

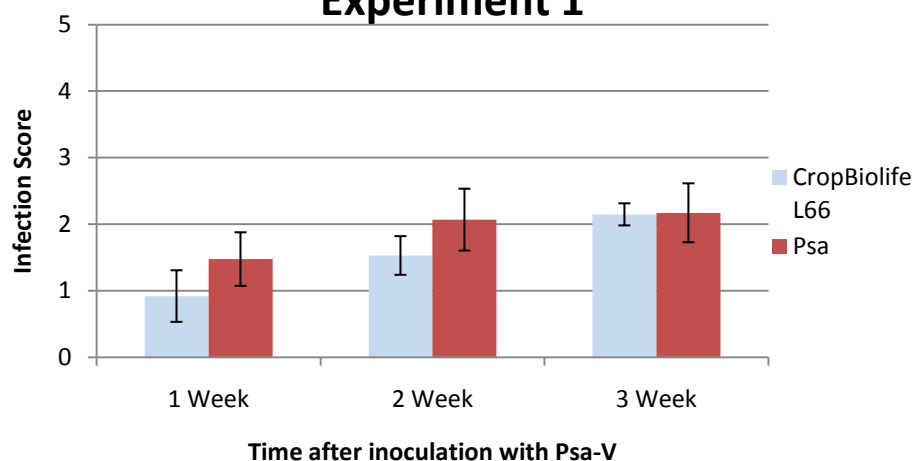
Product testing report

03 April 2012

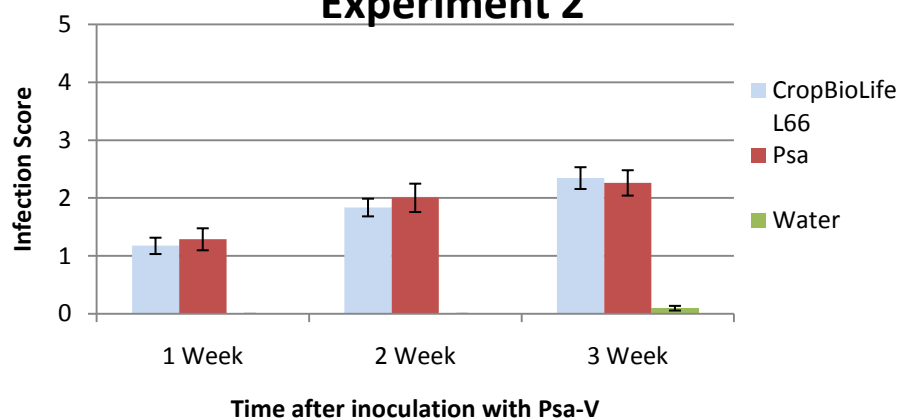
CropBioLife L66		
Supplying company:	Aussan	
Active ingredient:	Bioflavonoids and organic acids derived from fruits and vegetables	
Mode of action:	Protectant <input checked="" type="checkbox"/>	Biological <input type="checkbox"/> Elicitor <input checked="" type="checkbox"/>
Application rate (per 100L):	Exp 1. 400ml Exp 2. 100, 200, 300ml	

Test results	
Test	Greenhouse seedling tests
Method description	<p>Experiment 1: Protectant (13 October 2011 – 3 November 2011) Bruno seedlings were treated once with the product, allowed to dry and inoculated with Psa-V (at 10^9 cfu ml⁻¹ 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> <p>Experiment 2: Multiple applications (February 2012 – 23 March 2012) Bruno seedlings received five applications of CropBioLife. 15 February 1 ml L⁻¹, 22 February 1 ml L⁻¹, 29 February at 1 ml L⁻¹, 4 March at 3 ml L⁻¹, and 14 March at 2 ml L⁻¹. Plants were inoculated on the 02 March with Psa-V (at 10^9 cfu ml⁻¹ 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>Experiment 1: In Bruno seedlings, application of CropBioLife did not affect leaf spotting following inoculation with Psa-V.</p> <p>Experiment 2: In Bruno seedlings, multiple applications of CropBioLife pre- and post-inoculation with Psa-V, did not affect leaf spotting.</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)	

Bruno Experiment 1



Bruno Experiment 2



Summary

CropBioLife applied either as a single application or as multiple applications pre- and post-inoculation with Psa-V to Bruno seedlings had no affect on leaf spotting. No further testing is currently planned with this product.

Comments

A standardised screening protocol has been used to test products for efficacy against Psa-V to enable a high throughput of products. Protectant, biological 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. Biological tests involve the product being applied two to three days prior to inoculation with Psa-V. 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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