

Wheat varieties in the Mallee



The aim of this trial was to compare the performance of wheat varieties suited to the central Mallee (Berriwillock).

Summary

The best performing varieties at the Berriwillock trial site (central Mallee) in 2003 were Annuello, H45 and Yitpi. The worst performing variety in the trial was JNZ Clearfield.

Background

Variety evaluation has always been critical to the work undertaken by the BCG-WFS. With the advent of many new seed companies it is now even more important to have an independent group evaluating new varieties.

Methods

At Berriwillock seven wheat varieties were sown on May 19 at a target plant density of 175plants/m² with Mallee Mix 1 at 50kg/ha. Triflur 480[®] was applied at 0.6L/ha prior to sowing and Lontrel[®] at 100ml/ha on June 11.

Yield, protein and screenings were recorded for each variety.

In calculating gross income achieved per hectare for each variety, grain moisture was assumed to be 12.5% and as a consequence did not accrue any golden reward dollars for moisture. All grain prices were delivered Berriwillock and golden reward increments included.

Results

There were significant differences in grain yield, screenings and protein for the wheat varieties in the trial at Berriwillock in 2003 (Table 1).

Table 1. Grain yield and quality of wheat varieties at Berriwillock.

Variety	Classification	Yield (t/ha)	Screenings (%)	Protein (%)	Gross Income (\$/ha)
Yitpi	AH	2.7	2.7	14.2	514
Annuello	AH	2.8	2.6	13.8	543
H45	APW	2.8	1.7	14.5	508
Mitre	AH	2.8	6.1	13.6	529
Wyalcatchem	APW	2.6	3.8	15.4	471
Chara	AH	2.3	2.2	14.9	449
JNZ Clearfield	AH	2.1	3.0	15.2	398
LSD (5%)	-	0.3	1.4	0.9	-

Interpretation

Annuello, H45, Mitre and Yitpi were the outstanding varieties in 2003 at the Berriwillock trial site. This was reflected in the gross income per hectare achieved by all four varieties reaching over \$500. Of these four varieties, Mitre had the highest

screenings at 6.1%. All of the varieties had high protein (>12.5%) primarily because of the high N status of the soil at sowing (113kg/ha of mineral N to a depth of 60cm).

Even though JNZ Clearfield had the lowest yield (2.1t/ha compared to 2.8t/ha for the highest yielding varieties), it should be noted that it may still be the variety of choice in heavy brome grass situations when Clearfield technology (Midas) is required for brome grass control.

There was no stripe rust observed on the varieties in 2003 at this site.

Commercial Practice

The varieties of choice for the central Mallee in 2004 are Annuello, H45 and Yitpi. Due to the heavier grain weight of Yitpi, sowing rate adjustments will have to be made to ensure that this variety is still sown at approximately 175plants/m² which is the optimum level for this environment.