

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 25

Monday October 12th 2009



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

Spring Sessions @ the MDF

11am – 12.30pm

BBQ lunch provided by Irwin Stockfeeds

Macalister Demonstration Farm, Boggy Creek Rd, Riverslea

Week 4 October 21st - **Fertiliser - how much is just enough? Calcium ain't calcium - the role of Lime & Gypsum** - Cameron Gourley & Bree Walshe DPI

Week 5 October 29th - **MDF AGM** (note it's a Thursday)

Week 6 November 4th - **The Good Life**

Week 7 November 11th - **What have you changed?** Panel discussion

MDF Annual General Meeting and Annual Field Day

10am – 2.00pm Thursday October 29th 2009

BBQ lunch provided followed by an optional farm walk with Frank Tyndall

Macalister Demonstration Farm, Boggy Creek Rd, Riverslea

- ANNUAL GENERAL MEETING (including presentation of RF (Bob) Pitman Award)
- Project Reports (including MDF Weather Station)
- "Investing in your second biggest asset doesn't hurt! – Building a Profitable herd"
– ADHIS project launch with HFAA and MDF using the latest tools in bull selection

Yellow Rag Bit

Jason McAinch & Bree Walshe, Dairy Advisors DPI Maffra

As we AI or turn the bulls into the heifers it's a good time to reflect on how we have gone with the rearing of these very important animals on the farm. Can we do some things better with the calves we have now? Let us look at the weaning process for our calves. Weaning should be taken one step at a time to reduce the stress on the calf.

- It is ideal to wean heifers when they are consuming a minimum of 1kg concentrate (pellets or calf mix) a day, for 3 consecutive days and they are a minimum of 65kg (for a mature weight of 550kg).
- Keep the calves in the same place during weaning
- No other changes – dehorning, moving, vaccinating – wait 4 days.
- The younger they are at weaning the greater the risk for health implications.
- Calves should be weaned by 12 weeks of age
- Weighed, to determine if there is a 'tail end'

It is essential that we focus on the smaller, lighter calves rather than the "average". These "tail enders" should be separated to reduce the competition and given extra to catch up to the rest of the mob. By increasing their growth as younger calves they will be able to catch up quicker and won't be the 'tail enders' for the rest of their lives. This does increase management, but you will be rewarded with better conception rates and greater lactations in the future. You have done the hard yards to get them to this point, so keep them growing, don't stick them down the back of the paddock and think they'll be right.

Their feed requirement is nothing overly special but you do need to ensure they are receiving adequate feed of appropriate quality to continue growing them into healthy heifers.

Age (months)	Liveweight	DM intake/ kg	ME	CP%
2	65	1.5	17	20
3	100	2.8	32	18
6	157	5	50	16
9	216	7	70	16

Note: based on mature weight of 550kg

How do I know what live weight targets to set for my heifers? Firstly you need to have an idea of the weight of your mature cows.

If the liveweight of the mature cows is 550kg	100%	550kg
Ideal liveweight of heifers just before 1 st calving	85%	467kg
Ideal liveweight for heifers at joining	55%	303kg

Quarterly weighing of young stock is adequate, but you do need to weigh them at timely intervals i.e 2 months before joining, so that you have sufficient time to increase their weight if needed.

Macalister Demonstration Farm Profitability Project

The following is a comparison of feeding profitability over the past three years as measured in the current week in October. The table below shows the situation (stocking rate, grazing, pasture consumption, feeding levels, prices, etc.) and the feed margins for each year.

DATE	ALL PRICES ACTUAL at the time			Units
	13-Oct-07	11-Oct-08	10-Oct-09	
Milker graze area	65	61	65	ha
Milker nos	303	286	269	head
Stocking rate	4.7	4.7	4.1	cows/ha
Grazing allocation 1/	30	35	35	th of graze area
Average graze rest time	30	32	39	days
Estm'd pasture consmp'n (incl cons'vd)	54	67	52	kg DM/ha/dy
Pasture consum'd per cow	11.7	13.3	12.5	kg DM/cow/dy
Estm'd pasture price	\$60	\$56	\$44	\$/T DM
Conc supp fed/cow	6.1	5.3	4.3	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	0.5	0.0	kg DM/cow/dy
Estim'd supp waste	3.0%	3.5%	3.0%	%
Conc supp price	\$504	\$552	\$321	\$/T DM
Hay/silage supp price	\$0	\$0	\$0	\$/T DM
PKE supp price	\$0	\$361	\$0	\$/T DM
Total feed /cow	17.6	18.9	16.7	kg DM/cow/dy
Estm'd body cond'tn change	-0.30	-0.30	-0.30	kg LWT/cow/dy
Litres/cow	30.1	30.2	26.4	l/cow/day
Fat test	3.75%	4.27%	4.12%	%
Protein test	3.35%	3.36%	3.40%	%
Fat per cow	1.13	1.29	1.09	kg/cow/dy
Protein per cow	1.01	1.01	0.90	kg/cow/dy
MS per cow	2.14	2.30	1.98	kg/cow/dy
Anticipated final milk price (less levies)	\$6.45	\$4.89	\$3.27	\$/kg MS
Anticipated final milk price (/litre)	\$0.458	\$0.373	\$0.245	\$ per litre
Milk income/cow	\$13.78	\$11.26	\$6.47	\$/cow/dy
All feed cost/cow	\$3.78	\$3.84	\$1.93	\$/cow/dy
Margin over all Feed/cow	\$10.00	\$7.42	\$4.54	\$/cow/dy
MOAF /ha /day	\$46.60	\$34.81	\$18.80	\$/ha/day
Farm MOAF per DAY	\$3,029	\$2,123	\$1,222	\$/day
Farm MOAF per month	\$90,874	\$63,701	\$36,667	\$/month
Tonne feed /day	5.3	5.4	4.5	tonne DM /day
Milk Return /tonne feed	\$783	\$597	\$389	\$/tonne DM
Average Price of feed	\$215	\$204	\$116	\$/tonne DM
Margin /tonne feed	\$568	\$394	\$273	\$/tonne DM

SUMMARY:

2007:

- Highest milk price.
- Highest amount of supplement fed per cow and lowest grass fed per cow.
- Not the highest purchased feed price, but the highest average price of all feed.
- By far, the highest feed margin for the whole farm, per cow and per hectare.

2008:

- Highest milk solids production per cow (but the same protein production per cow as '07).
- Highest pasture consumption per hectare.
- Highest pasture consumption per cow.

2009 (currently):

- Lowest stocking rate.
- Lowest milk price.
- Lowest purchased feed price and lowest grass price (because of lower nitrogen price).
- Lowest milk solids production per cow.
- By far, the lowest feed margins.

No analysis is perfect because of inaccurate data collection, assumptions made in the calculations, and all sorts of changing circumstances, such as herd body condition, herds differently set up to eat, and pasture growing conditions. However, it is clear from the three years of information, and something we all know, that milk price and purchased feed price have a huge effect on feeding profitability.

But, aside from these two external factors, which levels and sources of feed, and levels of production, things that the farmer has control of, seem to be the most profitable? One way to possibly make sense of it is to apply the same prices (in the blue rows in the table below) against all years, and then calculate the feed margins again.

DATE	FEED and MILK PRICES ADJUSTED to '07			FEED and MILK PRICES ADJUSTED to '08			FEED and MILK PRICES ADJUSTED to this year '09			Units
	13-Oct-07	11-Oct-08	10-Oct-09	13-Oct-07	11-Oct-08	10-Oct-09	13-Oct-07	11-Oct-08	10-Oct-09	
Milker graze area	65	61	65	65	61	65	65	61	65	ha
Milker nos	303	286	269	303	286	269	303	286	269	head
Stocking rate	4.7	4.7	4.1	4.7	4.7	4.1	4.7	4.7	4.1	cows/ha
Grazing allocation 1/	30	35	35	30	35	35	30	35	35	th of graze area
Average graze rest time	30	32	39	30	32	39	30	32	39	days
Estm'd past'r consmp'n (incl cons'vd)	54	67	52	54	67	52	54	67	52	kg DM/ha/dy
Pasture consum'd per cow	11.7	13.3	12.5	11.7	13.3	12.5	11.7	13.3	12.5	kg DM/cow/dy
Estm'd pasture price	\$60	\$60	\$60	\$56	\$56	\$56	\$44	\$44	\$44	\$/T DM
Conc supp fed/cow	6.1	5.3	4.3	6.1	5.3	4.3	6.1	5.3	4.3	kg DM/cow/dy
Hay/silage supp fed/cow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	kg DM/cow/dy
PKE supp fed/cow	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.5	0.0	kg DM/cow/dy
Estim'd supp waste	3.0%	3.5%	3.0%	3.0%	3.5%	3.0%	3.0%	3.5%	3.0%	%
Conc supp price	\$504	\$504	\$504	\$552	\$552	\$552	\$320	\$320	\$320	\$/T DM
Hay/silage supp price	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$/T DM
PKE supp price	\$289	\$289	\$289	\$361	\$361	\$361	\$210	\$210	\$210	\$/T DM
Total feed /cow	17.6	18.9	16.7	17.6	18.9	16.7	17.6	18.9	16.7	kg DM/cow/dy
Estm'd body cond'n change	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	kg LWT/cow/dy
Litres/cow	30.1	30.2	26.4	30.1	30.2	26.4	30.1	30.2	26.4	l/cow/day
Fat test	3.75%	4.27%	4.12%	3.75%	4.27%	4.12%	3.75%	4.27%	4.12%	%
Protein test	3.35%	3.36%	3.40%	3.35%	3.36%	3.40%	3.35%	3.36%	3.40%	%
Fat per cow	1.13	1.29	1.09	1.13	1.29	1.09	1.13	1.29	1.09	kg/cow/dy
Protein per cow	1.01	1.01	0.90	1.01	1.01	0.90	1.01	1.01	0.90	kg/cow/dy
MS per cow	2.14	2.30	1.98	2.14	2.30	1.98	2.14	2.30	1.98	kg/cow/dy
Anticipated final milk price	\$6.45	\$6.45	\$6.45	\$3.27	\$3.27	\$3.27	\$3.27	\$3.27	\$3.27	\$/kg MS
Anticipated final milk price (/litre)	\$0.458	\$0.492	\$0.484	\$0.232	\$0.250	\$0.245	\$0.232	\$0.250	\$0.245	\$/ per litre
Milk income/cow	\$13.78	\$14.85	\$12.77	\$6.99	\$7.53	\$6.47	\$6.99	\$7.53	\$6.47	\$/cow/dy
All feed cost/cow	\$3.78	\$3.60	\$2.93	\$4.03	\$3.84	\$3.08	\$2.47	\$2.38	\$1.93	\$/cow/dy
Margin over all Feed/cow	\$10.00	\$11.24	\$9.85	\$2.96	\$3.69	\$3.39	\$4.52	\$5.15	\$4.54	\$/cow/dy
MOAF /ha /day	\$46.62	\$52.72	\$40.75	\$13.79	\$17.30	\$14.04	\$21.06	\$24.14	\$18.80	\$/ha/day
Farm MOAF per DAY	\$3,030	\$3,216	\$2,648	\$896	\$1,055	\$912	\$1,369	\$1,472	\$1,222	\$/day
Farm MOAF per month	\$90,903	\$96,469	\$79,455	\$26,881	\$31,653	\$27,372	\$41,059	\$44,175	\$36,667	\$/month
Tonne feed /day	5.3	5.4	4.5	5.3	5.4	4.5	5.3	5.4	4.5	tonne DM /day
Milk Return /tonne feed	\$783	\$787	\$767	\$397	\$399	\$389	\$397	\$399	\$389	\$/tonne DM
Average Price of feed	\$215	\$191	\$176	\$229	\$204	\$185	\$140	\$126	\$116	\$/tonne DM
Margin /tonne feed	\$568	\$596	\$591	\$168	\$196	\$204	\$257	\$273	\$273	\$/tonne DM

Whichever year's prices are applied to the three years, 2008 always has the highest Farm Margin Over All Feed per day. The aspects of 2008 that seem to be delivering this result are high pasture consumption per hectare, high pasture consumption per cow, and high production per cow.

Crushed Rock for Laneways

At the MDF we've tried a few different materials for laneway surfaces and have struck on one that we are particularly happy with. It is a crushed rock from Fish Creek that crushes and packs down well, is soft on the cows' feet and is not picked up by the cows and tracked all over the farm or into the dairy. It works best on a well formed lane with a good base and needs to be rolled after it is spread. It is made of both fine and coarse grade elements and is quite easy to use when dry (photo, left) but sets hard once it gets wet (photo, right). We bought it from Tony Williams of Foster (56 82 1508) and paid \$40/cubic metre delivered (GST incl). Check it out next time you're at the MDF.



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