

# Macalister Demonstration Farm

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## NEWSLETTER 49

Monday April 25<sup>th</sup> 2011



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### THE EAST GIPPSLAND BRANCH OF HOLSTEIN AUSTRALIA

## WHAT MAKES A PROFITABLE DAIRY COW?

Sponsored by Holstein Australia

To be held at the Macalister Demonstration Farm, Boggy Creek Rd, Riverslea.

**Tuesday 10<sup>th</sup> May, 2011 at 10.30am**

Light lunch provided. For catering purposes please RSVP to the Secretary on 51411309

## Yellow Rag Bit

Bree Walshe, Dairy Advisor DPI Maffra

### It's Easter! Where has 2011 gone?

Here we are, Easter time, which is late this year, being mid to late April. Many of you have split calving herds – some fresh cows and a group of girls heading towards late lactation. You'll have rising yearlings and first time calvers floating about. No doubt, part or all of your farm may still be wet underfoot, thanks to it actually raining this year. The soil temperature is decreasing, the days are becoming shorter and you may be even thinking in the back of your mind – tax time is near and so is dry off!

Firstly, let's take a look at the Autumn calvers. Most of them will be gearing up to hit their peak in the next couple of weeks. What's their body condition looking like? Are they stripping weight off their backs? It is important as this group of cows move into their peak that they have adequate quality feed available to help them transition from negative energy balance (stripping weight off) into a positive energy balance (holding their weight, to gaining slightly) before joining.

Now what about the spring calvers or carryovers, how are these cows travelling? Did they suffer any facial eczema? How are their milk solids? How many are in calf? How do they look? Given that we haven't reached May yet, there is still adequate time to put some weight on the girls before dry off – remember it takes less energy to gain weight whilst milking than during the dry period!

And your young stock, how are the rising two year olds travelling? Are they in calf? Are they gaining adequate weight to join the milkers in Spring? As they are still growing and have a calf developing inside, make sure that you give them the best possible start to their 'career'. Just as importantly, have a look at the rising yearlings to see that they are on target to meet joining weights. Make sure they are not wormy and they have adequate quality feed to support bone and muscle development.

As we move from Autumn into winter take a look at your pastures. Are the cows receiving an adequate allocation? Are they leaving a desired residual behind? Are they rushing to the dairy? What is their faeces telling you? Are they wasting any supplement? What is the vat telling you? Take the time to use the body of evidence to help you stay in control of feeding pastures for profit.

I am sure that there is nothing new to you in this edition's Yellow Rag, but I thought I would put all of what was potentially swirling around in your head onto a piece of paper, to help you focus on what's around the corner! For further information please contact your trusted consultant, nutritionist, accountant, bank manager, milk officer or a DPI Maffra Dairy Extension Officer on 5147 0834.

## Macalister Demonstration Farm Profitability Project & Ten day Tracker Project

The MDF reports each week in the Gippsland Times and on AusdairyL. The weekly report contains information on the current production and margins, but also discusses other happenings that may be of interest. Many people who receive this MDF newsletter every three weeks miss the weekly reports. So, some bits and pieces of the weekly stories are repeated here.

### October 8th 2010

Intake per cow per day has fallen from 18.7 to 18.4 kg DM. At short notice, during the middle of the day, the herd had to be blood tested for Johnes. On another day, the cows were agitated, their manure was very loose, and the cell count jumped. The cause has not been pinpointed but high nitrate in the grass is suspected. On a couple of days the cows were given slightly smaller paddock allocations to clean up those paddocks better, and that reduced grass intake. Consistent feed intake is very important to maintain milk production.

### Oct 15th 2010

Intake per cow per day has increased from 18.4 to 18.7 kg DM. Intake and milk production bounced around two weeks ago. In the day or so before the cows had been grazing ryegrass varieties Bealy, Alto, Barberia, Matrix, Revolution at the time. The variety of varieties makes it hard to pinpoint if they were causing the problem due to endophyte. I still suspect high nitrate because they were grazing the bike-shift irrigation area. Nitrogen gets spread over these paddocks straight after grazing, but, for this bike shift area if it does not rain, the nitrogen gets washed in only when the sprinkler gets to each patch, possibly only days before it is grazed, making that patch "hot".

### Oct 29th 2010

Mowing for silage or mowing to waste (topping) raises the question of how high the mower should be set. This decision is stand alone, can be made irrespective of the grazing rotation length, and is one that does not cost more money or work time. There is not a perfectly "correct" cutting height. Mowing shorter at the moment will cut off more rising seed heads; mowing higher will re-grow more grass. Danny Donaghy's research suggests a height of 4 to 6 cm. Cutting too low is one reason why topping can cause slow re-growth. For what it is worth, I would set the mower on the higher side.

### Nov 5th 2010

Compared to last week, milk production is down from 2.27 to 2.17 kg milk solids (MS) per cow per day. We seem to be having more trouble with high nitrate in the grass, specifically from the sub-surface drip irrigation paddocks. Nitrogen is applied in with the drip water and it concentrates in strips over the drip lines and does not spread evenly across the paddock.

### Nov 19th 2010

The dairy at the MDF is a 30 aside swing-over. Usually only 27 cows fit on the platform. To ensure cups are not on for too long after milk-out, and to teat spray properly, it needs two people to milk. Recently the shed was set up to milk with only one person. A neck hoop was welded onto to the breast rail at the "20-cow" point, and the last 8 feeders were blocked. This means 27 cows are still on the platform, but only 20 cows get fed and milked. The last 7 cannot push up because of the neck hoop. Cow flow has improved because there are already 7 un milked cows on the platform. The cows are more relaxed. The 294 cows now take 2 hours to milk, that is 2 person-hours. When two people milked, it took 1.6 hours or 3.2 person-hours. 2.4 person-hours per day have been saved. Being able to operate with only one person makes the staffing of milking a lot more flexible. The cell count has fallen well below 100 so it has not caused mastitis problems.

### Dec 3rd 2010

Late spring is a great time to make an assessment of pasture composition, specifically of the grass species present. At other times the grasses are hard to identify, but now with the seed heads present it is much easier. Non-irrigated pastures have more species than irrigated pastures. Fog grass, Sweet vernal, Bent grass, Soft brome, Barley grass, to name a few, are common. On irrigated pasture the weeds now showing themselves are Meadow fox tail and the two Poa species (short and tall). The summer weeds, Distichum and Paspalum are not so obvious yet. When these weed grasses are present it usually means some management aspect of the paddock does not suit ryegrass. Maybe it is too wet, maybe not fertile enough, maybe grazed too hard, maybe grazed too lightly, maybe grazed on too short a rotation, or on a too long a rotation.

### Dec 10th 2010

Production levels averaged from the Tracker group of farmers show a dramatic decrease from last month. Milk solids per cow down from 1.91 to 1.75 kg, pasture consumption per hectare down from 51 to 45, grass per cow down from 13.1 to 11.9 kg DM, total cow intake down from 17.2 to 16.5 kg DM, and margins per cow down from \$6.48 to \$5.66.

In the same way as mentioned last week, although the farm has plenty of grass, the continuing wet weather and wet paddocks are making it difficult to keep the cows' intake of pasture at a high level. In an effort to dry the paddocks quicker, some of the spinner cut drains have been re-cut. The water flow down them after a down-pour is very impressive.

## ***The new Carbon Farming Initiative – What’s in it for dairy farmers?***

The Carbon Farming Initiative (CFI) was developed by the Gillard Government in response to calls from the farming sector to recognize the contribution that agriculture can make to a reduction in carbon emissions. Legislation is currently in the parliament and has been praised by some for the opportunity it gives farmers to get a return on investment in emission reduction and roundly criticized by others who think the rules are so tight that it’s not worth the effort. So what does it really mean to dairy farmers?

First, some background. Australia, along with many other countries in the world, is a signatory to the Kyoto Protocol that sets an agreed international standard to how carbon emission reductions are counted. While the rules may seem a bit strange, they have to be broad enough to cover all circumstances. In the CFI these rules have been interpreted as follows. Emissions must:

- Be additional – more than under ‘business as usual’, activity must be new to the industry – there will be a list of approved initiatives, some of which dairy farmers will already be doing.
- Be permanent – carbon capture must be for at least 100 years. For tree planting if you sell your farm then the obligation passes to the next owner. Will that be attractive to buy? You can manage this for other emission reduction activities by joining a group of farmers who, together, guarantee a minimum level of emission reduction. That can provide some flexibility to move in and out as, for example, seasons change or circumstances change.
- Avoid leakage – must not cause an increase in emissions elsewhere.
- Be measurable and verifiable by a qualified third party – this is one of the costs – you can only sell what you have captured and if the amount of carbon captured falls and you have already sold it you will have to buy the difference from someone else at the current market price. May be risky.
- Be conservative so claims are not over-estimated – this is good risk management.
- Be consistent with international rules and conventions; and
- Be measured by techniques based on science – an agreed set of measuring techniques are being developed that everyone will have to use.

What makes the CFI an advance on what was previously available is that there will now be two types of carbon credits available for farmers to claim – one for the highly regulated, Kyoto compliant market (mostly for tree planting), and one for the more flexible local market. The Kyoto carbon credits can be traded on the world market or used by local manufacturers to comply

with their obligations; the domestic carbon credits can be traded to companies wanting to be carbon neutral. Both trading markets are still in infancy but will develop quickly once there is something to trade.

Under the CFI there are a number of eligible activities that farmers can do to become involved. Whatever you do has to go through a process to be approved in advance. You can’t just go and do something and expect to get paid. So, is there anything in it for dairy farmers?

- Reforestation and revegetation – There are some tight rules around tree plantings that you must be aware of to comply –at least 10 metres wide and at least 2ha. Apart from tree belts and on turnout paddocks, it’s hard to imagine dairy farmers turning over productive land to trees. My calculation says that you would need to get near \$100/t CO<sub>2</sub>-eq to make it worthwhile. Talk at the moment is of an opening price of \$20-30/t CO<sub>2</sub>-eq.
- Reduced methane emissions from livestock – This is the biggest source of emissions on farm. Highly digestible feed and cereal supplements, along with products like Rumensin, are the best way to minimise emissions at the moment. Many dairy farmers are already doing this. There is a lot of research going on to develop a product that can be introduced to the rumen to change the way the microbes work and reduce methane production. The good news is that any reduction in methane production will result in an increase in milk production. Wait for that one.
- Reduced fertiliser emissions –Products are being developed to add to urea to slow the conversion to nitrous oxide, a very bad greenhouse gas. The upside is that there will be more N available to the pasture as a result. Also worth waiting for but in the meantime follow best practice to reduce emissions by adding fertiliser only when it is needed and never when paddocks are waterlogged.
- Effluent management – Emissions released from dairy effluent are very low from a whole-farm point of view. There may be opportunities to cover ponds to collect methane and then burn it off to the less dangerous carbon dioxide. You will have to do the sums to know if it is worth it.
- Reduced emissions – Most easily achieved by reducing electricity consumption. It is likely there will be incentives to invest in technologies at the dairy to reduce emissions at the same time as reducing energy costs. It may be worth getting an energy audit at the dairy to know in advance where

the best gains might be made. Some of them will be worth doing straight away.

- Increased soil sequestration – This is the great hope for many farmers but is the most risky. Normal farming activity like cultivation and drying off paddocks over summer will bring a fall in soil carbon, as will overgrazing. Many dairy soils, particularly in irrigated areas, already have high levels of organic matter (soil carbon) so opportunities are very limited. The best way to raise soil carbon is to under-utilise grown pasture – at the carbon price suggested it is far from worth it.

So, where does that leave us? The CFI has the potential to bring some farmers along to reduce emissions and receive a benefit for it. However, for dairy farmers this is unlikely to be worthwhile until there is a high-tech way to reduce methane emissions from our cattle and, to a lesser extent, until the fertiliser inhibitors are developed. In the meantime, reduce emission by following best practice in irrigation, fertiliser application and energy use, but think very carefully before you get too involved in generating and selling carbon credits. There may well be a sting in the tail for the unwary.

Neil Baker 0488 175 366

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**SENDER:**



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**Watch for the release of the MDF Carbon Emissions Reduction Plan at a Field Day in June**