



# Macalister Demonstration Farm

PO Box 87, MAFFRA, VIC 3860

Ph. 0488 175 366

Email: [mdf@wideband.net.au](mailto:mdf@wideband.net.au) Web: [www.macalisterdemonstrationfarm.com](http://www.macalisterdemonstrationfarm.com)



## NEWSLETTER 84

11 December 2013

Funded by  
Dairy Australia  
and your  
Regional  
Development  
Program



Extension projects at the MDF are supported by Genetics  
Australia and GippsDairy.



Do you own a SMART PHONE?? Use the QR code on the right hand side to provide you with instant access to our website. Simply scan the QR Code with your phone and the link to the MDF website will automatically be fed into the browser of your SMART PHONE. An easy way to stay in touch with Macalister Demonstration Farm.



## THE BOARD AND STAFF OF MACALISTER DEMONSTRATION FARM EXTEND GOOD WISHES TO ALL FOR A MERRY CHRISTMAS, HAPPY NEW YEAR AND A PROSPEROUS 2014

This month's newsletter leads off with an article, entitled "*Springing into Summer!*", contributed by Gavan Lamb (DEPI). This article presents thought provoking statistics regarding weather and provides guidance on day-to-day decisions to be made around irrigation to maximise pasture growth. The "*Yellow Rag Bit*", produced by Maria Rose (DEPI), provides an update for the Gippsland region on Theileria, a blood parasite which causes Bovine anaemia, resulting in cattle deaths. The technical content of this article was kindly written by Dr Jade Hammer of Main Street Vet Clinic in Bairnsdale. And for those who are interested, upcoming events and courses are included at the end of the newsletter.

## SPRINGING INTO SUMMER!!

---

Has this spring been the best for many years or a disappointment as far as pasture growth is concerned? The feedback seems to vary from farm to farm but all can agree that it has been topsy-turvy weather over the past few months.

How has this Spring's weather stacked up against the long term averages in the Macalister Irrigation District (from East Sale's Bureau of Meteorology records)? For the period August to November average minimum and maximum temperatures have been 14% and 4 % warmer respectively than the Long Term Average (LTA). Daily sunshine (or the incoming energy to grow grass) is also up by 10% over the LTA. While it's hard to find the statistics, soil temperatures seem to have warmed up a bit earlier this year.

I know this one is hard to believe but average wind speed has been lower than the LTA (down 16%). Maybe the really windy days are etched in our mind this year because they were so ferocious? Rainfall as measured at East Sale is also down 20% on the LTA but this can be a bit misleading as the DEPI automatic weather stations at Tinamba and Boisdale often record a bit more than East Sale. The combination of weather conditions appears to have pushed up the pasture water use rate up (evapotranspiration – Eto) by around 25% over the LTA.

Averages can, and do hide some of the wild variations experienced this spring - warm one minute snowing the next, very wet from decent rainfall then pastures looking for another drink shortly after. Maybe this explains the less than expected pasture growth on some farms.

Looking forward, the longer range forecasts appear to be suggesting a normal summer, whatever that is!! With the approach of 15<sup>th</sup> December or the end of Glenmaggie spill period, it is time on all farms to work out a water budget for the remainder of the season (remember how dry it got after Christmas last season?). **Contact Maffra DEPI if you want a hand with a water budget.**

Day-to-day decisions around irrigation to maximise the pasture grown for the rest of the season are best made using the combination of tools including:

- Daily Evapotranspiration rates ( pasture water use in mm) that can be got from either the East Sale Bureau of Meteorology (<http://www.bom.gov.au/watl/eto/>) or the DEPI weather station website (<http://www.agua.com.au/DPIVic/>)
- Your electric fence posts (wet soils are soft, dry soils are hard).
- Direct measurement of soil moisture using simple things such as tensiometers or G-dots right through to the computer based soil moisture gear that makes gathering the information a bit easier.

Maffra DEPI irrigation staff publish a weekly evapotranspiration (pasture water use) summary that looks at pasture water use for the previous week and the prediction for the week ahead. These updates can be found on either Ausdairy L (an email dairy discussion group) or if you aren't subscribed to that you can be added to the 'Excellence in irrigation DEPI email list' – simply contact Gavan Lamb or Sarah Killury on 51470800.

**Gavan Lamb, Team Leader Southern Irrigation, Dairy Services | Farm Services, Department of Environment and Primary Industries**

## Yellow Rag Bit

Maria Rose, Industry Development Officer, DEPI Maffra

At the December 2013 meeting of the Macalister and East Gippsland (MEG) advisory committee, I was asked to include in this month's Yellow Rag Bit, information about recent developments in Gippsland regarding Bovine anaemia caused by a blood parasite known commonly as Theileria.

The committee facilitated by DEPI staff, comprises around twenty farmers and service providers in a fifty-fifty ratio. Its main charter is to share and develop ideas and knowledge in an advisory and interactive capacity on relevant extension activities for dairy farmers. It is chaired by a representative dairy farmer who is currently Brad Missen and meets every two months.

This request regarding information on Theileria stemmed from my asking Dr. Jade Hammer located at the Main Street Veterinary Clinic, Bairnsdale, to give a power point presentation to update MEG committee members on the status of the disease in the Gippsland region. This was done at the June MEG meeting, held in Bairnsdale as a special meeting to include Bairnsdale Dairy discussion group members. As a direct result of that presentation, members of the MEG committee involved in the local branch of the United Dairyfarmers of Victoria helped Dr. Hammer to obtain funding toward his research into studying transmission activities related to the disease. This success in obtaining funding was reported at the latest MEG meeting.

The following is what Dr. Hammer wrote about Theileria in response to the MEG committee's request that will be of great interest to you as it covers key aspects including;

- impacts of Theileria outbreaks in the MEG district;
- what it is, signs to look out for and what farmers can do
- current studies being done, how you can assist, and where to go for further information.

### **Has your farm been impacted by the Theileria outbreaks?**

The impact of Bovine anaemia caused by *Theileria orientalis* can vary from subtle decreases in production, to severe and economically crippling. Many farms may have the disease in their herds without knowing it. One or two deaths or a drop in milk production in some cows may be all that is seen. These events may be put down to other diseases. Veterinarians are reporting that the disease is now being seen over large geographical areas throughout Gippsland in beef and dairy cattle. It is estimated that over 200 deaths have been linked to the parasite in East Gippsland alone since first seen in 2009, and these are just the ones veterinarians have responded to.

## **So what is Theileria?**

Theileria is a blood parasite that is transmitted by ticks. As ticks feed on cattle, Theileria is injected into the cow's bloodstream through the tick's saliva. The parasite enters red blood cells which destroys the cell. This leads to anaemia, and affects the oxygen carrying capacity of the cow. It is thought that the bush tick (*Haemaphysalis longicornis*) is responsible for its spread. The time that the ticks actually spend on cattle is very short, with most of the life cycle of the tick being in the pasture, and it's because of this that ticks may not be seen on cattle where an outbreak is occurring.

## **What are the signs to look out for?**

Key signs of Theileria to look out for include;

- Decreased milk production
- Lack of appetite and weight loss
- Lethargy
- Fever
- Exercise intolerance (lag behind the mob)
- Pale and/or yellow gums and mucous membrane colour
- Staggering
- Gasping for breath or increased respiratory rate
- Abortions
- Jugular pulsation
- Downer cow
- Eating dirt
- Deaths

## **What farmers can do?**

The clinical signs listed above are not specific for Theileria, and can be seen with many other medical conditions, especially around calving time. If you have cattle that you suspect have Theileria, contact your local vet. A good physical exam and a simple blood test will confirm the diagnosis.

Risk of Theileria might also be minimised through the following:

- Avoid importing animals from known affected properties
- Rotational grazing may control ticks (eradication of ticks very difficult)
- High quality feed and rest of suspect cases
- Keep a close eye on calves when they are 6-12 weeks if adult cows have been affected
- Keep an eye on introduced cattle after 3-8 weeks
- Wash castration knives, and avoid using the same needle on more than one animal (current research will determine if this is necessary).

Currently no medications are registered in Australia for the treatment of cattle with Theileria. Good nursing care of affected stock, and minimising stress and movement are the most important steps to increase survival rates. Antibiotics and anti-inflammatories may assist in some cases but in severe cases the cow should be humanly euthanized.

## What research is being done?

Gippsland is leading the way in Theileria research. Private veterinary practitioners in conjunction with DEPI and Melbourne University are involved in a prevalence study in farms where clinical cases have been seen. Another Gippsland study has examined the effects of the parasite on production. In addition, a large study is now underway into the transmission of Theileria in Victoria. This will look into whether other ticks apart from the bush tick are involved in the transmission. It will also look into the role biting flies and mosquitoes have in the spread of the disease. Husbandry practices including ear notching, castrations, and multiple use of a single needle between cows will also be examined for risk. This research is being assisted by Meat and Livestock Australia, The University of Sydney, DEPI, United Dairy Farmers of Victoria, and Main Street Veterinary Clinic Bairnsdale. Further funding is being sought from other industry and government organisations. Farmers can assist with this study by collecting any ticks that they find on cattle and dropping them off at their local vets.

Further information about Theileria in Gippsland can be sought from your local private veterinarian or government veterinarian with the DEPI. .

---

## Upcoming events

Boisdale Discussion Group, 7pm Wednesday night 18<sup>th</sup> December – Hans Van Wees’s Farm– Maximising Profit. *More information contact Maria Rose DEPI on 5147 0843.*

NCDEA National All Breeds Youth Camp for 16-20 year olds. 6-10 January 2014. *For more information contact NCDEA on 1300 062 332*

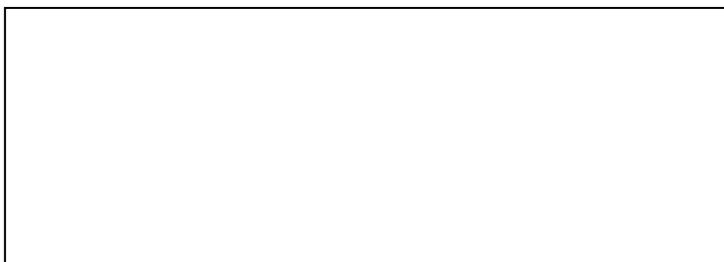
Australian Dairy Conference, 25-27 February 2014, Geelong. *For more information [www.australiandairyconference.com.au](http://www.australiandairyconference.com.au) or Esther on 1800 177 636*

## Upcoming courses

- 1 **People In Dairy GPS** (Job descriptions, Recruitment, Contracts/Awards, Payslips, Performance, Teamwork) **Maffra** Fridays Jan 17, 24, 31, Feb 7
- 2 **Advanced Dairyfarm HR**, (Leadership, Workplace culture, Farm policies and procedures, Compliance) **Yarram** Fridays, bi-monthly, Mar 28, May 30, Jul 25, Sep 26
- 3 **Irrigation Management** (Managing flood and spray, soil moisture, for pasture performance) **Maffra** Wednesdays, Feb 12, 19, 26
- 4 **Dairy Cow Nutrition** (Cow feed requirements, Rumen function, Feed qualities, Rations, Feed margins) **Maffra** Wednesdays, Mar 5, 12, 19, 26
- 5 **Fodder Conservation** (Making quality Hay and Silage) **Maffra** Wednesday, April 9, 16, 23, 30
- 6 **Manage the Dairy Production System** (System targets, Performance indicators, Linkages and analysis, Profit drivers, Marginal thinking) **Maffra** Thursdays, Feb 13, 20, 27, Mar 13, 20
- 7 **Managing the Dairy Farm as a Business** (Budgets/cashflows, Profit & Loss, Balance Sheets, Financial performance indicators) **Maffra** Thursdays, April 3, 10, 17, 24 May 1

*For more information contact Frank Tyndall on 0409 940 782.*

POSTAGE  
PAID  
AUSTRALIA



**SENDER:**



Macalister Demonstration Farm  
PO Box 87  
MAFFRA VIC 3860