



Macalister Demonstration Farm

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NEWSLETTER 103

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Changing faces at the Macalister Demonstration Farm

A new chairman after almost 5 years!

At its last meeting, the board elected Neil Baker unopposed to be Chairman of the Board of Directors for Macalister Demonstration Farm (MDF). Neil is no stranger to the MID, and the greater dairying community, as he held the position of Co-operative Manager at the MDF prior to his retirement in 2012 and has continued to engage with the dairy industry since this time. As the new Chairman, one of Neil's priorities will be focusing on achieving positive strategic outcomes aimed at the continued economic sustainability of the Co-operative and the Demonstration Farm.

After guiding the MDF through some very difficult times over the past 5 years, Mark Humphris elected to step aside from the role of Chairman. During his time as Chairman, Mark worked tirelessly through a period of what could be described as one of the MDF's most turbulent and challenging times in the history of the farm. With the assistance of the board members, Mark managed to navigate through some very trying and challenging situations whilst still maintaining the momentum of the Demonstration Farm. He is passionate about the MDF and would like to continue serving as a member of the Board for as long as the shareholders continue to elect him.

Our Co-operative Manager is leaving

And after almost 4 years at the Demonstration Farm, our Co-operative Manager, Sandie Brown is moving on. She will be taking up a position with the CFA as a Regional Brigade Administrative Support Officer. Sandie has enjoyed her time at the Demonstration Farm and has greatly widened the skill set she initially arrived with. She is thankful to the Board for their support during some very trying and challenging times and will leave the Demonstration Farm with fond memories. After working through the tumultuous times of 5 Farm Managers in little over a year, it is good to see stability with the management of the dairying operations of the farm and Sandie wishes the Demonstration Farm all the best with its future directions.

Yellow Rag Bit

Irrigating during a dry season at the MDF

The weir hasn't spilt again and until we get decent rain in the catchment, it is unlikely we will get allocation on low reliability water share. So what is the MDF doing during this dry season? The focus farm support group had a good discussion with Mahesh recently about this.

1. Create a water budget

A water budget was done as of 1 December, and assumed no further allocation. This was no simple feat for the MDF as the farm has several different irrigation systems, all which need to be managed differently.

The MDF has a current channel allocation of 314 ML. So far this season, 161 ML of that has been used, and now 153 ML of channel water is remaining - not much to get through a dry year! However, the MDF has access to a bore license with 198 ML, of which 172 ML is remaining. The flowrate out of the bore is not fantastic but the water quality is good (not salty). The 13 ha of bike shift sprays are irrigated directly out of the bore. The bore water is also pumped to the reuse system for surface irrigation so can be used to irrigate 23.2ha of flood irrigation. The decision was made to leave the bore pumping 24/7 for the rest of the season to utilise as much of that bore water as possible. This will also free up most of the channel water to irrigate the rest of the farm.

2. Decide how to manage each area

The most efficient (and easy to use!) irrigation system on the MDF is the fixed sprays. If the water is kept up, they can grow the best feed as it is easier to match the plant water use. The decision was made to continue to fully irrigate the 13.3ha area under the fixed sprays. Based on average evapotranspiration minus effective rainfall, we still need around 5 ML/Ha to irrigate this area for the rest of the season, totalling 66.5ML.

The next most efficient area is the sub-surface drip as there are minimal losses. Assuming no losses this area will also need 5 ML/ha to be fully irrigated for the season, totalling 33.5 ML.

From these calculations, roughly 100 ML is needed for spray and drip, leaving 53ML for flood irrigation on 19.1ha. With 11 irrigations remaining for the rest of the season (calculated from start of December) and an irrigation efficiency of 0.8 ML/ha/irrigation we require 168 ML to fully irrigate that 19.1 ha. We only have a third of the water we need.

3. Make further support decisions

In view of the estimated shortfall, the MDF have made a few decisions:

Dry off areas

- Areas of the farm that were down to be renovated in Autumn have been taken out and will not be irrigated this season;
- Areas that waste a lot of water and are inefficient will not be irrigated this season;
- Enough water will be kept to start the paddocks that are renovated.

Purchase some temporary water

The MDF is considering purchasing some water as an insurance policy. To gain an extra two waterings at 15ML per irrigation required for the area, the farm would need to purchase 30 ML. The focus group decided it was financially viable to pay up to \$180 per ML for temporary water.

Maintain irrigation interval

Mahesh has a real focus on home-grown forage, and to achieve his targets he understands that maintaining the irrigation interval is critical over summer. To stretch out the interval will cost him production and actually won't save water over the season. There will be a focus on matching irrigation interval with plant water requirements.

Managing reuse system/bore

A key part to the MDF being successful this season is managing the reuse system and bore well. The bore provides nearly 40 per cent of the water available at the MDF, and it is quite cheap to run. Mahesh will be focusing on not wasting water by utilising the reuse system as much as possible.

4. Hope it rains

If it rains, we will get further allocation and we can breeze through this irrigation season. However, if El Nino continues to influence our weather through to February, then it doesn't hurt to have a plan in place.

If you would like to talk through your irrigation options, Agriculture Victoria's irrigation officers can help. Call Sarah or Maria on 03 5147 0800.



What's been going on at the MDF?

What's been going on at the MDF?

There are 299 cows and 295 in the vat. Production is holding really well, with the impending heat wave of this weekend likely to take its toll. Production is higher and inputs are currently lower than this time last year, leading to a slightly higher margin over supplementary feed costs, despite the lower milk price this year. Mahesh has worked really hard to maintain the balance between pasture quality and quantity, and this is paying off right at this point. Silage was fed over a 10-day period to make up for slightly lower growth rates in early December, and this has now been overcome and the silage has been dropped out.

Current production: 24.7 litres, 3.9%, 3.48% or 1.82kgMS

Feeding 5kg wheat at \$315/t plus 18c additive. Was feeding 2 rolls silage but this is back out of ration again.

	Litres	Solids
Production	24.7	1.82
Components %	3.9%, 3.48%	3.9%, 3.48%
Milk price on current test Sept	38c	\$5.12
Gross milk income less levies	\$9.39	\$9.39
Minus grain @5 kg and 18c additive	\$1.76	\$1.76
silage	NIL	NIL
IOSFC (\$/cow/day)	\$7.63	\$7.63
Net IOSFC \$/herd/day	\$2250	\$2250
Less irrigated pasture at 14c/kgDM	\$1.68	\$1.68
Net IOSFC	\$5.95	\$5.95
Net production	20litres	1.49kgMS
Supplement cost	4.7 litres	0.33kgMS

Farm pasture cover is very good, with a few 'hairy' paddocks that will need topping over the next two weeks. Cover lifted slightly on three weeks ago, to 1920kgDM/ha.

The strategy over the next few weeks will be as follows:

- Round length will be at 25 days or an allocation of 2.6ha/24 hours;
- Urea at 80kg/ha behind cows;
- Top hairy paddocks;
- Stay on 5kg wheat and be prepared to lift it another 1kg but as 2 x ½ kg lots up to 6kg total;

- The additive will soon include Eskalin for risk management as well as Calciprill for additional calcium.

Watered area has been reduced slightly, so that the remaining wheel water can be used for fixed sprays, sub-surface drip and the best flood areas, and the bore water and re-use will be used for the remaining good flood irrigation areas and where possible the bikeshift laterals. Two paddocks of flood have been dried off (these were going to have millet sown but it was deemed to be better to dry them off) and a further one or two paddocks will be dropped out shortly. The aim will be to maintain the optimum irrigation interval (around 10 days depending on any rain events) and if a deficit in water emerges beyond what is predicted, then more area will be dried off into February.

Cow numbers will be reviewed in late January following the first pregnancy test. With the aim of not buying fodder other than for dry cows and springers, cow numbers may be reduced to better match pasture growth rates, given the lower milk price and high fodder prices. There are 200 rolls of silage remaining, and this will help to slow round up as required into late summer/autumn.

Matt Harms, ONFARM Consulting, 0408 311 118.

The costs of preserving silage at the MDF

As mentioned in Matt's report, Mahesh has harvested 213 bales of silage at the Demonstration Farm. A contractor was brought in 3 times to cut silage, prices for each cut as below:

For 120 bales (prices ex GST)

Raking	\$600	(\$150/hour)
Baling	\$3,360	(\$28/bale)
Carting	\$600	(\$5/hour)
Overall cost	\$38	/bale

For 63 bales (prices ex GST)

Teddering	\$500	(\$125/hour)
Raking	\$375	(\$150/hour)
Baling	\$1,764	(\$28/bale)
Carting	\$315	(\$5/bale)
Overall cost	\$51.60	/bale

For 30 bales (prices ex GST)

Baling	\$840	(\$28/bale)
Carting	\$150	(\$5/bale)
Raking	\$300	(\$150/hour)
Overall cost	\$43	/bale

Averaged out the overall cost per bale is \$41. As a bale is 250 kg dry matter, then we can just calculate this figure by 4 to work out the conserving costs per tonne of dry matter. In the case of MDF, the cost of preserving silage per tonne of dry matter is \$164/tonne – (\$41 x 4 = \$164).



**THE BOARD AND STAFF OF
MACALISTER DEMONSTRATION FARM
EXTEND GOOD WISHES TO ALL FOR A
MERRY CHRISTMAS, HAPPY NEW YEAR
AND A PROSPEROUS 2016**