Lead feeding… why do it at all, particularly this year?

There are three major reasons to lead feed:

1. **To meet nutritional requirements (MORE MILK, MORE COWS IN-CALF)**
2. **To ensure the cow is metabolically ready for calving (MORE MILK, BETTER HERD HEALTH, MORE COWS IN-CALF)**
3. **To increase profits**

1. Meeting nutritional requirements

If you meet the cow's nutritional requirements, both 'pre' and 'post' calving, the big pay-off is a **higher milk peak, and a substantial increase in milk yield** for the year. In addition, the decreased body condition loss after calving, along with meeting mineral requirements will help **improve fertility**.

The biggest part of the battle with meeting nutritional requirements is that cow intake is declining at a time when her body is telling her she needs more nutrients. This is a difficult task without an effective lead feeding pellet.

<u>The challenge is to meet the following requirements (500 kg friesian):</u>
Energy – she needs at least 100 MJ of metabolisable energy to meet requirements for maintenance and foetal growth.
Protein – she needs a 13-14% crude protein (CP) diet, made up of the right proportions of rumen degradable and by-pass protein (which is where the Bio-Chlor comes in handy).
Fibre – she needs to maintain a functional rumen mat, as well as ensuring that her rumen remains full to keep its size and shape.

2. Ensuring the cow is metabolically ready for calving

If you ensure that the cow is metabolically prepared she will: **calve without any problems** (requiring less expensive drug bills and fewer vet visits), **produce more milk**, and get back **in-calf quicker**.
There are two main goals here:

- preparing the cow's rumen (wall, papillae, bugs), udder, and other organs (specifically the liver), for lactation
- ensuring the cow has control over her blood calcium levels, in order to eliminate metabolic diseases at calving such as, milk fever, retained membranes, ketosis, mastitis, metritis, retained membranes, displaced abomasums – **remember that 70% vet bills occur in the first 30 days after calving.**

3. Increase profits

As a result of a successful lead feeding program with SET-UP (Weston's own anionic concentrate), you should see: improved lactation yield, fewer cows with

metabolic issues at calving, lower vet and drug bills, decreased body condition score loss, and increased fertility.

What is the dollar return?

- The cost of the diet, including SET-UP, hay ($300-350/t) and/or straw, is approximately $80 per cow.
- The extra milk produced is at least 500 L over the lactation, which is an income of $150 per cow at 30 cents per litre.
- Therefore, the **profit is $70 per cow (87% return on investment)**.

So if you spend $80 per cow, you will get $150 per cow back, which is a profit of $70 per cow. On top of this, your vet and drug bills will be lower, and you will have improved fertility (and you'll probably sleep better during calving season). If you choose not to lead feed this year, not only are you forgoing this profit, but you will also increase herd health costs and increase the number of empty cows.

HOW DOES THIS TRANSLATE INTO A DAILY FEEDING REGIME?

The recommended ration is:

- **3 kg SET-UP**,
- **A small strip of grass** – important to meet protein requirements and also if they are going to go straight onto pasture when they calve (and of course if you have it available). By this I mean 1-2 kg DM, enough for them to eat in 1/2 hr to 1 hr), and either
  1. **4-5 kg pasture hay and ad lib cereal hay/straw** (preferred option if you don't have grass available), or
  2. ***Ad lib* cereal hay** (if you have run out of pasture hay).

So, there is still a good return on lead feeding this year. Even though the input costs have gone up, it still makes economic sense to give your cows the best possible start to their lactation - putting them in a position to pull you out of the drought quicker.

Changing with the seasons – introducing grass

General Comments

If it hasn't rained at your place yet it will one day – and then you will have grass again. This edition of the newsletter looks at how grass affects the type of pellet that you should be feeding.

One of the key drivers of dairy farm profitability is pasture utilization, so we need to ensure that we are feeding the right amount, and type, of pellet to ensure maximum utilization (and therefore optimum milk production) of the green stuff.

Protein content
We've all been used to feeding additional protein while the drought was on, but when the grass is available again, we can easily run into an excess of protein. This creates a problem for the cow where she has to spend energy (energy that could be directed towards the milk vat) to get rid of the extra protein she now has in her diet. So when you get grass you will need to lower the protein percentage of your pellet or grain supplement.

Also, try and get the cows to pasture as soon as possible after having their feed of grain. This helps to ensure that the energy and protein are available at the same time, in order to enable the rumen bugs to grow and multiply. Remember that the bugs themselves are a major source of protein to the cow.

Energy content
Depending on how heavily fertilized your pasture is, you may need to have a higher starch and higher sugar content pellet, in order to handle the non-protein nitrogen in the pasture. Again, we need to ensure that the breakdown of the carbohydrate source suits the availability of protein from the grass/forage.

Fibre content
When there is fresh grass around, we don't want a really high level of NDF (fibre) because it will push grass out of the ration (substitution). However, we do want to make sure that what is there can be readily broken down and used for fat production.

Feeding levels
Always make sure you are getting the most out of your pasture, but still striving to achieve the potential from your cows. This is where the most profit is. Therefore, if you have been feeding extra during the drought, when the grass arrives you might want to re-calculate the ration, so that milk targets are still maintained but grass intake is maximized.

Summary
For high quality pasture, the best results come from feeding a high energy, low protein, low-fibre, pellet, with an appropriate brew of vitamins, minerals and additives. Ask your sales rep about which product is going to do the job for you.

Sore feet – a few tips

- There is an easy way to check if tracks are a problem – take your gumboots off and walk along them and see how it feels. If they are rough and hurting your feet, the only solution is to fix the track.
- Cows can get soft hooves simply from standing in mud for too long. In fact they can almost double in moisture content within half an hour of standing in it. Footbaths (copper or zinc sulphate) may help to dry out the hoof and prevent infections, but the best thing to do is avoid holding areas as much as possible.

- If the hooves are soft for nutritional reasons Availa Zn (Zinc), or better still Availa 4, may be the answer.
- Make sure there is no underlying acidosis issue that is causing the foot problems.

We will go into more detail in the next issue…

Climate change… what does it all mean?

I'm sure that most people are sick to death of hearing about climate change and global warming, particularly since the drought started. However, there are a few important things that may affect the way that you farm in the future. The following is a summary of presentations made at the Australian Dairy Conference in Shepparton at the end of February.

- Most of the reputable scientists agree that climate change is real, and human activity seems to be having a major role in that. Basically they are beyond questioning the fundamentals and are now looking at how to deal with it.
- The challenge for the dairy industry (along with all other industry) is to work out ways to reduce greenhouse emissions and adapt to the changes, while still remaining profitable. The scientists will continue to research and model the likely outcomes, in order to help understand what needs to be done.
- Dairyfarmers need to actively promote what they are already doing in terms of trying to reduce their greenhouse gas emissions – methane and nitrous oxide. Methane emissions have stabilized over the last four years, but the general public are not aware of any of the changes that have been made to achieve this. Between 1994 and 2004 the carbon dioxide equivalent emissions from agriculture rose only slightly, compared to massive increases in other sectors.
- Damage from climate change is likely to come from the extreme events, rather than from a changing average. The extent to which technology can overcome these extreme events, will determine the level of migration within the dairy industry.
- By 2030, climate change forecasters expect the following:
  - Fewer frosts and less snow
  - Higher temperatures (more heat waves)
  - More 'high fire danger' days
  - Fewer rainfall events, but more intense (ie. Doesn't rain often but when it does it floods)
  - More droughts
  - Decreased run-off into catchments
  - Increased competition for water
  - Decreased water quality due to algal blooms etc..
- Major impacts likely to include:
  - Continuing water uncertainty (less water in catchments)
  - More heat stress
  - More years of high grain prices
  - Grain used for biofuels

- Fuel and power costs rising
- Land values increasing
- Higher fertilizer costs
- New environmental taxes eg. Methane tax, rain tax etc..

Each individual dairyfarmer needs to determine which of these will be the biggest threat to his/her dairyfarm and come up with a strategy to overcome it.

Opportunities

- Grow trees to sell for carbon credits to offset other costs. If governments are going to push emissions trading, you may as well make some money from it.
- Use ethanol byproducts in rations, along with other byproducts to supply some of the things that grain is normally used for. This is something that is widely done in the USA and UK.

Research required

- Need to develop more water efficient crops and pastures
- Breeding for heat tolerance will become important, as will the development of shading and cooling facilities
- Land ownership vs leasing – in future the best option may be to lease land rather than buy it, and invest the money off-farm

Welcome the new recruit

Weston Animal Nutrition has a new dairy nutritionist… Tim Huggins, who joined the team in January 2007. Tim's role is to support our existing team of sales representatives, providing, nutritional advice, feed budgeting, benchmarking etc... as required. He will be touring the New South Wales South Coast, Bega, the Gippsland region of Victoria, and Tasmania, at various times throughout the year.

Tim was previously with BEST-*fed* Nutrition, where he consulted in Western Australia, the Western District of Victoria, Northern Victoria, and the Southern Riverina. Before that he was a field officer for Dairy Farmers on the Darling Downs, Queensland.