

Dairy
Australia
Your Levy
at Work



In Brief

- *Inaugural winners of Tasmanian dairy sustainability award*
- *DemoDAIRY open day hears of soil project success*
- *Reef Rescue project continues for Queensland dairy farms*
- *Moo Poo Guru Training in Tasmania*
- *Useful websites*
- *Fert\$mart in the Gippsland region*
- *Composting on farm in Western Australia*
- **Gippsland's Giant Earthworm**
- *Big savings on farm following soil program*
- *Recent Funding Announcements*

About the newsletter

This newsletter is distributed bimonthly, and circulated electronically via email. We aim to include exciting and inspiring works that are being done nationally in the dairy on-farm NRM area. A copy of the newsletter can also be found on the Dairying for Tomorrow website <http://www.dairyingfortomorrow.com.au>

We hope you enjoy it, and feel free to circulate to any interested parties. Future contributions are most welcome and can be emailed to us - contact details at end of the newsletter.

Award for dairy sustainability in Tasmania

Congratulations to inaugural winners of the Tasmanian Dairy Sustainability Award - Cheryl McCartie and Theo Van Brecht. Theo and Cheryl milk 450 cows on their dairy farm in Ringarooma. Theo and Cheryl won this award for demonstrating sustained improvement in their farm business and dedication to natural resource management (NRM).

They have been passionate and enthusiastic about participating in a broad range of NRM activities and projects including:

- Upgrading their effluent system

- Fencing off Ringarooma River and undertaking major revegetation/rehabilitation of all the gullies and wet areas on their farm
- Extensive soil testing and nutrient budgeting to improve fertiliser use efficiency
- Soil moisture monitoring and irrigation scheduling to improve water use efficiency
- Property management planning - to refine their plans about developing the farm for production and sustainability outcomes
- Farm trials with effluent slurry application and alternative fertilisers



ABOVE: Worthy winners, Theo Van Brecht and Cheryl McCartie

Their commitment to the Tasmanian dairy industry is inspiring. They've graciously hosted numerous field days on their farm and their contagious sense of humour makes these days fun for all involved. Cheryl has given thousands of hours over many years to participate in NRM reference groups and discussion groups. She is now Deputy Chair of the DairyTas Board and is passionate about ensuring NRM issues are integral to Board decisions across all facets of Tasmanian dairying.

The Sustainability Award for 2013 was sponsored by GHD.

DemoDAIRY open day hears of soil project success

A program to address soil acidification problems on Western Victorian dairy farms has led to significant practice change and healthier, more sustainable soils.

The Reducing Soil Acidification through Nutrient Management project has had a significant impact in raising awareness of the value of taking more soil tests annually and the benefits of taking a more prescriptive approach to use of fertiliser.

A better understanding of key soil nutrients has helped many farmers involved to cut their fertiliser costs by 20-30 % after realising that levels of important nutrient on some parts of the farm were well in excess of dairy industry best practice recommendations.

Over one hundred and fifty dairy farmers in the Glenelg Hopkins CMA region and a further 34 in the Corangamite CMA region have completed the training and are now making more informed decisions on nutrient inputs and are enjoying the benefits.

A 'Where From and Where To' open day at DemoDAIRY in May heard an update on the project where WestVic Dairy project manager Jeff Lawes said many farmers had reported savings of \$20,000-\$30,000 and some had cut fertiliser costs by \$50,000 or more without reducing production.

"I have in writing from one farmer that he has saved more than \$150,000 over the last three years from what he learned in the program," Mr Lawes said. "The farm in question had levels of phosphorus, potassium and sulphur in considerable excess over most of the farm. The farmer had not previously felt comfortable in changing practices of a blanket application of maintenance fertiliser across farm annually."



ABOVE: Richard Murphy, Glenelg Hopkins CMA, Louise Sheba DA NRM Coordinator, Mike Waite Dairy farmer

With a better understanding of soil nutrient requirements and soil test interpretation, many farmers taking part in the program over the past four years have changed their soil test regime.

Mr Lawes said about 20% of farmers signing up for the program had not carried out soil tests in the previous 3-4 years, including some who had not soil tested for a decade.

About half the farmers surveyed said they normally had 2-4 tests taken every year and 25 per cent said they had undertaken about six or more soil tests across the farm annually.

“One of the positive outcomes of the project has been that pretty much every farmer with a poor soil test history has committed to doing many more soil tests each year, which will provide a more accurate snapshot of their nutrient levels and help them to improve their soil management,” Mr Lawes said.

“Of the farmers surveyed, a significant proportion of the group had previously undertaken a blanket application across the farm of one or two fertiliser blends, but with their increased knowledge of what they need, most have become more prescriptive and only use certain fertiliser when and where required,” Mr Lawes said.

The program has also helped to fine tune farm trigger points for where lime may be needed on parts of the farm. “Focus on soil acidity has been a high priority. Farmers have learned more about pH and acidifying processes on dairy farms and how aluminium cation saturation levels assist with the decision on whether lime is required. Many have had some fantastic results after applying lime to identified areas of the farm where soil acidity was restricting pasture growth.” he said.

The program has also helped farmers to produce their own nutrient maps of the farm, identify nutrient shift within their paddocks and to adjust their nutrient application rates accordingly.

WestVic Dairy is planning to develop several fact sheets highlighting the key messages and the outcomes achieved through the program.

The project has been funded by the Australian Government’s Caring for our Country and managed by WestVic Dairy in partnership with Glenelg Hopkins CMA and Corangamite CMA.

Mr Lawes said the CMAs were seeking continued funding from Caring for our Country for a new round of the programs.

“We have a waiting list of farmers who want to participate in future programs,” he said. “They have heard about the success of the program and how much farmers have benefited from it and they want to be involved.”

See the story about participating farmer Andrew Wortley later in this newsletter.

Reef Rescue Project continues for QLD dairy farmers

In April the Federal government announced that it was to continue funding the successful Reef Rescue program in Queensland. The program sees industry work together to improve water quality entering the Great Barrier Reef catchment. Over the past 5 years, farmers have benefited for the program by receiving education, water quality grants (WQGs) and Soil & Nutrient Management plans (SNMPs).



ABOVE: Geoff Downie (2nd from right) with other industry winners & Senator Jan McLucas (3rd from left) at the Reef Rescue Awards

The industry has undertaken 94 on farm projects (WQGs) at a cost of \$2 million, with Australian Government funding of \$920,000. Projects were designed to improve water quality living the farm and reduce the risk of sediment and nutrients entering the catchment.

About 200 Dairy SAT assessments were completed over the five years of the program, which lead to the development of 62 nutrient management plans (SNMPs) for farmers. The plans enable farmers to meet the goals for their farm while also receiving recommendations to improve sustainability for their soil and nutrient management through increased soil health and nutrient use efficiency.

On May 9th the Inaugural Reef Rescue Awards took place in Cairns and highlighted the achievements of the program. Awards were given to all industries to farmers and landholders who had greatly participated throughout the program. The Dairy Award went to Monto farmer Geoff Downie, who farms 250ha of flats on the Three Moon Creek catchment which feeds the Burnett River. Mr Downie attended soil & nutrient workshops and also completed 2 WQG projects, which saw him invest over \$120,000 into on ground works.

The two projects Geoff Downie completed under the Water Quality Grants for Reef Rescue can be viewed by following the link.

<http://www.youtube.com/watch?v=6GaLJNZmEMO>

With the continuation of the Reef Rescue program for another 5 years, many more farmers in Queensland can become involved and help to continue improving water quality entering one of the 7 natural wonders of the world.

What does it take to become a Moo Poo Guru?

Two of Australia's leading experts on effluent were in Tasmania in March to run the NCDEA Accredited Effluent Designers Course. Scott McDonald (DPI Victoria) and Scott Birchall (AgSystems) led 11 keen participants in the Effluent Design Course. The course was a mix of theory and practical with plenty of farm visits to see systems in operation. Topics covered included:

- Regulations, compliance and legal responsibilities
- How to do a water audit, collect farm data and estimate pond volumes
- Calculations to size solids separation systems and storage requirements

Participants are currently completing their assessment criteria - two effluent management plans for actual farms and an online exam. While not all of the course participants will go on to be Accredited Designers and added to the Dairy Australia Effluent Systems Designers list, there is no doubt that running the course in Tasmania has significantly raised the standard of knowledge about good effluent system design and management.

Below are some pictures of course highlights:



ABOVE: Luckily the afternoon spent learning how to do water audits was one of the hottest days in Tasmania this year.



ABOVE: Sandra Bales from Serve-Ag collecting farm details.

The last week of the design course was the week of Sandra's wedding – she came to the last day of farm visits with the most glamorous hair and nails ever seen in a dairy shed. She missed the last hour of the course

to attend her wedding rehearsal – we all thought that was very impressive commitment.



ABOVE: By the end of the first week of formulas and calculations, there was only one place to go....you can't hide in Smithton!



ABOVE: Scott Birchall was a hard task master when it came to collecting farm data – the onus was on participants to ask questions from the farmer and collect the myriad pieces of information needed to do a thorough and accurate effluent management plan.



ABOVE: Scott McDonald from DEPI Victoria

Scott McDonald kept his dark glasses on, smiled and said “good luck” when we visited some challenging

farm design situations. By the end of the course, participants fully appreciated the excellent problem solving skills they'll need to design effluent systems for challenging sites. Permeable soils (not suitable for pond construction), high water tables and lots of rain make for some very challenging effluent design scenarios in Tasmania.

Fert\$mart in Gippsland

The third of three pilot groups trialling the Fert\$mart nutrient planning process has been completed in the Gippsland region of Victoria.

The national Fert\$mart project is a whole farm planning exercise. It provides opportunities for farmers to gain a baseline for nutrient management, plan ahead in response to soil test results and the goals for different areas of the farm.



ABOVE: Discussing fertiliser needs, Fert\$mart Gippsland

Ten farm businesses worked with consultant John Gallienne to have soil tests taken from different land management areas on the farm – differing soil types, long term dairy land, newly acquired areas, effluent receival zones etc.

One farmer commented “*The soil tests have provided a benchmark to compare my soil tests to in the future*”. The farmers came together in a workshop setting to discuss soil test results and interpret what the results meant for their own farms depending on soil types. Following this, smaller discussions were held on farm to delve more deeply into understanding maintenance & capital soil needs and the impact of effluent use on soils and the fertiliser needs of individual businesses.

Those involved gained a better understanding of their own soils needs with one participant commenting;

"I will be much more targeted with what I am doing. I assumed my soil type was hungry so I just kept putting it on. I have sandy soils and assumed whatever I was putting on was leaching through, I learnt a lot about my soil type and how it responds. It will save us a lot of money knowing what we have from the soil testing. I will use lime to reduce acidity and keep soil testing."

The Fert\$mart project is funded by the Commonwealth Government's Caring for Our Country Program and Dairy Australia.

Useful Websites

Dairy Australia's Tasmanian Natural Resource Coordinator, Rachel Brown has done a great job pulling lots of resources into the one place. Check out this page;

<http://www.dairytas.com.au/nrm/nutrients/>

The Future Ready Dairy Systems site is an excellent resource for regional case studies about farm adaptation to climate variability

<http://frds.dairyaustralia.com.au/>

Watch this space for the soon to be launched Fert\$mart link.

Future Newsletters will feature useful web links.

Please send suggestions by email to

ghayman@dcsi.net.au

On Farm Composting in WA

Western Dairy (WD) and South West Catchments Council (SWCC) have partnered to showcase an on-farm dairy composting demonstration project. The project will highlight the value of using farm resources to make compost.

Dairy farmers have the option of adding value to the effluent produced on farm through making compost. With SWCC funding and WD in-kind support, 2 farmers in the Geocatch hotspot region were trained in making compost and created a small compost pile using dairy effluent and carbon sources either already on the farm or from an external source. The piles

were monitored and sampled throughout to keep the process on track and 12 weeks after their formation, the piles have reached maturity.



ABOVE:

A Carbon Source - Old Straw

The project managed by Matt Evans had willing farmers Steve Scott and Victor Rodwell from Boyanup committed to turning their windrows and adding moisture as often as needed as well as taking regular temperature readings. WD's industry development specialist Rob La Grange visited regularly to monitor and sample the windrows and to support the farmers in managing the compost as it matured.



ABOVE: *Mixing the Compost Ingredients*

A field day in June will present the findings to the dairy farming community. The farmers, Steve Scott and Victor Rodwell from Boyanup will discuss their experiences and opinions regarding making compost and the process, nutrient value and benefit of compost will be presented by local and interstate experts. It is hoped that more dairy farmers will see compost making as a useful practice in managing their dairy effluent as a nutrient source and soil modifier for more profitable returns.

Gippsland's Giant Earthworm



ABOVE: A Gippsland Giant Earthworm, one of the world's largest known worms

One of the largest known earthworms in the world, the Giant Gippsland Earthworm (GGE) or *Megascolides australis*, is found on dairy farms within a 40,000 hectare area of the Gippsland region.

The amazing creature is under threat due to its limited geographic range, highly specific habitat requirements and life-history characteristics.

Dairy farms are recognised as important areas for habitat of the worm. GippsDairy is currently working with The GGE Recovery Team, the Triholm Landcare Group and the South Gippsland Landcare Network to protect the future of this species. A recent Community Landcare Grant will get the ball rolling on some extension & demonstration efforts.

Big savings on farm following soil program

Macarthur dairy farmer Andrew Wortley estimates he has saved at least \$50,000 over the past three years by changing his nutrient management practices.

"And that's probably a pretty conservative figure," Mr Wortley added. "We've probably wiped \$30,000 off our costs this year and I think we'll most likely extend the new regime even further next year."

Mr Wortley has been part of the Reducing Soil Acidification through Nutrient Management project which has prompted him to undertake more soil tests, eliminate blanket fertiliser applications and

become more prescriptive in his use of fertiliser.

"We've made dramatic cutbacks on fertiliser on paddocks showing higher levels of phosphorus, potassium and sulphur and use a lot more effluent and compost and measure where it is best to put it out," he said. "Time will tell if we have made the right decision but at this stage it's looking good and we're very confident."

Andrew and his wife Anna have over the past five years built up the dairy herd to 600 on their 580ha property at Macarthur.



ABOVE: Macarthur dairy farmer Andrew Wortley

The Wortleys are one of 184 dairy farmers to take part in the Reducing Soil Acidification through Nutrient Management project, which is funded by the Australian Government's Caring for our Country and managed by WestVic Dairy in partnership with Glenelg Hopkins CMA and Corangamite CMA. Since completing the training and adopting a precision approach to nutrient monitoring and management, the Wortley farm has recorded significant improvements in soil test results for phosphorous and potassium levels.

"It has been a fantastic program, one of the best I've ever been involved in," he said. Mr Wortley said soil tests led to several improvements in the farm's nutrient management strategies, resulting in significant cost savings.

"For example, we now put out nutrients from our effluent ponds where they are needed, in particular areas where soil tests show marginal or deficient levels of our key nutrient. Recent soil tests where we

have done multiple tests over monitor paddocks show a significant shift of nutrient from the back of paddocks towards the front so we are now focusing effluent spreading on to the backs of paddocks or on those recently cut for silage."

Recent Funding Announcements

A number of dairy related projects were funded in the recent round of Community Landcare Grants. These grants were made available through the Sustainable Agriculture stream of the Australian Government's Caring for our Country initiative. Some successful projects were;

South Australia

- DairySA Regional Development Program Incorporated, Fertiliser and pasture trials to compliment Fert\$mart soil testing \$44,000
- DairySA Regional Development Program Incorporated, Mentoring new landholders for a sustainable future in the LMRIA. \$37,730

Queensland

- Wondai/Murgon Dairying Better 'n Better Land Recovery Project 2013 \$ 55,000
- Monto Dairying Better 'n Better Land Recovery Project 2013 \$ 55,000

Gippsland, Victoria

- Triholm Landcare Group Inc. (sponsored by South Gippsland Landcare Network) Building capability to manage Giant Gippsland Earthworm (GGE) habitat on farms \$ 55,000

The Minister for Agriculture, Fisheries and Forestry, Senator the Hon. Joe Ludwig, announced the outcomes of the first assessment phase of the Carbon Farming Futures Extension and Outreach Program on 10 April 2013. The following dairy projects were funded;

Profitable Dairying in a Carbon Constrained Future—Dairy Australia Limited **This project is to create a 'carbon literate' dairy community capable of integrating emissions management and the CFI into the farm business.**

A new approach to formalising nutrient management planning as a decision making tool for dairy farmers—Fonterra Australia Pty Ltd **This project is to address the knowledge and application gap in the dairy sector around nutrient management planning to reduce nitrous oxide emissions and increase whole farm productivity.**

Bega Cheese supporting gas-reduced dairies – encouraging the adoption of improved emission management practices through direct engagement—Bega Cheese Limited. **Through direct engagement, this project is to provide information to Bega Cheese dairy farmers and key service providers on emissions reduction activities and CFI participation options.**

MG more from less—helping dairy farmers secure a sustainable future—Murray Goulburn Co-operative Co. Ltd **This project is to engage the dairy industry on greenhouse gas management and farm efficiency using newly developed tools and training field staff.**

The Carbon Farming Futures Filling the Research Gap Program has funded Dairy Australia to lead some research into *Dairy intensification and Climate Change adaptation*. Research partners will include University of Melbourne and the Tasmanian Institute of Agriculture.



Dairying for Tomorrow

Cathy Phelps cphelps@dairyaustralia.com.au

Newsletter editor

Gillian Hayman ghayman@dcsi.net.au

Level 5 IBM Tower
60 City Road
Southbank, Victoria 3006
Ph: +61 3 9694 3777
Fax: +61 3 9694 3733
www.dairyaustralia.com.au