

# Wallup wheat demonstration

## Method

10 varieties were sown at 60kg/ha in the nearest neighbour design with Yitpi as the control. 50kg/ha of Granulock 102 MAP+Zn was applied at sowing. No other fertiliser was applied.

## Chemical

1L/ha Roundup CT<sup>®</sup>, 0.12L/ha dicamba, 50ml/ha Goal<sup>®</sup> (June 3)  
1.8L/ha Triflur X<sup>®</sup> (June 11)  
4g/ha Ally<sup>®</sup> and 0.35L/ha LVE MCPA<sup>®</sup> (September 5)

## Results

This site had high levels of stripe rust present. Disease observations in early October showed a severe stripe rust infection (up to 50% leaf 3) in H45 and high pressure (up to 20% leaf 3) in Yitpi, Wyalkatchem, Mitre and AGHW 003. Annuello had very low levels and the disease was not detected in AGHW 001 and Ouyen at this time.

A second observation in early November showed a progression in the infection in H45 to 80% flag leaf and 10% head infection. AGHW 001 remained free of stripe rust altogether while other varieties showed 10-30% (leaf 2 & flag) infection. AGHW 003 was the only variety infected with stem rust at this time.

### Location

David Jochinke  
King's Rd, Wallup

### Growing Season Rainfall

Ave: 280mm  
2003: 257mm

### Soil

Type: grey clay  
pH (H2O): 8.4

### Sowing Date

June 4, 2003

### Paddock History

2002: Lentils  
2001: Wheat  
2000: Ley

Table 1: Wheat yield and quality, Wallup.

Variety	Yield (t/ha)	Protein (%)	Screenings (%)	Test weight (kg/hL)	Pool ESR		Cash	
					Varietal grade	Price (\$/t)	Bin grade	Price (\$/t)
Mitre	2.7	8.4	1.6	79	AH	178	ASW1	150
Drysdale	2.7	9.2	1.2	81	APW	191	ASW1	150
AGHW 003	2.6	8.3	2.0	80	+	+	+	+
Annuello	2.6	8.3	1.3	82	AH	178	ASW1	150
Ouyen	2.6	8.7	1.8	80	AH	187	ASW1	150
*Yitpi	2.6	9.8	1.1	81	AH	201	APW	187
Babbler	2.3	9.3	1.2	80	APW	192	ASW1	150
Wyalkatchem	1.9	10.9	0.8	80	ASW	195	ASW1	150
AGHW 001	1.7	10.9	1.8	80	+	+	+	+
H45	1.4	9.5	3.1	78	APW	191	ASW1	150
<b>LSD (5%)</b>	<b>0.3</b>	<b>1.0</b>	<b>0.6</b>	<b>NS</b>				
<b>CV %</b>	<b>4.4</b>	<b>-</b>	<b>-</b>	<b>-</b>				

\* Control variety. Results, including prices and grades, are average for control plots.

+ No grading for this new variety

Note: grades and prices determined by AWB's Golden Rewards, assuming delivery to Marmalake on January 20, 2004 @ 10.5% moisture.

## Interpretation

- Several varieties including Mitre, Yitpi, and Annuello yielded well at this site.
- Of the highest yielding varieties Yitpi received the best price per tonne and return per hectare, under AWB's Golden Rewards, due to higher protein than the other high yielding varieties.
- H45 was one of the lowest yielding varieties at this site and was also the most affected by stripe rust. However screenings were below 5% in all varieties indicating that stripe rust had a greater impact on yield than grain size.

- Wyalkatchem and AGHW 001 also yielded lower than the other varieties despite much lower stripe rust infection – in fact AGHW 001 remained free of disease all season indicating that moisture may have been a greater yield limiting factor at this site.