

Macalister Demonstration Farm, Dairy Australia, Extension Project

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Macalister Demonstration Farm Update 270 (Week ending Oct 14, 2011)

The Macalister Demonstration Farm is now milking 281 cows, grazing 69 hectares, a stocking rate of 4.1 cows per hectare. Last year at this time, there were 291 milkers, and the stocking rate was 4.2 cows per hectare. The daily allocation for last week was one 29th of the grazing area, and the actual grazing rest time was 28 days.

The leaf appearance rate was 12 days. If you had required three leaves re-grown at grazing, in a paddock last week, that paddock would have been rested 36 days. This does not mean the current leaf is taking 12 days to appear; you would expect it to be a bit quicker, may be 11 days, because it is now warmer than the previous 36 days. If you have a reasonably high stocking rate, and you are not using much nitrogen fertiliser (that is, you need the grazing rotation length to deliver its maximum possible quantity of grass), a grazing rest time last week of less than 36 days would not have delivered the maximum.

In early lactation, our aim is to get the cow's milk production to a higher level, to get the MS per cow well above 2.2 kg MS. Production is a little behind last year, but this year's start of calving was 10 days later, so it's reasonable to expect the milk production to peak later.

The quantity of food eaten is important. Hay, silage and PKE are on offer, even to the point of risking leaving too much grass in the paddock. The latter is currently no different than other times.

The balance of food eaten is important, particularly considering many cows are fairly recently calved and the diet needs to move for the pre-calving to the post-calving diet. The oaten hay helps increase dietary fibre. To get even better quality fibre into the diet, some recently made silage is now on offer. It is very good silage, leafy, with a great smell. The cows strongly prefer it over the hay.

All this supplementary feed costs more than grazed grass so the current feed margin may be reduced. However, the long term benefit of a high producing, more efficient cow is very important to achieving a high feed margin throughout the whole lactation. The current Tracker analysis of local farms is showing that the cows being fed to achieve a high peak have generally higher current feed margins anyway.

Compared to last week, milk production per cow is up from 2.13 to 2.19 kg milk solids (MS) per cow per day. Litres per cow per day are up from 28.5 to 29.9. However, milk fat test has fallen from 4.09% to 3.95% (fat yield is up from 1.17 to 1.18 kg per cow per day). The protein test has risen from 3.37% to 3.38% (protein yield is up from 0.96 to 1.01 kg per cow per day). This time last year, milk production was 30.8 litres, 2.21 kg MS, 1.18 kg fat, and 1.04 kg protein per cow per day. It is estimated that the cow are losing 0.3 kg live weight per cow per day.

The daily pasture consumption from the grazing area is the same at 49 kg dry matter (DM) per hectare per day. The pasture consumption per cow is down from 12.3 to 12.0 kg DM per cow per day. This time last year, pasture consumption was 54 kg DM per hectare per day, and 12.8 kg DM per cow per day.

1.1 kg nitrogen element, 0.07 kg potassium, no phosphorus, 1.0 mm of irrigation water per hectare per day, 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 \$2.49 per hectare per day.

Based on those cash inputs only, the consumed pasture price is estimated to be \$51 per tonne of dry matter, up from \$50.

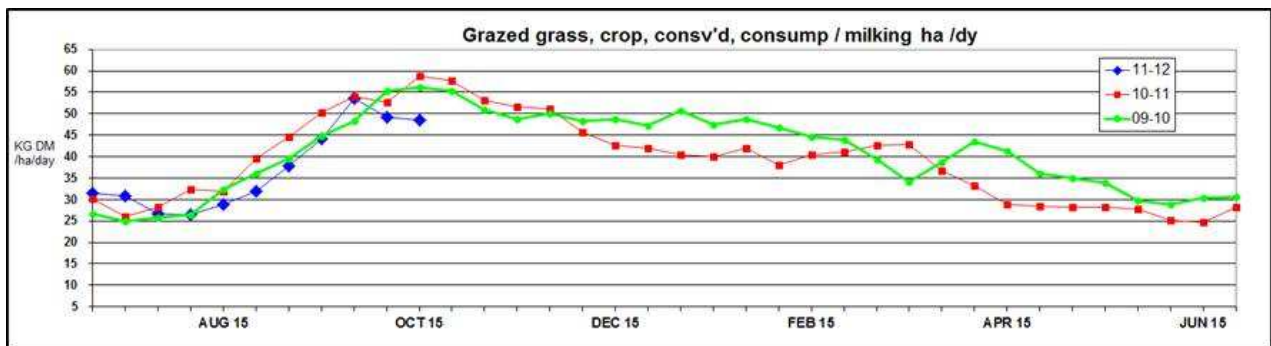
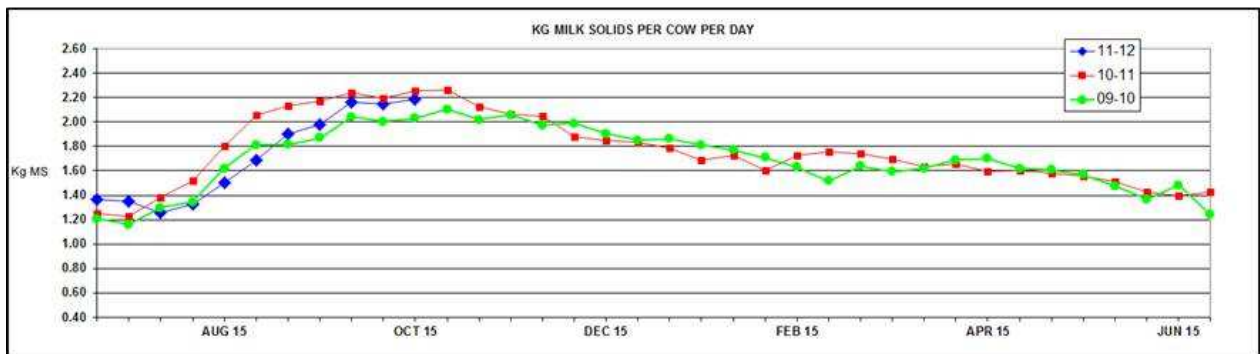
Supplementary concentrates include crushed wheat, and a wheat-canola-mineral mix totalling 5.2 kg DM per cow per day, up from 5.1 kg, at an average price of \$322 per DM tonne. The cows have access to oaten hay and grass silage (0.8 kg DM per day) and PKE (0.4 kg DM per day) at the dairy.

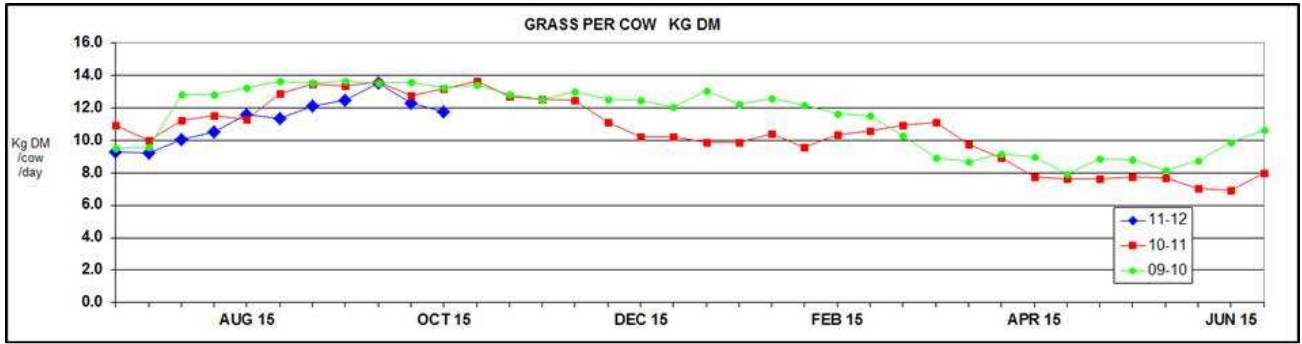
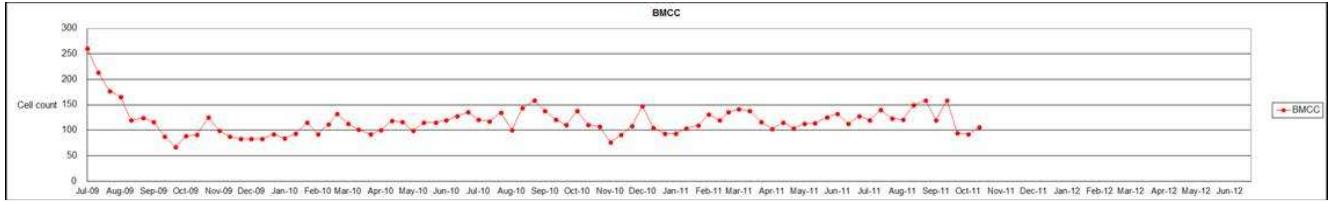
The BMCC has risen from 91,000 to 102,000. This time last year the BMCC was 113,000. In the ten days to the 10th Oct the BMCC was 92,000 and the farm was ranked 12th out of 386.

The milk price (less compulsory levies) that the MDF anticipates receiving for the week is \$4.98 per kg milk solids, or 36.5 cents per litre. Milk income per cow per day is up from \$10.53 to \$10.93, made up of \$3.73 for the fat, \$7.98 for the protein, and minus \$0.78 for the litres. This time last year milk income per cow per day was \$10.97.

Feed cost per cow per day (including pasture and supplements) is up from \$2.42 to \$2.54 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$8.39, up from \$8.11 per day. The margin over all feed per hectare is \$34.16. The whole farm feed margin is \$2,357, up from \$2,224 per day. This time last year the whole farm feed margin was \$2,263 per day.

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WEEKLY FEEDING PERFORMANCE	Last Year	Last week	This week	Units
Week to date:	15-Oct	07-Oct	14-Oct	
Milker graze area	69	69	69	ha
Milker nos	291	274	281	head
Stocking rate	4.2	4.0	4.1	cows/ha
Grazing allocation 1/	35	30	29	th of graze area
Average graze rest time	36	30	28	days
Element N/hectare/day	1.2	0.9	1.1	kg element/ha/day
mm irrigation/hectare/day	2.4	1.5	1.0	mm water/ha/day
Estm'd pasture consmp'n (incl cons'vd forage)	54	49	49	kg DM/ha/dy
Pasture consum'd per cow	12.8	12.3	12.0	kg DM/cow/dy
Daily spend / milking ha	\$3.42	\$2.47	\$2.49	\$/ha/day
Estm'd pasture price	\$63	\$50	\$51	\$/T DM
Conc (incl additives)supp fed/cow	6.0	5.1	5.2	kg DM/cow/dy
Hay/silage supp fed/cow	0.0	0.4	0.8	kg DM/cow/dy
PKE supp fed/cow	0.0	0.3	0.4	kg DM/cow/dy
Estim'd supp waste	3%	4%	4%	%
Conc (incl additives)supp avg price	\$398	\$318	\$322	\$/T DM
Hay/silage supp avg price	\$0	\$216	\$216	\$/T DM
PKE supp price	\$0	\$289	\$289	\$/T DM
Total feed intake/cow	18.7	17.9	18.2	kg DM/cow/dy
Estm'd body cond't'n change	-0.27	-0.20	-0.30	kg LWT/cow/dy
Litres/cow	30.8	28.5	29.9	l/cow/day
Fat test	3.82%	4.09%	3.95%	%
Protein test	3.36%	3.37%	3.38%	%
Fat per cow	1.177	1.167	1.182	kg/cow/dy
Protein per cow	1.036	0.963	1.012	kg/cow/dy
MS per cow	2.21	2.13	2.19	kg/cow/dy
Anticipated final milk price (less levies)	\$4.96	\$4.94	\$4.98	\$/kg MS
Anticipated final milk price (/litre)	\$0.356	\$0.369	\$0.365	\$ per litre
Fat return per cow	\$3.68	\$3.68	\$3.73	\$/cow/dy
Protein return per cow	\$8.10	\$7.60	\$7.98	\$/cow/dy
Volume charge per cow	\$0.81	\$0.75	\$0.78	\$/cow/dy
Milk income/cow	\$10.97	\$10.53	\$10.93	\$/cow/dy
All feed cost/cow	\$3.20	\$2.42	\$2.54	\$/cow/dy
Margin over all Feed/cow	\$7.77	\$8.11	\$8.39	\$/cow/dy
MOAF /ha /day	\$32.80	\$32.44	\$34.16	\$/ha/day
Farm MOAF per DAY	\$2,263	\$2,224	\$2,357	\$/day
MOAF per month	\$69,028	\$67,836	\$71,890	\$/month
Energy density of diet	12.1	12.4	12.3	MJ ME/kg DM
Crude protein % of diet	21.5%	21.3%	21.2%	% CP
NDF Fibre level of diet	31.9%	32.4%	32.5%	% NDF
FCE kg MS per tonne DM food	117	118	119	
Tonne feed /day	5.5	5.0	5.1	tonne DM /day
Milk Return /tonne feed	\$582	\$581	\$608	\$/tonne DM
Average Price of feed	\$170	\$134	\$141	\$/tonne DM
Margin /tonne feed	\$412	\$448	\$466	\$/tonne DM
BMCC	113	91	102	