Wedgetail wheat grazing demonstration at Wilby

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Key points

- Wedgetail provided good grazing for yearling steers.
- The grazing effect on grain yield was not determined, however the grazed crop recovered to yield 4t/ha.

Location: Wilby, Victoria

Rainfall:
Annual: 649mm (avg 508mm)
GSR: 209mm (avg 328mm)

Soil:
Type: Brown loam over medium brown clay

Sowing information:
Variety: Wedgetail wheat
Sowing date: 5 April 2011
Sowing rate: 70kg/ha
Fertiliser: 90 kg/ha MAP; 130 kg/ha nitrogen as urea (split application)
Treatments: Grazed (49 DSE/ha) and ungrazed

Row spacing: 25cm

Paddock history:
2010 — wheat
2009 — canola

Plot size: 6m x 6m

Replicates: 3

Aim

The aim of the trial was to:

1. Determine the grazing value of Wedgetail wheat for yearling steers.
2. Determine the impact of grazing on the grain yield of Wedgetail wheat

Method

A dryland demonstration site was established at Wilby, Victoria, to determine the effect of grazing on wheat yield. Wedgetail wheat was sown on 5 April 2011 at 70kg/ha with 90kg/ha MAP on a 25cm spacing. Wedgetail was chosen for its grain quality and capacity to be grazed during early winter. Dry matter (DM) cuts were taken at GS30 to determine available biomass. On 1 August 2011, 190 Angus yearlings were introduced for 27 days (49 DSE/ha) and removed just as the crop nodes were leaving the ground (GS30-31). Following cattle removal the paddock was top dressed twice with a total amount of 130kg/ha nitrogen as urea. The crop was then grown to maturity and harvested for grain.

Photo: Rohan Pay

TABLE 1 Dry matter and yield results for grazed and ungrazed Wedgetail wheat

Treatment	DM (kg/ha)	Yield (t/ha)	Protein (%)
Ungrazed	1451	na	–
Grazed	–	4.0	12.8

Results

At the time of grazing there was 1451kg/ha DM (see Table 1). Plants were at seven-leaf, eight-tillers growth stage (GS30) and on most plants the node was not visible. On some advanced plants the node was 0.5cm to 1.0cm off the ground. During the grazing period the cattle trampled the exclusion cages so an ungrazed yield was not attainable. After the grazing period, most nodes were 1–2cm off the ground.

Observations and comments

The cattle grazing Wedgetail wheat were estimated to have eaten 1100kg of DM and did not graze the crop into the ground. This feed potentially grew 140kg of beef/ha (assuming a feed conversion rate of 8:1). Due to the cattle trampling the exclusion cages it was not possible to determine the yield of the ungrazed plots.

SPONSORS

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