



# FEED THROUGH

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## WHAT WILL DAIRY FARMERS HAVE TO PAY FOR GRAIN AT HARVEST THIS YEAR – 2012/13?

By Alan Peggs, Agricultural Consultant, Alan Peggs Rural, Nedlands, WA

Last year was “Christmas” for dairy farmers with feed wheat (with very low screenings) being landed at harvest in the dairy areas for as little as \$200/t exc GST!!

Unfortunately this will not be the case this year, even if the crop is rain affected at harvest like it was last year. This is because drought in the United States will severely reduce the amount of corn which will be available on the world market. To ration supply, prices have risen substantially – the same feed wheat which sold for \$200/t exc GST in December last year is now selling for \$300/t exc GST!!

What can dairy farmers expect to pay for grain this year at harvest? Essentially the price you will pay will be function of what the export price will be. Current prices (17 August 2012) are listed below.

Com-pany	Grade	AWB	CBH	ETG	Emer-ald	Glen-core	Prima-ries	Viterra	BEST
		\$/t	\$/t	\$/t	\$/t	\$/t	\$/t	\$/t	\$/t
Wheat	APW	331	334	328	333	334	326	330	334
Wheat	ASW	316	314	308	313	319	306	310	319
Wheat#	ASW	-	-	313	-	-	-	-	313
Wheat	GP1	296	299	286	298	304	296	295	304
Barley	Feed	271	278	279	278	281	275	280	281
Oats	1	-	208	-	-	-	-	-	208
Lupins		-	315	-	-	-	-	-	315

# Delivered end user Perth Metro (no CBH charges)

I have not priced Feed wheat because in a “normal” year it will contain in excess of 15% screenings and you will find most of these will end up in your cows’ dung unless you have a hammer mill! Last year you were “spoilt” because in most cases wheat was downgraded from APW (5% or less screenings) to feed because of low falling numbers which impacts negatively on baking quality but has no impact on energy, protein or digestibility. Hence anybody who bought last season’s feed wheat got a very high quality product. As a matter of interest it (2012/13 Feed) is currently priced at a \$50/t exc GST discount to APW wheat.

Given there is unlikely to be the high quality feed wheat available at harvest this year most of you will have to focus on ASW wheat, triticale, feed barley and perhaps oats.

Table 2: Cereal Prices Landed to Dairy Farmers at Harvest 2012/13

Cereal	Grade	Price
		\$/t exc GST landed
Wheat	ASW	320
Triticale	-	305
Barley	Feed	290
Oats	1	220-240

Lupins are likely to be particularly expensive given low prices in the recent past have discouraged farmers from planting them (canola is an alternative “break” crop). In addition the Northern Wheat Belt, where the majority of lupins have been sown this year, suffered from a long dry period after emergence which significantly depleted plant density and in turn is expected to substantially reduce yields. My estimate of a delivered lupin price at harvest is \$335/t exc GST.

### Cereal “Bargains” This Year

The best buy this year is likely to be triticale at around \$305/t exc GST delivered. It essentially has the same energy as wheat although the NDF is usually a little higher.

Soft wheat downgraded to Soft 2 or GP1 because it is too high in protein (greater than 9.5%) may offer an opportunity to buy discounted wheat with low screenings. Much will depend on the finish to the season – if it is “tight” (not much finishing rain) protein levels are likely to exceed 9.5% protein and a significant proportion will be discounted in Soft 2 or GP1.

Feed barley remains a good option for most dairy farmers at \$285/t exc GST delivered. Supply should be ample despite the area sown to barley being significantly reduced due to a poor price outlook prior to seeding.

Perhaps the “best kept secret” is low lignin oats – if you can find them! What are low lignin oats you ask? Lignin is what gives “structure” to plant cells and is essentially indigestible and the higher the level of lignin the lower the amount of energy available for digestion. Low lignin oats therefore have more energy available for digestion compared to those with high lignin. By way of comparison high lignin oats generally have an ME value of 10.5 MJ/kg DM compared low lignin oats which have an ME value of 12.5 MJ/kg DM. (I have seen values as high as 13 MJ/kg DM for low lignin oats.) Unfortunately most of the oat varieties bred and grown in WA are high lignin. However there are three varieties grown which are low lignin – Mitika, Kojonup and Quoll. At \$240/t exc GST landed low lignin oats might be your cheapest grain feeding option this year.

**If you would like to discuss grain prices and availability please feel free to contact Alan Peggs 0428 932 717**

# WA Young Farmers Camden Tour

By Tammy Negus

The Dairy Research Foundation held its 2012 symposium in Camden, NSW on July 5th and 6th. WA dairy farmers Tavis Hall, Bryn Jenkins, Oscar Negus and Grant Evans along with Western Dairy's Feedbase coordinator Tammy Negus were supported by Western Dairy to attend this annual event.

The theme was 'energising dairy' and it provided new and interesting information and experiences from dairy projects, scientists and farmer's that was positive and relevant to our industry. A vast array of information was presented including the dairy industry's role in the global food demand and methods of improving on farm energy use for sustainability. The Dornauf family shared their experience in using the 'robots' automatic milking rotary machines and there was demonstrations in the latest breeding technology and animal health. There was encouragement and focus on the importance in our role as farmers in 'bridging the divide' between the rural and the city lifestyle and there was loads of 'food for thought' in terms of feeding and feedbase systems.

Data presented by Cameron Clark from the Future Dairy project 'Growing more pasture and your profits' highlighted the value of monitoring pasture cover and the opportunity to use this data to guide management decisions and increase the yield of poor performing paddocks. Programs under development such as PGSUS (Pasture Growth Simulation Using Smalltalk) in the future can be used to help make management decisions, fill in gaps between pasture cover measurements and can highlight the opportunities to increase pasture growth and profit.

Farmer and Engineer, Hayden Lawrence presented his ideas around pasture and fertiliser utilisation on a working dairy farm. He has adopted a simple philosophy to PLAN, MEASURE, MANAGE and REVIEW in his dairy business to increase feed, meat and milk productivity.

Young scientist Nick Lyons (FutureDairy project) brought our attention to the fact that technology is here to stay and is becoming more readily accepted and appropriate for our dairy farms. He presented ideas of how we as individuals and as an industry can

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embrace these social medias as a tool for spreading knowledge. Many dairy farmers possess a 'smart phone' which have technologies to support applications such as iherd, F-track, team viewer, cameras, pasture tools and other technologies that have been made more simple and can be very effective for farm organisation, communication and record keeping.

Complementary Forage Systems (CFS) can help farmers to reduce wastage and increase productivity per Ha was covered by Yarni Garcia. CFS is a combination of crop rotations and pasture designed to increase milk production from home grown feed. Principles behind CFS have been developed and tested by FutureDairy over the last 7 years and can be used in an integrated way to achieve productivity benefits or overcome more specific feedbase related challenges. Yarni and Michael Campbell from the university of Sydney have been testing and trialling 3 crops within 1 year in Northern Victoria and also the Hunter Valley. Up to a total 40 tonnes of dry matter has been achieved growing maize, brassica and then field peas at these sites. Other combinations such as maize, oats and then chicory have also proved to yield similar results by Dr. Hayden Lawrence on farm in NZ.



*The Photograph features the WA dairy farmers at the Camden Research site, NSW. The photo is courteous of Rod Brasher.*

## Flexible Feeding Systems WA Update

By John Lucey, DAFWA Dairy Team Leader

Phase 1 of the new Flexible Feeding System WA project, co-funded by DAFWA and Dairy Australia, is progressing well. The key outcome of the project will be reduced feeding costs by increasing the efficiency of grain/concentrate feeding systems, both in-parlour and PMR, where grain/concentrate and conserved forages make up a substantial part of the annual diet.

The on-farm monitoring of our 13 Partner Farms is providing valuable information on how dairy farmers, with a range of dairy systems and herd size, integrate grain/supplements into their feeding system.

While it is early days yet, the feedback from the farmers involved has been that the monthly data collection process has generally motivated them to keep better records and think more about their management decisions.

All Partner Farmers have completed a physical and financial business performance review using the Red Sky program.

Many of the Partner Farmers have confirmed that they use Dairy Australia's Grains2Milk and Feed2Milk programs, available at [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au), to help make good feeding decisions.

## FREE - Water use Efficiency Check

Irrigation is an expensive investment on dairy farms so it is critical that you know how efficient your irrigation system is and where and how you can improve its efficiency.

DAFWA is providing free on-farm assessments of irrigation systems and associated production capacity for dairy farmers together with a full report of options for improvement in irrigation efficiency.

Access to decision support tools, customised for your farm and incorporating the latest irrigation management research, will make irrigation scheduling easier for you.

If you have not already registered, please contact John Lucey on 0429 889 083 or [john.lucey@agric.wa.gov.au](mailto:john.lucey@agric.wa.gov.au)

# GETTING THE MOST FROM YOUR WEBSITES

By Rob La Grange, Dairy Industry Specialist

There are a huge number of websites that have useful information on dairying as well as supporting web based tools or providing links to download tools. The Dairy Australia (DA) website ([www.dairyaustralia.com](http://www.dairyaustralia.com)) is one such source and the home page has a number of tabs at the top that will allow you to get to specific pages for specific information.



The "Animals, Feed & Environment" and "People & Business" tabs are particularly worth exploring. Below are a few links involved with Cool Cows, feeding and pasture leaf stage calculators that will allow you to get to the information you want. Clicking these will open them up.

## COOL COWS TOOLS

- 1. Actions Generator:** Identify actions you can take on your own farm to improve your heat stress management. <http://www.coolcows.com.au/tools/actions-generator.htm>
- 2. Cost Benefit Calculator:** Estimate the likely return on investment and payback period for a new cooling infrastructure item on your farm. <http://www.coolcows.com.au/tools/cost-benefit-calculator.htm>
- 3. Weather Forecaster (Active 1st October - 31st March):** Monitor the daily heat stress risk level in your local area and adjust your cooling strategies to suit. <http://www.coolcows.com.au/tools/weather-forecaster>
- 4. Heat Stress Alert (Active 1st October - 31st March):** Subscribe to receive e-mail alerts of potential 'meltdown' events forecast for your area. <http://www.coolcows.com.au/subscribe.htm>

## FEEDING TOOLS

- 1. Grains2Milk feed Report:** This web-based tool helps you turn the results you receive from your feed laboratory for each feed sample analysed into decisions and actions on your farm. It will put your results in context of what's high and low quality for that particular feed and help you decide which feeds are the best buys. You'll get tips on how to balance this particular feed in a diet for milking cows. The report will also highlight what to consider when buying, storing and feeding that particular feed to your herd. <http://www.dairyaustralia.com.au/Animals-feed-and-environment/Feeding-and-nutrition/Supplementary-feeds/myG2MFeedreport.aspx>
- 2. Milk Fever Risk Calculator:** <http://www.dairyaustralia.com.au/Animals-feed-and-environment/Feeding-and-nutrition/Feed-tools/Transition-diet-milk-fever-risk-calculator.aspx>
- 3. Pasture Consumption Calculator and Feed Efficiency Calculator:** The 'Pasture Consumption and Feed Conversion Efficiency Calculator' has been developed to provide the Australian dairy industry with a robust, scientifically sound method of calculating on-farm annual pasture removal (t DM/ha) and estimated annual feed conversion efficiency of the milking herd (kg energy corrected milk/kg DM; grams fat plus protein/kg DM). Dairy Predict Ration Tool. <http://www.dpi.vic.gov.au/agriculture/dairy/pastures-management/calculator>
- 4. Dairy Predict:** A useful tool to assess the impact of your feeding decisions - out of Queensland. <http://www.dairyinfo.biz/default.asp?PageID=65>
- 5. DAFWA Rumens8 Ration Tool:** WA's own ration tool that is among the best for friendly interaction (Contact Richard Morris on (08) 9780 6282).

**Pasture Leaf stage Calculator:** <http://intelact.com/tools/calculators>

# Nitrogen for silage paddocks

By John Lucey, DAFWA Dairy Team Leader

The five years of Greener Pastures research has provided producers with the ability to increase their profitability through better decisions on nitrogen (N) fertiliser applications on dairy farms.

Currently Australian dairy farmers invest around \$200 m in N fertiliser annually to drive increased milk production. Nitrogen fertiliser is a significant farm-input cost, but inefficient use results in diminished production, reduced profit and adverse environmental outcomes.

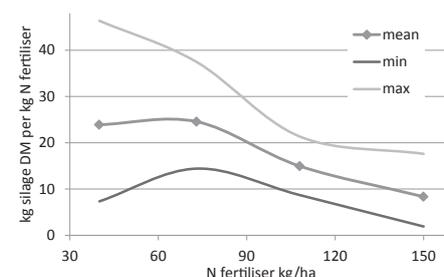
Inappropriate N fertiliser use occurs as decisions are largely based on commonly used and overly simplistic rules such as applying 1 kg N/ha/day after every rotational grazing event. As N fertiliser costs continue to rise it is critical that N decisions are based on more refined economic response predictions to ensure farm profit is not eroded further.

Response in pasture production and economics of N applications are influenced by soil factors, rate and timing of application, climate, and system management such as grazing and supplementation. Greener Pastures research has clearly shown that farmers need to think about N completely differently for use on grazed paddocks versus paddocks locked up for silage or hay

as the marginal responses are different.

The marginal response of N changes on conservation paddocks as the extra pasture produced ends up as more expensive silage or hay. Type of season has a big impact on the marginal response on silage and hay paddocks. Water logging reduces silage/hay response, so the recommendation is to use 50 kg/ha in wet seasons and 80 kg/ha Nitrogen in dry seasons for optimal economic response (see Table 1).

Table 1: Silage N response over 4 years 2006 -2009



On grazed paddocks, the optimum rate of Nitrogen fertiliser is about 1 kg/ha/day for well managed rotationally grazed pastures. Marginal responses to less than 1 kg/ha/day were more varied, confirming the previous research recommendation not to apply less than 25kg N/ha/application. Similarly, rates

higher than 1 kg/ha/day resulted in greater variation in marginal response. In wet years the response is reduced due to water logging and N leaching, while the best results are achieved in drier seasons.

Time of year also impacts on the marginal response to N fertiliser. Nitrogen response in grazed pasture is less cost effective and more variable for applications in May and June. In seasons with an early break, response to N fertiliser applied in May is low as plants are small and appear to have sufficient N from the mineralisation of organic matter built up over summer. Nitrogen response to fertiliser applied in July is highly variable with very poor response in wet winters.

These results are for well managed and intensively grazed annual pastures. Lower base pasture use, typical of beef systems, will result in lower responses and lower cost effectiveness of N fertiliser use.

We have limited research on N use on irrigated perennial pastures. Nitrogen response in grazed perennial pasture is good in late spring/early summer, okay in late summer/autumn and poor in winter/early spring.

Further details:  
[www.agric.wa.gov.au/greenerpastures](http://www.agric.wa.gov.au/greenerpastures)

# Preparing for Pasture Silage



**Trevor Schoolr, Technical Services Manager,**  
Lallemand Animal Nutrition/  
Quality Silage Systems

Managing pastures for dairy production is important, as we are looking at maintaining a balance between pasture supply and animal demand at any point of the yearly cycle. Silage plays a role in transferring surplus pasture supply to periods of pasture deficit. Suitable management of your pastures for silage will ensure that you generate maximum return for your efforts.

We need to consider the following points to achieve the best return from our cows:

1. Growth stage of the pasture at harvest
2. Silage Making techniques
3. Storage
4. Feed Out

## Growth stage of Pasture

As grass pastures become more mature, the quality parameters start to decline. Digestibility percentages are the most affected which then follow on and effect protein and energy levels and availabilities. When grasses are actively growing, depending on variety, expected digestibility can be as high as 80%. As the grass matures out past seeding stage and dries down we can expect digestibility levels to drop to as low as 50% or lower. Energy and Protein levels follow the same trend. In early growth periods energy can be as high as 11 to 11.5 ME and protein 25 to 30%. At early flowering this can drop back to 9 to 10 ME and 12-20 % crude protein. Timing your cut is essential to maximising potential production. High tonnes of late, mature grass does not mean high quality production.

## Silage Making Techniques

**A. Mowing and Wilting.** We are trying to increase the dry matter content of the grass as quickly as possible to maximise the tonnes of dry matter recovered, minimise quality loss and ensure proper silage fermentation. Use mower conditioners to help shorten the drying period. The use of tedders early in the season is also advisable. Wide windrows behind the mower will maximise surface area of the swath and hence decrease drying times. Mowing after the dew has lifted of a morning is always a good idea.

**B. Dry Matter Content.** Getting the dry matter content for chopped silage in the 32 to 36% range and in the 40 to 50% range for baled silage is critical to getting good silage fermentation and minimising losses due to effluent or spoilage.

**C. Raking, Chopping and Baling.** Chopping allows the grass to be inoculated, transported and compacted into a silage pit or bun. The same principles apply to baling except on a smaller scale. Dirt in our silage can result in poor fermentations, spoilage and ultimately undesirable effects on our dairy cow's health. Rolling paddocks to eliminate rocks etc. is advisable along with ensuring that your rake is set properly and not incorporating dirt into the windrow.

**D. Inoculating.** All forages should be inoculated using a high quality, well researched, forage specific bacterial inoculant. Lalsil HC and TriLac 3300 from Quality Silage Systems are good examples of such products. Ensuring a guaranteed, quick, efficient fermentation means we are doing all we can to maximise dry matter and quality recovery at feed out.

**E. Compacting.** Silage fermentations occur because of the anaerobic conditions created in the silage bunker or bale. Poorly compacted silage means poor fermentations and increased losses in dry matter and quality.

**F. Sealing.** Oxygen is the number one enemy of silage. Sealing our silage using specific silage plastic or wrap will result in higher tonnes and better quality silage at feed out. SiloStop is the latest in sealing technology and will result in more tonnes of a higher quality being available at feed out. Remember to keep all holes patched. Oxygen destroys silage and your production.

**G. Feed Out.** Maintaining your silage face free of loose material and only a small manageable amount of plastic removed from the top of the pit. Aerobic spoilage results in loss of dry matter and reduced production.

Striving for good pasture management and a silage program that ensures you are managing all the techniques properly, should result in high quality silage with minimal losses during the paddock, storage and feeding procedures.

Getting pasture silage production correct will help you achieve efficient, economic and healthy cow production.

**For further follow up please call Trevor on 0427 715 938.**  
[tschoolr@lallemand.com](mailto:tschoolr@lallemand.com)

# Dairy Workshops

Featuring PHIL SHANNON one of Australia's leading dairy systems thinkers

Topics will include:

1. Achieving high pasture utilisation while maintaining cow performance.
2. Making the best of restricted irrigation water allocations
3. Managing your business in tough financial times

**Tuesday 11 Sep, 6.30pm to 9.00pm, Benger Hall**

**Wednesday 12 Sep, 6.30pm to 9.00pm, Young Farmers Group**

**Thursday 13 Sep, 10.00am to 2.00pm, Vasse Research Centre**

To attend please RSVP by Friday 7 September to

John Lucey 0429 889 083 [john.lucey@agric.wa.gov.au](mailto:john.lucey@agric.wa.gov.au)

Rob La Grange 0448 939 344 [rob@westerndairy.com.au](mailto:rob@westerndairy.com.au)

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