



A bright future for canola & reducing risks in 2008

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in a nutshell

- The prospects for canola are good in 2008 and into future years, with good price signals, and new variety and management technology available
- A range of different types of canola (hybrids, specialty varieties, junceas) makes it possible to grow canola in a range of environments and for a range of markets
- Several strategies can be implemented to reduce the risk of a canola enterprise, such as strategic use of nitrogen fertiliser and deferring herbicide applications; choosing paddocks with stored nitrogen and stored moisture; and timely sowing

New varieties and herbicide resistant types, as well as strong price signals and a sound approach to risk management are all signs of an exciting era approaching for the canola industry in Australia. Canola is a proven crop that fits into rotations well as a break crop and can provide high returns, especially with the prospective prices of 2008.

Impact of new hybrids

Hybrid canola varieties have been in Australia since the early 1990s but it is only in the past few years that hybrids have shown their potential.

In future, with new varieties coming from private companies, we will see more hybrids on the market. Currently several of the highest yielding conventional and Clearfield varieties are hybrids.

Retaining seed from a hybrid for the next crop brings a big penalty with yields up to 13% lower yielding than the hybrid it was derived from.

Hybrids have generally been sown at lower sowing rates than open-pollinated varieties due to hybrid vigour. Trials conducted at Cummins and Struan in South Australia as part of the *Better Canola* project – funded by the Australian Oilseeds Federation (AOF) and GRDC – showed that sowing rates as low as 2 kg/ha were adequate for high grain yields from hybrids, provided pests and diseases were controlled. Improved seeding equipment and good management has allowed some irrigators to sow at 2.5 kg/ha using hybrids.

Specialty varieties

New specialty canola varieties (Nuseed's Monola™ varieties and Cargill/Vic DPI's hybrids) which produce oils that are more stable at higher cooking temperatures, while

maintaining very low levels of saturated fats and no trans fats, are now available to growers.

The development of the specialty canola is the AOF's top priority, as demand continues to grow. Locally, there is a market for specialty canola to replace the 10,000 tonnes of currently imported palm oil.

Specialty varieties traditionally have a yield penalty associated with them, but some newer Australian-developed varieties have yielded comparably to some of the leading non-specialty conventional or Clearfield varieties.

Currently price premiums are offered for the specialty types. Performance data still needs to be reviewed before growing specialty types.

Juncea canola

Juncea canola varieties are ideally sited to low rainfall environments or spring sowings in higher rainfall regions. This year two juncea canola varieties will be available, Dune and the new Clearfield variety, Oasis CL.

These are Australia's first canola quality *Brassica juncea* varieties, with major changes to both the oil and meal quality from traditional table mustard. Juncea canola is reported to have a number of advantages over traditional canola in low rainfall areas, including faster ground covering ability, heat and drought tolerance and shatter tolerance – thus it may not need windrowing.

The first triazine tolerant cultivars will hopefully be available in 2011. Hybrids and other herbicide tolerances are also currently being developed.

Juncea canola lines tend to yield the same or more than traditional canola in situations where canola yields are in the range 1.0–1.4 t/ha.



Strategies for reducing the risk

2008 will be another challenging year for irrigators. Making informed decisions early may reduce stress levels later in the season.

Variable costs to grow canola are now around \$300/ha for dryland crops and around \$770/ha for irrigated crops. Recent increases in variable costs for successful crops can be offset by high grain prices currently on offer (Table 1).

Use gross margins as a guide, remembering that they do not include benefits to subsequent crops, such as a possible 20% yield improvement in cereal crops after canola. Table 1 demonstrates benefits of even small yield increases on the gross margin per hectare, given the high canola prices at present.

Strategies to reduce some of the up-front costs for irrigated canola include strategic use of nitrogen fertiliser and deferring herbicide applications to post emergent where

Table 1. 2008 Murrumbidgee Valley irrigated winter crops water use efficiency – gross margin per hectare (GM/ha) and per megalitre (GM/ML)

Crop	Water use ML/ha	Yield t/ha	Price \$/t	Returns \$/ML	Gross margin \$/ha	Gross margin \$/ML	Variable costs \$/ha
Wheat							
ASW - border check	3	5	270	450	732	244	618
ASW/APW/AH - contour	3	4	270	360	462	154	618
AH - beds	3	6	270	540	895	298	725
Biscuit - beds	3	6	300	600	1,075	358	725
Biscuit - border check	3	6	300	600	1,075	358	725
High yielding	5	8	300	480	1,525	305	875
Biscuit - sod sown	1.5	3.5	300	700	510	340	540
Barley							
Feed	1.5	4.5	240	720	423	282	657
Malt	1.5	4.5	270	810	558	372	657
Canola							
Canola - beds	2	2.5	600	750	752	376	748
High yielding - beds	3	3.2	600	640	1,122	374	798
Faba beans							
Faba beans - beds	3	3.5	400	345	746	249	654

Source: NSW DPI



Figure 1. Strong price signals and a sound approach to risk management will be the makings for an exciting era for the canola industry in Australia.



Figure 2. Wayne Burton, juncea canola breeder, DPI Victoria, Horsham – developing one in a range of new canola types to better suit specific environments and/or markets.



possible to see if they are really needed. Choosing paddocks with stored nitrogen and stored moisture will also reduce risk associated with growing canola. Timely sowing is extremely important and maximises yield potential and by default reduces risk. Having alternative end uses for canola such as hay and silage also reduces risk by creating another source of income in a season with a dry finish. These strategies are discussed in more detail.

Grazing canola

Research in the high rainfall zone suggests if canola is sown early (by mid-late April), it can be grazed in winter. The feed is excellent quality. In preliminary trials, the combined value of stock feed and grain can easily be more profitable than grain alone. However, no research has been undertaken in the irrigation areas, so unless the farm business is dependent on a sheep enterprise this is not an option for 2008.

Canola hay & silage

Canola hay and silage may be an option again for irrigation crops in a low allocation year. In recent years, cutting canola for hay has provided an alternative income source for some growers and in a number of cases has been more profitable than carrying the crop through for grain. Dryland crops in the Victorian Wimmera in 2007 produced around 4 t/ha of dry matter at late flowering. In large, pre-irrigated trials sown 1 May in south east South Australia, hybrid varieties produced the highest dry matter production – up to 3.7 t/ha in July while still in the vegetative stage. This was followed by winter types (no varieties commercially available in Australia, and in any case these would be unsuited to northern Victoria and the Riverina), then spring varieties, juncea canola and specialty varieties.

Hay production is not without risk (weather damage, volatile markets) but does provide an option in some seasons.

Demand

The prolonged dry period and subsequent water and fodder

shortage has created some new opportunities for canola growers to market their failed crops as hay or silage with canola hay becoming more accepted by the dairy industry, particularly in Victoria. In southern and central NSW hay should be considered a “last resort option” – a very good understanding of the fodder market is required (proximity to market outlets, pricing etc) otherwise growers could be stuck with expensive fodder. Weather damage is also a big risk, as occurred in 2007. Canola hay and silage are safe to use as long as feeding guidelines are followed.

Quality

Good quality canola hay is an excellent source of energy and protein and is highly palatable. Last year, the quality of canola hay submitted to the NSW DPI Feed Quality Service (Wagga Wagga) was lower than for 2006, but for the Victorian FeedTest laboratory (Hamilton), it was similar. The mean values and range are presented in Tables 2 and 3.

Better Canola hay trials

Two trials were conducted in 2007 at Longerenong College in the Victorian Wimmera by the Birchip Cropping Group, as part of the Better Canola project. One trial investigated the time of cutting and its impact on hay quality, and the other compared two standard TT varieties with two Clearfield hybrids for dry matter against carrying the crops through for grain yield. To briefly summarise, cutting at early flowering produced the best quality hay, but cutting at late flowering to early pod fill was the best compromise between hay yield and hay quality - and the most profitable option. Hybrids produced more hay and grain than the TT varieties tested. More detailed results will be published on the AOF website www.australianoilseeds.com in the near future.

Hay is hungry – a soil test is a must

Nutrient export in hay crops can be very high and this needs to be considered when planning for 2008. A soil test in autumn is a must for paddocks that were cut for hay last season.

Baled canola hay (samples)		Crude protein (%)	Dry matter digestibility (%)	Metabolisable energy (MJ per kg dry matter)
2007 (257)	Average	17.7	63.4	9.1
	Range	8.6 - 33.6	45 - 83	5.8 - 11.9
2006 (106)	Average	21	69.4	10
	Range	12 - 31	57.2 - 76	7.9 - 11.6

Source: NSW DPI Feed Quality Service

Baled canola hay (samples)		Crude protein (%)	Dry matter digestibility (%)	Metabolisable energy (MJ per kg dry matter)
2007	Average	15.0	65	9.6
	Range	8.7-27.7	35-83	4.4-13.1
2006 (579)	Average	15.9	66.4	9.8
	Range	4-27	33-85	4-13

Source: Feedtest Victoria



Other strategies for managing risks

Readers are encouraged to refer to the Autumn 2007 edition of this magazine (No. 175, pp. 20-24) or visit: http://www.irec.org.au/farmer_f/f_news175.html for more information on risk management options for growing canola. This covers time of sowing for different irrigation districts, calculating sowing time, nitrogen management, fungicides and retaining seed. ☀

Further information

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Figure 3. Canola produces high quality hay, and hay making provides a sound risk management strategy in seasons with a dry finish.