

7.3 CROP CARE IMPACT DEMONSTRATION

Location: "South Roxby" Gnarwarre

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Background:

Root diseases such as Take-All can cause significant yield loss in some years, particularly where crop rotation is poor such as cereal on cereal or where there has been significant grass weeds in the paddock the previous year.

Aim:

To ascertain whether Impact in furrow for diseases in Barley will give economic yield benefit.

Site Plan:

Rows 1,2 Buffer rows
Rows 3-10 Impact 400mL/ha applied to fertilizer at sowing
Rows 11-18 Impact 200mL/ha applied to fertilizer at sowing
Rows 19-26 Impact 250mL/ha applied to foliage
Rows 27-34 Untreated
Rows 35,36 Buffer rows

Barley variety: Gairdner
Seed treatment: Nil
Sowing rate: 100kg/ha
Sowing fertilizer: 100kg/ha MAP on all treatments
Rotation: 00 Wheat, 99 wheat
Sowing Date: 28/6/01 Not replicated – 60m beds
Herbicide: Achieve 500g/ha + 1% Supercharge on 28/8/01
Urea applied: 3/10/01 (50 kg/ha)
Harvest date: 3/1/02

Foliar applications:

Impact foliar at 250mL/ha applied in 100L/ha water + BS1000 at 0.25% 5/10/01 at stem elongation

Assessments:

There were no obvious symptoms of leaf diseases in the plots.

Results:

Treatment	Yield kg/ha	Protein %	Test weight Kg/hl
Impact 400mL/ha	4.71	10.2	66.0
Impact 200mL/ha	4.24	10.4	65.6
Impact foliar 250mL	2.66	10.0	65.5
Control	3.16	9.9	66.0
Average	3.69	10.13	65.8

LSD = 0.499 T/ha

Economics:

Yield t/ha	\$/T	Total \$	Cost	\$ less cost	\$ Benefit	% Increase
4.71	190	895	35	860	260	43
4.24	190	806	20	786	185	31
2.66	190	505	20	485	-115	-19
3.16	190	600	0	600	0	

Summary:

This was a large scale demonstration using Impact applied to the sowing fertilizer at the two label rates of 400mL/ha and 200mL/ha. The two other areas were sown with no Impact on the fertilizer but one was sprayed with Impact at 250mL/ha at stem elongation.

There were no obvious signs of leaf diseases or other symptoms in the plots but the two Impact 'in furrow' treatments delivered economic yield benefits. The previous two crops grown in the area were wheat, which may mean Take-all was a factor.