

## **Macalister Demonstration Farm, Dairy Australia, Extension Project**

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### **Macalister Demonstration Farm Update 259 (Week ending July 29, 2011)**

The Macalister Demonstration Farm is now milking 90 cows, grazing 34 hectares, a stocking rate of 2.7 cows per hectare. Last year at this time, there were only 26 milkers, and the stocking rate was 2.9 cows per hectare. The daily allocation for the week is one 50th of the grazing area, and the grazing rest time is 50 days.

Compared to last week, milk production per cow is down from 1.34 to 1.22 kg milk solids (MS) per cow per day. Litres per cow per day are down from 16.9 to 14.9. Milk fat test has risen from 3.76% to 3.99% (fat yield is down from 0.64 to 0.60 kg per cow per day). The protein test has risen from 4.14% to 4.17% (protein yield is down from 0.70 to 0.62 kg per cow per day). This time last year, milk production was 19.9 litres, 1.42 kg MS, 0.73 kg fat, and 0.69 kg protein per cow per day.

The daily pasture consumption from the grazing area is down from 29 to 26 kg dry matter (DM) per hectare per day. The pasture consumption per cow is up from 9.6 to 9.8 kg DM per cow per day. This time last year, pasture consumption was 33 kg DM per hectare per day, and 11.6 kg DM per cow per day.

1.0 kg nitrogen element, 0.07 kg potassium, no phosphorus, no irrigation, no topping, 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 is \$1.78 per hectare per day. Based on those inputs only, pasture price is estimated to be \$68 per tonne of dry matter, up from \$63.

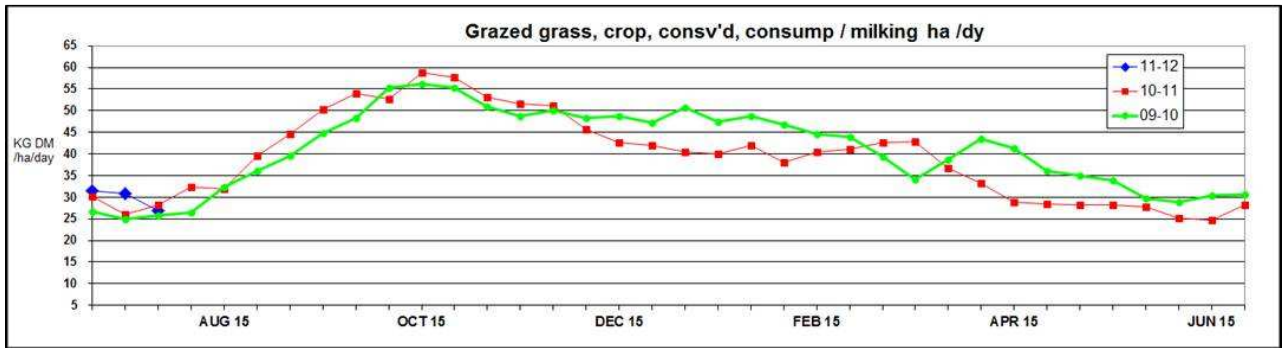
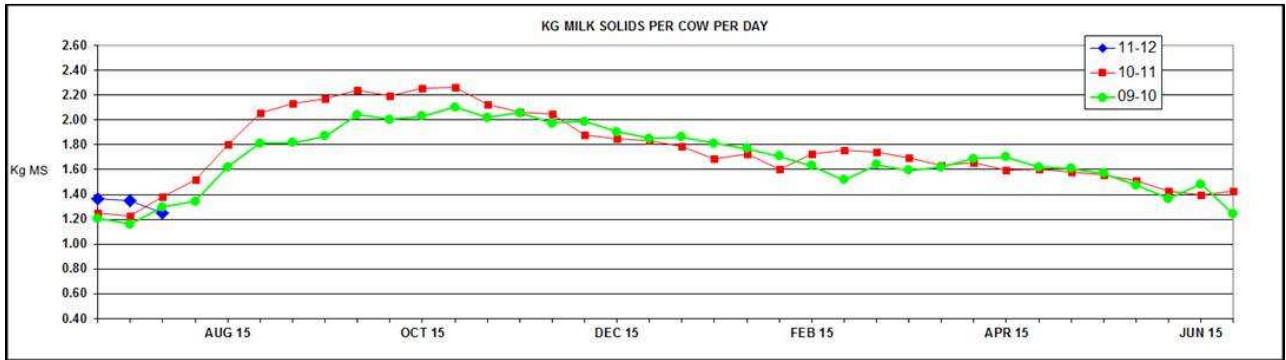
At the far end, away from the gate or entrance, in some paddocks, there is a lot more grass grown, and a lot more residue underneath. This effect seems to show up more in winter because grazing rotations are longer and cows stay in paddocks for longer. It could partly be due to mis-allocation, not quite setting the feeds or electric fence positions, quite right. It is most unlikely to be nutrient transfer because nutrients usually get transferred towards the entrance of a paddock. It is likely occurring because the far end is never back-grazed, nor grazed too short, as it is near the entrance. The cows get one feed at the far end, and that's it; they get access to the area near the gate as many times as they are in the paddock, grazing it too short and grazing of any regrowth. Near the gate it may well look neat and tidy, with little wasted grass, but near the gate is not performing as well as the far end.

Supplementary concentrates include crushed wheat and minerals totalling 5.4 kg DM per cow per day, at an average price of \$302 per DM tonne.

The BMCC has fallen from 141 to 120. This time last year the BMCC was 146.

The milk price (less compulsory levies) that the MDF anticipates receiving for the week is \$6.76 per kg milk solids, or 55.0 cents per litre. Milk income per cow per day is down from \$9.18 to \$8.27, made up of \$2.42 for the fat, \$6.25 for the protein, and minus \$0.39 for the litres. This time last year milk income per cow per day was \$9.29. Next week, in August, the milk price will fall significantly.

Feed cost per cow per day (including pasture and supplements) is down from \$2.61 to \$2.30 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$5.97, down from \$6.57 per day. The margin over all feed per hectare is \$15.95. The whole farm feed margin is \$536, down from \$784 per day. This time last year the whole farm feed margin was \$185 per day.



WEEKLY FEEDING PERFORMANCE	Last Year	Last week	This week	Units
Week to date:	30-Jul	22-Jul	29-Jul	
Milker graze area	9	40	34	ha
Milker nos	26	120	90	head
Average days in milk		315	315	
Stocking rate	2.9	3.0	2.7	cows/ha
Grazing allocation 1/	55	50	50	th of graze area
Average graze rest time	54	50	50	days
Element N/hectare/day	1.2	1.0	1.0	kg element/ha/day
mm irrigation/hectare/day	0.0	0.0	0.0	mm water/ha/day
Estm'd pasture consmp'n (incl cons'vd forage)	33	29	26	kg DM/ha/dy
Pasture consum'd per cow	11.6	9.6	9.8	kg DM/cow/dy
Daily spend / milking ha	\$2.06	\$1.78	\$1.78	\$/ha/day
Estm'd pasture price	\$62	\$63	\$68	\$/T DM
Conc (incl additives)supp fed/cow	4.6	6.4	5.4	kg DM/cow/dy
Hay/silage supp fed/cow	0.0	0.0	0.0	
PKE supp fed/cow	0.0	0.0	0.0	kg DM/cow/dy
Estim'd supp waste	3%	3%	3%	%
Conc (incl additives)supp avg price	\$313	\$312	\$302	\$/T DM
Hay/silage supp avg price	\$0	\$0	\$0	\$/T DM
PKE supp price	\$0	\$0	\$0	\$/T DM
Total feed intake/cow	16.1	15.8	15.1	kg DM/cow/dy
Estm'd body cond't'n change	0.60	0.40	0.40	kg LWT/cow/dy
Litres/cow	19.9	16.9	14.9	l/cow/day
Fat test	3.67%	3.76%	3.99%	%
Protein test	3.49%	4.14%	4.17%	%
Fat per cow	0.729	0.638	0.603	kg/cow/dy
Protein per cow	0.693	0.703	0.622	kg/cow/dy
MS per cow	1.42	1.34	1.22	kg/cow/dy
Anticipated final milk price (less levies)	\$6.53	\$6.84	\$6.76	\$/kg MS
Anticipated final milk price (/litre)	\$0.468	\$0.540	\$0.552	\$ per litre
Fat return per cow	\$2.90	\$2.56	\$2.42	\$/cow/dy
Protein return per cow	\$6.90	\$7.06	\$6.25	\$/cow/dy
Volume charge per cow	\$0.52	\$0.44	\$0.39	\$/cow/dy
Milk income/cow	\$9.29	\$9.18	\$8.27	\$/cow/dy
All feed cost/cow	\$2.16	\$2.61	\$2.30	\$/cow/dy
Margin over all Feed/cow	\$7.13	\$6.57	\$5.97	\$/cow/dy
MOAF /ha /day	\$20.59	\$19.60	\$15.95	\$/ha/day
Farm MOAF per DAY	\$185	\$784	\$536	\$/day
MOAF per month	\$5,652	\$23,908	\$16,350	\$/month
Energy density of diet	12.4	12.2	12.3	MJ ME/kg DM
Crude protein % of diet	21.5%	19.4%	19.7%	% CP
NDF Fibre level of diet	32.0%	29.0%	29.9%	% NDF
FCE kg MS per tonne DM food	88	84	80	kg MS/tonne DM
Tonne feed /day	0.4	1.9	1.4	tonne DM /day
Milk Return /tonne feed	\$573	\$572	\$542	\$/tonne DM
Average Price of feed	\$133	\$163	\$151	\$/tonne DM
Margin /tonne feed	\$440	\$409	\$392	\$/tonne DM
BMCC	146	141	120	