

FEED TROUGH



Your Levy at Work

FEEDING PASTURES FOR PROFIT RETURNS?

Tammy Negus, Regional Feedbase Development Group

2014 has seen the return of the feeding pastures for profit (FPFP) workshops to dairy farmers in WA. Workshops are being run in the regions of Harvey, Dardanup-Boyanup, Busselton-Margaret River, Scott River, Northcliffe-Manjimup and Albany-Denmark. Farmers attend 4 sessions on farm throughout the season with sessions 1 and 2 completed in May and June respectively. The workshops are supported by Western Dairy's regional feedbase group and DAFWA and are presented by dairy specialists John Lucey and Rob La Grange.

The basis of the FPFP program is to increase farm profitability by getting the most from the pastures and cows. WA dairy farmers have consistently identified increasing pasture production and utilisation as a major opportunity for better profitability. WA FPFP workshops were run successfully in 2005 to 2008 and have helped farmers to optimise production per cow and per hectare. This year we are again providing practical pasture and supplementary feeding training using the FPFP program developed by Phil Shannon and Frank Tyndall from Victoria.

Sessions are primarily in the paddock 'hands on' with the pastures and provide the opportunity for learning skills and discussion with other farmers. A big focus in session one was identifying the ryegrass developmental stage which is essential in using the 3 leaf grazing principle for managing pasture. Session 2 went into more depth about methods for setting the right rotations and using the Rotation Right Tool as an example.

Wokalup dairy farmer Tavis Hall has been attending the workshops and comments, "The course has helped me improve my grazing rotation and give my cows better quality grass".

As dairy farmers we need to make strategic decisions, profit driving decisions especially when it comes to pasture management. Knowing how much pasture to allocate to the herd each day, and being able to offer the correct amount of supplement to remain in the optimal 'zone' is an important skill and asset.

One of the most powerful outcomes from the use of the Rotation Right tool is that you will be growing (and therefore offering the herd) as much high quality pasture as the farm can grow by putting the simple pasture management theory into practice. The other outcome is that you will be offering the herd 'as close as possible to a consistent amount of pasture' from day to day.

If you are interested in attending future FPFP sessions or you would like more information on managing pasture rotations please contact Tammy Negus 0448 532 028 tammy.negus@gmail.com, John Lucey 0429 889 083 john.lucey@agric.wa.gov.au or Rob La Grange 0448 939 344 rob@westerndairy.com.au



Dairy farmers in the Harvey region inspect the next paddock to be grazed at the Hanks property during the FPFP session 2

Assessing spring fertiliser strategies

Kirk Reynolds, CSBP

Producers are often heard lamenting the expensive exercise of buying in fodder and aim to avoid it, or at least reduce the amount of fodder bought in. Assessing spring fertiliser strategies is one technique for growing more fodder and avoiding buying in where possible.

Nitrogen (N) and sulphur (S) are critical for the formation of plant proteins, while phosphorus (P) and potassium (K) are important for the clover content of pasture. To maintain nutrient levels in pastures cut for hay and silage, fertiliser applications must allow for nutrient removal, nutrient leaching and the binding up of nutrients in forms unavailable to plants in the soil.

The following list is considered the typical amount of nutrients removed per tonne of clover/ryegrass hay:

- Nitrogen 30kg
- Phosphorus 3kg
- Potassium 20kg
- Sulfur 2kg
- Calcium 9kg

Timing of fertiliser applications should be aligned with the timing of cutting, or grazing, to ensure the best response from nutrients applied. In particular, do not apply fertiliser too late. Best results are usually achieved by applying fertiliser six to eight weeks before cutting. On

predominantly grass pastures, apply nitrogen four to six weeks before cutting.

There are two basic strategies when it comes to fertilising fodder paddocks. The first, and most common, is applying a once only application of a balanced NPKS fertiliser 6 to 8 weeks before cutting. Producers with recent soil and plant tests on hand, have the ability to apply the appropriate rates of nutrients.

Soil and plant testing can save money by preventing unnecessary applications of nutrients. It also allows profitability to be maximised by ensuring that all nutrients are balanced. Producers who are serious about maximising fodder production need to be utilising soil and plant tests.

The other strategy which is gaining momentum is the application of two, split applications. The first should be straight after the cows are out and should be a mix of P and K if required, as well as N and S. The second application should be applied 3 to 4 weeks later, depending on conditions, and generally uses only N and S. The splitting of N and S allows for nutrient use efficiency as these mobile nutrients are quite often used up or leached after the first application, hence lowering potential yields. If you utilise liquids, then this second application can also incorporate an

insecticide for controlling red legged earth mite using the Timerite program.

Hay and silage quality can be measured by three parameters - the energy content (metabolisable energy or ME), the crude protein content and the fibre content (neutral detergent fibre or NDF). When high energy levels accompany low fibre levels, animals can digest more high quality fodder and grow faster. With conserved fodder it is always best to cut early and retain high quality rather than leave it too late to try and gain extra bulk. Animal intake and therefore production will be greater from early cut fodder.

Fertilising after cutting is a way to extend the growing season and provides the opportunity to grow or conserve even more quality fodder. Application rates are usually lower than pre-cutting because the growing time may be shorter. Again if you cut early and retain quality, you have the ability to extend your season using fertiliser.

For further information on spring pasture strategies or for fertiliser product and application rates please contact CSBP local area manager Lance Stubberfield on 0428 123 141.

www.csbp-fertilisers.com.au

Late Winter/Early Spring 2014 Grain Prices to Dairy Farmers

Alan Peggs, Alan Peggs Rural, Nedlands, WA

In May the forward price for 2014/15 APW wheat at Kwinana peaked at \$330/t. Since then it has continued to fall. Currently (14 August) the best price is \$280/t Kwinana ex GST.

The fall in the international price of wheat has been mirrored in feed grain prices around the world. The decline has been brought about by favourable weather conditions in the northern hemisphere which has resulted in above average crops in Western and Eastern Europe, the United States and Canada. With most of the northern hemisphere currently harvesting or about to begin, there is a ready supply of grain on the world market. This is good news for WA dairy farmers because it means they will be paying less for wheat, triticale and barley at harvest this year.

Domestic prices normally come under some downward pressure at this time of the year as grain growers confidence in the season grows and they become prepared to market grain held back for stock feed and/or seed. This is particularly the case of lupins at the moment with significant supplies now available.

Wheat and lupins are currently in good supply. Feed barley is available although less readily than wheat and lupins. Triticale is in short supply although there is some still available on farms in the Wheat Belt. The availability of low lignin oats - the only oats

which should be fed to dairy cattle - is modest given the demand from Morton's Seed and Grain at Wagin.

With a ready supply of cereals and lupins available un-contracted grain is unlikely to achieve a carry premium between now and next harvest. Consequently present prices are forecast to hold until the end of October.

Table 1 : Feed Grain Prices to Dairy Farmers in the South West Late Winter/Early Spring 2014 (14th August)

Grain	Price Landed SW Harvest	Carry Fee
	\$/t ex GST	\$/t/m
Wheat ASW <5% screenings	285	0
Wheat GP1 <10% screenings	275	0
Triticale	285	0
Feed Barley	270	0
Low Lignin Oats	230	0
Lupins	375	0

Please contact Alan on mobile 0428 932 717 for further information on grain supply and current prices.

Silage Checklist

John Lucey, DAFWA Dairy Team Leader

Careful planning together with care and attention at harvesting, storage and feedout has the potential to produce high quality silage with 11 MJ ME/kg DM (dry matter) with low (10%) DM losses. The higher your silage quality and lower the DM losses the less expensive grain you will need to purchase to supplement your herd over summer.

Grazing management: Maintain correct grazing pressure to achieve high quality spring pasture by dropping paddocks that are genuinely surplus to the herd's requirements out for silage.

Fertilisers: Make sure soil fertility is not limiting pasture growth and topdress with nitrogen (N) to increase growth rate and yield. Applying N will encourage higher quality vegetative (leafy) growth more so than reproductive and stem growth.

Machinery: Plan any service, maintenance or repair before the start of harvest. Some parts may need to be ordered in and this may take weeks not days. Be proactive and replace suspect items now, to avoid being let down in the middle of harvest.

Contractors: Start talking to your contractor as soon as possible so that he can forward plan who to get to and when, weather permitting, to ensure he is ready when your silage is ready.

Cutting stage: Cut ryegrass at 5% to 10% ear emergence for a balance between quality and quantity. Ideally, the pasture would be ensiled at the stage of being grazed, or very soon after, which means the paddock is back into rotation in the same round, or early in the next round.

Mowing: Start in the morning after the dew has evaporated off the pasture. The advantage of a full day's wilting will generally outweigh gains from waiting for plant sugar levels to peak mid-afternoon in the WA climate.

Wilting: Only cut sufficient pastures, leaving the swath wide so you can wilt as quickly as possible to target dry matter ideally within 24 hours, but at least less than 48 hours. Aim for 30% - 35% DM for pit/stack silage and 40% - 45% DM for baled silage.

Silage inoculants: They are particularly useful for mown material that is still slightly too wet after two to three days wilting and where rain may be threatening.

Sealing pit: Ideally cover the stack during harvest with a plastic sheet to slow down the plant respiration and microbial bacteria activity cycle which causes DM and quality losses. Finally cover the stack as soon as rolling is completed even if late at night.

Wrapping bales: Wrap bales with 4 layers of plastic at 55% stretch with no underlapping as soon as practicable after baling to minimise plant respiration and bacteria activity and never leave them unwrapped overnight.

Opening stack/bales: ideally wait at least 6 to 8 weeks for the whole stack to ferment (if compacted tightly and sealed airtight within hours after harvest is completed). Bales can be opened anytime as long as the bale is consumed within the day. Fermentation won't be complete, but that won't matter, but by day two it will be heating and starting to go mouldy.

Silage analysis: Stacks can be sampled for analyses after about 5 to 6 weeks in a well preserved stack or up to 8 to 10 weeks in poorly preserved stacks. Bales can be tested after about 3 to 4 weeks

Feedout: Silage is expensive to make so invest in a feedout system that minimises losses in both quality and quantity, which can vary from 15% up to 50%. High intake is achieved through high quality.

For Further reading see the TopFodder 'Successful Silage' manual at www.dairyaustralia.com.au or contact John Lucey on 0429 889 083 john.lucey@agric.wa.gov.au

Lowering Nitrous Oxide Emissions in Intensively Grazed Pasture Systems

Dr James Hills, Tasmanian Institute of Agriculture

Nitrogen is one of the most widely applied nutrients to dairy pastures in Australia and New Zealand, with an average annual application of around 230kg N/ha/year. Dairy cattle generally excrete 75 to 80% of the nitrogen they consume, with a nitrogen loading within the urine patch of approximately 1000 kg N/ha. Urine patches are estimated to cover approximately 20-25% of the area of an intensively managed dairy pasture and urine depositions are often visible due to the more intense greenness and increased biomass of these nitrogen rich zones. The colour and biomass differential provides an opportunity for optical sensors to detect these nitrogen rich zones. Smart-N technology, developed by AgriOptics in New Zealand, uses optical sensors (WeedSeeker®) to detect and avoid application of liquid nitrogen to these nitrogen rich zones.

This study explored the use of the Smart-N technology on four commercial dairy farms in Tasmania. On each farm six plots of between 0.5 and 1.0 ha were selected, giving three replicates where liquid urea-ammonium nitrate (UAN) fertilizer was applied using the Smart-N technology (SN) and three replicates where UAN was applied without the Smart-N technology (control). Repeated applications occurred at each site. Averaged across all sites and applications, the mean nitrogen application rate for the control

treatment was 21.2 ± 0.6 kg N/ha which was significantly higher than the SN treatment, 12.9 ± 0.8 kg N/ha. Averaged across all sites the mean average pasture growth rate was 33.2 ± 2.4 kg DM/ha/day for the control treatment and 34.4 ± 2.5 kg DM/ha/day for the SN treatment, which were not significantly different to each other.

This study has indicated that significant nitrogen fertiliser savings are possible through the adoption of the Smart-N technology without compromising pasture growth rate, although further work is required to validate these findings. For the average Tasmanian farm, where it is estimated that the Smart-N technology has the potential to save 8 t of nitrogen per annum, then the potential abatement is approximately 50 t of CO₂ (carbon dioxide) emissions. Assuming that the adoption of the Smart-N technology satisfied the requirements as a Carbon Farming Initiative (CFI) method and at a carbon price of \$23 per t of CO₂ emissions, the potential CFI income is \$1,150.

There are trials using the Smart-N technology on dairy farms in Western Australia as well as in Tasmania. For more information please contact Sam Taylor, AgVivo on sam@agvivo.com.au or 0429 332 593.



New Dairy Futures CRC website brings dairy bioscience to life

Dairy Futures Cooperative Research Centre (CRC) is a large-scale partnership between dairy farmers, pasture and cattle breeding companies, government and researchers, and is the largest single research program for the Australian dairy industry.

The two major research programs are Designer Forages and Animal Improvement. Through bioscience innovations in pasture and animal breeding, Dairy Futures CRC is helping build a more resilient and profitable dairy industry that is able to meet the expected growth in global demand.

A new website just launched by Dairy Futures CRC uses a range of digital media to bring to life how bioscience can benefit dairy farm businesses.

The website includes many new items describing the CRC's projects from a farmer's perspective. Highlights include two new short animations that tell the story of what bioscience means for pasture and animal breeding in the Australian dairy industry. The animations are located on the website homepage and can also be accessed directly via YouTube.

Other features of the new website include:

- Brief video interviews with some of the CRC's researchers on key projects, including cow fertility and breeding elite pasture plants.
- Information about progress on key projects, such as Ginfo (genomic information herds).
- Facts and figures about the expected impact of dairy bioscience.
- Information about the CRC's post-graduate and secondary schools programs.
- Details of industry events that may be of interest.

The new website is located at www.dairyfuturescrc.com.au. The animations and videos can be accessed from the website, and are also directly available via YouTube at www.youtube.com/user/dairyfuturescrc.

Western Dairy Spring Field Day Thursday September 18, Vasse Research Station (Incorporating the Western Dairy AGM)

Be there at 9.45am for a 10am start

Complimentary lunch included - Concluding around 2pm

There's just so many really interesting Western Dairy supported projects underway at present – we've put them together on one big day. We're back at the original home of dairy research in WA – the Vasse Research Station.

With thanks to our hosts, lease farmers Scott and Michelle Weldon.

Presentations include:

- Precision dairy farming: A fantastic demonstration of technology (including drones) giving a snapshot of how future farming may look in the WA dairy industry and more importantly, how YOU can use it!
- Getting to the nitty gritty of Rumen8 – taking charge of your nutrition program
- Flexible Feeding Systems – an interrogation of the profit drivers
- Smart N – an update on this research
- Wise heads – why DairySage is such an important part of our industry's future proofing
- Legendairy – a look at what's ahead in terms of promoting our industry

Western Dairy AGM:

The official proceedings of the Western Dairy AGM will run for approximately 20 minutes, within the opening segment, starting not before 11am. The agenda and 2013 minutes will be posted on the Western Dairy website within 30 days of the event.

**PLEASE TELL US IF YOU ARE COMING
(WE NEED THE RIGHT NUMBER OF STEAKS FOR OUR TRADITIONAL MSA BBQ LUNCH)
Please RSVP to esther@westerndairy.com.au or call or text Esther on 0418 931 938**

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Previous issues of the Feedtrough are available at www.westerndairy.com.au
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