



dairynews

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CONTENTS

NSW DPI Dairy Section farewells Tony Dowman	2
NLIS Dairy Rebate Scheme	2
Fodder shortages	3
Positive WA dairy farmers	3
Hay and Silage Competition	4
Improving Recruitment Success	5
People Focus Groups	5
ENSO a driver of Winter/Spring rainfall	6
Groundwater an Option in the Murray Valley?	7
Pestivirus linked to fertility problems	8
Biosecurity a key to disease risk management	9
Coming Events & Contacts	12

dairy would have sufficient space for the milking herd, as well as access to the dairy and stored feed for five days. Working from the SES headquarters during the flood and responding to the farming enquiries gives you a real appreciation of how well prepared dairy farmers are for natural disasters compared to other agricultural industries.



Upper reaches of Hume Dam May 2009

EDITORIAL



Tony Dowman
*Technical Specialist,
Kempsey*

I have just re-read the editorial I wrote for the March

edition of Dairy News which was all about being prepared for floods and having a stock management plan for these events. The major flooding between Wauchope and the Queensland border in late May confirmed my thoughts on the subject that many beef cattle owners are not adequately prepared for major flood disasters. Numerous cattle spent days standing in flood water, others tried to swim out and drowned, or ended up on high ground such as the railway line causing havoc for State Rail.

There is a real need for more flood mounds so cattle can stay out of the water and be hand fed, and then relocated to other areas once the water recedes. The ideal flood mound for a

Not all of the state is a sea of mud. On my way back from South Australia in late April I spent a couple of days in Deniliquin talking to dairy farmers at a discussion group. The Hume dam is only 4% full and farmers with minimal allocation are looking at the prospect of another drought year. Some have, or are considering tapping into underground water of questionable quality with deep bores, while others are preparing to continue their total hand feeding program. Falling milk prices in the south is making the job of dairying even more difficult for the 80 remaining farmers in the district.

On a personal note, this will be my last editorial for the Dairy News. Old age has caught up with me and I will be joining the ranks of the self funded retirees who get to do what ever they want when ever they want. The dairy industry has changed dramatically over the 40 years I have been involved in it. At least you never get bored working in this industry as there is always a crisis not far away that needs your attention.

Now, last issue I wrote about floods and we got one. I wonder what would happen if I wrote about increasing milk prices?

NSW DPI Dairy Section farewells Tony Dowman

After a long and illustrious career with NSW DPI, Tony Dowman, Kempsey based Dairy Industry Specialist, is leaving us for a well deserved retirement with lots of motorbike rides, family time and new challenges.

The numerous awards Tony has received, such as the 2008 Dairy Science Award and the NSW DPI 2004 Staff Achievement Award, are a testimony to his professionalism and value to NSW DPI and the dairy industry.

Tony has a wealth of knowledge and experience and unique talent for creating practical tools and resources for the dairy industry, as well as having a common sense approach when advising dairy farmers and when managing projects.

“He has provided guidance and leadership in teaching, research, extension and engineering to the NSW dairy industry while working for the NSW DPI for more than 40 years.” Minister for Primary Industries Ian McDonald said of Tony when he was awarded the 2008 Dairy Science Award.

Among his greatest achievements was the development of several resources for the dairy industry including the Dairy Check workbooks on Nutrition, Shed design and The Environmental Guidelines for the Dairy Industry. He developed the MilkBIZ program, a farm business management spreadsheet program that comprehensively charts the financial progress of a dairy farm business, and is the farm analysis tool of choice for farmers and advisors in NSW and Queensland.

Tony has also been responsible for managing some large projects such as the Dairy Pathways project and has had a long history of input into national programs like the CowTime project, particularly in the area of effluent management, dairy shed design and cow behaviour.

The dairy team from NSW DPI wish Tony well in retirement and look forward to continuing the great work Tony has instigated.

NLIS Dairy Rebate Scheme

Background

The NLIS Dairy Rebate Scheme was developed to encourage NSW dairy farmers to apply NLIS approved tags and/or boluses by offering a rebate on the cost of purchasing those devices.

Managed by NSW Dairy Industry Conference the Scheme commenced in mid 2004 and will be reviewed in December 2009.

Since May 2008 the available rebate has been \$2 per device purchased on or after 6 May. Devices purchased prior to this date are still eligible for a \$1 rebate.

Claims for payments may be made using the application form that includes a statutory declaration.

The form may be obtained from the NSW Farmers website, by contacting your local NSW DPI Dairy Livestock Officer or by contacting Ms Kate McGilvray, Executive Officer of the Dairy Industry Conference, KMAC Consulting, PO Box 833 Mudgee NSW 2850.

Fax 02 6373 1436 or email macs12@bigpond.com

Fodder shortages

Anthea Young

After looking forward to a good season this year the devastating flood events on the Far and Mid North Coast has placed many dairy farmers into an enforced feedlot situation for the coming weeks. In this situation, it is essential to go back to nutrition basics to maintain cow health and place milkers in the best position to continue production through the winter.



Simple troughs can minimise feeding out waste

Consider the following:

Energy: energy sources can be grain, oilseeds, highly digestible fodder (i.e. high leaf:stem ratio). Your dairy adviser can calculate the exact amount of energy that your cows require for maintenance and production, but in general grain sources should be above 12.5 MJME/kg DM and forages/hay/silage should test above 9.8MJME/kgDM. If forages test lower than this, digestibility is likely to be low and dry matter intake will be affected.

Protein: for average production herds, crude protein needs to be between 16% and 18%. Good quality digestible proteins are fine as long as the energy content is adequate. Choose digestible protein sources such as leafy legume hay/silage, high quality pasture silage, oilseed crops, or oilseed meals. Non-protein nitrogen sources such as urea can be safely mixed with feeds if plant proteins can't be found. Ask your nutritionist for rates.

Fibre: the fibre measure usually used in NSW is Neutral Detergent Fibre, or NDF – this is simply the type of test used at the lab to determine fibre content of feeds. NDF content of a diet should be between 28% and 35%, and this needs to be “chewable” fibre – not too long but

a length that encourages chewing and rumination (less than 100mm long). Try to kill two birds with the one stone by buying fibre sources that are digestible and high in protein and energy – legume or pasture hays with plenty of green leaf are good examples.

Minerals and additives: Speak to your feed supplier about additives that will deliver the right mineral balances to your cattle. This is important all year round, but especially when cattle are under stress and likely to be exposed to more pathogens than usual, such as in wet and muddy conditions.

Check out Dairy Australia's website for Feed Fibre Future information - <http://www.dairyaustralia.com.au/Farm/Feeding-Cows/Feeding-Systems.aspx>

Positive WA Dairy Farmers

Kerry Kempton

As a participant in the recent dairy industry tour of Western Australia, organised by Western Dairy, I was fascinated and inspired by the WA industry. It is small industry with less than 200 farms, but they are very dynamic and are motivated to improve and prosper.

As with NSW, the WA dairy industry was regulated and oriented towards the liquid milk market up until deregulation. Major changes have occurred at farm and processor level since 2000. Farms have increased significantly in size and cow numbers; and the four milk processors have switched their focus to more value added products, targeting domestic and Asian export markets.

The industry is concentrated in the south west corner of the state, which experiences a mild Mediterranean climate and very reliable rainfall. Prolonged droughts are very rare, and they don't seem to suffer the extremes of climate and severe weather events that we have had in NSW over the past decade.

During the tour we visited nine dairy farms, including the Vasse Research Centre. All the farmers we spoke to were optimistic about the future, and were expanding and developing their farm businesses.



Portable shade shelters at Vasse Research Centre, WA

Some of the common features that impressed me about the farms we visited were:

- The push to achieve more milk and more profit from pastures through
 - better grazing management, at 2.5 to 3 leaf stage of ryegrass
 - strategic use of fertiliser
 - high stocking rates
- Careful management of nutrients by
 - regular soil tests over the whole farm, backed up by plant tissue tests
 - nutrient budgets prepared annually, and fertiliser only applied when needed
 - reuse of dairy effluent back on to pastures and crops
- Addressing the concern about declining herd fertility rates, especially in Holstein cows by
 - Widespread use of batch calving, usually a spring and autumn batch, sometimes 3 batches
 - Increasing use of cross breeding
 - Avoiding mating or calving cows during January and February
- Finding the best balance between work and lifestyle is very important in WA – there is not much point investing lots of time and money in the business if you can't have time away from it to enjoy family, hobbies and holiday time.

The tour certainly reinforced to me the value of visiting other dairy farming areas and learning how those farmers manage their resources to have a sustainable and profitable business.

My thanks go to NSW DPI and the Hunter Dairy Development Team for sponsoring the tour.

Hay and Silage Competition

Neil Griffiths

Discounted Feed Analysis closes 15 July 2009

The Hay and Silage Feed Quality Competition being run in association with the 2009 Grassland Society conference being held in Taree is open to all commercial producers in NSW.

Competition sponsors New Holland, Integrated Packaging and Pioneer Hi-Bred are offering \$5000 worth of prizes to add interest but the real value of the competition is to highlight the importance of feed quality and give all producers access to discounted testing from the NSW Feed Quality Service.

Entry forms with all details are available from DPI offices or www.dpi.nsw.gov.au/agriculture/field/pastures/silage

Farmers interested in improving their hay or silage should consider coming to Topfodder silage courses at Berry in August or Wingham in September. Eligible primary producers receive 100% reimbursement of costs from the FarmReady scheme.

Other locations for Topfodder courses could be organised contact your local NSW DPI office for further information.



Feed storage on a typical WA dairy

Improving Recruitment Success

Greg Mills

Recruiting and training new staff represents a significant cost to most enterprises. Have you considered giving your existing staff an incentive to recruit new staff for you?

Having your existing staff recommending you as a good place to work to their peer group, and your local community, could be of great benefit to recruiting and retention of good employees.

Providing a financial incentive to your staff members who identify good employees could have long term benefits to your business. Rather than paying for advertising and recruitment firms, consider paying your staff based on how long the new employee stays in your employment.

A possible incentive schedule could be an existing employee who identifies a new employee who starts and remains for one month would receive a payment of \$50. When the new employee stays for 6 months the existing employee would receive an additional \$250 dollars, and \$500 at the 12 month mark.

People Focus Groups

Michael Ison

Across Australia in 2009 -10, The People in Dairy Project (TPiD) will be creating People Focus Groups for dairy farmers and advisors.

These groups will help farm businesses with people management. The aim is to have 500 farmers nationally, complete the short courses delivered through the People Focus Groups over the next twelve months.

In NSW, the program is already underway with one pilot group in the Hunter and the delivery of 7 one day sessions delivered in the southern areas and 5 more planned for the northern regions after the effects of the floods have receded.

The workshops will be delivered by TPiD Senior Advisors Michael Ison, Kerry Kempton, Ray Johnston and Michelle Blakeney. Senior Advisors have extensive experience in dairy extension and have completed the Diploma in Business Management (HR).

The initial one day session will introduce participants to TPiD process and principles, introduce the online resources and begin the discussion with farmers and advisors around the issues related to people on dairy farms. After these one day sessions a series of three to four day sessions will commence for about 8 NSW districts, depending on demand.

The three day program is a comprehensive workshop series that helps participants to download the resources available online and tailor them to fit in with their own business.

The resources can create job descriptions, induction plans and checklists. The program also guides employers through the correct classification of employees, ensuring proper pay rates and the use of the correct Industrial Award. Templates are also available to manage safety procedures on the farm.

The farm business can also conduct a thorough review of productivity and create a plan to improve all aspects of people management.

You can begin this right now by visiting the TPiD website at www.thepeopleindairy.org.au and look at the Live Library for the "Don't know where to start" button.

Look for the next People Focus Group session in your district and come along or contact Michael Ison at Tocal on 02-4939 8814 to find out more.



People Focus Groups create a plan to improve all aspects of people management on the farm.

ENSO a driver of Winter/Spring rainfall

Michael Cashen

As tractors and disc seeders head for the shed after a hectic autumn sowing, farmers look to the heavens for follow up rain.

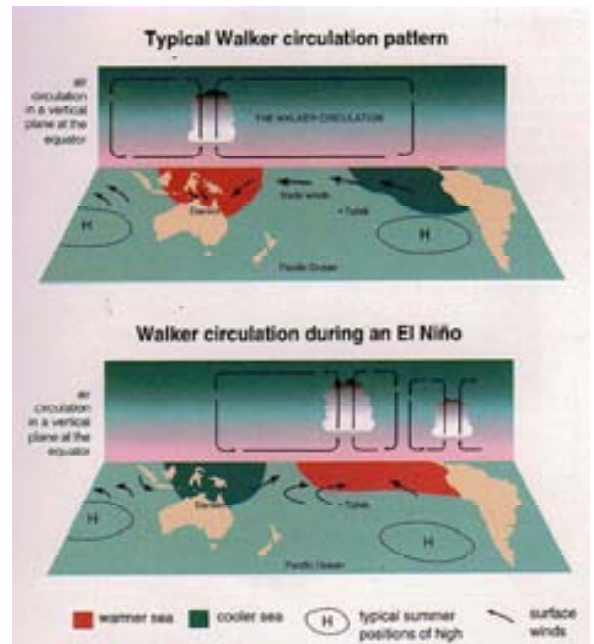
As discussed in the autumn edition of Dairy News, forecasting autumn rainfall can be fraught with danger as atmospheric circulation patterns shift from a summer to a winter mode.

Fortunately for us more accurate forecasts of rainfall can be made during the winter and spring period. This article will briefly focus on the phenomena known as the El Nino Southern Oscillation (ENSO), one of three key drivers of rainfall variability during the winter/spring period. The ENSO phenomena refers to a shift in sea surface temperatures patterns or gradients in the equatorial areas of the Pacific Ocean. As ocean temperature gradients change, so does wind strength and direction.

In most years, the Humboldt Current brings relatively cold water northward along the west coast of South America, an effect enhanced by deep cold water 'upwelling' along the Peruvian Coast. Under the influence of the equatorial trade winds which blow easterly across the Pacific towards Australia, this cold water flows westwards along the equator towards Australia where it is slowly heated by the tropical sun.

These 'normal' conditions mean the western Pacific ocean is 8-10 °C warmer than the eastern Pacific and cause 'trade winds' to move in an easterly direction. Typically the trade winds bring warm moist air towards the Indonesian region. Here, over the normally warm seas, moist air rises to high levels in the atmosphere causing abundant rainfall over the maritime continent and providing a potential source of moisture for synoptic systems over Australia.

In El Nino years however, the normal cold water flow along the South American coast and in the eastern Pacific weakens and may even vanish completely, and the central and eastern Pacific may become almost as warm as the western Pacific, impacting negatively on atmospheric circulation patterns and moisture supply into synoptic systems. In La Nina years, the pattern is reversed.



Source Bureau of Meteorology

The Australian Bureau of Metrology provides monthly updates on the current status and forecasts for the ENSO phenomena, in the ENSO Wrap- Up, to access, simply visit the web site www.bom.gov.au/climate/ens/ .

In the next edition of dairy news we will explore the impact of the phenomena known as the Indian Ocean Dipole on Eastern Australian rainfall.

Is Groundwater a Feasible Option in the Murray Valley?

Adrian Smith
Irrigation Officer, Deniliquin

With over five years of historically low surface water allocations in the Murray Valley, many irrigators, and particularly dairy producers, are searching for alternative water sources to better secure their production. One of these sources is pumping from one of the three deep groundwater aquifers that lie beneath the Riverina region.

There are many factors individual dairy businesses need to consider when contemplating using deep groundwater. What impact is it going to have on your farm business, what are the capital and running costs, what quality and quantity of water can you expect? The answers to these questions (and the many others to be considered) are going to be different and varied for each farm business.

The first step is to get some financial and economic analysis done to determine how it fits with your farm business. Get the help of financial experts to help you through this process. Deep bores are not cheap, and depending upon bore depth, static head and chosen power source, the establishment cost can exceed \$150,000. Operating costs vary depending upon the power source and pumping lift, but are about \$55 per ML for diesel pumps, and about \$27 per ML using electricity. Current water costs are up to \$100 per ML for temporary water and \$1100 per ML for permanent water. Future energy and water costs need to be considered. One ML of water onto pastures should produce at least 1 tonne of dry matter or 1000 litres of milk, so you can



calculate the income from the deep bore based upon your current and project milk prices.

Second, talk to your local Department of Water and Energy (DWE) groundwater representatives – both licensing and hydrogeology. They will be able to inform you of what licensing requirements need to be fulfilled, and be able to give you an indication of water yields, quality and possible allocations. Then it's time to talk to your driller and other contractors to obtain their opinion of the likely outcomes, risks and costs. Licensed drillers are a valuable source of information. So too are other landholders who have experience with groundwater usage – they will quickly tell you what the issues are and point out the pros and cons.

Find out as much as you can about what quality water you are likely to obtain and what management strategies you may need to implement to counteract use of sub-optimal quality water. Water ain't necessarily water!!!

Get a feel for potential future regulatory issues (such as

limitations to allocations and the like) by talking to industry people and fully appraise yourself about the future energy costs to operate bores, as they can be expensive (and will probably become more so).

The most important piece of advice is to do your homework! Do the so-called 'due diligence'. The financial analysis is imperative, talk with others who use groundwater so you understand the costs and the management issues and importantly understand the risks – both from a farm business and water resource perspective.

For more information contact your local NSW DPI Irrigation Officer, or representatives from the NSW DWE.

For more information contact your local NSW DPI Irrigation Officer, or representatives from the NSW Dept Water and Energy.

Pestivirus Linked to Fertility Problems

Vicki Smart, Berry

Have you considered getting your herd tested for Bovine Pestivirus? Many NSW farmers have recently tested their herds, and found background infections. These results raise some concerns about how Pestivirus affects herd fertility and other risks associated with exposure to the disease.

Pestivirus is also known as Bovine Viral Diarrhoea Virus (BVDV) and is not a new disease; in fact 90% of Australian herds have been exposed to BVDV at some stage and about 70% have evidence of a recent infection when tested.

Farmers who are experiencing difficulties with herd fertility should consider testing for Pestivirus to know the herd level of infection, and then discuss with their vet what is the likely effect on reproductive performance.

Adopting a vaccination program is the best option for control and it is advised to vaccinate prior to an AI or embryo program to minimise the risk of susceptible breeding stock contracting the disease. It has been found that herds using best management practises for Pestivirus control and vaccinating prior to mating periods are receiving a significant boost in conception rates.

Impacts of Pestivirus on animal performance

Growing and Mature Cattle	Breeding Cows	Persistently Infected (PI) cattle
<ul style="list-style-type: none"> ▪ Suppresses immune system ▪ Increased chance of infection with other viruses and bacteria ▪ Respiratory disease in intensively managed cattle – especially feedlots 	<ul style="list-style-type: none"> ▪ Reduced conception rates ▪ Embryonic and foetal deaths- reduced pregnancy rates ▪ Abortion ▪ Birth defects ▪ Stillbirths, weak calves which become poor performers ▪ Persistently infected (PI) progeny 	<ul style="list-style-type: none"> ▪ Outcome of infection at 30-90 days of gestation ▪ Surviving calves small and grow poorly ▪ Weaner ill-thrift and death ▪ Carry the virus for life ▪ Shed large amounts of virus continuously ▪ Build a reservoir of virus in the environment

The virus is highly contagious and spreads following close contact between a carrier (PI) and a susceptible animal through urine, faeces, milk, semen, discharges (nasal, eye, uterine) and droplets in the air. Disease spread can occur as a result of poor sanitation at vaccination, single glove use during pregnancy testing and artificial insemination and use of infected equipment like tattoo and tagging guns.

New infections can occur when an infected animal is brought onto your farm, or when cattle are on agistment or mixing with other cattle, such as at fence lines, or at shows and display days. The virus can survive in cool moist conditions for several weeks but is inactivated by UV light and most concentrations of disinfectants.

What to do - options for control

The first step in to work with your vet to determine your herd status, either active or not active. Consider testing some animals next time you do a check test for BJD. This will help to quantify the risk of introduction or spread of the disease, and the cost:benefit of vaccinating. Then work with your vet to develop a screening and control program.

The prevalence of Pestivirus highlights the need for biosecurity plan for introduction and movement of animals, animal husbandry practices and managing farm boundaries with neighbours. For more information see the Primefact on the NSW DPI website:

<http://www.dpi.nsw.gov.au/agriculture/livestock/health/specific/cattle/bovine-pestivirus-infection>

Post Flood Mastitis Outbreaks



The aftermath of flooding at a Kempsey dairy farm in May.

With most of the Far and North Coast of NSW under water in the past few months it is timely to remind ourselves of the ways to reduce the problems associated with mastitis caused by wet weather and flooding.

There are two broad elements to the risk of an individual quarter developing a mastitis infection.

The first element of risk is simply a numbers game – the more bacteria near the teat end, the greater the chance of an infection.

The second part of the risk is the ability of the teat to resist bacteria entering and causing an infection.

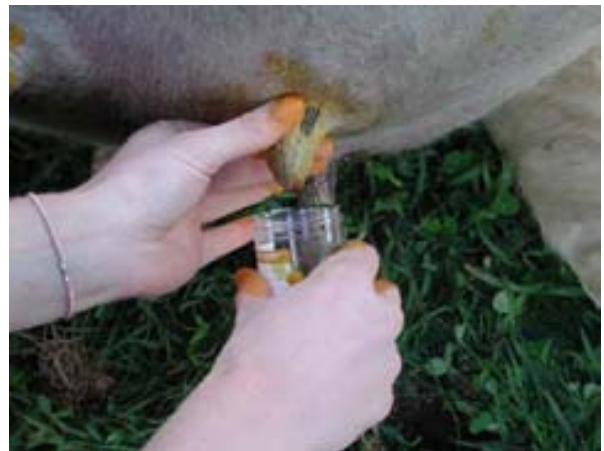
Obviously, after wet weather, there is often an increased amount of water, mud and faecal material contaminating teats. Not only will this dramatically increase the number of environmental bacteria on the teat skin, but it also has an effect on the number of other mastitis-causing bacteria on the teat skin and near the teat end.

Healthy teat skin is coated with a protective mantle of fatty acids that slows the growth of bacterial pathogens. In cold, wet and windy conditions, this coating and its protective effect can be quickly lost.

Furthermore the skin of machine-milked teats can become scaly, irritated or chapped, and coupled with the loss of the protective surface coating this allows growth of bacteria such as *Staph aureus*.

Cold, wet or muddy conditions also induce hardening or thickening of teat skin. Mud, as it dries, draws moisture from the skin with a consequent loss of elasticity of the teat skin. Under these conditions, small skin cracks, barely visible to the naked eye, begin to develop, and can quickly become bigger cracks when the teat skin is stretched and squeezed repeatedly by machine milking. Even small skin cracks further enhance the growth and survival of mastitis-causing bacteria.

So weather conditions can dramatically affect both risk factors for infection (the number of bacteria on the teat skin, and also the natural defences of the teat), thus increasing the chance of a mastitis infection. And infection can be due to either environmental or common cow-associated mastitis bacteria.



Sampling infected cows can help identify the bacteria causing mastitis.

The following are strategies that we can put in place to reduce those risks.

- Minimise mud around the dairy, especially on exit as this is a period where cows are particularly susceptible to new infections
- Ensure effective teat dipping or spraying
- Use emollients to aid teat condition
- Consider teat sealants at dry off



The Grasslands Conference will be held in Taree on the 5th and 6th August 2009.

This year's theme "*The Grass is Greener*" will explore the advantages of coastal dairy and beef production pastures. The impacts and implication of climate change on pasture systems as well as on livestock and personal health will be discussed.

The conference will also include exciting tours to some of the largest dairy farms on the coast to explore their production systems.

International and local speakers, including local dairy and beef producers, will deliver presentations at the conference.

Key note speaker for the conference is Dr Jim Gibbs from Lincoln University in New Zealand. Jim is a senior researcher in livestock health and production from the New Zealand South Island.

He will discuss the impact of high pasture intake on dairy cow health especially the role of rumen pH and function and its implications for lameness.

Peter Notman from Walcha Dairy will compare large scale dairying on northern NSW to the Gippsland area

and discuss developing pastures on new frontiers.

At the conference dinner Heath Francis, gold medal winning Para-Olympian, will share his experiences about farm safety.

In conjunction with the conference there is a Hay and Silage Feed Quality competition which is open to any commercial producer. [see earlier article for details.]

A large number of poster and trade exhibits will be available with the capacity for interactive experiences and displays.

Grasslands Conference brochure with registration costs and earlybird registration forms are available from all NSW DPI Offices and will be delivered through your milk company.

Further information contact

* **NSW DPI, Ray Johnston or Tracey Jacobs (02) 6552 7299**

* **Michelle Blakeney on (02) 6552 1886**

NEW GENERATION DAIRY FARMERS FORUM

20, 21, 22 OCTOBER 2009

OPAL COVE RESORT, COFFS HARBOUR

This years Forum will explore:

⊛ *Climate Change - Managing the Risk of Climate Variability*

Key Speaker: **Dr Richard Eckard**. An Associate Professor at The University of Melbourne, is also leading a \$46 million research project into Greenhouse In Agriculture.

⊛ *The Design and Profitable use of a Feed Pad in a Pasture Based System*

Key Speaker: **Dr Bruce Hamilton**. One of Australia's foremost Dairy Nutritionists

⊛ *People: The Key to Sustaining the Dairy Industry*

Key Speaker: **Ms Karen Baum** is the program leader for DairySage Mentoring and the program co-ordinator for a Dairy Australia initiative, The People in Dairy.

⊛ *The Muck & Mystery of Breeding and Reproduction in your Dairy Herd*

Genomics, Fertility Focus Reporting, Sexed Semen, Submission Rates

Other Key Speakers to be finalized.

There will be a number of farmer presentations in each session to give a farm perspective on the different topics.

PLATINUM SPONSORS:



GOLD SPONSORS:



Book your relief milkers and plan to be there!!!!!!

Want to know more: Contact Traci Gordon, 335B Crossmaglen Road, Crossmaglen, 2441.
Mobile: 0406 781 553 Email: tracig007@bigpond.com

COMING EVENTS

TBA	Topfodder silage courses. Courses planned for Kempsey, Taree & Berry. Register your interest now. Cost \$375/person will be reimbursed by FarmReady to eligible farmers.
5-6 August	NSW Grasslands Society Conference at Taree. Contact: Ray Johnston 02- 6552 7299
20, 21 & 22 October	New Generation Dairy Farmers Forum, Opal Cove Resort, Coffs Harbour. Contact Traci Gordon, Phone: 0406 781 553 02 - 6653 5614 Email: tracig007@bigpond.com

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (September 2007). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.