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Department of Agriculture and Food

GOVERNMENT OF WESTERN AUSTRALIA

FEED TROUGH

Western DAIRY

Dairy Australia

Your Levy at Work

GIRLS GROWING GREAT GRASS!

By Tammy Negus - Agronomist and Western Dairy Feedbase Coordinator

One of the latest initiatives from Western Dairy has been the development of the Girls Growing Grass group. Targeting a different demographic group in the dairy industry, the ladies, has been a great tactic to turn a cup of tea , cake and chat into a great learning experience in the classroom and also in the paddock.

Females have many strengths and skill sets that can be assets on the farm in planning, developing and managing pasture rotations. The Girls Growing Grass concept aims to capture and develop these skills in a non- confronting discussion group where there are no dumb questions. With the correlation between increased pasture utilisation and increased farm profits there is a massive advantage for women in dairy businesses to understand how to grow grass and manage it.

The first session in June was hosted on farm by Ruth McGregor in Chapman Hill. She has been using her skills in managing the pasture rotation and complimenting her husband Ian's skills in growing and managing pasture for many years now. Ruth puts great emphasis on the importance of pasture assessment and measurement and actively seeks the Leaf Emergence Rate (LER) as the most effective method to determine optimum grazing planning and efficiency.

"I want women to feel empowered and recognise the opportunity for them to step forward as potential managers in a modern day dairy industry. It is a growing trend that women are bringing vital skills such as communication, planning, prioritising, risk assessment and of course computer skills that are increasingly needed in today's agriculture", comments Ruth.

Martin Staines from DAFWA was invited along to coach the ladies on the principles of pasture management by looking at the aspects of rotational grazing, the leaf stage and pasture height. After this indoor session the group progressed to the paddocks looking at the leaf stage, using plate meters to measure pasture residuals and expanding the observation skills to find insects or other issues.

Session 2 was held in July at Vasse, hosted by Michelle Weldon and coached by DAFWA's Richard Morris. Richard helped further develop pasture management skills, looking at different grazing systems and setting the ladies up with a choice of tools and spread sheets to develop a rotational grazing system for use on their own dairy farm.

Session 3 is planned for the end of August at Tutunup, hosted by Tammy Negus and coached by John Lucey. The group has initially been started as a pilot program to see how successful it may be and to ideally develop it further, If you are interested in being involved with the Girls Growing Grass group please contact Tammy Negus tammy.negus@gmail.com or 0448 532 028

Photo shows the group of ladies assessing pastures at the Girls Growing Grass session 1 held at the McGregor's property in Chapman Hill.

Quality Matters - 2013/14 Silage & Hay Competition P4

Spring 2013 Paddock Agronomy Checklist

By Tammy Negus - Agronomist and Western Dairy Feedbase Coordinator

As we head out of winter and into spring the seasonal parameters start to change, the leaf emergence rate increases as does the pasture growth rate and we start to get a true surplus of feed. As everything starts to move very quickly keep in mind all the critical things to check.

✓ **Nutrition**

- Plant test for potassium and trace elements, ideally before spring and flowering
- Apply spring applications of fertiliser on annuals, particularly nitrogen, potassium and sulphur for silage and hay paddocks at least 4 weeks before cutting
- Check the perennial pastures and plant test prior to summer

✓ **Pasture Management**

- Assess the true surplus of feed
- Plan the paddocks for 'lock up' for hay and silage
- Clean up sticks/rocks, mark stumps and holes in preparation for silage and hay machinery

✓ **Weed Control**

- Apply broadleaf control before they are too big and prior to canopy closure (ideally autumn and winter)
- Make sure you adhere to pesticide WHP (withholding period) for grazing and for harvest
- Consider spray topping in preparation for next year (Spray Topping is a chemical weed control method whereby you target the seed set control of grasses and some broadleaf weeds. It is very effective when used at the correct weed stage and when using a suitable herbicide. Caution: make sure you seek specific advice on this.)

✓ **Disease control**

- Oats and some ryegrasses can be susceptible to foliar diseases such as rust that may be controlled by a fungicide. Take note of the registration and also the WHP

✓ **Insect Control**

- Omethoate (Lemat) is best for residual protection against Red Legged Earth Mite (RLEM) and Lucerne flea, however rotate your chemistry to avoid selecting for resistant populations
- Use correct insecticide label rates for targeted species and amount of pasture growth present
- Make sure the spray boom is properly calibrated and is working effectively, use water rates of at least 100L/Ha for good coverage.
- Boom sprays are more effective than misters

✓ **Summer Crop**

- Plan which paddocks to seed and with what
- Source seed early, allowing time for it to get into store and through quarantine as most seed is sourced from other states
- Use soil temperate to help determine when to seed
- Utilise the shoulders of the season to maximise the moisture for the perennials, looking at water use efficiency for those with irrigation

Good luck for the 2013 hay and silage season and let's hope the weather is favourable. For any further questions please contact Tammy Negus 0448 532 028 tammy.negus@gmail.com

Visit www.agric.wa.gov.au/eweed for more information on spray-topping pastures with selective and non-selective herbicides.

For the latest information on fertiliser products, prices and plant analysis service please contact CSBP Fertilisers Bunbury on 08 97249820 or Summit Fertilisers Bunbury on 08 97256988.

Feeding dairy cows

A synopsis of Phil Shannon' recent WA presentation. By John Lucey, DAFWA Dairy team leader.

Victorian pasture expert Phil Shannon started his recent presentation to WA dairy farmers by challenging the audience if they "had their house in order' in terms of optimal stocking rate to reduce exposure to grain and milk price?

With home grown feed being the cheapest feed source, Phil reflected that as some farms have grown by increasing stocking rates they had inadvertently created an invisible feedlot on their farm. Pushing stocking rates too far results in those last few cows virtually being fedlot due to the requirement to buy in more grain and fodder to maintain the herd.

If milk price is relatively high and grain price relatively low, as in Victoria this season, then it may be profitable to buy more cows to pump out the milk. However, Phil cautioned that any opportunistic increase in cow numbers must be accompanied with a well planned exit strategy to quit these extra cows at profit before next season if milk price drops and/or grain price rises.

The two most important pasture decisions you have to make every day are where to put the fence which determines your rotation length and how much supplement to feed to maintain optimal profitability. Grazing at or close to 3 leaves leaving a residual around 5 cm will optimise quality and quantity if pasture fed thus ensuring that any supplements complement home grown feed rather than substitute for cheap home grown feed.

Spring is a critical time to maintain control of your pasture. With the spring flush resulting in pasture growing faster than your herd's requirements, control is achieved by dropping out, or as Phil termed it "banking out" true surplus paddocks to ensure that the correct grazing pressure is maintained.

When these banked out paddocks come around in the rotation they will already have 2.5 – 3 leaves and will be ideal for conserving as quality silage within the next 10 days.

IMPROVING PROTEIN QUALITY OF GRASS SILAGE

(Part 2 of a 3 part series in feed protein quality and utilisation)

By Dr. Bronwyn Edmunds (PhD) | Dairy Research Officer, DAFWA

In the last issue of Feed Trough and the 1st article of this series (The Crudeness of Crude Protein), the more important measurements of protein in dairy cow rations were outlined. Recapping, the main message was to start producers thinking in terms of Metabolisable Protein (MP) rather than relying on Crude Protein (CP) alone. For those who missed the last article, MP is the protein digested in the intestines that the animal uses for maintenance, growth and milk production. The amount of MP available to your cows is largely dependent on energy supply in the rumen, which drives microbial reproduction and growth. Microbial protein makes up about 70-90% MP! The other major factor driving MP supply is rumen degradability of protein i.e. how quickly and to what extent it breaks down in the rumen.

In the 2nd article of this series I planned to explain the protein degradation characteristics of various dairy cow feeds in more detail. However, with silage season upon us it's more appropriate to consider ways to improve protein quality of this very important feed source.

Did you know that pasture silage is a major source of CP over the dry months? In the ration displayed in Table 1 silage is actually the highest source or CP!

Table 1. Crude protein consumed in a typical summer ration in Western Australia.

	DMI	CP	kg CP/c/d
Pasture silage	10	12	1.20
Hay	3	10	0.3
Wheat	5	11	0.55
Lupins	3	35	1.05

So why then are lupins so much more effective at lifting milk and milk protein? The answer lies in protein quality. In the previous article, the real meaning of CP was clarified i.e. it represents the TOTAL N in a feed. Not all CP is true protein. There are free amino acids and other simple N components that form a group collectively called 'non-protein N' (NPN), which is degraded to ammonia very rapidly in the rumen. Using these terms 'true protein' (TP) and NPN a clear picture of the difference in protein quality between grass and silage can be seen.

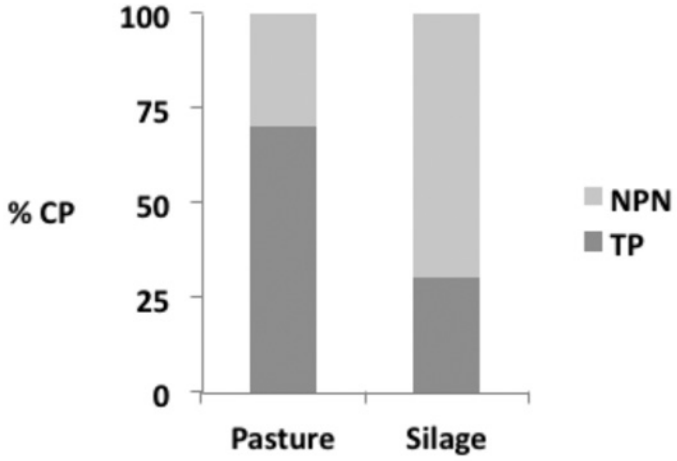

Figure 1. Protein quality differences between pasture and silage

As seen in Figure 1, about 70% of CP is TP in pasture. As soon as grass is cut, plant enzymes start to break down TP into NPN. After ensiling, microbial enzymes continue to break down proteins. This degradation continues until the silage is anaerobic and stable, which is usually about 3 days in well-made silage. Figure 1 clearly shows the difference in protein quality between un-cut grass and silage. The proportion of NPN can be up to 90% in silage CP!

What does this mean to your milk production? As mentioned before, NPN is broken down to ammonia very quickly in the rumen, creating an over-supply of N to the rumen microbes. The excess ammonia is absorbed through the rumen wall into the blood stream, converted to urea, and excreted. Not only is this wasteful of N, the conversion of ammonia to urea requires energy which can otherwise be used for milk production and the high levels of blood urea can affect the uterine environment and thus fertility.

So, how can we improve the CP quality of our silages? One of the cheapest and most effective methods is to ensure a rapid wilt. Slow, extended wilts, particularly under wet or humid conditions, increase protein breakdown. If possible, harvest within 48 hours of mowing at a target DM of 35-40% for stacks/pits and 35-50% for bales. The fastest wilt is achieved with a thin swath, warm temperatures, low humidity, long periods of sunshine, and with a breeze. Tips for reducing wilting time are:

- Cut at an earlier growth stage – lower yield/higher quality – to reduce swath bulk. Quality over quantity is generally recommended to maintain milk production without excessive concentrate supplementation over summer.
- Mow after the morning dew lifts
- Condition forage – be careful to avoid over-conditioning as this may dry out the grass too quickly and lead to leaf shatter and dry matter loss. Also, ensure the risk of rain is minimal and the day is not forecast to be too hot.
- Increase swath width
- Tedding – do straight after mowing to spread crop evenly and minimise leaf loss. Repeat if necessary, especially after the dew lifts on the second morning.

Trials have shown that a 24 h reduction in wilting time can increase MP by 10%. Another advantage of a rapid wilt is reduced respiration of water soluble carbohydrates (WSC) and loss of DM. Increased WSC available for fermentation will lead to a higher quality silage, increased DM intake and higher milk production. You may think most of this is out of your control due to the employment of contractors. Just remember that you are the one who is paying for the service and poor quality silage will cost you milk and money over the summer months. It is important that your contractor understands this.

For more information on feeding protein to dairy cows please contact Dr. Bronwyn, Edmunds (PhD), Dairy Research Officer 0468 456 755 www.agric.wa.gov.au

QUALITY MATTERS
2013/14 Silage & Hay Competition

Western Dairy is pleased to promote a competition for all dairy farmers for silage and hay made this season in recognition of the importance of quality when it comes to feeding conserved fodder to high producing cows throughout the year but particularly through summer.

Seedforce will reward the top quality silage and the top quality hay samples submitted for testing with 250 kg of Speedyl tetraploid annual ryegrass seed in each category

Tests will be performed by DAFWA labs in Bunbury for $50 each. Farmers will need to be prepared to fund the tests. However Western Dairy will fully fund the testing costs for 40 samples (hay or silage) based on a draw of entrants received. Only one sample per farm business will be funded to give more farmers an opportunity to have their test sponsored.

Please contact Rob La Grange at: rob@westerndairy.com.au or 0448 939 344 for more information

GROW YOUR CONTRACTING BUSINESS WITH HIGHER QUALITY SILAGE & HAY!

FRIDAY 20TH SEPTEMBER

RODWELL FARMS, BOYANUP

10am till 1pm

Lunch Provided

A practical, hands-on morning with Frank Mickan, DPI Vic, one of Australia's leading silage specialists.
Frank is in WA as the keynote speaker at a farmer field day at Vasse Research Centre – so this "contractor only" event will assist you offer your clients a better service

Please RSVP by 13th September to Rob LaGrange
rob@westerndairy.com.au 0448 939 344

FOCUS ON SUMMER FORAGE

FRIDAY 20TH SEPTEMBER

VASSE RESEARCH CENTRE

2pm till 4pm

Afternoon tea provided

Join Trevor Schoorl in a discussion and field walk looking into the production of silage using summer forages. Trevor is an animal nutrition and silage specialist from Lallemand animal nutrition and Quality Silage Systems with a wealth of knowledge and practical experience to offer.

Please RSVP by 13th September to Rob LaGrange
rob@westerndairy.com.au 0448 939 344

Western Dairy Spring Field Day

Thursday September 19, Vasse Research Station

(Incorporating the Western Dairy AGM)

9.45am for a 10am sharp start. Complimentary BBQ lunch included and concluding around 3pm

For more information and to register please visit www.westerndairy.com.au or call 08 95259222

The Feedtrough is published by Western Dairy and edited by Western Dairy's Regional Feedbase Development Group coordinator Tammy Negus.

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

To contribute to the Feedtrough please email Tammy at tammy.negus@gmail.com