

Dairy
Australia
Your Levy
at Work



Fertiliser Focus - Fleurieu Farms SA

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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.

The Mt Jagged dairy discussion group in SA have recently completed a soil sampling and nutrient budgeting project. The project aimed to reduce the risk of fertiliser loss from the farms while expanding the information available about improved fertiliser decisions. It was funded by Landcare Australia through DairySA.

Using DairySAT, farmers reviewed environmental management practices on their farms. Led by local agronomist Greg Mitchell (FP-AG), the group used soil tests to build farm fertility maps. The new maps accurately identified nutrients in excess or deficiency across the farms.

Participant, Rod Walker milks 400 cows on 270ha. The property is on undulating country where the soil varies from predominantly sandy loam over clay to some sand and ironstone country.

Rod found the soil testing component of the project invaluable. "We wish we had have been doing this ourselves for a long time". Rob noted that they hadn't been doing enough soil testing. He was pleased that now they can have an ongoing soil testing and targeted fertiliser program. "This will help us to save some money and grow more grass".

"The fertiliser program will aim to meet deficiencies rather than applying a maintenance rate. We also identified high potassium areas" Rod commented.

The project confirmed the need to continue with the 5 year liming program which has proved successful in addressing soil acidity. "We will reduce phosphorus inputs by applying a more targeted approach to fertiliser applications. This will save money, but is not expected to impact pasture production, as the soil testing identified that fertility

in the targeted paddocks is adequate to high” Rod said.

The production and financial opportunities of targeted fertiliser application are obvious to Rod. “We will still be meeting the fertiliser needs but are able to reduce costs by not applying fertiliser where it isn’t required. We are able to target the minerals that could be reducing productivity due to deficiencies” he said.

“Without this project and the opportunity to do test soils and see the benefits to our farm we would never have considered that we needed to be doing more. The change will be one we will maintain in the long term, it has proven its value”

Another member of the discussion group, Perrin Hicks is the farm manager for “Goonamurra”, near Mt Compass on the Fleurieu Peninsula. The farm calves 480 cows seasonally on approximately 375ha of light sands to low lying swampy clays.

Perrin has been a member of farmer tours, including a tour to New Zealand, where farm nutrient budgeting was a focus. He attended a tour to Queensland where farmers used the farm nutrient loss index (FNLI) to demonstrate best management practices as part of their contribution to the Reef Plan.

Perrin believes that all farmers could be better at nutrient budgeting and was keen to ensure the Mt Jagged discussion group took the opportunity to develop detailed farm nutrient budgets through the project.

“This soil test information means that with guidance from our agronomists we won’t make (fertiliser budget) mistakes with the information we now have” said Perrin.

The soil tests revealed a few surprises. Perrin explained “all paddocks tested are strongly acidic and we need to begin a liming program”.

Soil tests revealed some low lying flats thought to be nutrient deficient, were adequately fertile but slightly saline. Perrin said “rather than fertilise we will upgrade the drainage and reseed with salt tolerant species”.

The nutrient mapping showed potassium and sulphur deficiencies are more widespread than phosphorus. Perrin commented “we will redirect fertiliser use to potassium and sulphur and only maintenance phosphorus.”



ABOVE: Members of the Mt Jagged dairy discussion group discussing fertiliser options with Greg Mitchell from FP-AG

Perrin explained that due to fertiliser savings more funds will be available to improve the poorer paddocks resulting in whole farm improvement.

Perrin commented that value of using the data in future years saying “now we have taken these soil tests we can benchmark our improvements”.

“Farmers are always trying to improve land and soil. These projects help us look at the issues and take steps to sort them out. The soil and land are our assets we must care for our land and water. I would recommend to anyone that soil testing is worthwhile to improve the land.”

For further information please contact Greg Mitchell 0417 814 037 or Monique White DFT coordinator 0400 972 206.

Down The Track – Dairy 2020

A New Industry Strategy is being developed within the Western Victorian & South East South Australian Dairy Industry.

The Strategy considers 6 major pillars – Human Resources, Natural Resources, Capital, Markets, Production and Infrastructure.

Two days of workshops were held to develop priority actions which were then further defined by WestVic Dairy Project Team, the Project Management Committee and the Project Steering Committee. Ten Priority Actions have been identified for further development during 2010/11.

The Natural Resource Management workshop had 11 participants of which 3 were local dairy farmers. One of the main actions from the workshop was the development of a NRM Farmer Advisory Group to act as a ‘trusted’ link between NRM government agencies and farmers. This action is being followed up with great interest and support from NRM organisations across the region.



ABOVE: Ralph Leutton briefing a group of stakeholders about the strategy prior to branching out for workshop activities.

Effluent to Energy

In June 2009 a project commenced at DemoDAIRY, Western Victoria, to ascertain if methane emissions from first effluent pond (sludge lagoon) are sufficient to generate energy. The project is funded from the Australian Methane to Markets in Agriculture Program, which is managed by the Rural Industries Research and Development Corporation.



ABOVE: the cover on the DemoDAIRY sludge pond January 2010

It is hoped that the project will determine the methane’s energy value, its potential for beneficial uses such as electricity generation, heating or refrigeration and it will test if these objectives can be achieved at an affordable price.

DemoDAIRY’s first effluent (sludge) pond has been covered with heavy plastic in order to capture the biogas emissions and determine methane concentration and volume. The biogas is continually flared as it is not being harvested for use at this stage of the monitoring process.

Firstly, a floating cover was trialled. It was pinned only on the western edge of the effluent pond and consisted of weighted pipes to hold down the cover that ballooned up to contain the biogas produced, and a skirt that dropped 500mm down beneath the surface. The cover was fitted in September 2009 and it was found that the design was not suitable for the wet and windy conditions of south western Victoria. To successfully capture the biogas another design was needed.

In October 2009, a second pond cover design was constructed over the pond. This cover is made from 2mm thick HDPE (high density polyethylene) and is dug into the earth around all sides of the pond. The cover captures the biogas and directs it to the flare. The flare is a CF-5 solar spark vent flare constructed for automatic and/or continuous

ignition. Between the gas extraction point on the cover and the flare, the instrumentation to sample the biogas is housed in a control panel/explosion proof cabinet. The instrumentation takes a sample of biogas passing through to the flare every 10 seconds and analyses the percentage of methane compared to the other biogas produced. At this stage the methane readings are fluctuating between 40% and 45%.

The project shall provide a great case study for other similar sized dairy farms that might be considering undertaking this type of biogas harvesting. DemoDAIRY is trialing the cover to 'iron' out problems prior to the technology being offered to local farmers.

Further information contact Louise Sheba 0409 505686.

DairySAT Improvements

Improvements to the online version of DairySAT are coming soon. A new feature to be added is the ability to save your reports onto your computer in a PDF format. The online tool can be found at www.dairyingfortomorrow.com under the tools menu.

Healthy Farms, Healthy Corner Inlet

Corner Inlet, a RAMSAR listed wetland in South Gippsland is a spectacular place. Local dairy farm managers are aware that their management practices can impact on the wider catchment and the inlet itself.

Peter Truscott is pleased to see the birdlife increasing as he plants more trees beside the creek which runs through his Yanakie dairy farm and into Corner Inlet.

Lynne Truscott says the mangroves in the Inlet are definitely looking healthier.

The Yanakie couple, who milk 300 cows on 215 hectares have long tried to do their best by the environment, very aware that farming practices on the landholdings that surround it play no small part in the health of Corner Inlet.



Above: The Truscott's on their Yanakie farm beside Golden Creek, where they have done some replanting.

They are delighted to have their longstanding environmental practices recognised by the Department of Primary Industries (DPI) and the West Gippsland Catchment Management Authority (WGCMA) and assistance provided so that they can continue to follow best practice principles in the management of their farm and its environment.

The Truscott's are part of the Corner Inlet Connections Project. The aim of this project is to reduce the flow of nutrients and sediments into Corner Inlet and so improve the health of the inlet, particularly its seagrass meadows, so sensitive to the quantities of nutrients in the water.

In recent months, the DPI and WGCMA have been working specifically with landholders such as the Truscott's, focusing on fencing of creeks, and the development of effluent, nutrient and fertiliser management plans.

The Truscott's frequently refer to DairySAT which they have found to be a useful guide for best practice in everything from effluent management to native vegetation and waterways, but are pleased to

note that many of its recommendations they have adopted already.

In further measures to improve the health of local streams and Corner Inlet, West Gippsland Catchment Management Authority has been working with farmers on revegetating and fencing off riparian zones.

Up in the Strzelecki Ranges, at the headwaters of the Jack and Albert Rivers, members of the Yarram Yarram Landcare Network have been working on the Corner Inlet Connections Project, too. The measures they take to protect their waterways will have an effect much further down where those creeks meet the sea. Landholders have been busy spraying blackberries, fencing off remnant vegetation and planting native trees.

At Binginwarri, Trent and Belinda Crawford are focused on the removal of blackberries within the head waters of The Albert River. "Belinda grew up on this farm and remembers swimming in the creek as a child" said Trent. "The farm was leased out for 20 years and unfortunately the weeds had a chance to get hold, before we sprayed we could not even get to the water because of the blackberries. It had become a pretty ugly creek" said Trent. "This project is a great opportunity to remove the weeds and give us a chance to manage things from here" he added.



Above: Trent Crawford inspects the results of some of the recent work to remove blackberries from the headwaters of the Albert River catchment. Long term benefits of this work will result in less sediment run off into Corner Inlet.

The adjoining dairy farmers have also been involved in the project which is funded through WGCMA from funds obtained from the Federal Government's Caring for Our Country program.

Paul Martin, Coordinator of The Yarram Yarram Landcare Network said "We have three Landcare groups working together here for some positive outcomes for the Corner Inlet & Nooramunga catchment. It has been a great effort and will result in some long lasting outcomes within the catchment."

As Trent & Belinda look forward to their second season on the 150 acre farm, their future plans include fencing out Billy Creek, removing the willows and re-establishing native vegetation along its banks. There are plans to link the two creek plantings with a shelter belt of trees & shrubs allowing wind protection from the westerlies in the winter and shade and shelter for the cows and pastures in the warmer months.

Contributed by Gillian Hayman DfT Coordinator and Wendy Williamson, Foster Mirror newspaper.

Outcomes for Northern NSW

Over the past 3 years, the Northern Rivers Catchment Management Authority (NRCMA) in partnership with the Dairy Industry, has run a 'Dairy NRM Works for Healthy Soils, Rivers and Catchments' project. The project was funded through the Australian Government's Natural Heritage Trust and Caring for our Country Programs. Project objectives included; increasing landholder knowledge and skills in natural resource management; changing landholder's on ground management practices and increasing the capacity of farmers to implement on ground works which would result in improved natural resource management.

The results of a recent survey confirm that these things were achieved, demonstrating a clear increase in the extent of NRM (natural resource

management) knowledge, and a change in the appreciation of the impacts that farming practices have on soil, water and biological resources.

It was found that workshop content was appropriate, with most attendees appreciating the ability to talk to others, and the access to funding that attendance afforded them.

The joint funding of on ground works was a crucial part of the project achieving its objectives. It was very well received by respondents, with 97% stating that the availability of funding influenced their decision to carry out on ground works.

In many instances, the project gave farm managers an opportunity to do works that they had been putting off, because the monetary return of these projects was not as high as other farm projects.

All respondents were happy with the way their on ground projects were performing, both from a farm management viewpoint as well as an NRM viewpoint, thus achieving the projects goal of implementing on ground works resulting in better NRM.

The survey found that most respondents would like to do more NRM works in the future. Some comments from participants included;

"Our new effluent system is fantastic, I only wish we had the knowledge and funds to do it years ago."

"With the incentive of funding support we actually expanded our project significantly. The funding was a great help and a great incentive to extend our project."

Further information contact Jess Jennings 0423 224 750

DfT Coordinators Meet

Dairying for Tomorrow Coordinator's from around Australia met in Melbourne in April. The purpose of the meeting was to discuss recent research findings, consider new projects and share ideas from around the regions. The Coordinators had the opportunity to

meet with senior Dairy Australia staff - Steve Coats (General Manager Farm, Productivity & Delivery), David Henry (Feedbase Manager) & Ian Halliday (CEO).



Above: The Dairying for Tomorrow Team – (L-R) Mark Smith (Tasmania), Jess Jennings (NSW), Gillian Hayman (Gippsland), Cathy Phelps (Dairy Australia NRM Manager), Rick Kowitz (QLD), Louise Sheba (South Western Victoria) & Monique White (SA).



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