

Macalister Demonstration Farm

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NEWSLETTER 63

Monday February 20th 2012



Extension projects at the MDF are funded by Dairy Australia, Sustainability Victoria and Department of Agriculture, Fisheries and Forestry, with support from GippsDairy.

ADVANCE NOTICE

SOLAR HOT WATER – DOES IT STACK UP?

Power prices are going up and will only keep going up after the arrival of the carbon tax in July. Is there a way to control rising costs at the same time as reducing carbon emissions?

Ferial Zekiman of Tinamba installed solar hot water panels on her dairy in 2006 and later installed heat pumps to try and reduce her rising power bills. Was it worth it? Did she get the returns?

As part of the Dairy Australia Future Ready Dairy System project Ferial has agreed to host a field day at her property where Gabriel Hakim (AgVet Projects), Darold Klindworth (DPI) and Neil Baker (Macalister Demonstration Farm) will dissect energy use at the dairy and investigate the business case for investment in a range of energy saving options. The investigation will include a full energy audit of the dairy as well as a look at milking management to identify further energy saving measures.

Where: Zekiman's Dairy Tinamba-Rosedale Rd (4km south of Tinamba – look for signs)

When: **Friday March 23rd 2012 at 10.30am**

What else? You get a free lunch!

Yellow Rag Bit

Bree Walshe, Dairy Advisor, DPI Maffra

Renovation.....is it on the horizon for you?

The last couple of seasons have brought with them a variety of weather conditions. This diversity has resulted in a range of potential issues in the paddock. Moisture and humid weather has enabled summer species to flourish and possibly even dominate. Parts of your farm may have been pugged. Due to the wet season last year, planned renovations may have been put on hold, or you may have areas of your farm in summer crops which will need to be resown for the remainder of the season.

As we get closer to autumn, your renovation strategy needs to be thoroughly thought out. The process can be kept simple or made quite complex, depending on your system and choices. Ask yourself: *Why consider renovating?* The most common answer is: *I want to improve underperforming paddocks by eliminating undesirable species.*

Before you jump the gun and decide what forage mix you want to grow, whether you're going to oversow or resow and the timing of this proposed renovation, take a step back to ponder why this area is earmarked for renovation in the first place.

Usually undesirable species appear for a reason. Identifying the species and the conditions they flourish in will help you identify the best course of action to take. For instance if your pastures are dominated by capeweed,

perhaps they are being overgrazed – exposing bare ground allowing this opportunist weed a path in. The pasture may be prone to root pulling, this may be an indication of grazing on too short a rotation, as the plant roots have not been able to establish. Alternatively, this may indicate soil structural issues, such as a root mat, instability or compaction. Dandelions in the pasture often indicates low potassium and phosphorus levels; highlighting potential fertility issues. The presence of distichum and/or nut grass, or the return of such species after renovation can be a precursor for the real issue – poor irrigation management or drainage, which ultimately may be a result of your irrigation infrastructure.

Deciding on whether or not to renovate a paddock is perhaps not as simple as you first thought! If the underlying need to renovate is because of irrigation infrastructure, soil structure or fertility then your needs are greater than renovation! You may require capital investment and this will cost both time and money. However, identifying such issues may save you time and money in the long run, as you will not be constantly resowing these areas and becoming frustrated by the species poor persistence. On the other hand, if these species are not present because of an underlying issue this area becomes a prime candidate for renovation.

Soil testing will complement this management decision. A soil test will help you to identify a fertility or soil structure issue or perhaps, more simply, to help the new forage become established by applying the right fertiliser to match plant demands.

For more information or advice on options for your dairy farm please contact your trusted agronomist, consultant or a member of the Dairy Services Branch at DPI Maffra on 5147 0800.

Macalister Demonstration Farm Profitability Project

Water budgets

Prior to the recent rain, it was getting a bit dry and some farmers were thinking they might run out of irrigation water. If it stays dry, that thinking could become stronger.

A water budget can be handy to figure out what the situation is and what to do. Three approaches to limited water are possible.

Approach 1 could be to keep irrigating normally, same area at the same rate, and **estimate when the farm will be out of water**, presuming no more rain. If that date is near the end of the irrigation season, say late April, you might simply take your chances.

Approach 1				
When will the farm be out of water if I keep irrigating at the same area at the same rate?				
		How to work out		
A	Today's date		15-Feb	
B	Water available	From SRW website	220	ML
C	Water used to date	From own records	125	ML
D	Water still available	B-C	95	ML
E	Number of irrigations to date	From own records	6	irrigations so far
F	Water used per watering	C/E	20.8	ML/irrign
G	Number of full irrigations still available	D/F	4.6	irrigations
H	Average days between irrigations from now till end of season	You estimate	10	days
I	Number of days to be out of water	G X H	46	days
	Last irrigation date	A + I	31-Mar	

(The purple bits in these budgets are for you to estimate. All these budgets assume no rain and no more allocation of water. Each row is lettered so that the calculation method can be shown).

If the last irrigation date is too early, you might think of buying water, which is the next approach.

Approach 2 could be to decide now, how much water needs to be purchased, assuming you keep irrigating the same area, at the same rate, until end of the irrigation season.

The “end of the irrigation season” is presumably well into autumn, say late April, when you are judging that it will have rained, and you will not have to irrigate again. Someone thinking the worst would choose this date to be May 15, which is the last date water is available.

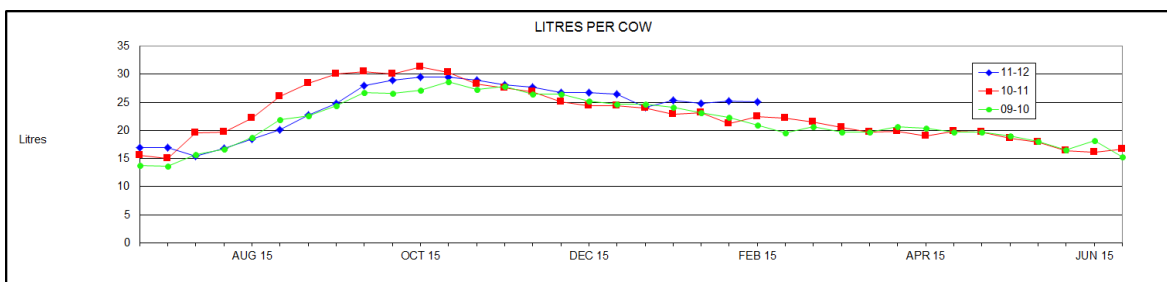
Approach 2				
How much water do I need to buy if I keep irrigating the same area, at the same rate, until the end of the irrigation season?				
		How to work out		
A	Today's date		15-Feb	
B	Water available	From SRW website	220	ML
C	Water used to date	From own records	125	ML
D	Water still available	B - C	95	ML
E	Number of irrigations to date	From own records	6	irrigations so far
F	Water used per watering	C / E	20.8	ML/irrign
G	Number of irrigations still to go	You estimate	7.0	irrigations
H	Water needed to finish season	F X G	146	ML
I	Water to buy	H - D	51	ML

Approach 3 could be to not buy water and dry off some areas now. The area that can be irrigated fully to the "end of the irrigation season" needs to be decided. This is approach 3.

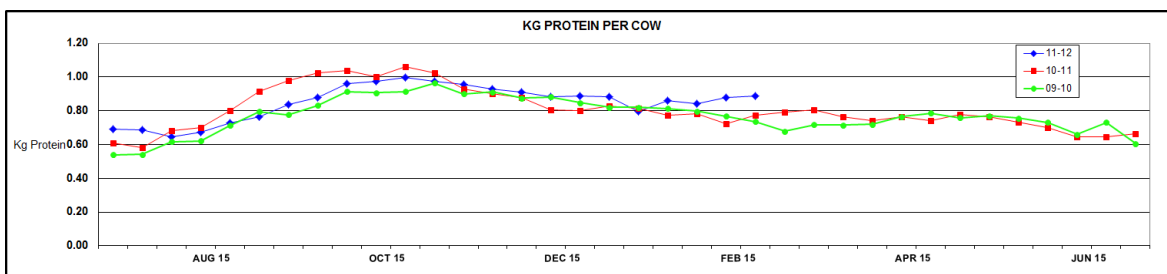
Approach 3				
What area can I continue to irrigate until the end of the irrigation season, if I don't buy more water?				
		How to work out		
A	Today's date		15-Feb	
B	Water available	From SRW website	220	ML
C	Water used to date	From own records	125	ML
D	Water still available	B - C	95	ML
E	Number of irrigations to date	From own records	6	irrigations
F	Water used per watering	C / E	20.8	ML
G	Area irrigated to date	From own records	39.0	Ha
H	Water used per irrigation per ha to date	F / G	0.53	ML/ha
I	Number of irrigations to go	You estimate	7.0	irrigations
J	Water available for each irrigation	D / I	13.6	ML/irrign
K	Area that can be irrigated to use up all water	J / H	25.4	Ha
	Area to dry off	G - K	13.6	Ha

Approach 3 may be the best the best approach if you have areas that are very difficult to irrigate and/or areas that are very wasteful of water. To have much impact this decision needs to be made early in the season.

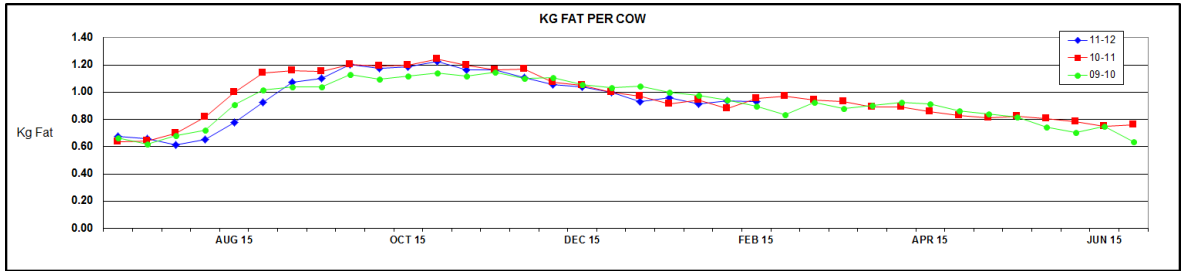
Water budgeting needs a lot of judgment, - of future rain, evaporation rates, and possible increases in water allocation. The tables above are working spreadsheets. If you want them contact Frank Tyndall ftyndall@ozemail.com.au.



The MDF litres per cow is currently above last year.



The MDF protein per cow is currently above last year.



The MDF fat per cow is currently about the same as last year.

Frank Tyndall 0409 940 782

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