were still shown to reduce leaf spotting significantly. Generally, higher rates of copper resulted in less leaf spotting and vice versa. The impacts of the treatments on secondary symptoms was inconclusive. Du-Wett was trialed but its impact on the efficacy of coppers remains unclear because of the methodology used. www.kvh.org.nz/vdb/document/91943

9	Nanomist on Gold3	To evaluate the Nanomist technology which continuously delivers sprays to plants (imagine Rabocan).	Dec 2012	Problems with the technology has prevented an outcome. Funded by the Nanomist company.
10	Yeast mixes/trichoderma trial on Hayward	To clarify the efficacy of yeasts mixes and Trichoderma when applied alone i.e. without Actigard.	Jan 2013	Click here for report
11	Yeast mixes/trichoderma on Gold3	As above	Jan 2013	Click here for report
12	Yeast mixes/trichoderma on Green14	As above	Mar 2013	Yeast mix treatments reduced leaf spotting significantly. There was a trend for trichoderma alone to reduce leaf spotting although not significantly so. Click here for report
13	Yeast mixes/trichoderma on Bruno	As above	Mar 2013	Yeast mix treatments reduced leaf spotting significantly. There was a trend for trichoderma alone to reduce leaf spotting although not significantly so. Click here for report
14	BCAs on Green14	To identify the efficacy of a range of BCAs	Mar 2013	Inconclusive due to lack of symptoms. Click here for report
15	Elicitors and protectants on Gold9	To test the efficacy of products/compounds on Gold9 (for the first time)	Mar 2013	Trend for some treatments to reduce leaf spotting. Click here for report
16	Elicitors on Chieftain	To test the efficacy of products/compounds on Chieftain (for the first time)	Mar 2013	Actigard reduced leaf spotting significantly. A trend for other treatments to reduce leaf spotting although not significantly so. Click here for report
17	Foliar applications of novel micro-organism and elicitor products on Green14	To test the efficacy of novel products against Psa	Apr 2013	Inconclusive due to lack of symptoms. www.kvh.org.nz/vdb/document/91944
18	Soil applied products on Gold3	Largely to test soil applied products for efficacy against Psa	Apr 2013	Inconclusive due to lack of symptoms www.kvh.org.nz/vdb/document/91944
19	Foliar/soil applications of novel micro-organism and elicitor products on Bruno	Largely to test soil applied products for efficacy against Psa	Apr 2013	One treatment, KiwiProtect, reduced leaf spotting. www.kvh.org.nz/vdb/document/91944
20	Foliar/soil applications of novel micro-organism and elicitor products on new Zespri cultivars (1&2)	Largely to test soil applied products for efficacy against Psa	Apr 2013	Actigard resulted in less leaf spotting. Given the overall level of leaf spotting was low these results have greater uncertainty associated with them. www.kvh.org.nz/vdb/document/91944

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