

Macalister Demonstration Farm, Dairy Australia, Extension Project

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Macalister Demonstration Farm Update 311 (Week ending Aug 17, 2012)

The Macalister Demonstration Farm is now milking 38 cows grazing 11 hectares, a stocking rate of 3.4 cows per hectare. Last year at this time, there were 40 milkers, and the stocking rate was 2.5 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 55 days.

Compared to the previous week, milk production per cow is up from 1.33 to 1.39 kg milk solids (MS) per cow per day. Litres per cow per day are up from 17.1 to 17.9. Milk fat test has fallen from 4.09% to 3.99% (fat yield is up from 0.70 to 0.71 kg per cow per day). Milk protein test has risen from 3.70% to 3.75% (protein yield has risen from 0.64 to 0.67 kg per cow per day). This time last year, milk production was 18.4 litres, 1.48 kg MS, 0.75 kg fat, and 0.73 kg protein per cow per day. It is estimated that the cows, on average, are neither gaining nor losing liveweight.

The daily pasture consumption from the grazing area is down from 27 to 26 kg dry matter (DM) per hectare per day. The pasture consumption per cow is down from 7.8 to 7.6 kg DM per cow per day. This time last year, pasture consumption was 28 kg DM per hectare per day, and 11.2 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 \$70 per tonne of dry matter, down from \$71 last week.

John and Anastasia, the farm managers, supply the mobile machinery for the farm, and have been gradually purchasing the needed equipment. They recently purchased a new twin-spinner fertiliser spreader, to spread the nitrogen. The farm spends more than \$30,000 on nitrogen each year. This spreader is reputed to spread fertiliser very accurately and uniformly. To get a good physical response to any input, to minimise the waste of the input, the application rate, the application timing, and the application uniformity over the paddock, are all important. This bit of gear will help fine tune all three.

Of course, the price of the input and the price (value) of the output, have to be then considered to determine if a financial response is gained.

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, and 1.8 kg DM of PKE at \$268 per DM tonne.

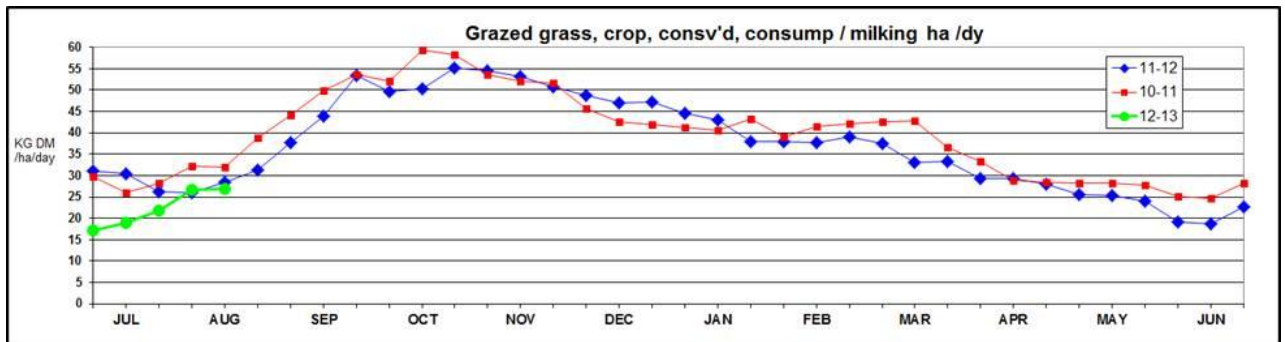
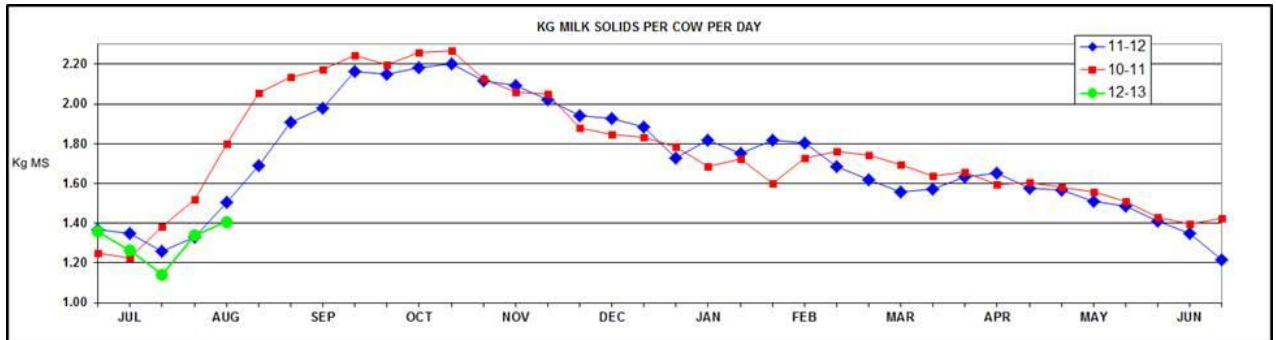
The Bulk Milk Cell Count for the week is up from 141,000 to 150,000. This time last year the BMCC was 123,000. The BMCC average for the period ending 10/08/2012 was 134,000 giving the farm a factory ranking of 35th out of 339 farms.

The milk price (less compulsory levies) the MDF anticipates receiving for the week's milk is \$4.57 per kg milk solids, or 35.4 cents per litre.

Milk income per cow per day is up from \$6.10 to \$6.32, made up of \$2.03 for the fat, \$4.77 for the protein, and minus \$0.47 for the litres. This time last year milk income per cow per day was \$7.74.

Feed cost per cow per day (including pasture and supplements) is down from \$2.90 to \$2.68 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$3.65, up from \$3.20. The margin over all feed per hectare is \$12.30. The whole farm feed margin is \$139, up from \$91 per day. This time last year the whole farm feed margin was \$210 per day.

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WEEKLY FEEDING PERFORMANCE	Last Year	Last week	This week	Units
Week to date:	19-Aug	10-Aug	17-Aug	
Milker graze area	16	9	11	ha
Milker nos	40	29	38	head
Stocking rate	2.5	3.4	3.4	cows/ha
Grazing allocation 1/	50	55	55	th of graze area
Average graze rest time	50	52	55	days
mm irrigation/hectare/day	0.0	0.0	0.0	mm water/ha/day
Element Nitrogen	1.0	0.8	0.8	kg element/ha/day
Element Phosphorus	0.00	0.05	0.05	kg element/ha/day
Element Potassium	0.07	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)	28	27	26	kg DM/ha/dy
Pasture consum'd per cow	11.2	7.8	7.6	kg DM/cow/dy
Daily spend / milking ha	\$1.78	\$1.85	\$1.85	\$/ha/day
Estm'd pasture price	\$64	\$70	\$74	\$/T DM
Conc (incl additives)supp fed/cow	5.4	4.5	4.5	kg DM/cow/dy
Hay/silage supp fed/cow	0.0	0.0	0.0	kg DM/cow/dy
PKE supp fed/cow	0.0	2.7	1.8	kg DM/cow/dy
Estim'd supp waste	3%	4%	4%	%
Conc (incl additives)supp avg price	\$330	\$368	\$369	\$/T DM
Hay/silage supp avg price	\$0	\$0	\$0	\$/T DM
PKE supp price	\$0	\$268	\$268	\$/T DM
Total feed intake/cow	16.4	14.7	13.6	kg DM/cow/dy
Estm'd body cond't'n change	0.40	0.30	0.00	kg LWT/cow/dy
Litres/cow	18.4	17.1	17.9	l/cow/day
Fat test	4.09%	4.09%	3.99%	%
Protein test	3.95%	3.70%	3.75%	%
Fat per cow	0.751	0.704	0.713	kg/cow/dy
Protein per cow	0.726	0.641	0.671	kg/cow/dy
MS per cow	1.48	1.33	1.39	kg/cow/dy
Anticipated final milk price (less levies)	\$5.24	\$4.54	\$4.57	\$/kg MS
Anticipated final milk price (/litre)	\$0.422	\$0.351	\$0.354	\$ per litre
Fat return per cow	\$2.41	\$2.00	\$2.03	\$/cow/dy
Protein return per cow	\$5.82	\$4.56	\$4.77	\$/cow/dy
Volume charge per cow	\$0.48	\$0.45	\$0.47	\$/cow/dy
Milk income/cow	\$7.74	\$6.10	\$6.32	\$/cow/dy
All feed cost/cow	\$2.50	\$2.90	\$2.68	\$/cow/dy
Margin over all Feed/cow	\$5.25	\$3.20	\$3.65	\$/cow/dy
MOAF /ha /day	\$13.12	\$11.05	\$12.30	\$/ha/day
Farm MOAF per DAY	\$210	\$91	\$139	\$/day
MOAF per month	\$6,402	\$2,771	\$4,233	\$/month
Energy density of diet	12.4	12.3	12.4	MJ ME/kg DM
Crude protein % of diet	20.0%	19.8%	20.0%	% CP
NDF Fibre level of diet	30.6%	35.7%	33.8%	% NDF
FCE kg MS per tonne DM food	89	90	100	
Tonne feed /day	0.7	0.4	0.5	tonne DM /day
Milk Return /tonne feed	\$466	\$406	\$457	\$/tonne DM
Average Price of feed	\$150	\$194	\$193	\$/tonne DM
Margin /tonne feed	\$316	\$212	\$263	\$/tonne DM
BMCC	155	150	150	