A DAIRY FARMERS' NEWSLETTER FROM I&I NSW

dairynews

ISSUE 15, SUMMER 2010

CONTENTS

Tim Burfitt

Welcome to the summer edition of Dairy News. This edition is a real stocking filler as we enter the busy Christmas period.

December Dairy News features a range of stories with an emphasis on the feed base, with information on hay and silage production in wet weather, weather damaged grain, making the most of kikuyu, use and value of poultry litter in the farming system and "Mini Ration Check".

Our Dairy Industry Group also features a few stories on working closely with the NSW dairy community. The Hastings Valley Discovery story is a great example of dairy farmers proudly promoting their importance as food providers and land stewards to a coastal community. Also find a feature on Tocal traineeships; the testimonials speak for themselves about the value of this form of training for our next generation of dairy farmers.

Since the last edition I have been fortunate in being sponsored to attend the International Dairy Federation Conference in New Zealand. The Conference was attended by 2,200 people; dairying is BIG in NZ and they are very proud of their position in the international dairy market. The Conference was a credit to our NZ cousins and their energy, commitment and belief in our vital industry was impressive.

The year in review has been busy and satisfying for our active DPI staff with our energy and water audit project, dairying in a changing climate workshops, rev up replacements days, mastitis days and more recently an AI course on the South Coast. The Future Dairy complementary forage system project has been outstanding in the Hunter Valley.

In closing my last editorial for Dairy News, I am handing over this role to Kerry Kempton, our Technical Specialist Dairy.

Also I wish to acknowledge here the District Agronomists in all the dairying areas of NSW. Our DA's provide vital support to both our Livestock Officers and in many cases farmer groups. Their role in supporting the essential feed base and soil nutrient work is invaluable.

Also to our great supporters in NSW Farmers Dairy Committee, Dairy Australia, Dairy NSW, Subtropical Dairy and Murray Dairy, thanks for your constant support in all the right places. 2011 will be a great year, we all welcome it.

To all our valued readers a Happy and Safe Christmas and a New Year that brings all that you wish and work for.

NSW GOVERNMENT

DAIRYAUSTRALIA
Delivering for the dairy industry

Dairypathways

HASTINGS VALLEY DISCOVERY

Kerry Kempton

Technical Specialist Dairy, Tocal

Eight dairy farm families in the Hastings Valley recently opened up their farms to their urban dwelling neighbours over two Sundays, and were amazed at the response. The farm days attracted over 300 people from the Port Macquarie area, most of whom had never set foot on a farm or been up close to a cow.

Prior to the day, the visitors were matched with a local farmer, and were greeted with a friendly welcome and a country style morning tea on arrival. They were then given a guided tour of the farm, including seeing cows milked, calves being fed and other activities that happen on a normal day on the farm.

All the visitors were then assembled together at the local footy grounds, treated to a bbq lunch and some samples of the local dairy produce, generously supplied by the milk processors in the region. They were entertained with a range of activities, including painting the miniature Picasso Cows, a gumboot throwing contest, face painting and a jumping castle.

The feedback from the participants over the two days was overwhelmingly positive. Some parents said it was the best day out they had ever experienced with their kids.

Visitors meet the milkers at Coopers farm at Wauchope

Dairy Australia's promotional Picasso Cows were popular entertainment

This project had three main aims:

- To connect farmers with the non-farming community, in order for them to gain an appreciation of where milk comes from and how farmers live and work.
- To create a positive image of the dairy industry and of dairy farmers, showing them as professionals who are committed to producing a high quality product, and who care greatly for their animals, their land and their local community.
- To boost the morale of the local farmers going through some difficult times, by doing something positive for themselves and their industry.

All those involved have agreed that these aims were achieved, and the smiling faces and enthusiastic responses from participants were very rewarding.

The project was an initiative of the Midcoast Dairy Advancement Group, and much of the credit for the success is due to Ray Johnston, Dairy Officer with I&I NSW, and Hastings dairy farmer Anne Eggert, who both worked tirelessly over several months to bring the idea to reality. The host farmers were very generous with their time and hospitality to welcome visitors onto their farm, and local businesses helped with donated prizes.

Key funding and support for the project was provided by Dairy Australia, Dairy NSW and NSW Farmers, as well as National Foods, NORCO and Hastings Cooperative.

HAY & SILAGE IN WET WEATHER

Neil Griffiths

District Agronomist, Tocal, Paterson

Wet weather is always a challenge to hay making. The biggest cost is often delayed harvesting which means by the time the pasture is cut it is over mature and has lost quality. As always the longer hay and silage lay in the paddock the more quality will be lost. It is always the best leaf which is lost first and the tough stalk which remains.

Can wet hay be made into silage?

Yes, but it may be a waste of money!

Rain, especially storms, will leach soluble sugars and protein, damage leaf, splash dirt, encourage mould, delay drying and increase bleaching. So can you make it into baled silage as a salvage alternative? Yes, but the 'hay' already has increased field losses and lost quality.

Silage increases costs especially if wrapping (normal) and a silage inoculant should be used to have the best chance of a reasonable fermentation. So, wrapped baled silage may be an expensive way to store damaged and low quality hay but if the alternative is total loss and you need lower quality roughage, it may be an option.

Wet hay in the shed?

If, like many, you have suffered extreme wet weather, check hay sheds for a leaky roof or damp rising from the ground. Either could lead to heated hay and possible hay shed fires (see Primefact 716 *Hay Shed Fires* on the I&I NSW website for further information).

Silage in the wet?

Silage making always has an advantage in wet seasons with silage usually only needing 1 or 2 dry days while hay needs 1 or 2 dry weeks. Bulk chopped silage at 30–35% dry matter needs less drying time than baled silage at 40–50% dry matter.

Always follow the basics of storing high quality forage, wilted as quickly as possible to target dry matter, compacted to get all air out, then sealed to keep air out. Silage inoculants are always best if used under good conditions but can help overcome less than ideal conditions when making silage.

Can I store flooded crop or pasture?

Flooded crops have the problem of mud contaminating the crop and debris in the paddock damaging machinery. Mud and dirt contaminate the silage and make it hard to get a good fermentation.

Options:

- lift cutting height to avoid mud
- use extra inoculant to improve the chance of satisfactory fermentation
- leave for hay (mud not such an issue)

WEATHER DAMAGED GRAIN – SOME TIPS

Grains2Milk Special Edition factsheet

The very wet 2010/11 East coast grain harvest is resulting in substantial quantities of weather-damaged grain being down-graded from milling and malting quality to feed grade. This presents both opportunities and risks for dairy farmers. Subject to managing the grain hygiene risks, weather damaged grain is typically equal to sound grain from an energy perspective and should represent a financial benefit compared to paying the premium for sound milling grains.

Dairy Australia Grains2Milk project manager Dr Steve Little has compiled a special fact sheet to help farmers when buying and feeding grain this season.

This fact sheet discusses the key issues to consider when buying and feeding weather damaged grain which may be high in moisture, shot and sprung and / or contaminated with fungal toxins. These issues include nutritional value, storage and processing characteristics, and risks to cow productivity and health

Key tips

- When considering whether or not to buy a parcel of feed grain, take a representative sample using the correct method and start by doing a thorough visual assessment for extent of sprouting and mould growth. Then check the grain's test weight and moisture content before doing other quality checks.
- If looking to buy grain directly from a grain farm, be sure to check its moisture content and get a full history on the conditions under which it was harvested and stored.

- Ensure that the quality specifications of any "feed" grain are well defined, either by using the Grain Trade Australia (GTA) standards, or ensuring that the quality attributes of any non-GTA grade are properly defined. Don't leave it to chance.
- Ensure that your own grain storage facilities are dry and well ventilated to reduce the risk of mould growth.
- Mouldy feed may affect cow productivity and health. There are a number of things you can do to manage risk of mould growth and mycotoxin damage:
- Ideally, limit weather damaged grain to no more than 5 kg/cow/day until you have some evidence and confidence to go to higher feeding levels with this type of grain.
- Introduce weather damaged grain into the ration slowly over several days while monitoring for any drop in milk production, milk composition or changes in cow health.
- Ensure grain feeding rates are calculated by weight not volume.
- Add buffers and rumen modifiers to the ration as required and take other measures to manage your herd's ruminal acidosis risk.
- Consider the inclusion of a mycotoxin binder feed additive with your grain mix.
- Continue to monitor cows for any rejection of feed, drop in milk production, milk composition or changes in cow health.

Consult your nutrition adviser or vet if you have questions or concerns.

The Special Fact Sheet is available on the Dairy Australia website: www.dairyaustralia.com.au

MAKING THE MOST OF KIKUYU THIS SUMMER

Peter Beale

District Agronomist, Taree

With the prospect of a wet summer after abundant spring rain, there is potential for an excellent kikuyu season. Maintaining quality will be the key to getting the most out of extra growth. This means managing kikuyu to produce leaf and limit the growth of stems.

There are a number of practices that can achieve this and they are summarised in a new Primefact authored by Professor Bill Fulkerson, a summary of the past 20 years of research and farmer experience in one document.

Points to consider are:

1. **Have a plan to use the extra growth:** this would include milking more cows, keeping heifers at home, making silage or planting tired kikuyu paddock with higher quality forages like cowpeas or maize. Both cowpeas and maize can fill the autumn feed gap.
2. **Graze at growth stage of 4.5 leaves:** this will be 12–14 day rotation from now to late February. Trials have shown that a shorter rotation (less than 10 days) may produce more leaf in mid summer but less growth over the whole kikuyu season. Shorter rotations may also be too high in both nitrate and potassium content, potentially causing metabolic problems for cows. Longer rotations quickly lose quality.
3. **Use mulching to manage regrowth:** mulching can be a useful way to remove unwanted tall stems and encourage new leaf growth. Older stems tend not to produce as much leaf as mulched kikuyu so mulching every second to third grazing can be valuable. Hard grazing can also be used to reduce residuals and set back regrowth. Beware using the milking herd to do this, as milk production will suffer. So the excessive growth that can be expected after heavy summer rains can be delayed by hard mulching for a week after the rain, giving more even quality in the weeks after.
4. **Manage nitrogen rates to match feed demand:** skipping nitrogen application can reduce feed quantity and so help maintain quality. But it may be better to actively manage a smaller area of kikuyu and optimise the moisture available, and use other paddocks for forage crops that may be ensiled for feed gaps later in the year. If conditions are wet when applying urea, consider using urea treated with nBTPT marketed as Agrotain or "Green Urea™" to improve efficiency.

More detail can be found in the new Primefact on the NSW I&I website by following the link:

http://www.dpi.nsw.gov.au/agriculture/livestock/dairy-cattle/feed/publications/milk-production-kikuyu

TOCAL TRAINEESHIPS

FARMERS SAY THEY ARE WORTH THE EFFORT!

Bill Kinsey

Deputy Principal, Tocal

Tocal College can proudly say that it has offered the NSW Industry programs of the highest quality since 1980. In fact the original Tocal Dairy Apprenticeship was a precursor for modern, competency based training.

Today the Tocal Traineeship Program offers nationally recognised qualifications supported by the Australian Qualifications Framework.

Most importantly Tocal College supplies more than just a piece of paper. There is an ever-growing network of young and older farmers able to say they gained valuable, life-long skills at Tocal. Some of their testimonials appear later.

What you gain from a Tocal Traineeship

In today's world people are preoccupied with qualifications. The Tocal Traineeship aims to supply much more than just a credential.

The emphasis is on developing people that can make a contribution to their farms, their industry and the greater community. More specific benefits include the following:

- training in general, dairy industry skills (as well as specialist areas to fill Skills Gaps) based on industry best practice
- encouragement, incentive and a clear career pathway for the farm's valued trainee
- personal development including skills in leadership, conflict negotiation and communication
- recognition of skills learnt in the workplace or elsewhere
- significant State and Federal Government Incentives (see an Australian Apprenticeship Centre for more detail).

The Tocal Traineeship Advantage

The Tocal Traineeship offers the only residential, group based training for the dairy industry in Australia. Its principal trainers have a dairy background and are still actively involved in operating farms.

It trains industry best practice by referring to Dairy Australia's Industry Programs and using the resources of NSW DPI's Advisory Officers in Dairy, Agronomy, Chemical Application, and Irrigation.

It supports this training by regularly inviting industry specialists such as vets, nutritional consultants, milking machine technicians, and breeding experts to participate. It makes the training real by using Tocal Dairy, its resources and staff and by visiting its extensive network of cooperating farmers, mentors and service providers.

Finally, a Tocal Trainee is always aware that they are a part of a much larger and dynamic industry.

Trainees come from all over NSW to share ideas and to form friendships. This allows the program to not only shape farmers but also to shape people; personal development of students is a priority that few other institutions have.

Going the extra mile

Tocal's resources, (including accommodation for block-release, group training), allow it to offer high quality programs. However it's difficult to pick it up and cart it from place to place so accessibility can be an issue.

Government incentives help with accommodation and travel and special arrangements can be negotiated. However a minimum residential requirement is maintained to ensure every student benefits from attendance.

While every farm is different it should be noted that many trainees travel large distances to attend the Tocal Traineeship Program.

In dairy they come from as far afield as the Qld border in the north, Forbes and Condobolin in the west and the NSW South Coast. Many appreciate the block release at Tocal as it is easier to organise around.

From the horses mouth!

Tocal regularly evaluates its Traineeship Program. Recent on-line surveys again emphasised the approval of employers and trainees. The Dairy Training Coordinator James Hooke is highly rated by trainees and employers alike.

Besides these anonymous results, here are a few of the things people say about Tocal Traineeships.

***John Smith**, current employer, Bulahdelah:*

"I'm happy for Mick (his Cert III trainee) to get that dairy specific training. He's learning something every time he goes down there. I've only got good things to say about the way the system is working. I hope he goes onto the next level because he'll get a lot out of it. In fact, everyone's a winner, Mick gets knowledge and a qualification and I have peace of mind that he is kept up to date with the latest information".

Above: Teambuilding helps students develop leadership, communciation and problem solving skills (and have fun!)

***Mick Thatcher**, current trainee, Bulahdelah (Mick has extensive experience in other livestock industries but declined an offer to directly enter Cert IV so he could concentrate on basic dairy training):*

"It's made my job a whole lot easier. I've got a much more complete idea of what goes on in the dairy. John is good at explaining things to me but some of it goes over my head. At Tocal I get to understand it and the end result is shown in the dairy. I would recommend it to anyone".

***Garth Chittick**, recent employer, Kangaroo Valley:*

"It is a very balanced program and every time Adam (Gavenlock) came home he had new ideas. The block release system is excellent and helped me to plan around it. It's also important to get them right away from the farm for a week so they can commit themselves. I've no complaints at all"

***Stuart Armstrong**, recent trainee, now manager, Old Bonalbo:*

"The traineeship suited the way I like to learn. It was good to have things shown and explained before discussing it in class. The discussions were really useful because everyone has a different way of doing things but some are better and more efficient. In our area you can feel a bit isolated so being shown where to get access to industry programs and websites was really useful. The travel didn't really bother me because I'm used to it".

***Daniel Parker**, current employer, Kyogle:*

"It's great value for someone like Ailsa (his Cert III trainee) who wants to learn a bit extra. She enjoys it and learns a bit more each time she goes down. I'm able to work around the blocks by organising staff….. I think it's great to have kids from all different types of dairy farms talking to each other and learning how things are done in different places because every farm's different".

***Ailsa Anderson**, current trainee, Kyogle:*

"It's worth travelling down for sure. I learnt a lot of things like how other people farm. You also make lots of friends from the same industry which will be good for later on".

To find out more about a Tocal Traineeship please contact Tocal college on 02 4939 8888 or visit the website www.**tocal**.nsw.edu.au

ROBOTIC ROTARY MARKS NEW ERA

Kerry Kempton

Technical Specialist Dairy, Tocal,

The recent launch of Australia's first robotic rotary dairy near Camden, designed for pasture-based farming systems and larger herd sizes marked the start of a new era in the industry.

Dairy farmers of the future who adopt the Automatic Milking Systems (AMS) will require different skills, but will be able to work more flexible hours, and will have more variety in their work day, rather than milking cows for several hours.

It is estimated that between five and ten per cent of dairy farmers make investments in milking infrastructure each year in Australia, so many farmers will be starting to think about whether the new technology will suit them in future.

There are now more than 15 AMS installations currently operating or being commissioned across Australia, so farmers are already investing in the technology.

The big benefits of automatic milking systems are for the people who work on farms.

Removing the physically demanding job of milking twice a day will make jobs on the dairy farms of the future much more attractive, especially for young people who understand computer driven management systems.

The robotic technology will not be suitable for every farmer, and the new rotary robot from De Laval won't be available commercially until 2012. The perception that dairy farmers can leave the farm while the robots milk the cows is not realistic. But the robots do free up people to concentrate on the more challenging tasks of managing the farm system.

On an AMS farm, the cows have much more choice about how they spend their day, so understanding cow behaviour and setting up the farm to encourage cows to move around and through the dairy to be milked, is essential for success. The location of the robots, design of laneways, paddock size, watering points, supplementary feeding facilities and loafing areas must be well thought out.

Monitoring and managing cow health and husbandry is also more challenging, as the herd can be spread over the farm at any one point in the day.

Considerations about whether automatic milking will suit are not just about the cost versus the benefits, but about the challenge of changing to a new way of thinking about every aspect of farm management.

The work being done by Dr Kendra Kerrisk and her team at the Camden facility are trying to answer many of these questions. I & I NSW extension officers can also help with this planning and evaluation process, using digital mapping and planning programs.

For some farmers, bringing in more land to the business and adding a robotic unit to milk the cows, will allow expansion in herd size without greatly increasing the number of people needed to run the farm.

The De Laval rotary robotic prototype was officially launched in November at the Elizabeth Macarthur Agricultural Institute (EMAI) at Menangle, where agricultural pioneers, John and Elizabeth Macarthur made major contributions to Australia's fledgling dairy industry nearly two centuries ago.

The new FutureDairy technology sits alongside the State's central animal, plant and aquatic biosecurity laboratory complex at EMAI, currently undergoing a $57 million upgrade.

It is hoped that farmers will be able to visit the site next year. Contact your nearest Dairy Officer for more information.

CHECK YOUR RATIONS – QUICKLY!

Anthea Lisle

Livestock Officer (Dairy), Scone

So, you've made your silage, forward contracted your grain, and you have your summer forages in. You're all set, right? But when you head into the dairy, are you nervously watching the vat to see what the milk response will be?

Are you watching the cows for signs of over or underfeeding?

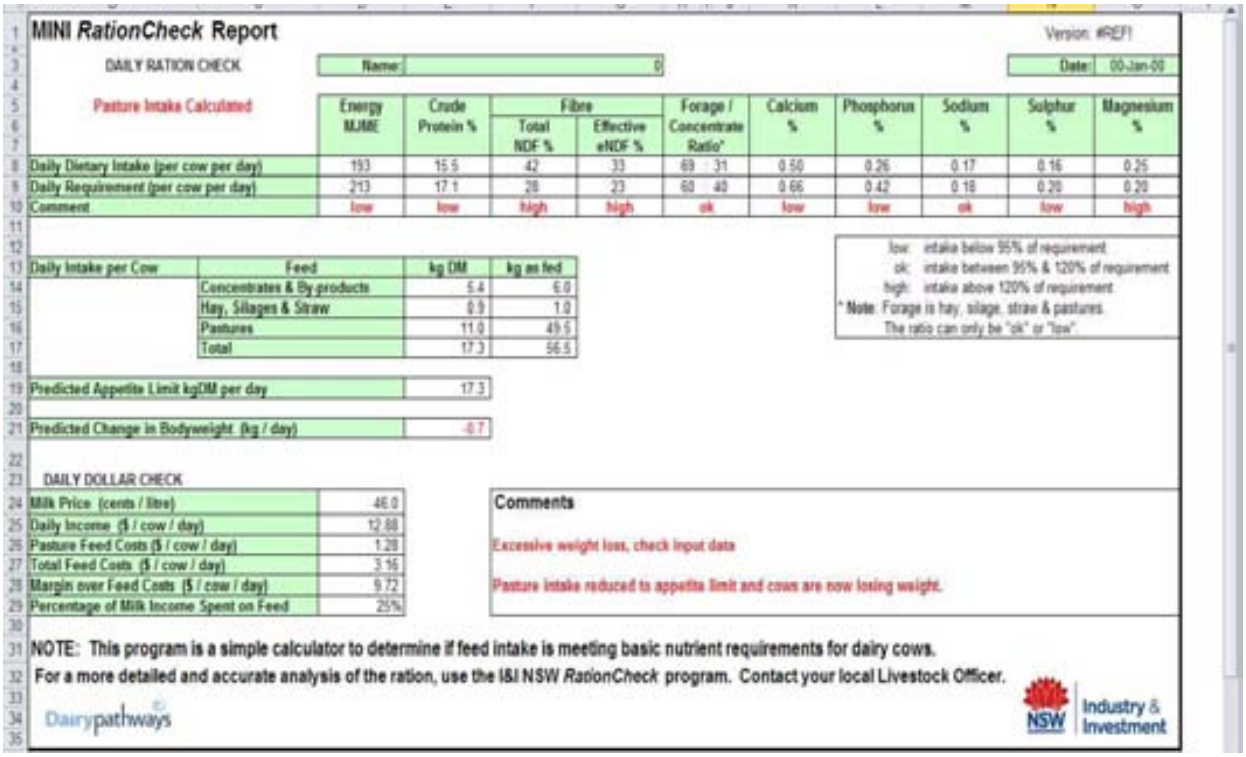
Are the milk components starting to change?

If you answered yes to any of these questions, you may need a simple way to set your mind at ease, and check whether your current ration is delivering all the nutrients that your cows need. Mini RationCheck was developed by Industry and Investment NSW dairy extension team some time ago as a quick and easy-to-use ration checking tool, but it is now available on the internet, so you can access it any time!

Mini RationCheck can be used by dairy producers to check the nutrition status of their dairy herd, and for dairy advisers to give general advice about feeding dairy herds.

When you enter the feeds being offered to the herd, the bodyweight of cows, distance walked, and the calving pattern of the herd, along with the litres currently being produced, the program will generate a one page, easy to read report such as the one below, showing the nutrients that are lacking, or whether you may be over feeding.

The program will also estimate pasture utilisation for you, and warn of the potential of excessive weight loss. You can either enter your own feed values, or use industry averages from the included feed library.



MINI *RationCheck* Report

Version: #REF!

DAILY RATION CHECK | Name: 0 | Date: 00-Jan-00

Pasture Intake Calculated

	Energy MJME	Crude Protein %	Fibre: Total NDF %	Fibre: Effective eNDF %	Forage / Concentrate Ratio*	Calcium %	Phosphorus %	Sodium %	Sulphur %	Magnesium %
Daily Dietary Intake (per cow per day)	193	15.5	42	33	69 : 31	0.50	0.26	0.17	0.16	0.25
Daily Requirement (per cow per day)	213	17.1	28	23	60 : 40	0.66	0.42	0.18	0.20	0.20
Comment	low	low	high	high	ok	low	low	ok	low	high

Daily Intake per Cow	Feed	kg DM	kg as fed
	Concentrates & By-products	5.4	6.0
	Hay, Silages & Straw	0.9	1.0
	Pastures	11.0	49.5
	Total	17.3	56.5

low: intake below 95% of requirement
ok: intake between 95% & 120% of requirement
high: intake above 120% of requirement
* Note: Forage is hay, silage, straw & pastures. The ratio can only be "ok" or "low".

Predicted Appetite Limit kgDM per day	17.3
Predicted Change in Bodyweight (kg / day)	-0.7

DAILY DOLLAR CHECK

Milk Price (cents / litre)	46.0
Daily Income ($ / cow / day)	12.88
Pasture Feed Costs ($ / cow / day)	1.28
Total Feed Costs ($ / cow / day)	3.16
Margin over Feed Costs ($ / cow / day)	9.72
Percentage of Milk Income Spent on Feed	25%

Comments

Excessive weight loss, check input data

Pasture intake reduced to appetite limit and cows are now losing weight.

NOTE: This program is a simple calculator to determine if feed intake is meeting basic nutrient requirements for dairy cows.
For a more detailed and accurate analysis of the ration, use the I&I NSW *RationCheck* program. Contact your local Livestock Officer.

Dairypathways

NSW Industry & Investment

Mini RationCHECK is not a ration formulation program, and users should check with their dairy adviser before making decisions based on the program. Make sure you read the 'Instructions' tab of the program.

So go to www.dpi.nsw.gov.au and search for Mini RationCheck,

Note: Mini RationCheck was developed in Microsoft® Office Excel 2003 and has been tested on Excel 2010. If users do not have Excel, contact a dairy officer who can assist with the tool.

FUTURE DAIRY HUNTER UPDATE

Anthea Lisle

Livestock Officer (Dairy), Scone

The Future Dairy 2 Hunter Farm Monitor Project has had a full 12 months cycle of a Complementary Forage Rotation (CFR) on a portion of each monitor farm. This CFR includes a summer silage crop (either maize or forage sorghums), followed by a brassica and ryegrass or another pasture mix for the winter period.

The Future Dairy Research farm at Camden has achieved 40tDM/ha on their CFR portion, but how readily could the management principles be implemented on commercial farms to achieve high dry matter production?

The following table shows the results achieved on farm. While none of the 6 farms achieved the production of the research farm, they each produced more than they had in previous years.

At a review meeting in August the farmers critically analysed their production from the CFR and identified what they had learnt and where they could improve. For example, none of the maize crops achieved the industry standard of 25t DM/ha, yet some of the pasture areas yielded much more than ever before measured in the region!

Some of the management challenges that affected the maize crops included water scheduling at the right time, weed control and sowing date. Pasture challenges identified Included species selection to suit the whole rotation and sowing rates on brassica to minimise competition with ryegrass.

All of the farmers have now identified the main management areas in which they hope to improve, and are focussed on making those changes in the coming 12 months to increase the utilisation on the CFR area, and therefore increasing whole farm production.

This summer, soil moisture monitoring equipment has been installed on all 6 farms, with the aim of applying water at the critical times of growth for each crop, whilst being careful not to overwater and stress the plants.

As well as maize, summer crops being sown include a forage sorghum and brassica combination, millet and chicory and straight chicory. Given the nature of the current season, some biennial ryegrasses will be grazed well into the hotter months.

Throughout the course of this project, it has become clear that the farmers involved have changed their thinking, away from a short term focus on a particular crop or paddock.

Now, the conversations around the group are focussed on decision making for the whole farm, over a 12-18 month period – how a particular crop or combination of crops will fit into the Complementary Forage System, how it will benefit the nutrition of the herd at any given time across the year, as well as the planning of feed conservation 12 months in advance. This is great to see – the decisions that you make today, no matter how small, have an impact across your farm for at least 12 months, so planning is essential to good management.

	Farm A	Farm B	Farm C	Farm D	Farm E	Farm F
CFS Rotation used from October 2009 (yields achieved in tDM/ha)	Maize **21 tDM/ha** Brassica & annual ryegrass **14.8 tDM/ha** **Total 35.8 tDM/ha**	Maize **15 tDM/ha** Annual ryegrass **12.2 tDM/ha** **Total 27.2tDM/ha**	Forage sorghum silage **12.8 tDM/ha** Ryegrass/ lucerne/ chicory/oats mix **10.05 tDM/ha** **Total 22.85tDM/ha**	Maize **19.5tDM/ha** Brassica, annual ryegrass & oats **14.4tDM/ha** **Total 35.9tDM/ha**	Maize 1 **15.9 tDM/ha** Maize 2 **9.5 tDM/ha** Triticale with maple peas **6.8tDM/ha** **Total 32.2tDM/ha**	Forage sorghum silage **10tDM/ha** Perennial ryegrass & clover **2.84tDM/ha** **Total 12.84tDM/ha**
CFS area: ha % of milking area	17 ha 15%	10 ha 15%	9 ha 15%	8 ha 15%	20 ha 14%	8 ha 6%
CFS targets for 2010 / 2011	20 ha Total **40tDM/ha** Maize *25tDM/ha* Brassica (leafy turnip) and ryegrass (short season annual) *15tDM/ha*	10 ha Total **40tDM/ha** Maize *25tDM/ha* Brassica (leafy turnip) and ryegrass (short term annual) *15tDM/ha*	9 ha Total **26tDM/ha** Forage sorghum silage *13tDM/ha* Pasture *13tDM/ha*	8 ha Total **40tDM/ha** Maize *25tDM/ha* Brassica (leafy turnip) and ryegrass (long term/biennial) *15tDM/ha*	20 ha Total **40 tDM/ha** Maize crop 1: 20tDM/ha Maize crop 2: 12tDM/ha Triticale and legume: *8tDM/ha*	12 ha Total **25tDM/ha** BMR *12tDM/ha* Brassica (leafy turnip) and ryegrass (long term/biennial) *13tDM/ha*

POULTRY LITTER SURVEY

Neil Griffiths

District Agronomist, Tocal, Paterson

During 2010, 38 poultry litter and manure samples were collected from farms in the Hunter Valley, Central Coast and Tamworth. The survey and testing was undertaken by I&I NSW in collaboration with the Hunter Dairy Development Group and with funding support from a Woolworths Sustainable Farming Grant.

Results from this survey can be compared with similar testing undertaken in 1998 which have been widely reported. In both surveys nutrients varied widely. The main changes in average nutrient levels are an increase in nitrogen and potassium and decrease in phosphorus. The increase in average nitrogen recorded may be partly due to most samples taken in 2010 being fresh. It is known that nitrogen will be lost from aged stockpiles.

It is thought that changes in phosphorus and potassium in broiler litter are caused by changes to feeding and the way sheds are managed since previous tests were taken.

It appears heavy metals are not a problem and trace elements such as copper and zinc occur in moderate amounts. More details will be published in the next edition of Dairy News.

Table 1. Major nutrients

Source of litter	Broiler litter Tunnel	Broiler litter Conventional	Turkey Litter	Layer manure
Number of samples	16	6	8	8
Dry Matter %	78	72	68	59
EC	9.7	7.2	9.5	7.5
pH (H_2O)	7.6	8.4	8.0	7.8
Total Nitrogen %	3.9	3.3	3.8	5.8
Total Carbon %	41	42	39	33
Total Phosphorus %	1.05	1.33	1.7	2.2
Potassium %	1.47	1.33	1.9	1.68
Magnesium %	0.43	0.44	0.46	0.49
Calcium %	1.7	1.9	2.7	9.2
Sodium %	0.35	0.40	0.33	0.36
Sulphur %	0.49	0.43	0.49	0.45

MINIMISE ANTIBIOTIC RESIDUES IN MILK

The NSW Food Authority has reported an increase in the notifications of antibiotic positive milk tankers this year, which is a great concern and a costly exercise for farmers and processors. Their investigations found the main issues to be:

- withholding periods not being observed
- cows calving early
- inadequate marking of cows
- inadequate training of relief milkers to recognise treated cows
- vets administering treatments and not advising withholding periods
- marked cows not being noticed

In other words, it is mostly human error that is the problem!

The drug companies that supply intramammary anitbiotics are no longer required to include blue dye in their products. This has removed the safety net that farmers previously relied on to determine whether milk was fit to be included in the vat. So the onus is now fully on the people milking the cows to ensure milk treated with antibiotics does not enter the vat until the withholding period has expired.

Each antibiotic has a specific withholding period for both milk and meat which by law must be observed, and there are severe penalties for supplying contaminated milk. Extensive testing is carried out at milk factories and at abbatoirs (for residues in meat), as the presence of antibiotics in the food chain is a serious public health issue.

All farmers in NSW have a Quality Assurance program in place on farm to ensure food safety, and must keep accurate records of all drug treatments. These records are essential for proving that withholding periods have been observed. Be especially vigilant with dry cow records, because if a cow calves earlier than expected you will still have to observe the withholding period before that milk can be included in the vat. Dry cow drugs typically have a milk withholding period of at least 30 days.

To minimise the risk of antibiotic residues in milk, record all treatments as soon as they are administered, both in the QA system and somewhere in the dairy that is visible to milkers; mark the treated cow clearly with spray paint and leg bands; make sure ***everyone*** who milks knows how to recognise a treated cow and what to do with her. A cow that has been really sick may hold the antibiotic longer than the recommended period. If you are unsure about a cow, you can arrange to have her milk tested before including her. If you suspect that milk from a treated cow has entered the vat, please contact the factory straight away and arrange for a test to be done.

This article contains information from the Spring 2010 edition of the NSW Food Authority newsletter.

Anthrax vaccinations in NSW

Anthrax, the name alone spooks most stock people, it is a disease that lingers in the background but should always be at the forefront of thinking. It is an acute infectious bacterial disease that survives in the soil for decades and kills stock across all ages and classes.

Anthrax is a notifiable disease under the *Stock Diseases Act 1923*. If you believe anthrax is affecting your stock you have a legal responsibility to immediately notify an inspector authorised under the Stock Diseases Act.

To combat against Anthrax, dairy farmers are encouraged to vaccinate. For necessary information refer to Primefact 401 – 'Anthrax vaccination in NSW' at:

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0014/100526/Anthrax-vaccination-in-NSW.pdf

COMING EVENTS 2012

February 21 - 28		Climate Risk Management for Farmers – Day 3
		Workshops will be held in Singleton, Taree, Tamworth, Dubbo, Forbes and Bega

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