

Oaten hay production in the southern Mallee / northern Wimmera

The aim of this demonstration was to show the production potential of new oaten hay varieties in the southern Mallee/northern Wimmera.

Summary

Oaten hay production is an opportunity to intensify the cereal proportion of a cropping rotation without increasing root disease burdens provided a CCN resistant variety is grown. With current prices of \$120-140/t oaten hay production is a viable option.

The highest hay production was achieved from Vasse and Marloo (5.7t/ha), Echidna (5.6 t/ha), 88083-4-2 (5.5 t/ha) and Glider (5 t/ha). The other seven varieties yield between 3.4 t/ha and 4.8 t/ha.

Marloo is the variety of choice offering good hay production and CCN resistance.

Background

At current prices of \$120-140/t oaten hay production is a viable option when yields of 5 t/ha or greater can be achieved. Provided the oat variety grown is CCN resistant, growing oats is a relatively low risk opportunity to intensify the rotation without increasing cereal root disease burdens.

Oats also have the flexibility of offering another bulk feed source for grazing during the critical autumn/early winter period.

Methods

This trial was conducted as a demonstration and treatments were not replicated.

The trial was dry-sown into fallow on the 14 May 2001 with 80 kg/ha Mallee Mix 1. Seeding rates used were 120 kg/ha (Echidna, Wallaroo and Marloo), 80 kg/ha (Vasse, Glider, Enterprise and 88083-4-2) and 70 kg/ha (Warrego, Gwydir, PO 548, Taipan (PO 555), Reil and Graza 50).

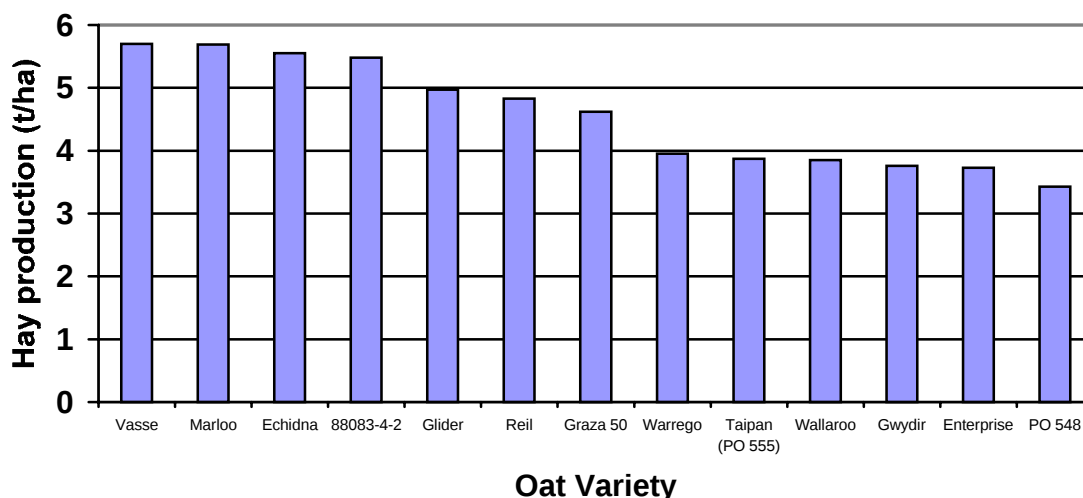
Weed control was conducted using normal registered rates of herbicides.

Dry matter cuts were taken at milky-dough stage to determine each variety's potential as an oaten hay line for the southern Mallee/ northern Wimmera districts.

Results

The highest hay production was achieved from the following varieties: Vasse and Marloo (5.7t/ha), Echidna (5.6 t/ha), 88083-4-2 (5.5 t/ha) and Glider (5 t/ha). The other seven varieties yield between 3.4 t/ha and 4.8 t/ha.

Figure 1: Hay production results for 12 oat varieties tested in 2001 at the Birchip site



Interpretation

The Birchip site received 181mm of growing season rainfall during 2001 (decile 2-3) and with a late break the season was not favourable for hay crops. The varieties Vasse, Marloo (5.7t/ha), Echidna (5.6 t/ha), 88083-4-2 (5.5 t/ha) and Glider (5 t/ha) did however perform very well all producing in excess of 5 t/ha.

The high leaf area fodder oat varieties, such as Enterprise and Graza 50, are not suited to oaten hay production in low rainfall environments.

Vasse – A tall semi-dwarf oat with finer straw than other semi-dwarf oats. Produces high quality oaten hay but more favoured in longer season environments. Moderately resistant to Barley Yellow Dwarf Virus.

Marloo – Good CCN resistance and tolerance. MS-MR to Barley Yellow Dwarf Virus. For grain purposes it is lower yielding than Potoroo.

Echidna – Semi-dwarf variety. Echidna is good for grain production but not renowned as a hay oat (this result is surprising).

88083-4-2 – Not yet released.

Glider – a tall oat with moderate straw strength. It is a late maturing line. Glider is resistant to stem and leaf rust.

Marloo is the variety of choice offering good hay production and CCN resistance.

Commercial Practice

When putting oats into rotation it is important to select a variety that carries CCN resistance (and tolerance) to prevent the build up and carry over of this important cereal root disease. The varieties that offer very good CCN resistance and tolerance are Marloo, Potoroo and Wallaroo.

At current values (\$120-140/t) oaten hay production is a viable option in the southern Mallee and Northern Wimmera if yields of 5 t/ha or better can be achieved.

For notes on weed control in oats refer to the 1998/99 BCG Crop and Pasture Production Manual.