Triticale Variety Demonstration

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Aim

To evaluate which varieties of triticale yield well on 'wodjil' soils which have low subsoil pH and aluminum toxicity.

Background

Triticale, a crossbreed of wheat and rye, is designed to be a high yielding feed crop that can grow on acidic soil types in which wheat struggles. Three different varieties were trialled in a farm scale demonstration. These varieties were:

Berkshire: A variety bred for high quality feed grain to supply the pork industry. The yield is equivalent to currently available triticale varieties (Waratah Seeds, 2007).

Speedee: Bred for early vigour and maturity. It is suitable for late sowing, short seasons and low rainfall. Speedee has excellent disease resistance and is easier to harvest than other triticale varieties (Bateman, 2011).

Tahara: Older variety that has good resistance to cereal cyst and root lesion nematodes, however, it is susceptible to stripe rust and yields lower than newer varieties.

Trial Details

Property	Deb and Neil Brown, Perenjori
Plot size & replication	248m x 30m x 1 replication
Soil type	Sandy gravel, light red sandy loam, yellow wodjil
Paddock rotation	2008 triticale, 2009 pasture, 2010 pasture
Seeding date	16/6/11
Seeding rate	70 kg/ha
Fertiliser	16/6/11: 50 kg/ha K-Till Extra
Herbicides & Pesticides	16/6/11: 1.2 L/ha Glyphosate, 1.2 L/ha Trifluralin, 200 g/ha Diuron. 12/7/11: 60 mL/ha Alpha Forte 19/7/11: 60 mL/ha Alpha Forte, 700 mL/ha Jaguar
Growing Season Rainfall	202mm

Trial Design and Layout

Three plots (Berkshire, Speedee and Tahara) were planted 30m wide and 240m long, traversing three soil types – Sandy gravel, light red sandy loam and yellow wodjil sand as shown below in Figure 1.

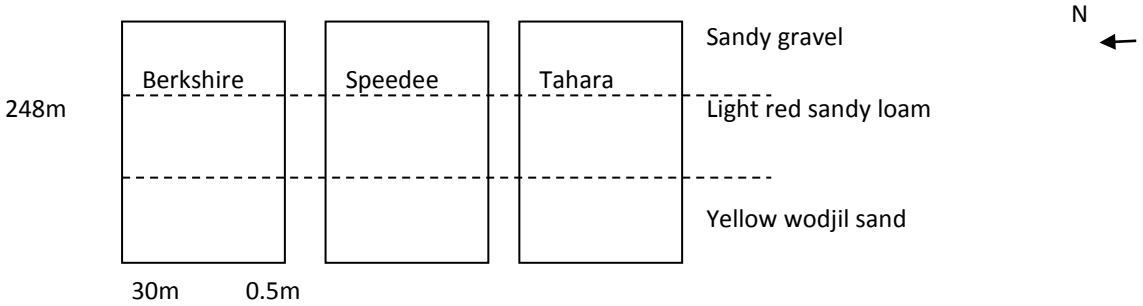

Figure 1: Trial layout.

Results

Table 1: Yield and quality of triticale varieties.

Variety	Yield (t/ha)	Protein (%)
Berkshire	1.14	11.5
Speedee	0.94	11.8
Tahara	0.77	11.8

After being attacked by cutworm 4 weeks after sowing the triticale regenerated quickly. As expected the newer varieties yielded higher than the Tahara.

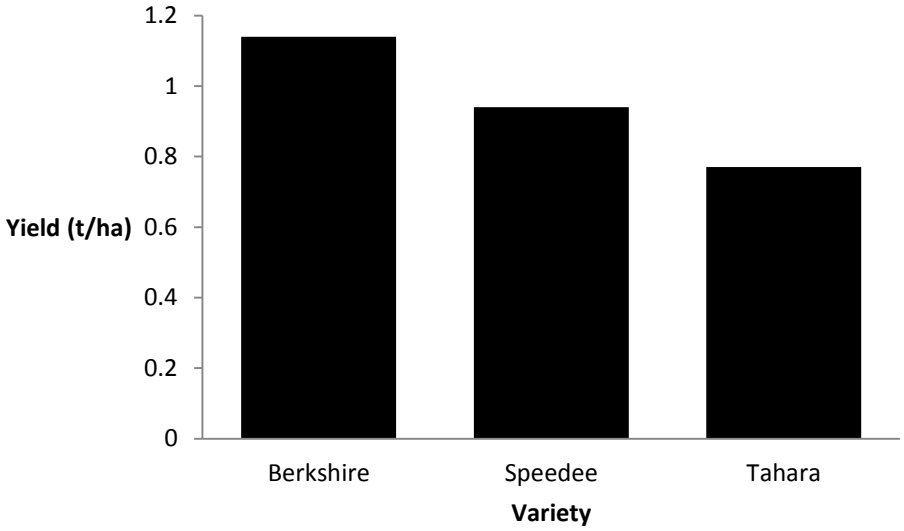

Figure 2: Yield of triticale varieties Berkshire, Speedee, Tahara East of Perenjori 2011.

Comments

- Crop affected by cutworm - count at 40/m^2 (12/7/11), treated with 60 mL/ha Alpha Forte then 1 hour later 40mm rain occurred followed by a week of drizzle, therefore not all cutworm died.
- Berkshire recovered quickly from cutworm damage with more tillers and harvested easily.
- The farmer will not retain Tahara for seed.
- Speedee will be used again by the farmer because it may still perform in a short season – further testing required.
- This is an unreplicated demonstration, please interpret all results carefully.

Acknowledgements

Thank you to Deb and Neil Brown for conducting the trial and sharing their results.

Reference

Bateman, R. 2011. 'Triticale variety sowing guide 2012'. *SARDI Sowing Guide 2012*. pp. 44-46.

Waratah Seeds. 2007. 'Varieties – Triticale'. Received: 4 January 2012, from http://www.waratahseeds.com.au/varieties.html

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