

Macalister Demonstration Farm, Dairy Australia, Extension Project

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Macalister Demonstration Farm Update 314 (Week ending Sep 7, 2012)

The Macalister Demonstration Farm is now milking 111 cows (up from 71) grazing 34 hectares, a stocking rate of 3.2 cows per hectare. Last year at this time, there were 163 milkers, and the stocking rate was 3.1 cows per hectare. During the week the daily allocation was changed from one 55th to one 45th of the grazing area and the actual grazing rest time averaged 56 days.

Compared to the previous week, milk production per cow is up from 1.66 to 1.93 kg milk solids (MS) per cow per day. Litres per cow per day are up from 22.1 to 25.6. Milk fat test has fallen from 4.03% to 3.89% (fat yield is up from 0.89 to 0.99 kg per cow per day). Milk protein test has risen from 3.50% to 3.65% (protein yield has risen from 0.77 to 0.93 kg per cow per day). This time last year, milk production was 23.0 litres, 1.93 kg MS, 1.08 kg fat, and 0.84 kg protein per cow per day.

The daily pasture consumption from the grazing area is up from 29 to 36 kg dry matter (DM) per hectare per day. The pasture consumption per cow is up from 9.0 to 11.0 kg DM per cow per day. This time last year, pasture consumption was 38 kg DM per hectare per day, and 12.1 kg DM per cow per day.

Allocating grass to cows has two short term objectives: one, not to waste grass at that grazing, after all, you may be spending \$2.00 per day on each hectare to grow the grass; two, not to waste the milk making capacity of the cow on that day, after all, the cow may cost \$2.00 per day to simply put in the paddock. So, do not waste grass but keep the cow full.

Allocating grass to cows has two long term objectives: one, to ensure the most good quality grass grows after that grazing; two, to ensure the cow intake into the future is kept as high as possible. So keep the grass growing but keep the cow full.

The best time to judge this balancing act, this conflicting demand between grass and cow, whether the allocation has been optimum, is immediately after the event.

A uniform grass height of around 5 cm, and the cows showing no signs of hunger, would be ideal.

The grass height is relatively easy to measure. Assessing cow hunger not so easy. One reasonably reliable method to judge the latter is to observe how close the cows eat up to the urine and manure patches. Was it a gentle slope of grass up to the clump or was it eaten right up close, in a cliff-shape?

Judging the grass and the cow is one thing; deciding the balance another.

Some irrigation is continuing but no irrigated paddocks have been grazed yet. 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 \$52 per tonne of dry matter, down from \$64 last week.

Supplementary feed includes crushed wheat, and a pellet containing 25% protein, minerals, Rumensin, and Tylan, totalling 5.8 kg DM (down from 6.2) per cow per day, at an average price of \$348 per DM tonne.

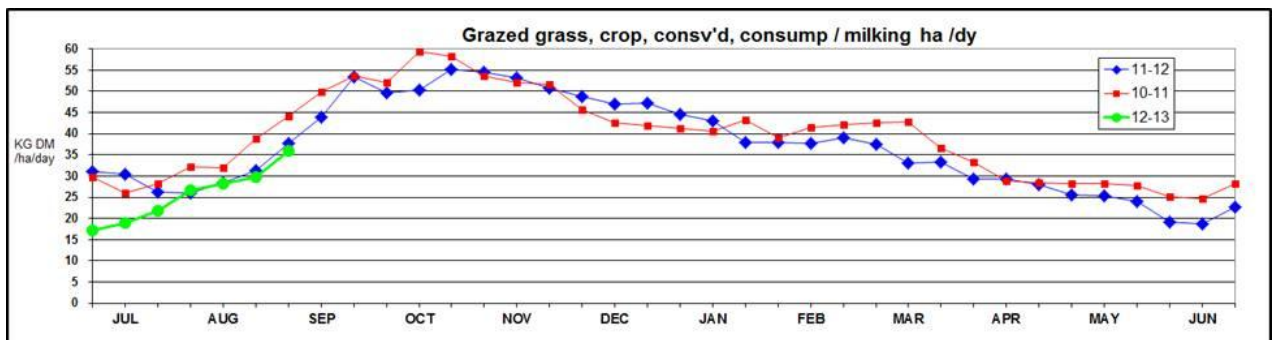
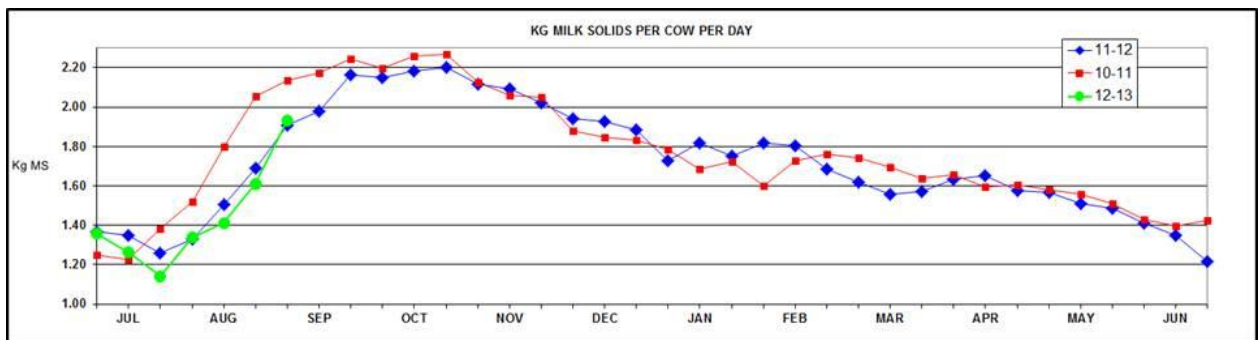
The Bulk Milk Cell Count for the week was 97,000. This time last year the BMCC was 123,000. The BMCC average for the ten day period ending 30/08/2012 was 90,000 giving the farm a factory ranking of 11th out of 378 farms.

The milk price (less compulsory levies) the MDF anticipates receiving for the week's milk is \$4.25 per kg milk solids, or 32.1 cents per litre.

Milk income per cow per day is up from \$7.41 to \$8.16, made up of \$2.65 for the fat, \$6.18 for the protein, and minus \$0.67 for the litres. This time last year milk income per cow per day was \$9.05.

Feed cost per cow per day (including pasture and supplements) is down from \$2.71 to \$2.58 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$5.58, up from \$4.70. The margin over all feed per hectare is \$18.16. The whole farm feed margin is \$627, up from \$336 per day. This time last year the whole farm feed margin was \$1,151 per day.

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WEEKLY FEEDING PERFORMANCE	Last Year	Last week	This week	Units
Week to date:	09-Sep	31-Aug	07-Sep	
Milker graze area	52	22	34	ha
Milker nos	163	71	111	head
Stocking rate	3.1	3.2	3.2	cows/ha
Grazing allocation 1/	45	55	50	th of graze area
Average graze rest time	47	57	56	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)	38	29	36	kg DM/ha/dy
Pasture consum'd per cow	12.1	9.0	11.0	kg DM/cow/dy
Daily spend / milking ha	\$1.62	\$1.85	\$1.85	\$/ha/day
Estm'd pasture price	\$43	\$64	\$52	\$/T DM
Conc (incl additives)supp fed/cow	4.2	6.2	5.8	kg DM/cow/dy
Hay/silage supp fed/cow	0.2	0.0	0.0	kg DM/cow/dy
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	\$337	\$343	\$348	\$/T DM
Hay/silage supp avg price	\$216	\$0	\$0	\$/T DM
PKE supp price	\$0	\$0	\$0	\$/T DM
Total feed intake/cow	16.4	15.0	16.6	kg DM/cow/dy
Estm'd body cond't'n change	-0.20	0.00	0.00	kg LWT/cow/dy
Litres/cow	23.0	22.1	25.6	l/cow/day
Fat test	4.71%	4.03%	3.89%	%
Protein test	3.67%	3.50%	3.65%	%
Fat per cow	1.082	0.887	0.993	kg/cow/dy
Protein per cow	0.843	0.769	0.929	kg/cow/dy
MS per cow	1.93	1.66	1.93	kg/cow/dy
Anticipated final milk price (less levies)	\$4.70	\$4.48	\$4.25	\$/kg MS
Anticipated final milk price (/litre)	\$0.394	\$0.337	\$0.321	\$ per litre
Fat return per cow	\$3.27	\$2.52	\$2.65	\$/cow/dy
Protein return per cow	\$6.38	\$5.46	\$6.18	\$/cow/dy
Volume charge per cow	\$0.60	\$0.57	\$0.67	\$/cow/dy
Milk income/cow	\$9.05	\$7.41	\$8.16	\$/cow/dy
All feed cost/cow	\$1.99	\$2.71	\$2.58	\$/cow/dy
Margin over all Feed/cow	\$7.06	\$4.70	\$5.58	\$/cow/dy
MOAF /ha /day	\$22.11	\$15.16	\$18.16	\$/ha/day
Farm MOAF per DAY	\$1,151	\$336	\$627	\$/day
MOAF per month	\$35,111	\$10,236	\$19,120	\$/month
Energy density of diet	12.3	12.6	12.6	MJ ME/kg DM
Crude protein % of diet	20.5%	19.6%	20.3%	% CP
NDF Fibre level of diet	32.5%	28.3%	29.9%	% NDF
FCE kg MS per tonne DM food	116	109	114	
Tonne feed /day	2.7	1.1	1.9	tonne DM /day
Milk Return /tonne feed	\$547	\$487	\$485	\$/tonne DM
Average Price of feed	\$120	\$178	\$154	\$/tonne DM
Margin /tonne feed	\$427	\$308	\$331	\$/tonne DM
BMCC	123	101	97	