

3.2.2.7 Tarrington Milling Wheat Trial

Location: Tarrington

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Background:

This trial was first established in 1999 in response to local grower's requests to see more milling quality wheat being trialed in the district. Early results were promising however the varieties examined in 1999 were not analysed for quality and the variety list was a bit limited. The trial was resown in 2000 with a greater list of varieties of differing maturities.

Aim:

To investigate the possible yield and quality differences between various milling quality wheats of differing maturities in the Hamilton District.

Growing Season Rainfall:
(April – Oct) 557mm

Treatments:

Sown and harvested with conventional equipment the plots in this trial were 12 metres wide and 200 metres long. To enable scientific comparisons to be made every third plot was sown to a control (Kellalac). In this way any differences between plots due to paddock differences rather than varietal differences should be picked up.

The trial was sown on the 19th of June, with 100 kg/ha of DAP. The wheat was sown at 100 kg/ha regardless of seed size. Trial work is now showing that seed size can have a big bearing on plant establishment numbers with the larger seed size varieties such as Camm and Diamondbird having less plants per square metre hence requiring the plants to tiller more to compensate for this.

Results:

Treatment	Maturity	Protein	Screenings	Yield (T/ha)
Camm	early	14.0	7.5	3.66
Diamondbird	mid	13.4	4.5	3.12
Frame	early to mid	14.2	6.5	3.54
Kellalac	very late	15.5	15.8	3.65
Mira	early	13.2	7.5	3.94
Rosella	late	13.8	14.5	3.15
Silverstar	very early	13.1	7.0	4.25
Yitpi	early to mid	13.8	3.5	3.41

Least Significant Difference 0.95 T/ha

Conclusion:

The results must be treated with caution as the late break, extremely wet September/October period and then the extremely dry finish to the season did not suit any of the wheat varieties with very little significant differences occurring between the yields of different varieties. The early maturing varieties did appear to perform better than the later maturing lines but it generally did not result in statistical differences between varieties.

Quality aspects were not statistically analysed however trends in the screenings certainly indicated that the longer season varieties were at a disadvantage due to the extremely tight finish. All varieties apart from Diamondbird, Mira and Silverstar would have been rejected due to extremely low grain weights.

It is extremely hard to draw conclusions from this trial. However it does indicate that variety selection is critical in order to meet the requirements necessary to obtain milling classifications. Seasonal conditions can also have a big bearing on results obtained and the risk of only obtaining feed quality in any year is fairly high. Of the eight varieties trialed in 2000 only Diamondbird would have been accepted into the milling pool, as the others were either too high in screenings and/or too small a grain size. We hope to continue this work.

Further Information:

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