Apron XL® Seed Dressing Demonstration

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Aim

To evaluate whether Apron XL® improves yield in field pea crops.

Background

Apron XL is a fungicidal seed treatment containing 350 g/L Matalaxyl-M. It is registered for the control of damping-off disease caused by *Pythium* and for control of Downy Mildew in peas.

Seed dressings are highly effective means of managing disease during the development stage of a crop. Depending on the season, Apron XL can be expected to protect seedlings against fungal disease for up to five weeks after emergence.

Although Downy Mildew is not a common problem in the Central Wheatbelt, *Pythium* has been found to be widely spread across cropping soils and although it is generally more prevalent in areas with annual rainfall greater than 350mm, it is by no means confined to these areas. In fact, new research has found that high rainfall or cold waterlogged soils are not a prerequisite for *Pythium* infection.[1] High incidences of root rot have been recorded in periods of drought conditions not previously considered conducive to development of *Pythium* diseases. Even in the absence of damping-off (above ground) symptoms, *Pythium* has been found to reduce yield significantly through the damage it causes to the roots. A secondary effect is the increased susceptibility to other root and fungal diseases caused by the overall reduced plant health.

Rob Nankivell trialled Apron XL in 2010 on his peas with success, in what was a below average rainfall year. He decided to trial the product again in 2011 to see if the results could be replicated.

Trial Details

Property	Rob Nankivell, East Maya
Plot size & replication	15m x length of paddock
Soil type	Sandy loam
Soil pH	5.6
Paddock rotation	2008 lupin, 2009 wheat, 2010 wheat
Seeding date	21/5/11
Seeding rate	90 kg/ha Kaspa
Fertiliser	MAP at 65 kg/ha
Herbicides	20/5/11: 1 L/ha Glyphosate, 1 L/ha Metalachlor, 1 L/ha Diuron 21/6/11: 0.1 L/ha Brodal, 0.1 L/ha Metribuzin 750 WP 7/7/11: 0.3 L/ha Clethodim 240EC, 0.075 L/ha Quizalofop-P-Ethyl
Growing Season Rainfall	238mm

Results

Table 1: Average yield (t/ha).

Treatment	Yield (t/ha)	Return on Investment $/ha
Apron applied	1.36	86.70
Control (no seed treatment)	0.96	
LSD	*0.09*	
CV %	*3.6*	

Comments
By applying field peas with Apron XL yield was improved by an average of 0.4 t/ha. This equates to a yield gain of 41%, demonstrating again that the treatment does increase yield. In 2010 a 21% yield increase was achieved.

The farmer observed that the plants treated with Apron XL were brighter green in colour than the control. Another interesting observation was a two week difference in flowering times, with the Apron XL treatment flowering after the control.

Reference
[1] Root Disease Fact Sheet, GRDC, Paul Harvey, CSIRO

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