

Macalister Demonstration Farm, Dairy Australia, Extension Project

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Macalister Demonstration Farm Update 310 (Week ending Aug 10, 2012)

The Macalister Demonstration Farm is now milking 29 cows grazing 9 hectares, a stocking rate of 3.4 cows per hectare. Last year at this time, there were 52 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 52 days.

Compared to the previous week, milk production per cow is up from 1.25 to 1.33 kg milk solids (MS) per cow per day. Litres per cow per day are up from 15.8 to 17.1. Milk fat test has fallen from 4.17% to 4.09% (fat yield is up from 0.66 to 0.70 kg per cow per day). Milk protein test has fallen from 3.73% to 3.70% (protein yield has risen from 0.59 to 0.64 kg per cow per day). This time last year, milk production was 17.1 litres, 1.38 kg MS, 0.70 kg fat, and 0.70 kg protein per cow per day. It is estimated that the cows gained 0.30 kg liveweight during the week.

The daily pasture consumption from the grazing area is up from 26 to 27 kg dry matter (DM) per hectare per day. The pasture consumption per cow is up from 7.5 to 7.8 kg DM per cow per day. This time last year, pasture consumption was 28 kg DM per hectare per day, and 10.7 kg DM per cow per day.

As mentioned above, the paddocks that the little group of milkers are grazing have been rested for 52 days, that is grazed last time on June 20. Total grass on offer was 3,000 kg DM per hectare and the residue underneath was 1,650. So available feed is 1,350 kg, which means it has averaged 26 kg DM per hectare per day since last grazing, close to the back-calculated figure above.

The farm is conducting a lime trial on an area that is more acidic (pH 5.5). It is not easy to see any response to lime just yet, but the normal application of nitrogen has been kept well clear of the trial and amount of grass in the trial area is significantly less than the rest of the paddock that gets nitrogen.

However, there has been a very poor response to nitrogen on some paddocks that got very wet earlier in the season.

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.

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 \$368 per DM tonne, and 2.7 kg DM of PKE at \$268 per DM tonne. The total cow intake is 14.7 kg DM per day.

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.

With all the week's milk supplied in August, the milk price (less compulsory levies) the MDF anticipates receiving for the week's milk has dropped from \$5.30 to \$4.54 per kg milk solids, or 35.1 cents per litre.

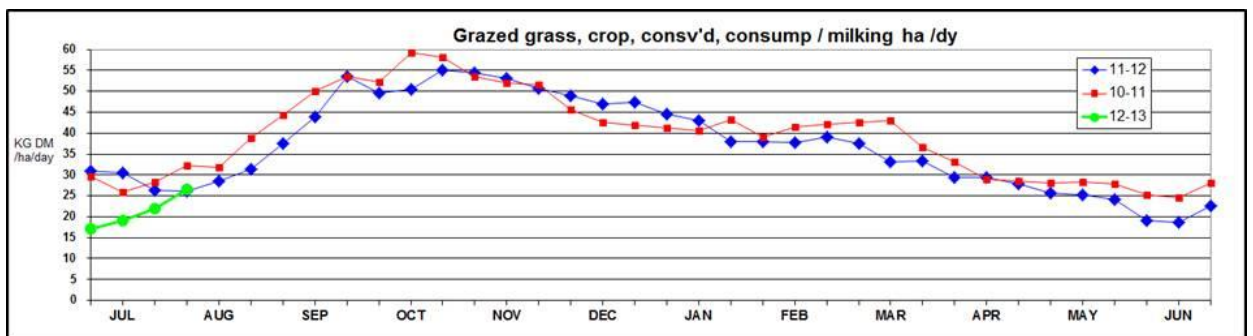
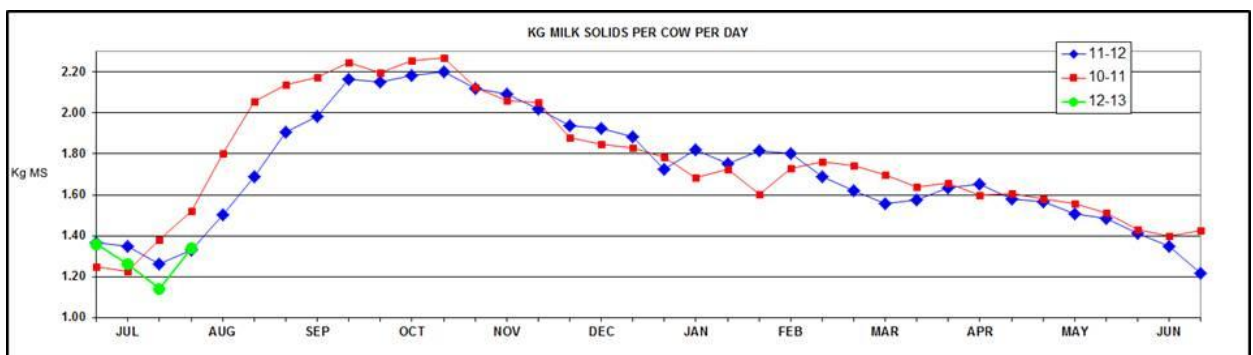
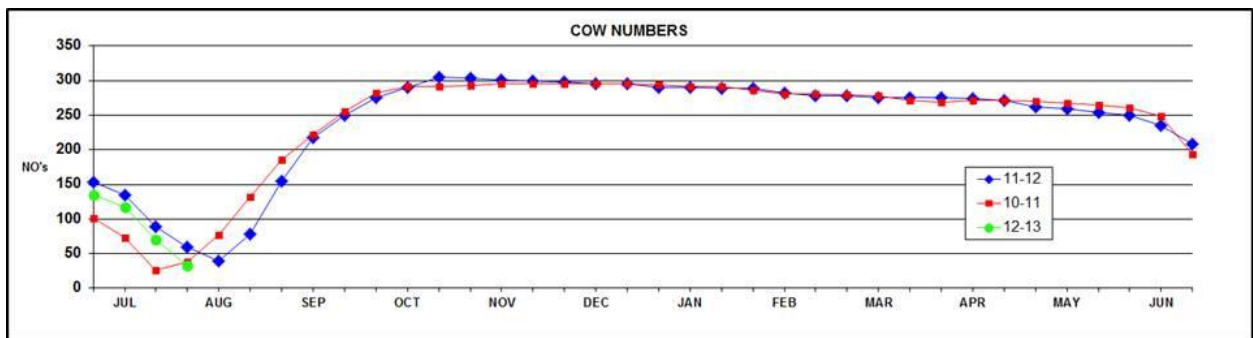
Milk income per cow per day is down from \$6.60 to \$6.10, made up of \$2.00 for the fat, \$4.56 for the protein, and minus \$0.45 for the litres. This time last year milk income per cow per day was \$7.38.

It is interesting that the price paid for protein and fat can fall, either from month to month, or from year to year, but the charge for each litre produced doesn't move. With lower milk prices, this "volume" charge has proportionally more impact on the price.

Feed cost per cow per day (including pasture and supplements) is up from \$2.89 to \$2.90 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$3.20, down from \$3.71. The margin over all feed per hectare is \$11.05. The whole farm feed margin is \$91, down from \$199 per day. This time last year the whole farm feed margin was \$251 per day.

To keep this feed margin of \$91 per day in perspective, all the non-feed costs amounted to \$356,000 last year, that is close to \$1,000 per day. The feed margin has to pay for herd costs, shed costs, replacement rearing, overheads, livestock purchases, land lease, labour, finance (interest and principal repayments), capital items, tax (the MDF doesn't pay income tax), and depreciation. Good thing the feed margin is above \$2,000 per day at other times of the year.

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WEEKLY FEEDING PERFORMANCE	Last Year	Last week	This week	Units
Week to date:	12-Aug	03-Aug	10-Aug	
Milker graze area	20	15	9	ha
Milker nos	52	53	29	head
Stocking rate	2.6	3.5	3.4	cows/ha
Grazing allocation 1/	50	55	55	th of graze area
Average graze rest time	50	51	52	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	26	27	kg DM/ha/dy
Pasture consum'd per cow	10.7	7.5	7.8	kg DM/cow/dy
Daily spend / milking ha	\$1.78	\$1.85	\$1.85	\$/ha/day
Estm'd pasture price	\$64	\$71	\$70	\$/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	2.7	kg DM/cow/dy
Estim'd supp waste	3%	4%	4%	%
Conc (incl additives)supp avg price	\$330	\$368	\$368	\$/T DM
Hay/silage supp avg price	\$0	\$0	\$0	\$/T DM
PKE supp price	\$0	\$268	\$268	\$/T DM
Total feed intake/cow	15.9	14.3	14.7	kg DM/cow/dy
Estm'd body cond't'n change	0.40	0.30	0.30	kg LWT/cow/dy
Litres/cow	17.1	15.8	17.1	l/cow/day
Fat test	4.01%	4.17%	4.09%	%
Protein test	4.06%	3.73%	3.70%	%
Fat per cow	0.696	0.660	0.704	kg/cow/dy
Protein per cow	0.699	0.592	0.641	kg/cow/dy
MS per cow	1.38	1.25	1.33	kg/cow/dy
Anticipated final milk price (less levies)	\$5.29	\$5.30	\$4.54	\$/kg MS
Anticipated final milk price (/litre)	\$0.429	\$0.419	\$0.351	\$ per litre
Fat return per cow	\$2.23	\$2.17	\$2.00	\$/cow/dy
Protein return per cow	\$5.60	\$4.84	\$4.56	\$/cow/dy
Volume charge per cow	\$0.45	\$0.41	\$0.45	\$/cow/dy
Milk income/cow	\$7.38	\$6.60	\$6.10	\$/cow/dy
All feed cost/cow	\$2.47	\$2.89	\$2.90	\$/cow/dy
Margin over all Feed/cow	\$4.91	\$3.71	\$3.20	\$/cow/dy
MOAF /ha /day	\$12.76	\$13.12	\$11.05	\$/ha/day
Farm MOAF per DAY	\$251	\$199	\$91	\$/day
MOAF per month	\$7,670	\$6,060	\$2,771	\$/month
Energy density of diet	12.4	12.3	12.3	MJ ME/kg DM
Crude protein % of diet	19.9%	19.7%	19.8%	% CP
NDF Fibre level of diet	30.4%	35.6%	35.7%	% NDF
FCE kg MS per tonne DM food	87	86	90	
Tonne feed /day	0.8	0.8	0.4	tonne DM /day
Milk Return /tonne feed	\$458	\$452	\$406	\$/tonne DM
Average Price of feed	\$154	\$198	\$194	\$/tonne DM
Margin /tonne feed	\$305	\$255	\$212	\$/tonne DM
BMCC	123	141	150	