

Macalister Demonstration Farm

PO Box 87, MAFFRA, VIC 3860

Ph. (03) 5145 1650 Fax (03) 5145 1650

Email: mdf@wideband.net.au Web: <http://mdf.mistro.ag/>

NEWSLETTER 22

Monday August 10th 2009



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

Incitec Pivot and MDF in Partnership

Impact of ProGibb and Nitrogen Fertilizer on Winter Pasture

The project measures the impact of different levels of nitrogen when combined with ProGibb on ryegrass pasture growth over winter. The trial used the cut and weigh method to measure actual dry matter production.

Given the recent discussions on Ausdairy-I the results should be very interesting.

Macalister Demonstration Farm
11-12.30pm Thursday August 20th 2009

Lunch provided

Yellow Rag Bit

KEEP WATCHING THIS SPACE - THE SPRING SESSIONS ARE ON THEIR WAY

The Yellow Rag item has been replaced by the extended item below.

Lower Milk Prices – Options for this Season – Review

There is no right or wrong decision or management style. However, an informed decision is the best one, work the margins out for your farm and discuss your options with business partners and an advisor of your choice. Remember every system is unique and what works for your neighbour may not work for you!

Forty people attended the 'Options for this Season' field day held at the MDF on July 28th. There were many options, decisions and strategies discussed. The panel discussion consisted of 4 farmers, with varying strategies to manage the season until Christmas time!

Farmer 1 – traditionally a high input dairy farm - Milks 520 cows, with a stocking rate of 3.25 – when cropping area on milking platform, SR is 4.3cows /ha. Traditionally feeding 2.8tonne/cow of concentrate, using 500kgN/ha/annum, 6.5ML/ha and produced 524kgMS or 7070L/cow in the 2008/2009 season.

Farmer 2 – traditionally high input dairy farm lessors - Milks 2200 cows, with a stocking rate of 4.2 cows/ha, feeding 2.1tonne/cow of concentrate, using 1kg N/ha/day, 3.5ML/ha and produced 615kg MS/cow or 7900-8100L/cow for the 2008/2009 season.

Farmer 3 – traditionally low input dairy farm - Milks 180 cows with a stocking rate of 3.3cows /ha, feeding 0.2tonne/cow of concentrate, using 300kg N/ha/annum, 7-8ML/ha and produced 350kgMS/cow or 4000-4500L/cow for the 2008/2009 season.

Farmer 4 – traditionally very low input dairy farm share farmers - Milks 150 cows with a stocking rate of 2.5cows/ha, feeds no concentrate, using 98kg N/ha and 3ML/ha and produced 4000L/cow for the 2008/2009 season.

What management decisions have these four farmers made? Lets take a look at their approaches:

	08/09 season	09/10 season
Cows transition diet from dry cow to milking		
Farmer 1	Transition: Keep K out of the fertiliser, feed cows a high fibre – maize silage and straw, with a small strip of pasture. Milking: Once calve more pasture with a little straw and concentrate (grain ~ 6kg & PKE ~3kg)	Feeding the dry cows the same, but once they calve will only get pasture, a little straw and a little grain (1.5kg/d)
Farmer 2	Usually – ryegrass hay and lead feed pellets	This season – hay, PKE and lead feed pellets; 50-60 replacements, instead of 100
Farmer 3	Simple transition diet – hay and a strip of grass.	
Farmer 4	Simple transition diet – hay and a strip of grass.	
Production		
Farmer 1	Chased a target per cow production of 35 – 40L (34-38L achieved)	Aim to have a sufficient grass wedge in front of the cows to meet energy needs. Not chasing a per cow production, we get what we get – hoping 25-30L. Aim for a peak in grass production as opposed to a peak in cow production. Pasture the key focus.
Farmer 2	Aim for 38L/cow or 7926-8096L/cow/year	Aim to increase in production from last year; do have 22 jersey heifers to come in.
Farmer 3	No change to management! Follow the pasture for the milk production. Aiming for most milk from pasture, driving the cow's appetite until Christmas.	
Farmer 4	No change to management! Follow the pasture for the milk production. Aiming for most milk from pasture, driving the cow's appetite until Christmas.	
Joining		
Farmer 1	Budget x \$'s to mating and purchase semen to match and AI for 2.5 cycles or 8 weeks. Culling choices made before breeding, therefore anything that we don't want to keep goes to the bull.	Option 1 – just run Jersey bulls with the herd for mating, but do we have enough bull power? Option 2 – AI for 1 cycle and then put the bulls out. Either way would retain the heifers as replacements and both options save on semen and labour costs
Farmer 2	AI DIY herd, Synchronise heifers – with an AI technician. Aiming to improve the submission rate, will do 6 weeks of AI and possibly a double PG program. We do have ½ the semen requirements as left overs from last spring.	
Farmer 3	AI for 5 weeks, then the bulls out until January, for a total of 10 weeks breeding. Will use the same semen as normal and aim to keep a 60-70% in calf rate at 5 weeks	
Farmer 4	No change to management of their seasonal herd, AI – 100 straws, followed by the bulls until Xmas for a total of 10 weeks breeding, using the same semen as normal and looking to achieve a 7-13% empty rate (same as last year), we join the cows at 4-4.5 condition score and feel we have no issues getting cows in calf.	
Summer Crops		
Farmer 1	Traditionally cropped 40ha on the milking platform with an annual ryegrass followed by maize.	Have not made the final decision yet, most likely to reduce cropped area by half – 20ha due to tighter budgets – both cash flow and feed we are more adverse to the risk this year! Look at budgets and the water scenario more closely at the time before making the final decision.
Farmer 2	Improve pasture consumption 9ha of millet	Improve pasture consumption 9ha of millet – same as last year and possibly an extra 4-5ha at the runoff block. We will start the annuals earlier on the run off and hope to disc and level if cash flow allows.
Farmer 3	Don't do summer cropping.	
Farmer 4	Opportunistic crop on the dryland river flats (4ha) – in winter plant annual ryegrass and in summer a turnip or chicory crop.	
Fertiliser		
Farmer 1	Business as usual - will apply maintenance levels to majority of farm. Will endeavour to correct problem spots. Started a 3 year lime program, going into second year, will continue, but move from 6 monthly applications to annual and ensure best price.	
Farmer 2	Urea – business as usual. Soil tested a lot of the farm, therefore only put on minimum maintenance requirements. 12ha low in K – will put a little extra on this area.	
Farmer 3	Applied minimal in the last 12 months; was a part of the Accounting 4 Nutrients (A4N) project and therefore has soil tests for all paddocks.	Strategic P only, some areas none, K & S as indicated by soil tests.

Farmer 4	Communication with owners and make a group decision, not big fertiliser users.
What haven't we decided yet for 2009-10?	
Farmer 1	Look at irrigation water as we go through the season
Farmer 2	Final millet area will depend on performance of existing lucerne crop; Water - approach currently as normal, will wait & see; Herd testing? Depending on cash flow, want to do 5 from October.
Farmer 3	We don't know what will happen yet in terms of water allocations, therefore aiming for a normal season and we will make decisions as the season progresses. The use of Once a Day milking, as a management tool 'depending on the margins' for any season; the triggers – weather, rainfall, milk price, cow condition and lifestyle.
Farmer 4	If required will reduce irrigated area and dry cows off to maintain same stocking rate, will use once a day milking going into dry off.

Other considerations from the farmer panel:

- Consider all decisions cash flow implications
- What are the essential repairs and maintenance items this year
- Reduce the feed bill – recognise this will also reduce income from less production
- Labour costs of all activities
- Cow condition – will be mined this year, hoping to do a good job to keep reduction to a minimum, trying to feed as much pasture as possible, maintain feed wedge and recognise potential future implications.

It is a tight season in terms of cash flow and therefore, it's important to consider the implications of each decision made. What are the flow on effects?

To get a copy of the information kit handed out on the day please visit www.dairyextension.com.au website. If you would like to talk about your management options please call Maffra DPI on 5147 0800, your milk supply officer or your consultant.

Bree Walshe Dairy Advisor DPI Maffra

Macalister Demonstration Farm Profitability Project

The Macalister Demonstration Farm Board is always considering the next best place to spend any surplus to improve the efficiency of production, quality of product and, of course, profitability. A number of projects or farm developments are always on the list and, whilst there may not be much surplus available in the near future, the cost of borrowing is low. A Partial Budget is a method to judge the merits of any investment. If the sums add up and it looks good maybe it is the time to invest.

This Partial Budget as an example, (by no means complete or accurate) analyses a project at the MDF called "Laser grading the bike shift area". A Partial Budget does not consider the whole farm budget, but tries to fully explore every extra cost and every extra return of a project, over time, by considering four aspects:

1. Increased costs

- Preparation, Cultivation, Laser grading, Channels, Structures, Sowing, and Fencing. These are costs that will have to be paid in the months at the start of the project. The Fertiliser line is there, but with nothing entered. This is because the same amount of fertiliser will be applied whether the project goes ahead or not. Some extra irrigation water will be needed.

2. Reduced income

- Lost grass value. Early in the project, there is a loss of grass. This can be difficult to assess. A table shows typical good and poor growth, and a comparison between "leave as is" and "laser grade". Grass is difficult to price. One approach is to assume that lost grass will need to be replaced with purchased feed so in this example the grass is priced at an estimated purchased feed price (although in this particular spring it may be better to simply lose the milk).

3. Increased income

- Extra grass value. Once the laser grading is finished the main pay-off is extra grass consumed, and in this case it is priced at an estimated purchased feed price, because the grass will replace purchased feed. The extra grass continues for a long time, but this partial budget runs for only three years till September 2013 (Some of the middle months in the table have been compacted).
- Extra value at sale of farm. At some point, usually when a farm is sold, if there is any added value to the farm, this needs to be recognised in the partial budget.

4. Reduced costs

- Labour. There may be reduced labour but it is ignored in this particular budget.
- Water, Pump power, Fertiliser. These costs are saved while the project is carried out.

PARTIAL BUDGET

Lasergrade the bike shift area

MONTH	Oct 2009	Nov 2009	Dec 2009	Jan 2010	Feb 2010	Mar 2010	Apr 2010	May 2010	Jun 2010	Aug 2013	Sep 2013
Extra costs											
Preparation	\$1,000										
Cultivation		\$2,000									
Laser grade			\$35,000								
Channels, structures			\$17,000								
Sow			\$3,500								
Fencing			\$2,000								
Water				\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
Fertiliser											
Reduced income											
Lost grass value	\$5,440	\$5,440	\$4,246	\$4,533							
Extra income											
Extra grass value					\$2,034	\$1,716	\$1,110	\$1,079	\$411	\$2,096	\$2,096
Extra value at sale of farm											\$28,000
Reduced costs											
Labour											
Water	\$350	\$400	\$450								
Pump power	\$100	\$100	\$100								
Fertiliser	\$500	\$500	\$500	\$500							
NETT	-\$5,490	-\$6,440	-\$60,696	-\$4,083	\$1,984	\$1,666	\$1,060	\$1,029	\$361	\$2,046	\$30,046
INTERNAL RATE of RETURN:	7.9% per annum										
GRASS VALUE											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Aug	Sep
"LEAVE AS IS"											
Good hectares	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Poor hectares	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Total hectares	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Good growth (kg DM/ha/day)	60	60	50	50	50	45	40	35	20	60	60
Poor growth (kg DM/ha/day)	30	30	20	25	20	20	25	20	15	30	30
Grass tonne DM	18.8	18.8	14.6	15.6	14.6	13.6	13.5	11.4	7.2	18.8	18.8
"LASER GRADE"											
Good hectares	0.0	0.0	0.0	0.0	14.2	14.2	14.2	14.2	14.2	14.2	14.2
Poor hectares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total hectares	0.0	0.0	0.0	0.0	14.2	14.2	14.2	14.2	14.2	14.2	14.2
Grass tonne DM	0.0	0.0	0.0	0.0	21.7	19.5	17.3	15.2	8.7	26.0	26.0
GRASS DEFICIT SURPLUS T DM	-18.8	-18.8	-14.6	-15.6	7.0	5.9	3.8	3.7	1.4	7.2	7.2
Grass price (replace purch feed) \$/t DM	\$290	\$290	\$290	\$290	\$290	\$290	\$290	\$290	\$290	\$290	\$290
Extra (or lost) grass value	-\$5,440	-\$5,440	-\$4,246	-\$4,533	\$2,034	\$1,716	\$1,110	\$1,079	\$411	\$2,096	\$2,096

Approaching any project through a partial budget helps capture every cost and every return over time.

An accounting indicator, called the Internal Rate of Return (IRR), is calculated in the example to be 7.9% The IRR allows for the fact that money is spent early in a project's life, but the returns arrive slowly later, and over many years. Don't ask me about its mathematics, but the IRR is a handy little function built into spreadsheets and is the effective interest rate return on an investment. It can be compared to the cost of borrowing to see where funds are best invested. The IRR needs to be somewhat higher than the cost of

money (the bank's interest rate) for a project to proceed – this allows for some margin for an increase in interest rates down the track and other changes to your assumptions caused by, say, a change in milk price or seasonal variations. The IRR's of a number of projects could be compared to decide which returns more and is, therefore, the best investment.

The Board want to put a bit more rigour into their decision making about investment in farm improvement and have asked me to come up with some sort of process to let them rank all of the ideas on the wish list. This model will go the next meeting of the Board for their consideration.

MDF Automatic Weather Station – Up and Running

Check out the MDF automatic weather station. It currently shows the monthly rainfall at 20mm and the monthly evaporation at 60mm, backing up everyone's observation that it is dry. The station can help irrigation timing.

The web site to access it is <http://www.agua.com.au/>. Anyone can log on, User Name: Tinamba; Password: MDF, Click on DPI Tinamba for the MDF (or DPI Denison for the Denison weather station). Clicking on "weather" will show rainfall and evaporation. Thanks to Gavan Lamb (also an MDF Director) and Brendan Stary of DPI who have set up the weather station on the farm using funds from the DSE Sustainable Irrigation program.

POSTAGE
AUSTRALIA

SENDER:



Macalister Demonstration Farm
PO Box 87 **MAFFRA** VIC 3860