

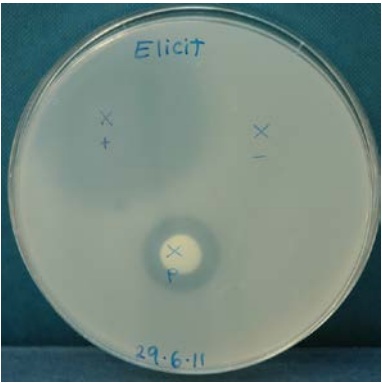
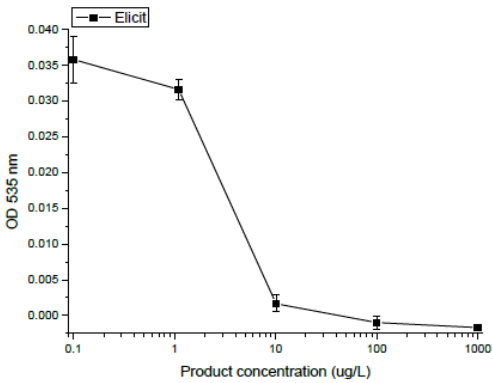
Product testing report

Jan/Feb 2011

Omniwett			
Supplying company : *	Omnia Primaxa Limited		
Active ingredient : *	Didecyl dimethyl ammonium chloride, Nickel (III) sulphate		
Mode of action : *	Chemical <input checked="" type="checkbox"/>	Biological <input type="checkbox"/>	Elicitor <input checked="" type="checkbox"/>
Application rate :	100-200 ml/100 L		
Kiwifruit label claim *	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Pending <input type="checkbox"/>

*Information supplied by product supplier

Test results																						
Test	Method description	Results																				
Inhibition zone <i>(Laboratory testing)</i>	A measurement of the zone of inhibition of a Psa bacterial 'lawn' around filter paper discs infiltrated with the test products.	<div style="text-align: center;"> <p>Elicitor isolate KEP1</p> <table border="1"> <caption>Data for Elicitor isolate KEP1</caption> <thead> <tr> <th>product concentration (µg/ml)</th> <th>zone of inhibition (cm)</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.0</td></tr> <tr><td>10</td><td>0.0</td></tr> <tr><td>100</td><td>0.1</td></tr> <tr><td>1000</td><td>0.7</td></tr> </tbody> </table> </div> <div style="text-align: center; margin-top: 20px;"> <p>Elicitor isolate KEP3</p> <table border="1"> <caption>Data for Elicitor isolate KEP3</caption> <thead> <tr> <th>product concentration (µg/ml)</th> <th>zone of inhibition (cm)</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.0</td></tr> <tr><td>10</td><td>0.0</td></tr> <tr><td>100</td><td>0.0</td></tr> <tr><td>1000</td><td>1.1</td></tr> </tbody> </table> </div>	product concentration (µg/ml)	zone of inhibition (cm)	1	0.0	10	0.0	100	0.1	1000	0.7	product concentration (µg/ml)	zone of inhibition (cm)	1	0.0	10	0.0	100	0.0	1000	1.1
product concentration (µg/ml)	zone of inhibition (cm)																					
1	0.0																					
10	0.0																					
100	0.1																					
1000	0.7																					
product concentration (µg/ml)	zone of inhibition (cm)																					
1	0.0																					
10	0.0																					
100	0.0																					
1000	1.1																					

Inhibition zone - droplet <i>(Laboratory testing)</i>	A measurement of the zone of inhibition of Psa around the spot where the product to be tested was deposited (p). The + sign is where the positive control has been deposited. The – sign is where the negative control has been deposited.	 <p>Omniwett left a deposit on the plate and lead to inhibition of Psa.</p>														
Optical density <i>(Laboratory testing)</i>	A measurement of the growth rate of the Psa bacteria in the presence of the test products.	 <table border="1"> <caption>Data for OD 535 nm vs Product concentration (ug/L)</caption> <thead> <tr> <th>Product concentration (ug/L)</th> <th>OD 535 nm</th> </tr> </thead> <tbody> <tr> <td>0.1</td> <td>0.035</td> </tr> <tr> <td>1</td> <td>0.031</td> </tr> <tr> <td>10</td> <td>0.002</td> </tr> <tr> <td>100</td> <td>0.001</td> </tr> <tr> <td>1000</td> <td>0.000</td> </tr> </tbody> </table>			Product concentration (ug/L)	OD 535 nm	0.1	0.035	1	0.031	10	0.002	100	0.001	1000	0.000
Product concentration (ug/L)	OD 535 nm															
0.1	0.035															
1	0.031															
10	0.002															
100	0.001															
1000	0.000															
Effective concentration <i>(Laboratory testing)</i>	A measurement of the effective concentration at which bacterial cells are reduced by 50% (EC ₅₀) and 95% (EC ₉₅) and the ratio of EC ₅₀ /EC ₉₅	EC₅₀	EC₉₅	EC₅₀/EC₉₅												
		13.3 µg/ml	70.2 µg/ml	5.3												

Comments

Due to the nature of the tests and the mode of action of some products it is noted that some products that are effective in vitro may not be effective when used in the field, conversely some products that are not effective in vitro may be effective in the orchard environment.

Recommended for further testing.

Reporting details

Report prepared by :

Kerry Everett / Joel Vanneste

Date :

Jan/Feb 2011

DISCLAIMER

Unless agreed otherwise, The New Zealand Institute for Plant & Food Research Limited does not give any prediction, warranty or assurance in relation to the accuracy of or fitness for any particular use or application of, any information or scientific or other result contained in this report. Neither Plant & Food Research nor any of its employees shall be liable for any cost (including legal costs), claim, liability, loss, damage, injury or the like, which may be suffered or incurred as a direct or indirect result of the reliance by any person on any information contained in this report.

LIMITED PROTECTION

This report may be reproduced in full, but not in part, without prior consent of the author or of the Chief Executive Officer, The New Zealand Institute for Plant & Food Research Ltd, Private Bag 92169, Auckland Mail Centre, Auckland 1142, New Zealand.

CONFIDENTIALITY

This report contains valuable information in relation to the Psa management programme that is confidential to the business of Plant & Food Research, KVH and ZESPRI Group Limited. This report is provided solely for the purpose of advising on the progress of the Psa management programme, and the information it contains should be treated as "Confidential Information" in accord with the Plant & Food Research Agreement with ZESPRI Group Limited.