

Macalister Demonstration Farm

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NEWSLETTER 14

Monday, FEB 2nd, 2009



Extension projects at the MDF are funded by Dairy Australia and the Gardiner Foundation with support from GippsDairy.

Sub-surface Drip Irrigation for Dairy Pastures Project Launch at MDF

Tuesday 10th February 10.30am - 12.30pm

An innovative approach to irrigation has been established at the MDF – come and find out more about it.

- Project background and expectations.
- System design and costs.
- Early production figures.

Special Guest: Lucy Finger DPI, Tatura “Sub-surface drip irrigation in northern Victoria – does it stack up?”

LUNCH PROVIDED RSVP: Neil Baker 0400 806 246

Project funded by Sustainability Victoria and MDF

Grains2Milk Project - Dairy Australia

Cool Cows field day at MDF

Monday 16th February 10.30am - 2.00pm

Managing heat stress can improve summer milk production, fat and protein tests and herd fertility.

- Pick up simple and quick ideas.
- Make the most of what you already have.
- Use the Cool Cow web resources to manage heat stress.

LUNCH PROVIDED RSVP: Frank Tyndall 0409 940 782

Yellow Rag Bit

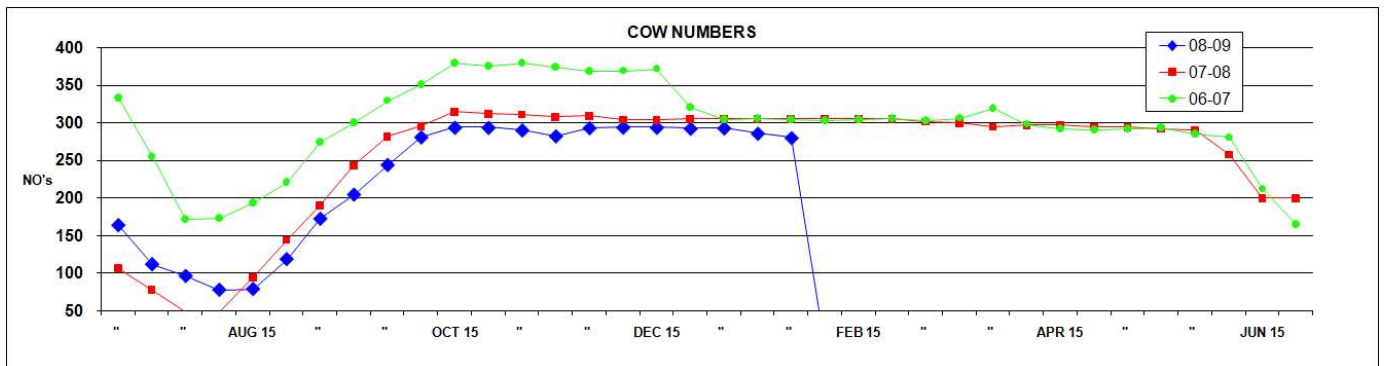
Jason McAinch Dairy Advisor DPI Maffra

With the price drop the pressure on all parts of the business are more scrutinised. Pasture is considered a cheap form of fantastic feed and following the Target 10 pasture growing recommendations will ensure this asset is maximised.

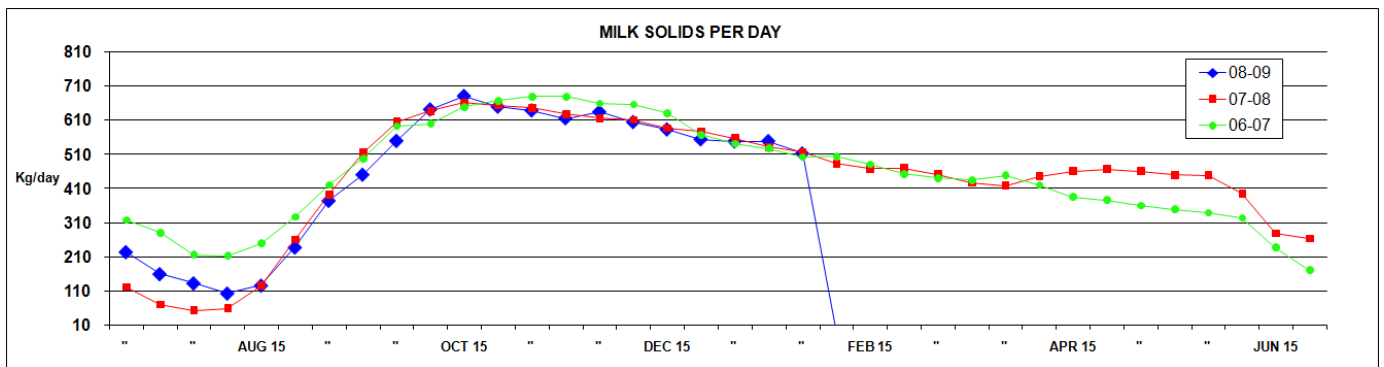
1. Irrigation – Maintain the soil moisture in the root zone at the optimum level. Evaporation rates for the seven days (25/1 – 31/1) have been very high at 6.1mm.
2. Grazing – Rotation lengths for close to 3 leaves on ryegrass in February requires around 35 days. Pastures where summer species such as paspalum are dominate, target grazing around 22 – 25 days. Target residues after grazing is 5cm between clumps and 9cm in clumps.
3. Fertility – Ensure paddock fertility is not compromising growth. (Check all details on the soil tests). Example - Olsen P above 18 may allow you to mine a bit of capital.
4. Effective use of Nitrogen fertiliser – use on paddocks that have good species composition that will respond to the Nitrogen. Apply as close to grazing as possible, 2 days before and up to 3 days after. (Urea around \$800/t spread, the profit margin is tight for Feb/Mar, so must be used effectively).

Pasture renovation – where you have identified poorer performing paddocks and eliminated soil/fertility issues and irrigation issues. Now is the time to plan for pasture renovation. Ensuring seed, fertiliser, machinery and sowing techniques are locked in before the last minute. “Preparation prevents a poor outcome.”

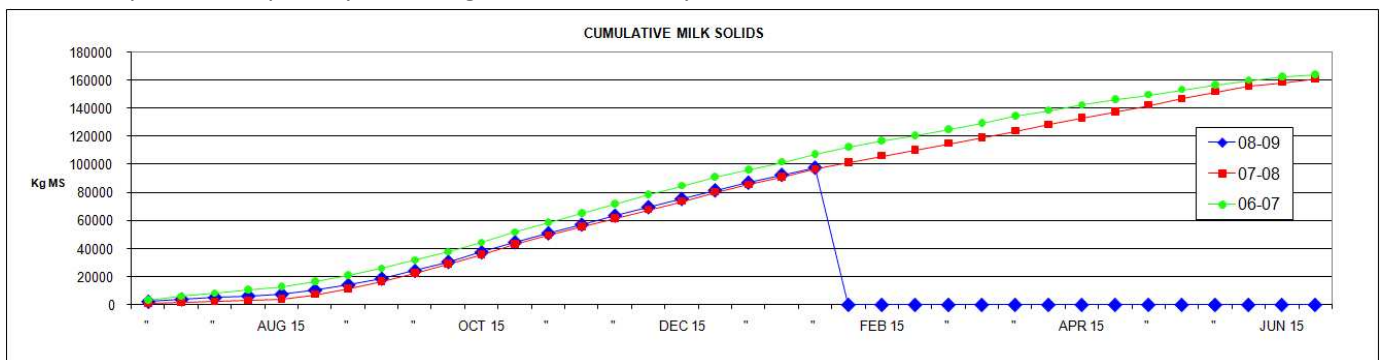
Macalister Demonstration Farm Production and Profitability Graphs



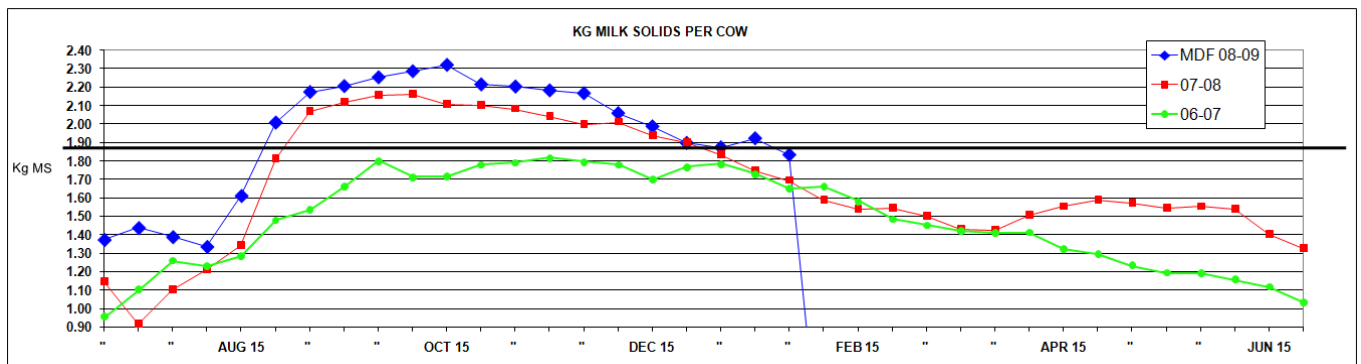
Having recently culled cows, now have 25 less than this time last year. Many had mastitis problems and this has improved cell count (see below).



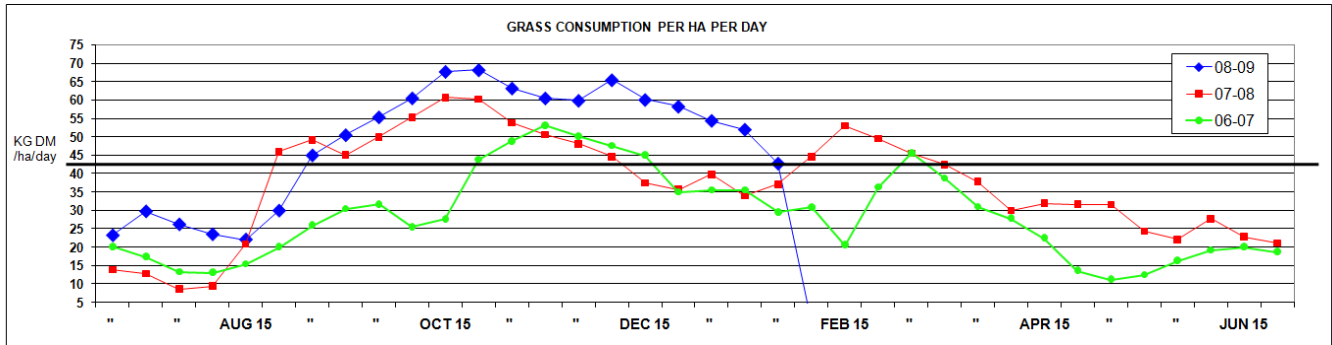
Total milk production per day is holding the same as last year.



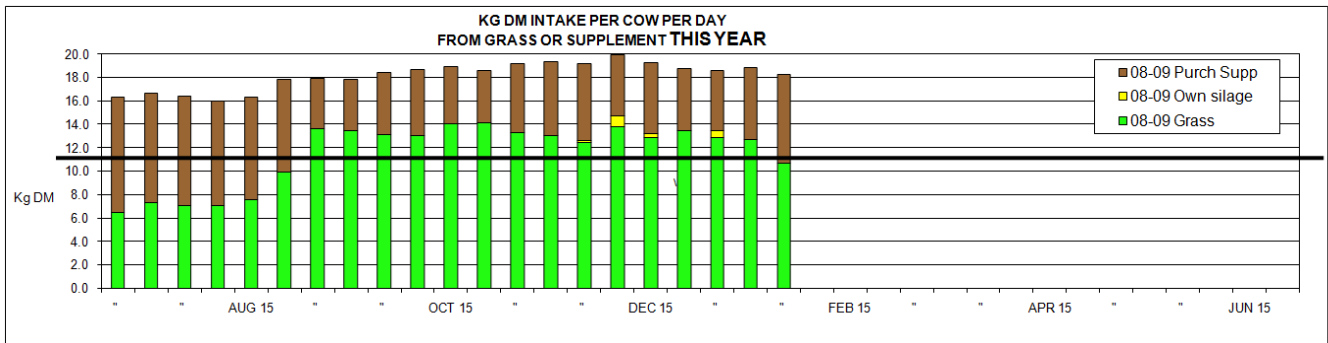
Cumulative milk is slightly ahead of last year.



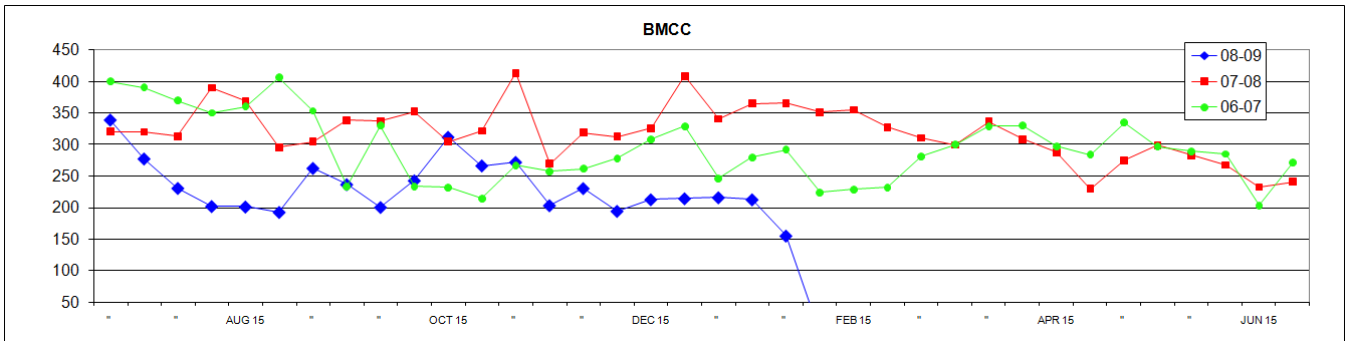
Milk production per cow lifted 10 day ago but in the recent heat it has fallen quickly. The horizontal black line is our average MS per cow target.



Grass consumption from the paddocks has been holding above last year, on the typical summer decline. But, again, in the heat, has recently crashed. It needs frequent irrigation but that increases water logging and warm water lying on the surface, with its severe affect on growth.



Grass per cow has fallen away because there is less grass available and because the cows reduce grazing time in the heat. We are trying to hold intake per cow with grain. The black line is our average grass per cow target.



Cell count is now the lowest for some time.

WEEKLY FEEDING	Month ago	Last week	
Grazing allocation 1/	30	30	th of graze area
Estm'd pasture consmp'n	56	41	kg DM/ha/dy
Pasture consum'd per cow	12.4	10.3	kg DM/cow/dy
Estm'd pasture price	\$81	\$148	\$/T DM
Supplements fed/cow	5.6	8.1	kg DM/cow/dy
Average supplement price	\$369	\$353	\$/T DM
Litres/cow	26.4	24.5	l/cow/day
MS per cow	1.93	1.82	kg/cow/dy
Anticpt'd milk price	\$0.365	\$0.398	per litre
Income/cow	\$9.63	\$9.77	\$/cow/dy
All feed cost/cow	\$3.06	\$4.40	\$/cow/dy
Margin over all Feed/cow/day	\$6.57	\$5.37	\$/cow/dy
MOAF /ha /day	\$29.62	\$21.48	\$/ha/day

Sub-surface Drip Irrigation Project update

The second grazing is now underway just three weeks after the first grazing with plants typically at 2.5+ leaf stage and a shading effect beginning to show. Pre-grazing monitoring shows an average growth rate of about 50 kg DM/ha/day with the best of it well over 60 kg DM/ha/day. While coming to grips with this new irrigation system has not been without its hiccups, it has meant that the pasture has received more water than anticipated which has kept parts of the trial paddock very moist right through this hot spell – the result is these very strong growth rates.

The heavier duplex soil has been much easier to water with excellent penetration between the drip tapes. However, the red soil has presented a few problems with it more difficult to get an even spread of moisture. The result is a banding effect with strong growth above the drip tapes (Feed test: 17.8% DM; energy 11.5 MJ/kg DM; Crude protein 25.3% DM and fibre 42.0% DM) and plants water stressed between (Feed test: 16.7% DM; energy 12.0 MJ/kg DM; Crude protein 28.2% DM and fibre 44.2% DM) as shown in the photo. We recently tried 'pulsing' (irrigating 3hours on then 3 hours off in a cycle) which seems to have been quite effective and will be tested further over the next irrigations.



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