

Macalister Demonstration Farm, Dairy Australia, Extension Project

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Macalister Demonstration Farm Update 309 (Week ending Aug 3, 2012)

The Macalister Demonstration Farm is now milking 53 cows grazing 15 hectares, a stocking rate of 3.5 cows per hectare. Last year at this time, there were 65 milkers, and the stocking rate was 2.4 cows per hectare. A couple of heifers and a cow have calved, a bit early. The daily allocation for the recent week remains one 55th of the grazing area, and the actual grazing rest time was 51 days.

Compared to the previous week, milk production per cow is up from 1.13 to 1.25 kg milk solids (MS) per cow per day. Litres per cow per day are up from 14.4 to 15.8. Milk fat test has risen from 4.04% to 4.17% (fat yield is up from 0.59 to 0.66 kg per cow per day). Milk protein test has fallen from 3.79% to 3.73% (protein yield has risen from 0.54 to 0.59 kg per cow per day). The “previous” production figures vary from last week’s report because I had to guess fat and protein tests, and my guess was out. This time last year, milk production was 16.3 litres, 1.28 kg MS, 0.63 kg fat, and 0.65 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 22 to 26 kg dry matter (DM) per hectare per day. The pasture consumption per cow is up from 7.3 to 7.5 kg DM per cow per day. This time last year, pasture consumption was 24 kg DM per hectare per day, and 10.1 kg DM per cow per day.

There is saying “If you can’t measure it, you can’t manage it”. Measuring the grass “cover”, with a plate meter, or by “eye”, shows how much grass is on the farm. If done for every paddock prior to grazing, it may help allocating that paddock. However, at the MDF we don’t routinely measure the grass cover on the farm. Measuring cover takes time, and no grass measuring method is particularly accurate, but that’s no excuse if it provides useful information. Measured cover may show that mistakes were made, but we always see how well each paddock has performed, during its rest time, as we graze through it.

Grass cover is the result of past decisions, inputs and conditions. The future is a different set of conditions, requiring new decisions. An understanding of how inputs work is more likely to help decide whether more grass will grow into the future, by using more or less fertiliser, by irrigating or not, or by changing the rotation length.

We do calculate how much pasture is being consumed, all the time, although that is not particularly accurate. Consumption is of course dependent on the cover grown, but it is the final consumption by the cows that makes the money. Knowing the farm grass cover achieved at any time is like knowing how much money you have in the bank. Just because you have a lot of money in the bank, say from investing in BHP, that quantity of money is not enough reason to continue investing in BHP.

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 \$71 per tonne of dry matter, down from \$86 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 14.3 kg DM per day.

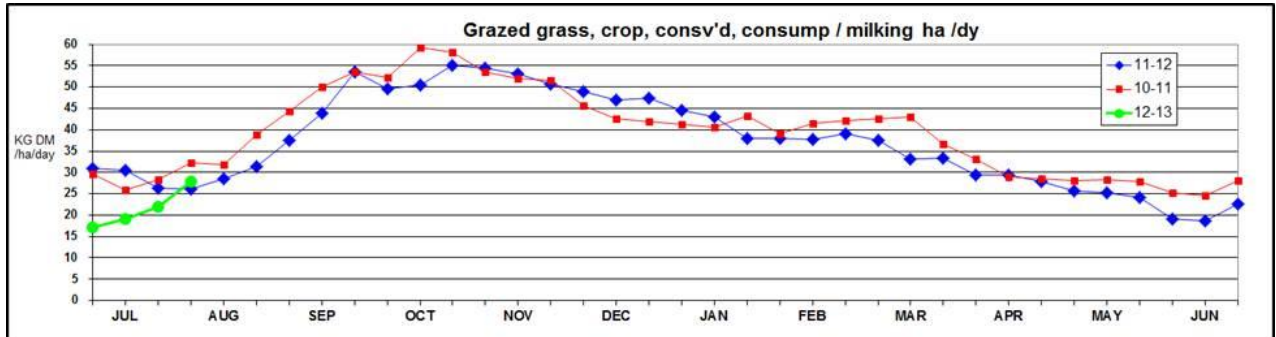
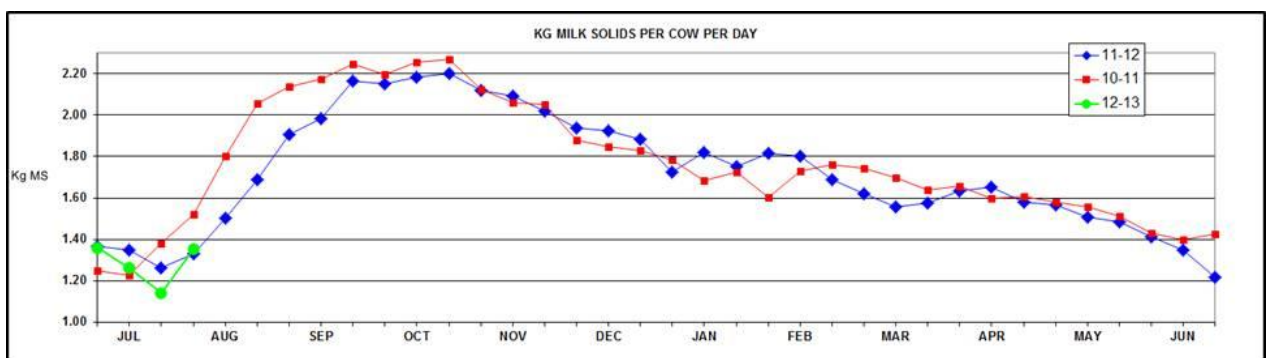
The Bulk Milk Cell Count for the week is up from 136,000 to 141,000. This time last year the BMCC was 108,000.

With two days of 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 \$5.74 to \$5.30 per kg milk solids, or 41.9 cents per litre.

Milk income per cow per day is up from \$6.47 to \$6.60, made up of \$2.17 for the fat, \$4.84 for the protein, and minus 0.41 for the litres. This time last year milk income per cow per day was \$7.29.

Feed cost per cow per day (including pasture and supplements) is up from \$2.88 to \$2.89 per cow per day, leaving a Margin over All Feed (MOAF) per cow of \$3.71, up from \$3.60. The margin over all feed per hectare is \$13.12. The whole farm feed margin is \$199, down from \$279 per day. This time last year the whole farm feed margin was \$320 per day.

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| WEEKLY FEEDING PERFORMANCE | Last Year | Last week | This week | Units |
|---|-----------|-----------|-----------|-------------------|
| Week to date: | 05-Aug | 27-Jul | 03-Aug | |
| Milker graze area | 27 | 27 | 15 | ha |
| Milker nos | 65 | 78 | 53 | head |
| Stocking rate | 2.4 | 2.9 | 3.5 | cows/ha |
| Grazing allocation 1/ | 50 | 55 | 55 | th of graze area |
| Average graze rest time | 50 | 48 | 51 | 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) | 24 | 22 | 26 | kg DM/ha/dy |
| Pasture consum'd per cow | 10.1 | 7.3 | 7.5 | kg DM/cow/dy |
| Daily spend / milking ha | \$1.78 | \$1.85 | \$1.85 | \$/ha/day |
| Estm'd pasture price | \$73 | \$86 | \$71 | \$/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 | 2.3 | 2.7 | kg DM/cow/dy |
| Estim'd supp waste | 3% | 4% | 4% | % |
| Conc (incl additives)supp avg price | \$302 | \$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 | 15.3 | 13.7 | 14.3 | kg DM/cow/dy |
| Estm'd body cond't'n change | 0.40 | 0.35 | 0.30 | kg LWT/cow/dy |
| Litres/cow | 16.3 | 14.4 | 15.8 | l/cow/day |
| Fat test | 3.89% | 4.04% | 4.17% | % |
| Protein test | 3.97% | 3.79% | 3.73% | % |
| Fat per cow | 0.634 | 0.585 | 0.660 | kg/cow/dy |
| Protein per cow | 0.647 | 0.544 | 0.592 | kg/cow/dy |
| MS per cow | 1.28 | 1.13 | 1.25 | kg/cow/dy |
| Anticipated final milk price (less levies) | \$5.70 | \$5.74 | \$5.30 | \$/kg MS |
| Anticipated final milk price (/litre) | \$0.449 | \$0.451 | \$0.419 | \$ per litre |
| Fat return per cow | \$2.17 | \$2.06 | \$2.17 | \$/cow/dy |
| Protein return per cow | \$5.54 | \$4.79 | \$4.84 | \$/cow/dy |
| Volume charge per cow | \$0.43 | \$0.38 | \$0.41 | \$/cow/dy |
| Milk income/cow | \$7.29 | \$6.47 | \$6.60 | \$/cow/dy |
| All feed cost/cow | \$2.37 | \$2.88 | \$2.89 | \$/cow/dy |
| Margin over all Feed/cow | \$4.92 | \$3.60 | \$3.71 | \$/cow/dy |
| MOAF /ha /day | \$11.84 | \$11.29 | \$13.12 | \$/ha/day |
| Farm MOAF per DAY | \$320 | \$279 | \$199 | \$/day |
| MOAF per month | \$9,753 | \$8,508 | \$6,060 | \$/month |
| Energy density of diet | 12.4 | 12.4 | 12.3 | MJ ME/kg DM |
| Crude protein % of diet | 19.8% | 19.8% | 19.7% | % CP |
| NDF Fibre level of diet | 30.1% | 34.7% | 35.6% | % NDF |
| FCE kg MS per tonne DM food | 83 | 81 | 86 | |
| Tonne feed /day | 1.0 | 1.1 | 0.8 | tonne DM /day |
| Milk Return /tonne feed | \$471 | \$463 | \$452 | \$/tonne DM |
| Average Price of feed | \$153 | \$206 | \$198 | \$/tonne DM |
| Margin /tonne feed | \$318 | \$257 | \$255 | \$/tonne DM |
| BMCC | 108 | 136 | 141 | |