# Rankin Springs - wheat varietal yield and quality trial

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This trial was part of a series of trials conducted also at Tottenham, Euabalong and Nyngan.

**Key Messages**

- Although there was a very late break to the season, cooler conditions through September and October maintained good yields. Mid to short season varieties performed well, namely EGA-Gregory (at 3.0t/ha), Ventura (at 3.0t/ha) and Strzelecki (3.0t/ha).
- Yield varied from 1.8 - 3.0t/ha.
- The protein levels were all below the Prime Hard receival standards.
- The screenings levels were all below 5%, except for H45 (13.3%) which was greatly effected by stripe rust.
- The test weights were generally between 79kg/hl - 82kg/hl, except for the long season varieties (EGA-Wedgetail, 59.5kg/hl, Marombi, 61.2kg/hl, Rosella, 62.2kg/hl, Wylah, 68.2kg/hl, SW-Odeil, 74.8kg/hl, Whistler, 76.8kg/hl and Bowerbird, 77.8kg/hl). The season was too short to establish sufficient root and leaf mass significantly reducing the grain fill period.

**Background**

The aim of these trials were to provide localised data on the yield and quality response of released and near release wheat lines at Nyngan, Tottenham, Euabalong and Rankins Springs. Under the new national variety testing system (NVT) these sites were no longer covered by trials.

**Methods**

Growing season rainfall for Rankins Springs was 287mm (June - November).

The trial was sown into a long fallow paddock (from lucerne) into good soil moisture on the 29$^{lh}$ June 2005 and harvested on the 23$^{rd}$ November 2005.

The trial consisted of 32 varieties and was sown on a red loam soil. The
treatments were replicated 3 times. Plot size was 2m X 15m.

Both early and late maturing wheat varieties were used in the trials. With the late break to the season the slower maturing varieties were significantly disadvantaged.

Varieties were sown at a seeding rate of 50kg/ha with 80kg/ha of DAP (18N; 20P).

**Results**

| Variety | Yield (Una) | Protein (%) | Screenings (%) | Test wt(kg/hL) |
|---|---|---|---|---|
| **EGA GREGORY** | 3.02 | 9.93 | 3.24 | 80.17 |
| **VENTURA** | **3.01** | 10.53 | 3.50 | 81.50 |
| **STRZELECKI** | 3.00 | 10.43 | 4.62 | 80.17 |
| **WYALKATCHEM** | 2.93 | 10.47 | 4.30 | 79.33 |
| **ANNUELLO** | **2.87** | 10.26 | 4.21 | 80.33 |
| **MAROMBI** | **2.87** | 10.90 . | 1.85 | 61.17 |
| **GBA_SAPPHIRE** | 2.86 | 10.70 | 2.83 | 81.33 |
| **SW_ODIEL** | **2.81** | 10.60 | 3.50 | 74.83 |
| **H46** | **2.80** | 11.07 | 2.45 | 81.17 |
| **JANZ** | 2.80 | 10.57 | 2.37 | 80.67 |
| **DRYSDALE** | 2.76 | 10.50 | 4.60 | 81.17 |
| **EGA_WEDGETAIL** | 2.76 | 11.90 | 1.53 | 59.50 |
| **DIAMONDBIRD** | **2.74** | 10.26 | 2.87 | 82.00 |
| **PETRIE** | 2.74 | 10.53 | 4.60 | 81.67 |
| **WYLAH** | 2.73 | 10.87 | 1.43 | 68.17 |
| **CLF_JANZ** | **2.72** | 10.40 | 2.07 | 80.00 |
| **SUNSTATE** | 2.72 | 11.43 | 2.17 | 82.50 |
| **GILES** | **2.71** | 10.26 | 4.20 | 78.50 |
| **CUNNINGHAM** | **2.69** | 10.56 | 2.85 | 82.33 |
| **CHARA** | 2.68 | 10.76 | 3.55 | 81.33 |
| **LANG** | 2.66 | 11.03 | 2.09 | 80.67 |
| **ELLISON** | 2.62 | 11.93 | 1.32 | 80.83 |
| **BABBLER** | 2.59 | 10.90 | 2.66 | 81.33 |
| **BANKS** | 2.59 | 11.36 | 1.88 | 80.17 |
| **SUNVALE** | **2.59** | 11.23 | 1.38 | 80.67 |
| **WHISTLER** | 2.58 | 11.10 | 3.89 | 76.83 |
| **ROSELLA** | 2.52 | 11.27 | 1.41 | 62.17 |
| **ARRIVATO** | 2.47 | 11.56 | 1.67 | 79.33 |
| **BAXTER** | 2.46 | 11.47 | 2.59 | 79.67 |
| **BOWERBIRD** | 2.40 | 11.00 | 8.03 | 77.83 |
| **H45** | 1.84 | 10.93 | 13.34 | 78.50 |
| | | | | |
| **lsd (5%)** | 0.19 | 0.60 | 1.24 | 3.01 |

Values that vary less than the lsd (5%) are not considered to be different.

**Discussion**

There was some moisture stress during grain fill (which explains the variation in yields) although it was generally a good yielding season. Yields ranged from 1.8 - 3.0t/ha. Stripe rust was present at this site and did influence yield results. Susceptible varieties, like H45 are at the bottom of the yield table.

Long season varieties like Rosella should not be sown at these very late sowing dates in this region.
The trial will be repeated this year and ideally planted at two sowing dates to optimise the performance of each variety.

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