

# Product testing report

2 November 2011

OMS-3		
Supplying company:	Omnia Nutriology Ltd.	
Active ingredient:	Elicitor and bactericide combination	
Mode of action:	Protectant <input type="checkbox"/>	Biological <input type="checkbox"/> Elicitor <input checked="" type="checkbox"/>
Application rate:	500ml per 100L	

## Test results

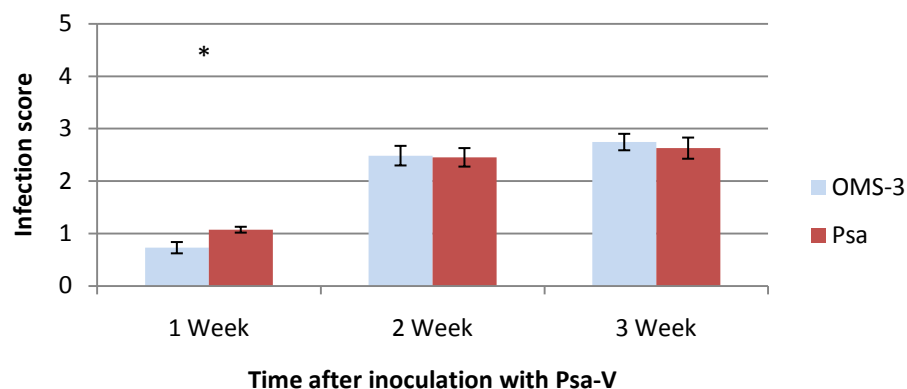
Test	Greenhouse seedling tests
Method description	<p><b>Experiment 1: Elicitors (7 September 2011 – 5 October 2011)</b>  Hort16A and Hayward seedlings were treated once with the product seven days prior to inoculation with Psa-V (at <math>10^9</math> cfu ml<sup>-1</sup> concentration). Assessments were made at weekly intervals after inoculation. The degree of leaf spotting was determined visually using a 0 – 5 scale and is plotted as an 'Infection Score'.</p>
Results	<p><b>Experiment 1:</b>  In Hort16A seedlings OMS-3 had no affect on the degree of leaf spotting at one, two or three weeks after inoculation with Psa-V. In Hayward seedlings, leaf spotting was significantly reduced one week after inoculation only. Two and three weeks after inoculation, OMS-3 had no affect on leaf spotting in Hayward seedlings.</p>

**Key:**  
0 = no leaf spotting  
1 = up to 10%  
2 = up to 25%  
3 = up to 50%  
4 = up to 75%  
5 = 100%  
(of leaf area)

### Hort16A Experiment 1

Time after inoculation with Psa-V	OMS-3	Psa
1 Week	~0.5	~0.8
2 Week	~1.0	~1.4
3 Week	~1.5	~1.6

## Hayward Experiment 1



\* Psa inoculated control and the treatment are statistically significantly different at the 5% level

### Summary

A single application of OMS-3 (5ml L<sup>-1</sup>) to Hayward and Hort16A seedlings, did not affect leaf spotting at the final assessment, three weeks after inoculation with Psa-V. There was little evidence that OMS-3 significantly reduced leaf spotting following inoculation with Psa-V; further greenhouse trials will be performed to test this product as a protectant.

### Comments

A standardised screening protocol has been used to test products for efficacy against Psa-V to enable a high throughput of products. Protectant or elicitation tests may be performed, depending on the mode of action of the product. Protectant tests involve the product being applied to the plant with inoculation following on the same day, once the product has dried. Elicitation tests involve the product being applied to the plants seven to ten days prior to inoculation with Psa-V. Assessments of leaf spotting are performed at weekly intervals after inoculation. This method has largely involved testing products using information provided on the product's label. In the future, products may be retested using protocols provided by supplying companies. Products which have previously shown some level of efficacy will be given priority for re-testing.

Data are presented for all assessment timings; however, evaluation of results is largely focussed on the final 'three week' assessment data. Disease symptoms will be better developed by this time and earlier assessments are considered to be less reliable. However, in the case of some elicitors, it is possible that the elicitation effect has been expended and that poor results at the 'three week' assessment time indicate reduced efficacy as a result of insufficient frequency of application.

Results from greenhouse trials primarily serve as a screening tool to determine products that will progress to field trials. Care should be taken when extrapolating results to field conditions. Results in the field may differ due to different environmental conditions and differences in plant material.

**Note – leaf spotting may not necessarily mean the plant is infected. It simply indicates that the plant has been challenged by Psa.**

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