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 39

Monday September 13th 2010

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

IT'S FREE!

Sustainable Farm Families Workshop

Registration closes September 17th – Call 51411 712 NOW!

Join us as a Sustainable Farm Families workshop participant to discuss healthy living, health issues and stress management for farmers. Every participant will receive a free health check as well as a one-on-one session with a health professional to discuss results and map out a healthy lifestyle plan, Follow up health checks will be programmed in October 2011 and 2012.

9.30 am-3 pm Thursday & Friday, October 14th & 15th 2010
Macalister Demonstration Farm

Yellow Rag Bit

Bree Walshe, Dairy Advisor DPI Maffra

Nitrogen – what strategies are you going to apply?

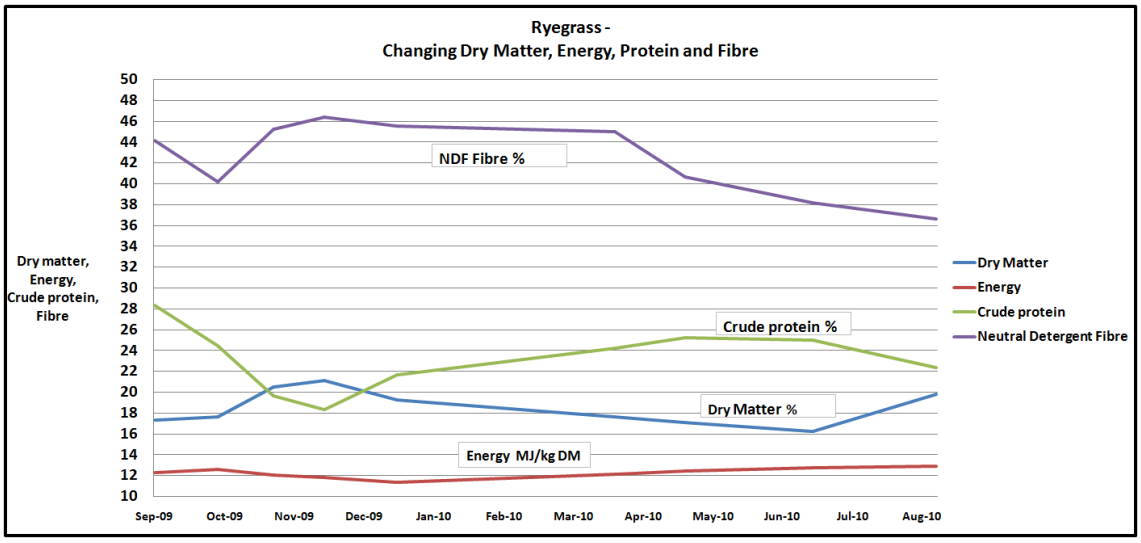
There are 6 Key Points to consider when looking at applying N this season:

1. What's your cash flow situation?
   a. Remember that leaf appearance rate does not increase with N use -the leaves are bigger, but they do not appear faster – moisture and soil temperature controls that!!!
2. The risk of nitrate poisoning is increased in annuals and some of the newer varieties, so take care.
3. What's the moisture situation looking like?
   a. Rainfall – unlike the rest of the state, dryland areas still require follow up rains for good crop growth, therefore be careful about harvesting N applied moisture stressed crops.
   b. Allocation – with the dam flooding, irrigation water is currently bountiful!
   c. Waterlogging, whether it be from flood irrigation or rainfall the implications are the same – losses occur due to leaching.
4. To determine why and when to apply N, you need to consider what the costs of all of the inputs are doing:
   a. What do you require to balance your diet (energy, protein, fibre source)?
   b. Is grain price increasing or decreasing?
   c. How are you going to manage the locust risk – conserve extra at home, buy from market as required or graze as much as possible?
   d. Once you have considered your feed requirements you can determine the purpose of your N application:
      i. Are you applying N to grow more grass for the cows to consume?
      ii. Are you applying N to grow a surplus to be made into silage?
   e. N responses are most cost effective when species, fertility, and moisture are not limiting, and of course the grown pasture needs to be utilised.
   f. Either way, there is no point applying N straight after the cows have grazed and then harvesting (grazing / mechanically) the ryegrass pasture before it has grown 2 leaves – you may get nitrate poisoning and you haven't taken advantage of the bigger leaves – more bang for your buck!
5. What is my application plan?
   a. Do I follow the cows each rotation and use the same rate of N each time?
   b. Do I become more strategic with my rates and applications?
6. Which Nitrogen product do I use?
   a. There are so many 'N' products out there now, do your homework and determine what product best suits your system – economically, simply, environmentally.
   b. Shop around – get the best price and delivery time for your chosen product!!!

For further information or to discuss your needs you can call your agronomist, consultant or your local dairy extension officer at Maffra DPI on 5147 0800, Ellinbank 5624 2222 or Leongatha 5662 9900.

Macalister Demonstration Farm Profitability Project

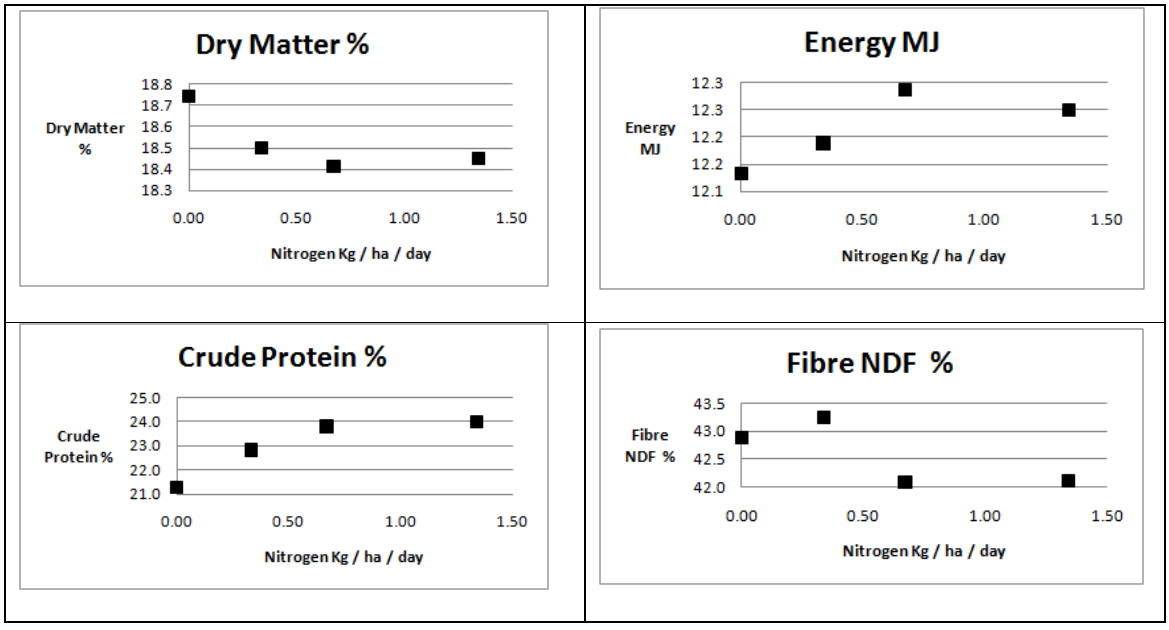
Incitec Pivot's Nitrogen and ProGibb trial has moved into its second year at the MDF. Incitec Pivot is using all the information to determine the margins from different applications of fertiliser. All the plots are feed tested at each harvest. As well as the extra quantity of pasture Dry Matter grown, it is interesting to look at the pasture quality.



The graph above has been shown in the MDF newsletter before, but only up to January 2010. It now shows a full year, up to August 2010. The graph shows the changes in average dry matter, energy, protein, and fibre levels, for 12 ryegrass plots, sampled nine times during the year (108 tests).

The recent August pasture is high quality, with low fibre and high energy

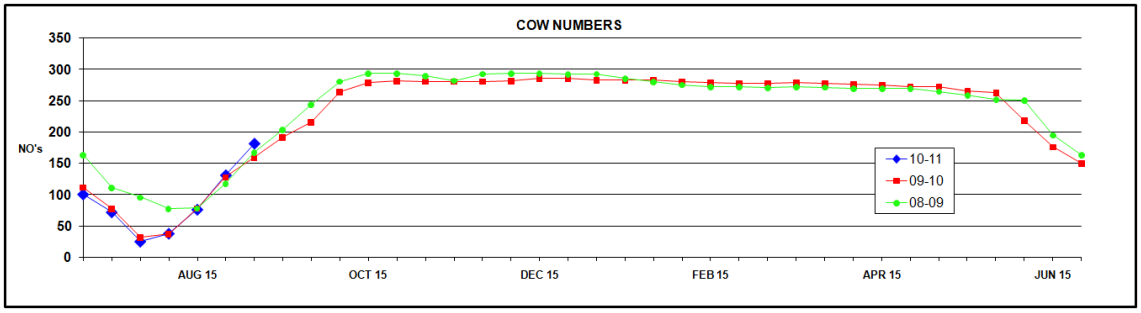
Nitrogen grows more pasture, but what does it do to pasture quality? The next set of graphs plot the 108 pasture quality feed tests against the amount of nitrogen applied (four different rates, from zero to 1.37 kg of Nitrogen per hectare per day).



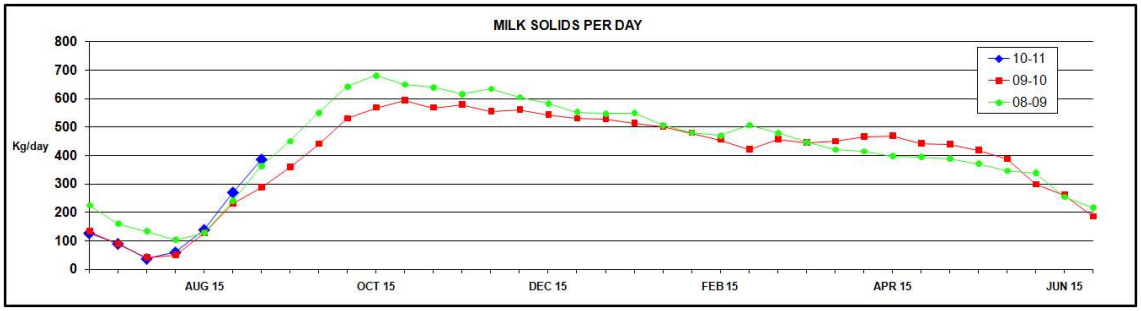
The graphs above seem (seem, because I am no statistician) to show that as more nitrogen is applied, generally, dry matter levels decrease, energy levels increase, protein levels increase, and fibre levels decrease. This probably makes sense: if you have a good supply of nutrient, (and a good supply of water), the plant cells are able to fill up. The proportion of cell contents (highly digestible) increases compared to cell wall (less digestible).

Information has been received from Incitec Pivot following the recent field day that costs the extra DM grown as a result of nitrogen and Progibb application in each season. This will be presented in the next newsletter.

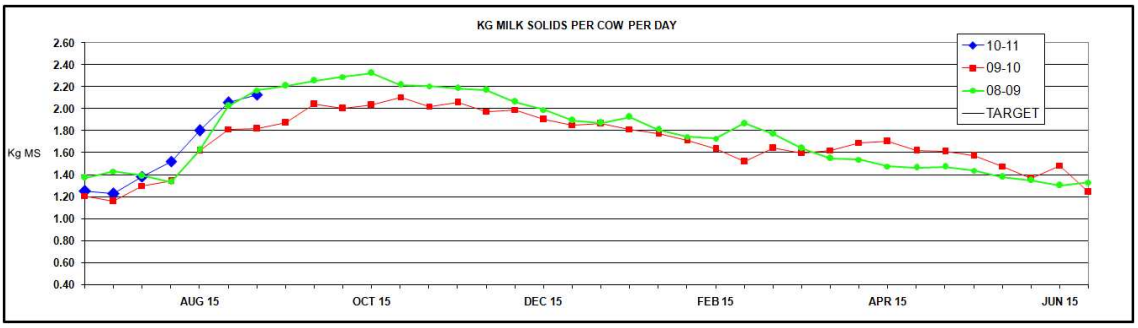
The following are the current MDF feed productivity and margin graphs.



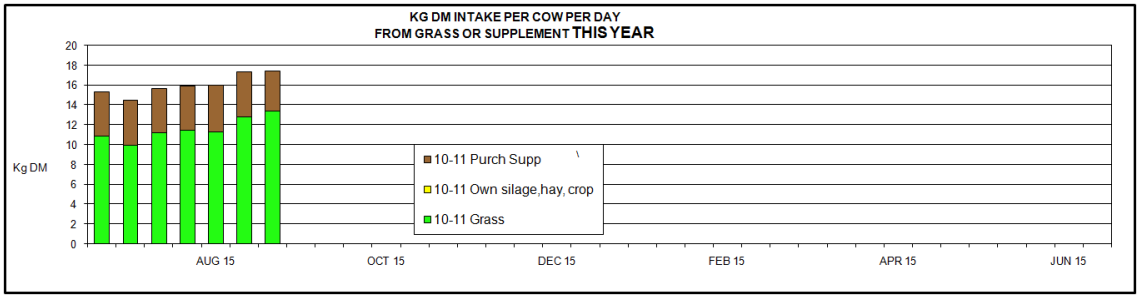
Milker numbers are tracking higher than both last year and the year before. We are planning to milk 300 cows, up from 280 last year.

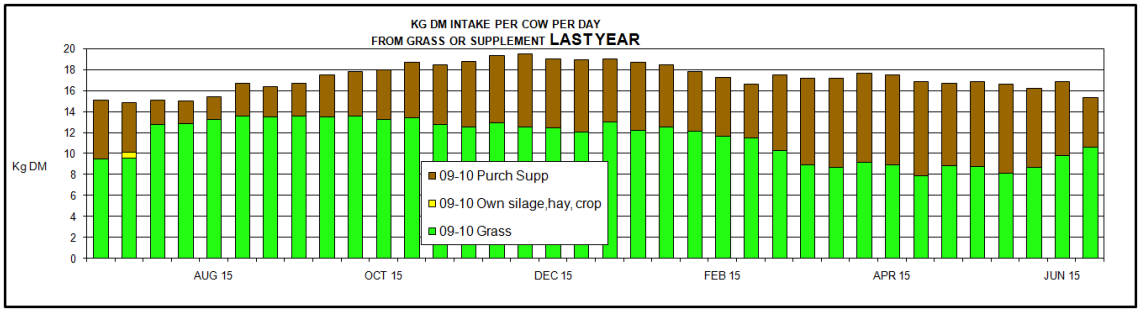


Total milk production is tracking higher.

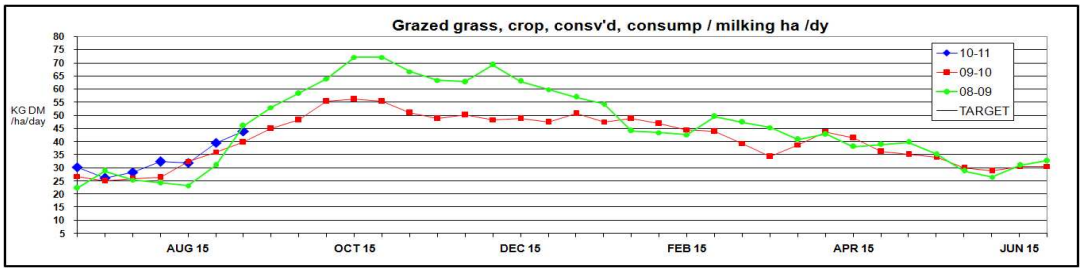


Milk production per cow is tracking close to the level of two years ago, significantly higher than last year. Protein test has been a bit lower, but currently is close to last year. Fat test is lower. We are feeding more grain.

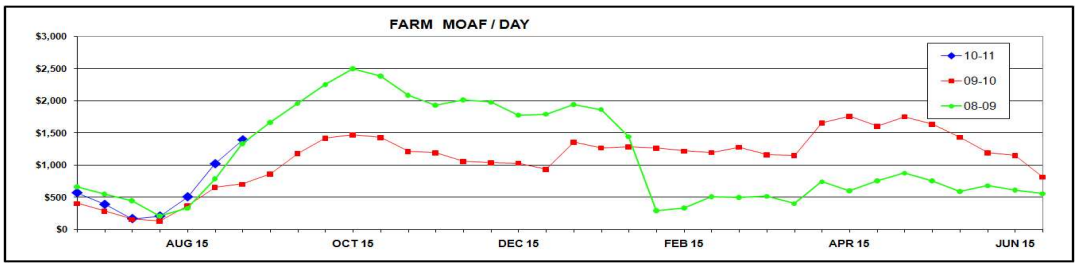




Current total intake per cow this year (top graph) is 17.5 kg compared to 16.2 last year. Grass intake per cow is close to the same, so the extra intake is the increased grain being fed.



Pasture consumption is going well, equal or better than last year.



The farm feed margin is currently the same as two years ago. **Frank Tyndall** **0409 940 782**

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PO Box 87 **MAFFRA** VIC 3860