

Macalister Demonstration Farm, Dairy Australia, Extension Project

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Macalister Demonstration Farm Update 312 (Week ending Aug 24, 2012)

The Macalister Demonstration Farm is now milking 58 cows grazing 18 hectares, a stocking rate of 3.2 cows per hectare. Last year at this time, there were 59 milkers, and the stocking rate was 2.6 cows per hectare. The daily allocation for the recent week remains at one 55th of the grazing area, and the actual grazing rest time was 57 days.

Anastasia is collecting newly born calves twice per day. She sprays their navel with iodine. To ensure each calf gets enough antibodies, she feeds them with 2 litres of colostrum within 6 hours of birth, and then another two litres that day, using only the very first colostrum from newly calved cows. She is testing the colostrum with a Brix refractometer. The refractometer indicates the amount of protein in the colostrum. Most of colostrum protein is antibodies. It usually scores above 27%. Below 22% is not ideal. Usually adult cow colostrum is better than heifer colostrum but the heifers' happens to be better, possibly because the adult cows have leaked some of their first colostrum out by the time it is tested.

It is about to warm up, but paddock one, grazed 55 days ago had 2.6 leaves regrown so the one 55th allocation is being held for a few more days. You can see how much grass is available, and how fat the dry cows are, via a video on the MDF website.

Compared to the previous week, milk production per cow is up from 1.39 to 1.48 kg milk solids (MS) per cow per day. Litres per cow per day are up from 17.9 to 18.5. Milk fat test has risen from 3.99% to 4.35% (fat yield is up from 0.71 to 0.80 kg per cow per day). Milk protein test has fallen from 3.75% to 3.66% (protein yield has risen from 0.67 to 0.68 kg per cow per day). This time last year, milk production was 19.0 litres, 1.58 kg MS, 0.86 kg fat, and 0.71 kg protein per cow per day.

The daily pasture consumption from the grazing area is up from 26 to 31 kg dry matter (DM) per hectare per day. The pasture consumption per cow is up from 7.6 to 9.6 kg DM per cow per day. This time last year, pasture consumption was 29 kg DM per hectare per day, and 11.4 kg DM per cow per day.

No irrigation water, 0.8 kg of nitrogen element, 0.05 kg phosphorus element, 0.19 kg of potassium element, and \$0.19 of pasture renovation, all per hectare per day, have contributed to the current pasture consumption. The daily spend on these pasture inputs totals \$1.85 per hectare per day. Based on those cash inputs only, the consumed pasture price is estimated to be \$59 per tonne of dry matter, down from \$74 last week.

Supplementary feed includes crushed wheat, and a pellet containing 25% protein, minerals, Rumensin, and Tylan, totalling 4.5 kg DM per cow per day, at an average price of \$369 per DM tonne.

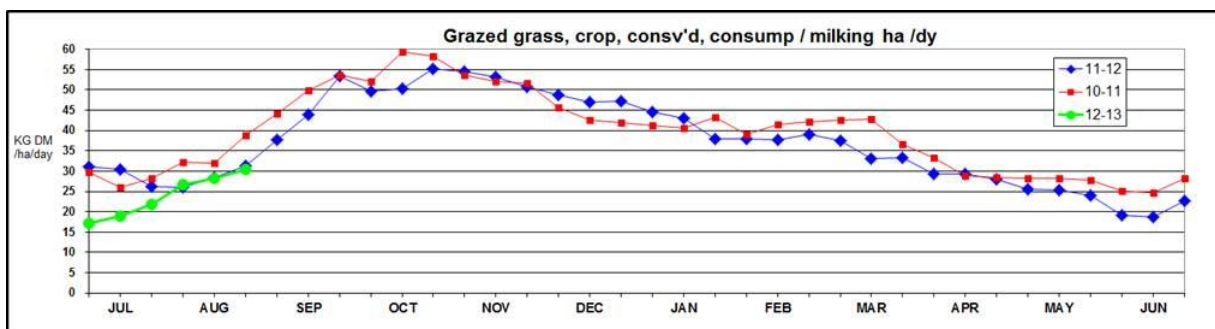
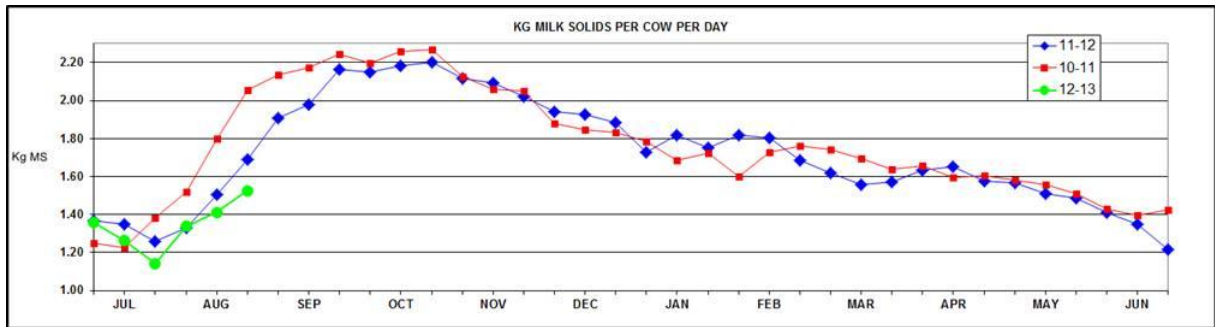
The Bulk Milk Cell Count for the week is down from 150,000 to 113,000. This time last year the BMCC was 170,000.

The milk price (less compulsory levies) the MDF anticipates receiving for the week's milk is \$4.47 per kg milk solids, or 35.8 cents per litre.

Milk income per cow per day is up from \$6.32 to \$6.63, made up of \$2.28 for the fat, \$4.83 for the protein, and minus \$0.48 for the litres. This time last year milk income per cow per day was \$7.99.

Feed cost per cow per day (including pasture and supplements) is down from \$2.68 to \$2.22 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$4.41, up from \$3.65. The margin over all feed per hectare is \$14.26. The whole farm feed margin is \$256, up from \$139 per day. This time last year the whole farm feed margin was \$347 per day.

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WEEKLY FEEDING PERFORMANCE	Last Year	Last week	This week	Units
Week to date:	26-Aug	17-Aug	24-Aug	
Milker graze area	23	11	18	ha
Milker nos	59	38	58	head
Stocking rate	2.6	3.4	3.2	cows/ha
Grazing allocation 1/	49	55	55	th of graze area
Average graze rest time	50	55	57	days
mm irrigation/hectare/day	0.0	0.0	0.0	mm water/ha/day
Element Nitrogen	0.9	0.8	0.8	kg element/ha/day
Element Phosphorus	0.00	0.05	0.05	kg element/ha/day
Element Potassium	0.06	0.19	0.19	kg element/ha/day
Renovation	\$0.19	\$0.19	\$0.19	\$/ha/day
Topping	\$0.00	\$0.00	\$0.00	\$/ha/day
Estm'd pasture consmp'n (incl cons'vd forage)	29	26	31	kg DM/ha/dy
Pasture consum'd per cow	11.4	7.6	9.6	kg DM/cow/dy
Daily spend / milking ha	\$1.66	\$1.85	\$1.85	\$/ha/day
Estm'd pasture price	\$56	\$74	\$59	\$/T DM
Conc (incl additives)supp fed/cow	4.2	4.5	4.5	kg DM/cow/dy
Hay/silage supp fed/cow	0.4	0.0	0.0	kg DM/cow/dy
PKE supp fed/cow	0.0	1.8	0.0	kg DM/cow/dy
Estim'd supp waste	4%	4%	3%	%
Conc (incl additives)supp avg price	\$337	\$369	\$369	\$/T DM
Hay/silage supp avg price	\$216	\$0	\$0	\$/T DM
PKE supp price	\$0	\$268	\$0	\$/T DM
Total feed intake/cow	15.9	13.6	14.0	kg DM/cow/dy
Estm'd body cond't'n change	0.18	0.00	0.00	kg LWT/cow/dy
Litres/cow	19.0	17.9	18.5	l/cow/day
Fat test	4.57%	3.99%	4.35%	%
Protein test	3.76%	3.75%	3.66%	%
Fat per cow	0.864	0.713	0.803	kg/cow/dy
Protein per cow	0.712	0.671	0.679	kg/cow/dy
MS per cow	1.58	1.39	1.48	kg/cow/dy
Anticipated final milk price (less levies)	\$5.06	\$4.57	\$4.47	\$/kg MS
Anticipated final milk price (/litre)	\$0.422	\$0.354	\$0.358	\$ per litre
Fat return per cow	\$2.77	\$2.03	\$2.28	\$/cow/dy
Protein return per cow	\$5.71	\$4.77	\$4.83	\$/cow/dy
Volume charge per cow	\$0.50	\$0.47	\$0.48	\$/cow/dy
Milk income/cow	\$7.99	\$6.32	\$6.63	\$/cow/dy
All feed cost/cow	\$2.16	\$2.68	\$2.22	\$/cow/dy
Margin over all Feed/cow	\$5.82	\$3.65	\$4.41	\$/cow/dy
MOAF /ha /day	\$15.11	\$12.30	\$14.26	\$/ha/day
Farm MOAF per DAY	\$347	\$139	\$256	\$/day
MOAF per month	\$10,575	\$4,233	\$7,803	\$/month
Energy density of diet	12.4	12.4	12.6	MJ ME/kg DM
Crude protein % of diet	20.2%	20.0%	20.9%	% CP
NDF Fibre level of diet	32.6%	33.8%	30.6%	% NDF
FCE kg MS per tonne DM food	98	100	105	
Tonne feed /day	0.9	0.5	0.8	tonne DM /day
Milk Return /tonne feed	\$499	\$457	\$470	\$/tonne DM
Average Price of feed	\$135	\$193	\$157	\$/tonne DM
Margin /tonne feed	\$363	\$263	\$313	\$/tonne DM
BMCC	170	150	113	