

Canola for grain and grazing

A pilot study has shown that canola has potential as a grain and graze crop. A new three year study is assessing the best varieties and management options.

A new grain and graze option?

Farmers have been using dual-purpose cereals for years, to fill a winter feed gap and improve the profitability and flexibility of mixed farming enterprises.

Dual-purpose cereals can recover from grazing in winter to produce high grain yield. However there are currently no non-cereal break crops used in these systems to reduce the impact of soil-borne diseases and grass weeds in cereal crops. Fodder brassicas grown in spring and summer are used as a graze-only option but must be removed early for sowing winter cereals.

Research conducted in Canberra by Dr John Kirkegaard from CSIRO Plant Industry has shown that canola has potential as a grain and graze option for mixed farming operations.

Promising pilot study

A pilot study during 2004-05 looked at both winter and long-season spring canola varieties with good blackleg resistance and showed that canola produced high quality feed in winter and recovered from grazing to produce a respectable grain yield.



Canola has potential for grazing and cropping

In 2004 canola sown in late April produced 2.5 t/ha of high quality biomass and recovered from grazing in mid-August to produce a grain yield of 4 t/ha with 47 per cent oil (below).

The second trial in 2005 showed that delaying grazing and removing sheep in mid-September increased the feed on offer to 4.5t/ha, but reduced seed yield by around 0.5t/ha.

A surprising result in 2004 was the recovery of the spring variety, which was at an advanced stage of elongation when grazed in 2004 with the main stem completely removed by grazing sheep. The delay in flowering caused by grazing can be seen below.



Canola lightly grazed in mid-August 2004 (left) recovered better than heavily grazed canola (centre) to produce a similar yield to ungrazed canola (right). CSIRO Ginnindera Experiment Station, ACT.

This indicates that canola may recover well even from grazing in early reproductive stages, provided there is sufficient time for recovery.

The pilot study also demonstrated that dual-purpose canola has the potential to increase gross margins. The preliminary research found growing one of the winter varieties for grain only resulted in a gross margin of \$898/ha, whereas using it for grain and grazing increased the gross margin to \$1180.



Canola can provide valuable winter feed.

Fine-tuning dual purpose canola

While the research is at an early stage, Dr Kirkegaard has received funding from the Grains Research and Development Corporation (GRDC) to conduct more extensive investigations.

The three year project, to be based in Junee and Canberra in southern NSW and in south west Victoria, will evaluate varieties potentially suited to grain and graze uses. Grazing management, disease and other risks, as well as potential benefits to the whole farming system, will also be evaluated.

The study will assess dual-purpose canola in medium and high rainfall areas, where the likelihood of adequate rainfall and longer seasons make the concept a more viable option. The team will collaborate with other researchers and individual growers in high rainfall areas, such as Victoria's Western Districts, and with existing Grain and Graze programs in order to evaluate performance under more realistic grazing.

Dr Kirkegaard is currently gathering and reviewing existing information about grazing canola and selecting up to 30 varieties for evaluation in 2007 and 2008.

He is looking for information from anyone who has good or bad experiences (or opinions) regarding grazing canola, whether farmers, seed companies, agronomists or plant breeders.

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Grazing canola may provide flexibility and profitability in mixed farming enterprises.

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