

## **APPENDIX 5.**

**Forage oats and the bottom line. *Frontier*, Autumn 2008. Pp. 6-7.**

## Forage oats and the bottom line

**SKY-HIGH GRAIN PRICES, AND DRENCHING RAINS IN SOME AREAS ARE ENCOURAGING GRAZIERS TO REASSESS FORAGE OATS AS A MEANS OF FINISHING STOCK. FORAGE OATS HAS LONG BEEN A STAPLE CROP TO FILL THE WINTER FEED GAP IN SOUTHERN QUEENSLAND AND NORTHERN NSW, AND AS A MEANS OF FATTENING STOCK.**

But Kay Taylor, the Miles-based senior beef extension officer with the Queensland Department of Primary Industries & Fisheries, says sowings of the crop have slowly declined over the past two decades.

Kay attributes part of the decline to the costly risk of failure, "a potentially bigger risk than barely covering your investment in weed control in fallow, seed and fertiliser," she says.

That risk increases the further north oats are sown, as the winter rainfall needed to get the crop through, declines in favour of stronger summer rainfall patterns.

The solid feeder steer market, which encourages producers to turn-off young cattle without finishing them on-farm, has also been a factor in the declining popularity of forage oats.

### Oats as an option

But with feedlots struggling with feed grain price hikes, and the dampening effect of the high Aussie dollar on turn-off price, forage oats is again emerging as an option for cattle producers wanting to grow out stock for high-value markets.

However, Kay suggests that given the still questionable economics (discussed later), it is imperative that producers focus on good agronomics, grazing practices that will maximise the quantity and quality of forage produced, and

sound marketing of the end product.

On the income side of the equation, there are three key elements that contribute:

Number of animals (A) x Weight (B) x Price (\$/kg) (C)

#### A. Number of animals

The number able to be turned off is largely a reflection of the crop's carrying capacity which is in turn determined by underpinning agronomy and to a degree the grazing management of the crop.

#### B. Weight

The weight gain (kg) of beef turned off per animal and therefore per hectare is influenced by the health of the crop, the genetics of the animals, the grazing practices and good animal husbandry.

#### C. Price

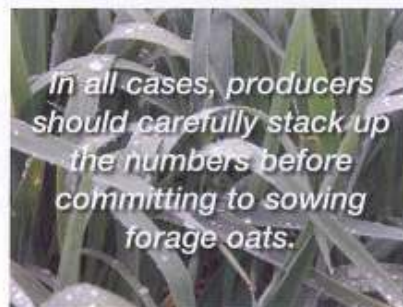
The price of the turned off product is similarly a key driver. In any operation, often the main opportunity for achieving or maximising a profit is where a positive price differential can be achieved (ie sell price is higher/kg than the buy price). The reality however is that this is often in reverse, so the other contributors to the equation need to come more strongly into play.

"People who tend to make their money out of crops are generally better with the agronomic side of things, like having the right equipment, preserving

soil moisture, controlling weeds, getting things done at the right time and applying fertiliser at the right rate," Kay says. This sets the potential value of the crop.

"But with the crop up and running, animal management and grazing expertise come into play."

In all cases, producers should carefully stack up the numbers before committing to sowing forage oats.



### Crunching the figures

In two scenarios explored by Kay, forage oats could either prove to be an outstandingly good option, or an outstandingly bad one.

Kay compared the results of finishing cattle on oats versus in a feedlot; and also looked at the per-hectare implications of using land for forage oats versus sowing wheat.

In both cases, it was assumed that cattle on oats would gain weight at 1.1kg per head per day over 100 days on feed, stocked at 2.5 animal equivalents per hectare, with stock bought and sold at the same rate (\$1.85 per kg liveweight). All figures are ambitious compared to the results often achieved, Kay acknowledges, but feasible.

Her base scenario using these assumptions provides a gross margin of \$144/ha for forage oats. This includes all the induction, management and selling costs associated with the stock

#### KEY POINTS

- At current grain prices, wheat is a much more profitable use on the land than finishing steers on forage oats.
- Compared to feedlotting, forage oats is a better option for finishing stock at current commodity prices.
- Good farming and grazing skills are necessary to capitalise on investment in all scenarios.
- Costs and risks vs likely returns of various options need to be considered.

**TABLE 1** Modeled comparisons for use of one hectare of agricultural land

Management option	Underpinning assumptions	Price that would be required for wheat if options A, B & C were all returning the same gross margin.
Sow land to wheat and sell grain	<ul style="list-style-type: none"> <li>Yield 2.25 tonne/hectare</li> </ul>	\$300/tonne on farm
A. Sow land to forage oats and graze – a good forage oats crop	<ul style="list-style-type: none"> <li>Carrying capacity 2.5 adult equivalents/hectare</li> <li>Growth rates 1.1 kg/head/day</li> <li>100 days on feed</li> <li>Purchase price of steers = sale price of steers = \$1.85/kg liveweight</li> </ul>	\$195/tonne on farm
B. Sow land to forage oats and graze – excellent growing conditions	<ul style="list-style-type: none"> <li>Carrying capacity 2.5 adult equivalents/hectare</li> <li>Growth rates 1.2 kg/head/day</li> <li>120 days on feed</li> <li>Purchase price of steers = sale price of steers = \$1.85/kg liveweight</li> </ul>	\$265/tonne on farm
C. Sow land to wheat and feed to stock ie opportunity feedlot	<ul style="list-style-type: none"> <li>Yield 2.25 tonne/hectare</li> <li>Growth rates 2.0 kg/head/day</li> <li>100 days on feed</li> <li>Purchase price of steers = sale price of steers = \$1.85/kg liveweight</li> <li>Feed additives, mixing and feedout costs = \$50/tonne</li> </ul>	\$130/tonne on farm

and all costs for preparing the country and growing the crop.

Assessed against an average wheat crop that yields 2.25 tonnes per hectare and is sold for \$300/t, forage oats performs badly. The wheat crop delivers \$381/ha, a difference that leaves no room for doubt on enterprise choice if profitability is the main aim of the enterprise. A producer would have to receive just \$195/tonne for the wheat to achieve the same outcomes as achieved by finishing steers on forage oats.

Now, if the grazing period of oats can be extended to 120 days and the weight gain increased by 0.1kg/hd/d, the gross margin for oats would rise to \$301/ha. This would equate to the same gross margin achieved from a wheat crop if the price received for the wheat was \$265/t.

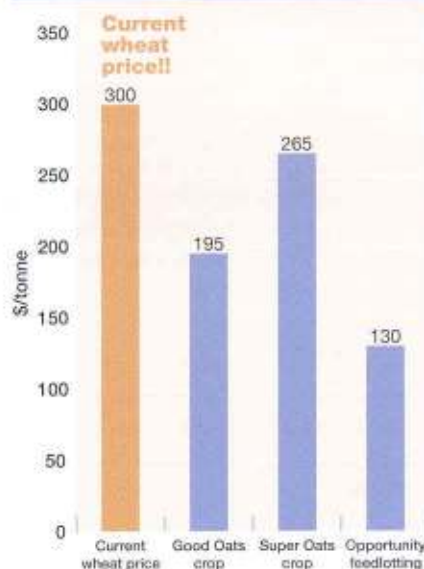
It has to be remembered that these figures are based on the same buy and sell price/kg liveweight for the steers, but the reality is regularly much worse than this, eg buy price can be about 20c/kg liveweight higher than the sell price.

### Oats or the feedlot?

Kay then ran a scenario comparing the finishing of cattle on oats against finishing in a feedlot. As expected, the maths now strongly favours forage oats.

For this scenario, Kay assumed a base feed grain price of \$300/t, with the final

**FIGURE 1** The wheat price to produce similar gross margins on 3 different options.



ration costing about \$350/t with additives, preparation, delivery etc. Daily feedlot weight gains were set at 2.0kg/head/day (above the industry average) and the buy and sell price set at \$1.85/kg (as for oats). This was compared to the base oats finishing scenario above.

Under these assumptions, feedlotting delivered a whopping loss of \$206 per head compared to grazing oats with a positive gross margin of about \$57 per head (\$144/ha). With all else constant, the price of feed grain would have to be just under \$130/t for feedlotting to give

an equivalent gross margin to finishing on forage oats.

However, if the feed grain cost drops to about \$200/t (ration cost about \$250/t) and a positive price differential of 20c/kg above purchase price is achieved at turn-off (as may be the case for grain finished stock), then the feedlot gross margin per head would be about the same as the base oats finishing scenario (\$62 vs \$57/head). This clearly demonstrates how critical it is to target and meet premium market specifications when feedlotting.

"Alternatively, if a producer has grown the grain on property and has an on-property feedlot, a management decision may be whether to sell the grain or put it through cattle," Kay added.

"If the same original base feedlot scenario assumptions applied (2.0kg/hd/d and the buy and sell price for cattle was \$1.85/kg LW), feed grain would need to be worth \$163/t or less, just to break even on the cattle, assuming the cost of additives and preparation was constant. Again at current grain prices of around \$300/t, it is clear that there is far more profit to be made by selling the grain and leaving the feedlot empty for the time being".

### MORE INFORMATION

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