

Macalister Demonstration Farm

Projects on the farm are funded by GippsDairy, HICO and Genetics Australia

Macalister Demonstration Farm Update 390 (Week ending November 7th, 2014)

What's been going on at the MDF?

Current Production:

- Cows: 280 in vat and 282 in the herd. Current production 28.2 litres at 4.1% fat and 3.31% protein or 2.07 kg milk solids per cow including calf milk and around 570kgMS/day total.
- Feeding 5kg pellets at \$372/t ;

Income Over Supplementary Feed Cost (on milk sold):

	Litres	Solids
Production	27.5	2.03kg
Components	4.1%/3.31%	4.1%/3.31%
Milk price on current test	40c	\$5.43
Gross milk income less levies	\$11.00	\$11.00
Minus grain/pellets 5kg@37.2c/kg	\$1.86	\$1.86
IOSFC (\$/cow/day)	\$9.14	\$9.14
Minus irrigated grass (\$140/tDM)	\$1.79	\$1.79
Net IOSFC (\$/cow/day) \$/herd/day	\$7.35	\$7.35
Net production	22.9 litres	1.69kg
Supplement cost	5 litres	0.38kg

This calculation uses current (announced) milk price only and not projected closing price.

Grazing around 3.5-4ha/24hours or 19 day round on available area (73ha).

Pasture demand (eat rate) is 3600kgDM total/24 hours or 50 kgDM/ha, and so the required growth rate to match eat rate is 50 kgDM/ha/day. Any growth above this amount is surplus, but there is unlikely to be any further silage harvest, and the surplus above eat rate is likely to be toppings of unpalatable feed.

Thought is being given as to whether quality hay will be purchased now in readiness for late summer feeding or whether we will wait and purchase at the time depending on what amount may be required and what alternatives are available for the price and feed quality on offer. The alternatives include feeding additional concentrates, feeding the silage harvested earlier rather than later in autumn, feeding lower quality feed sources such as Almond hulls in the feed pad area, or just accepting a lower level of production on the available feed at the time (an accepted strategy for many).

If energy is what is being chased at the time (assuming high quality irrigated pasture is available, just not enough of it), and the cows are being fed around 6kg as fed concentrate per day (pellets, grain), with an estimated pasture growth rate of 30kgDM/ha/day under summer heat conditions, with 270 cows (some culling after peak), there is enough pasture for 8kgDM/cow/day. In order to support the 25 litres/cow production target (1.8kgMS), the deficit is around 3kgDM/cow/day of pasture.

The options to fill this gap include providing around 4kg as fed/cow/day quality hay (10MJ plus), feed the silage that has been produced through spring (although there would only be enough for around 20 days), feed additional concentrates or feed around 4kg as fed/cow/day Almond hulls, or a combination of any of the above.

Option	\$/t as fed	\$/t dry matter	Total additional \$'s per day for 270 cows
3.4kg DM quality hay	\$340	\$400	\$367
4kgDM silage	\$80 (manufacture cost only)	\$160	\$173
2.8kgDM additional concentrate	\$372	\$413	\$310
3.6kg DM Almond hulls	\$145	\$165	\$160

The table above is a quick and crude way to determine the options available. The other considerations to note are wastage (possibly highest in hay and silage feeding and less in grain feeding), the value of other components such as protein (will only be an issue if protein is limiting in the diet at the time) and of course the labour and “stuff around factor” required (least for additional grain and most for hay/silage feeding).

A big consideration to be factored in is what alternatives may cost later in the season if say the silage has been used in summer, and the replacement cost of this feed later in the year when it may be needed. In the case of late lactation feeding, this may be through purchasing lower quality forage (at a lower price) in autumn when higher quality forage is not as important, and using the reasonable quality silage in summer, perhaps shandied with almond hulls, quality hay or additional grain.

This decision will be made within the next two weeks at the next Focus Farm meeting, so stay tuned for the answer!

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