

Subtropical Dairy

Annual Report 2003-2004

Malanda



DAIRY AUSTRALIA



Kempsey

Subtropical Dairy Program Ltd

Annual Report 2003-2004



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Whole Farm Management - Vacant

NRM focus at annual forum



Attending the Subtropical Dairy annual forum in Toowoomba were, from left, Allan Dale, Queensland Department of Natural Resources, Bronwyn Fisher, NRM Coordinator and Stephen Siebenhausen, a Pittsworth farmer.



Auswest Seeds sponsored the 2004 annual forum. The company Territory Manager Kerry McKenzie is pictured with Jim Crawler, Kyogle and Philip Chamberlain, Subtropical Dairy Program Manager.



Building belief in a sustainable future

Chairman's Review

Shane Gittins



Weather conditions across our Subtropical Dairy area in the past 12 months have varied, ranging from quite handy rainfall to quite dry conditions. A number of our

irrigation storage systems are still very low with zero irrigation water allocation being released. In our favour we have had access to reasonably priced and adequate feed supplies.

Unfortunately, the dairy industry in this region has continued to contract with farmer moral bottoming to an all time low in the last year. This trend is not only being seen in our region but across Australia.

Taking this on board Dairy Australia working with the Regional Development Programs and Australian Dairy Farmers has released the program Dairy Moving Forward and will follow this with a program Taking Stock. Hopefully with these programs we can have an influence on the dairying community and get some

confidence back with a belief in a sustainable future.

In some cases this is a big task as a number of our farmers are feeling totally snowed under with the challenges currently facing them and those coming at us over the horizon.

Feed availability, water access and price, accessing and understanding climate change data, milk price, labour, mastitis, infertility, compliance, are our current system right, running the business. Is there a future?

At management committee level these are always part of our discussions.

We believe there is a future. So how do we ensure the work we do is relevant to the future, taking into account the changes we will see in farming systems and demographic of the Subtropical Dairy region.

We have to meet the needs of today and ensure the needs of industry in the future will be met. As well as the wide range of projects our team has been working on, other processes we are involved in include the ADF Prioritisation Process, MOU with the QDO, National Dairy Alliance, DA Budget Allocation, relations and interaction with other Regional Boards and Dairy Australia.

Subtropical Dairy has greater exposure nationally than within its own region. Is this a concern? I believe it is because if farmers are not aware of our team there is a possibility that they are not aware of all the tools, programmes and information available to help them run profitable sustainable dairy farm businesses.

Into the future we need to work as a team, creating communication pathways up and down the chain.

Thanks to all those involved in our regional groups, working towards a common goal, of improving dairy farmer profitability. A special thanks to Deputy Chair Laurie Dunne and to Phil Chamberlain for the extra hours they have contributed in the last 12 months due to the time constraints on myself.

A valuable industry resource



Subtropical Dairy's website, Dairyinfo.biz has consolidated its position as an information resource for the dairy industry in the past year.

Dairyinfo has benefited from the strength of an industry partnership between the Queensland Department of Primary Industries and Fisheries and Subtropical Dairy.

The information available within Dairyinfo is greatly enhanced based on this relationship.

This coupled with updating the site on a regular basis, provides dairy farmers with access to an easy-to-use website that provides a number of avenues for information and online tools.

The greatest strength that Dairyinfo.biz provides to the industry is its web based publishing system that underpins the site. Any user with a web enabled computer can update content on the site without the need for specialized software.

Dairyinfo.biz has the capacity to provide information management services to the wider industry and is further developing working partnerships. This year, articles from the Northern Dairy Times were incorporated online once the magazine had been distributed. The Dairyinfo team is again providing hosting and maintenance services for the Australian Dairy Conference website and continues to manage the corporate site of Subtropical Dairy. These sites are essentially an extension to the core business of dairyinfo.biz. Visits to the site have doubled this year with the events database, decision tools and news section being popular.



Many farmers in wait-and-see mode

Program Manager

Philip Chamberlain

In general the industry has moved on from deregulation, and it would seem that most farmers have come to terms with industry change. However dry seasons have restricted many farmers in their ability to focus on developing their business, and a lot have therefore been in a wait-and-see mode for the last year.

As a result, many of the Subregional Teams have not been as active as usual in meeting, developing projects and communicating with the farming community. Some influential and dedicated members have left the industry, whilst others have necessarily focused on maintaining their own businesses.

In spite of this, a number of very innovative and useful Regional Group Projects have been implemented, including a vegetation management information day in the Burnett, determining the effects of heat and Neospora on reproduction in North Queensland, a silage workshop on the Darling Downs, a succession planning workshop on the NSW Far North Coast, a New Generations Forum on the Mid North Coast, the testing of a hand held plant nitrogen meter in Central Queensland and an analysis of by-products in South East Queensland, as well as a number of combined region projects including a buffalo trap trial and an investigation into the usefulness of sugar cane as silage.

Core Subtropical Dairy projects have focused on the continuation of the M5 Mutdapilly Farmlet projects and the collation of information from these trials to deliver useful messages to farmers, the development and implementation of the Milk Business and Dairy Moving Forward project to deliver accurate information on the state of the industry as well as assist farmers in focusing on improving the profitability of their businesses, the continuation of the alternative tick control projects and the piloting of the national In Calf, Cow Time, TopFodder and Milk Protein Projects. An initial pilot was conducted into the provision

of technical advice from the subtropical dairy industry to the developing dairy industries of Southeast Asia, with a visit to Sabah by two farmers, who manned a SDP stand at a business expo and visited farms.

A lot of time and effort has been invested into the coordination of the dairy industry NRM activities across the subtropical dairy region, with the piloting of the Dairying Better and Better project, designed to assist farmers to understand their impact on the environment and implement economically and environmentally sustainable farming practices. Funding is being sought from local NRM groups to facilitate the roll out of this project across the region. I would like to congratulate Bronwyn Fisher, our NRM Coordinator on her success in gaining dairy industry input into Regional Plans, and lobbying NRM Groups and the EPA into sponsoring the implementation of dairying Better n Better in many regions.

A lot of activity has also been occurring behind the scenes with a lot of input from Subtropical Dairy into the development of two NRM projects to attract Federal Government funding input into the delivery of NRM projects in the regions. Considerable effort has also gone into the review of animal welfare issues facing the industry, as well as developing a Memorandum of Understanding with the Queensland Dairyfarmers Organisation, and the dairy division of the NSW Farmers Association, in order to maximize the efficient use of RD&E resources.

Communication is seen as a high priority, and Subtropical Dairy, in collaboration with Queensland DPI&F sponsored the Northern Dairy Times in order to get information about our programs out to all farmers across the subtropics. The success of the dairyinfo.biz website in delivering technical information, supporting other organizations, as well as providing a communication channel to farmers is evident in the high interest this site has attracted. Consultation is also underway with QDO with the aim of coordinating communication efforts across the industry.

In spite of the poor season that has faced the industry over the last 2 years, Subtropical dairy has continued to be active in achieving its goals, and this has only been possible through the continued dedication and hard work of the Subregional Team, Management Committee and Technical Advisory Group members as well as the support offered by the DPI&F and processing sector staff.



NSW Mid North Coast

Chairman

Jim Desmond

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Secretary

Vacant

Regional team reports

Encouraging young farmers

Another dry year tested the resolve of farmers on the mid north coast and limited the activities of the Subregional Team. However interest has picked up again with the staging of more frequent meetings, now planned at least bi-monthly. A highlight of the year was the staging of the very successful youth forum coordinated by Ross Coomber and held to coincide with the Subtropical Dairy annual forum in Coffs Harbour in October.

Addressing a wide range of issues relevant to the next generation of dairy farmers, the youth forum was extremely well supported throughout the northern NSW dairying regions with a number of Queensland delegates attending from as far as the Atherton Tableland. The regional team encouraged the group of farmers involved with the inaugural Young Farmers Forum to run another event in 2004. They formed their own committee and invited others as well, and attracted funding from sponsors. The event name was changed to New

Generations Dairy Farmers Forum, doing away with the age barrier and directed it to anyone who saw a future in the dairy industry. There was an enthusiastic response to the initiative which attracted strong industry and corporate sponsorship. Farmers in the region had a mixed season with the drought still being felt, making farming conditions difficult for many.

Research update

Team members visited Wollongbar Research Station to discuss a range of on-going dairy programs, including

- A two day silage workshop
- Milk business workshop number 4.
- Succession planning workshop.
- Managing climate risk.

The team continued a series of on farm trials during the year through the Pasture Council.

NSW Far North Coast

Chairman

John Sykes

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Secretary

Pam Wilson

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Regional team reports

Climate forecasting popular

A seasonal climate forecasting initiative by the regional team has proved very popular with farmers on the far north coast. Funding was received from Dairy Australia and Land and Water Australia for a project aimed at using climate information to improve feed management. The project will extend over three years with training and workshops, the first of which was well attended with positive feedback.

Succession planning days

Regional funding was provided for two succession planning days were held with good results, one at Casino with two guest speakers and 30 people attending and another at Bellingen.

Irrigation scheduling

Experiments are comparing annual ryegrass, prairie grass and fescue. Funding covered the establishment of Hi-gane paspalum

and Amarillo peanut as a summer base pasture in the annual ryegrass treatments of an existing trial at Kyogle. The Hi-gane/Amarillo plots were sown on 30th December 2003 and averaged a yield around 7 tonnes DM/ha up until early June, when the over-sown annual ryegrass started to dominate. Results from this experiment will be disseminated to farmers at a local farm walk in early 2005 and local newsletters.

High volume washdown

As part of the Cow Time project, the regional team funded a bus to travel to the Kempsey/Taree area looking at high volume wash down systems on six farms. Composting trial Several members are involved with a project which treats all green waste and household food and paper waste from Lismore, Ballina and surrounding areas.



Darling Downs

Chairman

John Saville

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Secretary

Mal Maroske

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Regional team reports

UK expert at silage field day

The Downs regional team sponsored a very successful field day by silage expert, Mr Harry Wilson who was brought from the UK by Dairy Australia. The day was attended by about 45 farmers and silage contractors who heard Harry speak on practical silage making techniques at the silage pits. They also saw a slide presentation on silage making equipment and machinery in the UK. Harry then visited a silage contractor in the afternoon and exchanged information between UK and Australian operations.

Buffalo Fly Trap

A buffalo-fly trap was placed on the property of one of our members Paul Anderson in the Crows Nest district. Paul reported that cows went through the trap quite readily after some initial hesitation. He indicated that the trap had reduced buffalo fly numbers on his property, but he also made some slight alterations to the trap to make it more effective.

Top Fodder Silage

A Top Fodder silage course was held in Toowoomba. This was an excellent course and the Top Fodder Silage Manual was very well received.

Condamine Alliance NRM plan

The group had input into the finalisation of the Alliance's draft plan and was able to correct a number of misrepresentations, painting the industry in a much more positive and responsible light.

Feed sampling project

Factory field officers collected feed samples from various forages and supplements where we do not have good analyses and sent these samples to America for wet-chemical testing.

Burnett

Chair

Chris Heathwood

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Secretary

Nita Anderson

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Regional team reports

Vegetation issues have an impact

A very successful vegetation management information day was held in Tansey in August. When the Government announced changes to the Vegetation Management Act, and outlined timeframes for the land clearing ballot applications, it quickly became obvious a significant number of dairy farms in the region were affected. It was also obvious that many farmers had little if any understanding of the implications for their own farms, or the steps they needed to take to resolve some of these issues. The information day sought to address these issues and give farmers a clearer understanding of Vegetation Management operational procedures. It also helped achieve a clearer understanding of issues such as financial assistance, Property Maps of Assessable Vegetation, re-growth management and clearing and thinning application processes. A workshop

run by Agforce assisted farmers through each step in developing a PMAV for their properties.

Drought pressure

The Burnett region has suffered the effects of severe drought with little respite over the past two years. Rainfall totals have been close to average, but the pattern has made it extremely difficult to crop successfully. In February-March for the last couple of years, most areas have had excessive falls of 350mm to 450mm. Then, however, little or no rain has fallen in the ensuing 6 to 8 months. Pressures of running farm enterprises has meant less time and focus on Regional Group issues and projects. With three very active team members lost to the United States, recruitment of additional members to make our group more viable has been a priority.



South East Qld

Chairman

Laurie Dunne

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Secretary

Narelle Kleinschmidt

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Regional team reports

Heifer mastitis – learning from overseas

There is an amazing amount of information on the internet on mastitis research in both the United States and Europe. The regional team is currently evaluating some of this literature to ascertain the future direction of local research. One area of blame for this problem is laid at the door of biting flies which could mean that buffalo flies are an issue in our region.

Dairy Industry Forum

The regional team was pleased to be able to work in conjunction with the Wide Bay Burnett QDO District Council to fund the attendance of Bill Fulkerson at this forum. The aim of this day was to bring farmers and industry leaders including processor reps and research leaders to give a clearer outlook to what the future holds as well as providing a forum for farmers to ask the questions they see as important. The event was well supported with 89 people from fifty farming businesses attending.

Effluent nutrient composition

During the Dairying Better 'n Better pilot project in the Kerry district, it became obvious that there was a lack of data of the

nutrient content of dairy effluent ponds. Current data is limited to a small number of tests and a great many assumptions. This projects aims to both gather data as well as raise farmer's awareness of this resource as a valuable source of nutrient for the farm.

Milk and mycotoxins

This is an issue could be of concern for the future. Moulds in feeds whether it be silage or a by-product do occur. The question of how this can affect milk quality needs to be assessed. If it proves to be a problem, there may be a chance to address it before it becomes an issue.

Farmer feedback is sought

For the March meeting farmer members were asked to contact two farmers and ask them to name two problems they saw as important to their enterprise. Farmers approached were quite responsive to the challenge reinforced some of the current direction of the Subtropical Dairy. It also gave members a chance to discuss some current projects being undertaken with farmers and hopefully the exercise will continue.

Central Qld

Chairman

Gordon Falls

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Secretary

Charlie Ernst

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Regional team reports

Measuring pasture nitrogen levels

A locally funded project looked at plant SAP testing to determine nitrogen requirements in rye grass pastures. It set out to validate the use of a hand held N meter, to determine the appropriate time for fertilising. The meter readings were compared with laboratory evaluations of the same sample of plant SAP Nitrogen, and were found not to be accurate enough. Further work is needed in this area, in order to have a plant-side determination of plant nitrogen levels.

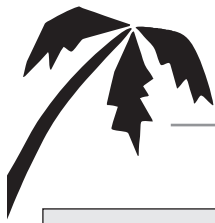
The regional team also sponsored young farmers to attend the successful Youth Forum held in Coffs Harbour.

National projects

- A Topfodder training course was held in Rockhampton.
- Milk Business group days were held in conjunction with QDAS with follow-up individual visits.
- Protein Plu\$ training programs were held.

Issues raised at the last regional team meeting included:

- Local field days
- Computer training
- Study tour
- Pasture trial
- Focus on young producers
- Ticks



North Qld

Chairman

Des O'Connor

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Secretary

Janeene Wallwork

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Regional team reports

Heat stress affecting reproduction

During the summer of 2001-2002 many local farmers complained of very low conception rates in their herds. Analysis of herd health records from Tableland Veterinary Service revealed that in some months the average conception rate across a large number of herds dropped to below 30 percent.

These concerns prompted the regional team to investigate further the effects of high temperature and humidity on fertility. During 2004 Dairy Australia contributed some supporting funds to further this analysis at a higher level. This work is ongoing.

Livestock identification

A sub committee has been formed to review the compliance and opportunities associated with the National Livestock Identification Scheme with the view to holding a field day early in 2005.

Natural tickicide

Preliminary discussions have been held with a local scientist/researcher who has developed a tickicide derived from lemon-scented ironbark. Further investigation will ascertain if this is of any relevance to dairy.

Advancing Grow Malanda

Early in 2004 the Grow Malanda group secured funding to allow four young farmers to attend the Australian Dairy Conference in Shepparton. In conjunction with Dairy Farmers, Dairy Australia, DPI and the regional steering committee a high quality redevelopment proposal has been submitted to the Federal Government for funding.

Project Reports

Natural Resource Management

NRM Coordinator

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Dairying Better 'n Better

Dairying Better 'n Better for Tomorrow is a Better Management Practice program, which aims to support dairy farmer adoption of better on-farm natural resource management. The program involves a small group of about 10 to 13 farmers using the Dairy Self Assessment Tool, DairySAT, attending a series of three workshops, developing action plans and ultimately implementing better management practices. By participating in the program, farmers are able to develop an industry endorsed Environmental Management System.

Pilot

A pilot program was managed by RuralScope Pty Ltd on behalf of the Subtropical Dairy Program and conducted at Kerry, near Beaudesert. Nine enterprises participated in the pilot, with the project being facilitated by Bronwyn Fisher, with support by Laurie Dunne as the Local Farmer Advocate.

Roll-out

Following the success of the pilot program, resources have been negotiated to support the roll-out of Dairying Better 'n Better for Tomorrow throughout the region. A partnership arrangement has been developed with the Condamine Alliance for resources for two groups of approximately eleven enterprises on the Darling Downs. The Environmental Protection Agency have also provided resources for two groups based at Gympie and on the Atherton Tablelands to participate in the program over the next six months.

Better 'n Better Plus

This program is an optional extension to Dairying Better 'n Better for Tomorrow and supports farmers with the integration of natural resource management with other aspects of farm management. Five farmers from the pilot group at Kerry are currently part-way through trialling this process, which is being developed by the NSW DPI.



DairySAT

The Dairy Self Assessment Tool (DairySAT), was originally developed by Gippsland dairy farmers to help them identify on-farm priorities for natural resource management. RuralScope Pty Ltd conducted two trials of the DairySAT in Queensland, with 57 farmers participating at Kerry and on the Atherton tablelands. The DairySAT is currently in the process of being amended to ensure that the information contained with the documents relate to Queensland regulations and the endorsed Code of Practice and that contact details are relevant to Queensland organisations and people.

Environment funding

There were 31 Envirofund applications developed and submitted by Subtropical Dairy in addition to five applications that the QDPI supported in two separate funding rounds. Of these, 19 enterprises were successful in their applications receiving just under \$190,000 for on-farm NRM activity including fencing creek banks, installing off-stream watering points, planting native trees, as well as conducting salinity and weed management activities. Three National Landcare Program project proposals were submitted for a total of \$530,000 to support better on-farm NRM on the Darling Downs and in South East Queensland. The outcomes of these applications should be heard shortly. Localised funding opportunities have also been advertised to farmers through existing communication channels.

Targets for Change

This is a project developed under the Dairy Australia – Dairying for Tomorrow program and involves using a process to better understand the impact dairy farming has on catchment health targets. A pilot of this process was conducted in the Bremer catchment in South East Queensland.

Riparian Management

This project is a partnership between QDPI and Dairy Australia and involves developing case studies for riparian management and the refinement of better management practices.

Water Use Efficiency

This is a project funded by the Qld Dept of Natural Resources and Mines and managed by the Queensland Dairyfarmers' Organisation. The program supports farmer training and incentives for implementation of better irrigation and effluent management.

Communication

Regular articles promoting existing programs, encouraging participation and highlighting other catchment based activities have been published in the Northern Dairy Times, the Queensland Dairyfarmer, the Queensland Dairyfarmers Organisation Weekly update as well as through local and regional media outlets.

Reports have also been provided at various dairy meetings and forums and local community based meetings such as local Landcare and catchment group meetings. A paper written by Jo Eady, from RuralScope Pty Ltd and Bronwyn Fisher on the Dairying Better N Better for Tomorrow program, was accepted and presented at the National Dairy Industry Association of Australia conference.

Regular communication is also held with key NRM and industry stakeholders including staff and members of the Queensland Farmers Federation, the Qld Regional Groups Collective, Queensland Water and Land Carers, Queensland and National Commonwealth Dept of Agriculture, Fisheries and Forestry representatives and representative from eight regional NRM groups.

R&D spending approaches \$4 million

Subtropical Dairy conducted projects with a total value of \$3,879,000 during 2003-04, a significant increase on the previous year.

The strong on-ground research performance represented a 3.7 times value adding ratio on R&D funds.

Dairy Australia, contributed \$511,500 directly and \$323,000 through national funds.

Other sponsors included the Queensland Department of Primary Industries and Fisheries, NSW Department of Primary Industries, National Heritage Trust, the University of Queensland, Pauls Ltd, Dairyfarmers Ltd, NORCO, National Foods, Ridley and the Queensland Dairyfarmers Organisation.

Subtropical Dairy has actively fostered R&D since it was established as an incorporated body in 1995 to succeed the Northern Dairy Group. It is one of eight Regional Development Programs running across Australia dairying areas which were established to provide a mechanism for dairy farmers to have a strong involvement in identifying, selecting and managing research, development and extension activities.

Subtropical Dairy covers all Queensland dairying areas and those in NSW north of Kempsey. The region is managed in seven subregional zones. The key roles of Subtropical Dairy are to work closely with the dairy community to identify priorities, commission and manage relevant projects for research, development, extension and educational activities. The goals, issues, priorities and project areas have been developed with strong emphasis on industry consultation.

The mission of Subtropical Dairy is to foster a collaborative and unified approach to farm viability, by facilitating research and extension, improving technology and empowering people.



Project Reports

Feed Systems Management

Technical Coordinator

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Warm Season Legumes

The performance of Amarillo pastures is being assessed on farms from northern NSW to north Queensland. In NQ, Amarillo proportion in the pasture varied from 7% in January when grass growth was high to 20% in May. Being a warm season legume Amarillo growth slows in NQ in winter and growth has also been affected by the very dry conditions in the past two months. On one of the Southeast Qld farms Amarillo is the summer component of kikuyu-setaria based pastures that are over sown with ryegrass and irrigated in winter. A series of 11 pasture harvests from January to April 2004 produced yields of 3532 kg DM/ha from a long 14-day rotation and 2836 kg from a short 7-day rotation on Amarillo-dominant pasture. Farmers have found that Amarillo raises pasture digestibility and lifts milk production above that of standard summer grass pastures. Despite its low growing habit it is deceptively high yielding.

Protein Plus extension

During the last 12 months Protein Plus project activities have achieved a much higher profile with

- Adviser training
- Intervention farm monitoring, and field days
- Producer seminars
- Manual and decision aid development and promotion

Two of the three planned adviser-training courses have been completed and have involved representatives from over 60 companies and business. These first two courses were conducted centrally but the plan is to run the third course on a district basis with smaller groups.

Five intervention farms and three case study farms are being visited bi-monthly for the collection of data. The impact of management changes have been monitored and results presented at 5 field days held on their farms.

Six producer seminars have been held and 4 others are planned. There is an emerging demand for nutritional training to small district groups.

Farming systems project

The M5 farming systems project brings together the farmlet physical models, companion farms, modelling, consultation with service providers and DPI&F staff. To date, the focus of reports from the project has been the farmlets, whose ambitious targets of 10% return on assets and 600,000 L/labour unit attracted an audience from a wide cross section of the industry that have continued to follow the projects progress. The farmlets successfully demonstrated that target milk production levels could be achieved for a range of farm systems during one of the worst drought on record. Despite the extremely difficult conditions, 2 out of the 5 farmlets were still able to achieve the financial objective of a return on assets of 10%.

The challenge for the project team is to develop farm systems of the future that are profitable, offer a reasonable lifestyle and are sustainable at 30 to 32 c/L. In the next phase of this project, each future system will be modelled and the physical and financial characteristics listed. A checklist for farmers to evaluate their farm system and assist in change to increase profitability will be developed. This systems synthesis will be a joint activity of the Dairy Australia project Dairy Moving Forward and milk processor advisors who have indicated they would like to have a greater ownership and involvement in the M5 project. The combined effort will demonstrate profitable future farming systems and select intervention farms to assist farmers practice change.

Top Fodder courses

During the past year 13 Top Fodder silage short courses were rolled out in Queensland attracting about 200 farmers with extremely positive feedback. The target is to reach 20% of Queensland farmers by June 2005. More training workshops will be held in any area where 6 to 8 farmers are interested in participating.

Using climate information

A new three-year research project aims to use climate forecasting and feedbase modelling to help farmers make pasture and forage crop planting decisions.

Regional historical weather data is being analysed for seasonal patterns and variability. The predictive skill of indicators such as the Southern Oscillation Index and Sea Surface Temperature is also being examined.

The aim of the project is to develop a feed forecasting tool for farmers which offers seasonal pasture and fodder options by incorporating climate variability and seasonal climate forecasting information. An education and training package on feed management options will be developed. Workshops will provide detailed information on how to access and use climate and weather information to improve feed supply management.



Project Reports

Whole Farm Management
Technical Coordinator
Position vacant

Milk Business road tested

During the past year progress was made developing the farm management tool Milk Business. Training of 30 trainers was completed and evaluated. The focus then changed to the goals of intensive training, to an understanding level, of 100 producers through their participation in courses of 2 to 3 half days duration and ensuring at least 400 other producers were at least aware of the project content and goals by including Milk Business segments at field days and training courses run for other projects such as Top Fodder.

Intensive training targets have been exceeded with 125 producers attending 14 courses in NSW and 72 producers attending 8 courses in Queensland. In addition to this, Milk Business team members combined with the Farmlents project team to run a business skills course for 25 Farmlent companion farm co operators.

The awareness training is progressing and has reached over 250 producers to date.

In both states, 10 to 12 technical fact sheets have been prepared and distributed. The material is also available on the internet.

The project has also influenced business and financial DSS. The QDAS program has been adapted to use terminology favoured by Milk Business especially in relation to KPIs. In NSW the project has been instrumental in adding a farmer friendly front end to the Milk Biz spread sheet and in the development of a new project called Future Dairy.

Dairy Pro completed

The Dairy Pro Project has been completed with the finalisation of a upgraded more futuristic model which has been renamed Real Biz. Real Biz will be available on the net in the near future. It will then be up to advisors and producers to use it and provide the project team via Geoff Johnston, DPI&F, with feedback.

Real Biz is a very flexible program, which can cope with the complexities of a deregulated industry. Its attributes include:-

- It can evaluate and compare a wide range of scenarios including herd expansion and production system changes such as calving pattern, grazing versus TMR or irrigation versus dryland.
- It has a very flexible pricing system for milk.
- It compares scenarios on the basis of margin over feed costs highlighting strengths and weaknesses of each option.
- It allows for monthly or annual data entry.
- High, medium or low milk production responses can be nominated to all feed sources by district as determined by experts or the producer can choose to choose their own response.

Project Reports

Animal Management
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Big response to Cowtime

More than 211 Qld dairy farmers attended Cowtime events held across the state. This includes the clinics and shed shakeups.

One in ten dairy farmers in the state also used the Milking Monitor web and fax based service to assess the efficiency of their milking system

Cowtime has been well received in Queensland during the year. The shed shakeup days held at the end of 2003 were very well attended. In all there were 5 days held throughout the state.

This first round of shed shakeups asked participants about their intentions to make changes after attending the day. A significant 72 percent indicated that they would be making some changes at home.

The next round of Cowtime shed shakeup days is planned to run these in Queensland early in the new year. The theme for these days will be Pits and People.

The Cowtime Milking Monitor reached 1370 entries, which was just short of the target of 1500 completions by June 2004. Around 50 percent used the website to input their data directly.

Countdown Downunder

The bulk of the national programme has been focused on the running of adviser short courses, articles for newsletters, regular features in the Australian Dairyfarmer, and the bulk milk cell count awards.

Queenslanders featured well in the past year with 23 producers ranked in the lowest 5% across Australia. Dr Pauline Brightling moved on to work with the Dairy Moving Forward project and her



replacement was Dr Rod Dyson. Many may have noticed Rods face on the back page of the last few editions of the Australian Dairyfarmer.

Tick resistance markers

This research is now in its second season. In this project, ticks on milking cows are counted and blood samples are collected for laboratory analysis. The tick counts will be repeated over a number of years to ensure tick status of the cows is accurate. Differences in the DNA of tick resistant and tick susceptible cattle can be identified and markers for tick resistance developed. This will allow cattle, particularly bulls, not in the tick areas to be tested and used by the Queensland industry if found to be tick resistant.

Tick numbers will be analysed against production data to ensure tick resistance is not related to any production losses. It would be a bonus if tick resistant animals were more productive. The tick number analysis will consider stage of pregnancy and lactation and compensate for these effects on tick numbers.

Ticks were counted on 11 farms in SE Qld with a total of 1617 cows counted last season. Repeat counts were recorded on 5 of these farms. It is hoped to include cows on the Atherton tablelands this season as well as farms already involved and some new local farms.

A major benefit will be that any genetic progress towards tick resistance is permanent and heritable and does not cost money to maintain. It may take several generations to develop tick resistance up to a high level. Using identified tick resistant bulls may be part of any future integrated tick control strategy.

Buffalo fly tunnel trap

The buffalo fly tunnel trap was developed by the DPI&F for the beef industry. Trials in the beef industry showed the trap reduced buffalo fly numbers by up to 65 percent. This project trialled the trap for the dairy industry. Three tunnel traps were set up on dairy farms in Southeast Qld and Northern NSW and buffalo fly numbers on those farms were compared to farms in the same area that did not have a trap. Research was also conducted using another tunnel trap on the Mutdapilly Research Station. The research showed that fly numbers could be reduced using the trap but results were variable.

Initial results indicated that environmental conditions could influence the number of buffalo flies caught in the traps. More buffalo flies were caught on overcast, rainy days or at times of low light. Fly numbers caught also varied with wind speed, wind direction, humidity and temperature. Much more research is needed to establish which of these factors is critical. This knowledge may be used to modify the trap or cow management to enhance the fly catch. Two students are developing research projects to investigate some of these factors.

Advantages of the trap include the low maintenance and low financial input required once the trap is established. The cows quickly adapt to going through the trap. It is reasonably easy to construct and the plans are freely available. It can be made of durable and reused material and can be built for much less than other available traps.

The trap is totally non chemical but may need to be used in assoc with chemicals unless improvements can be made.

Fungal biopesticide

Fungal biopesticide uses the spores of a native soil fungus to kill ticks and buffalo flies. The spores can be mixed in a solution and used as a spray. Other methods of application are also being evaluated.

The fungus is a contact killer. In the soil, the fungus attacks and kills some insects. The fungal spores germinate in contact with the insect cuticle. The fungus kills a range of insects by damaging the cuticle and invading the body of the insect.

Trials involving spraying the fungal spores on cattle to kill ticks have given variable results. In some trials up to 65 percent or more of the ticks have been killed by the fungus. Other trials have recorded much lower success rates. The differences seem to depend on environmental conditions.

A pen trial at Mutdapilly earlier in the year in heat wave conditions was not successful.

Future research will concentrate on defining the conditions in the field that allow for success of the biopesticide. This will be in conjunction with trials investigating spray technology that may assist the fungus to contact the ticks and to assist in maintaining conditions suitable for the fungal germination. The promising success with buffalo fly control will also be continued.

A non-chemical alternative tick control agent may be the only real future for the dairy industry considering consumer demands for a chemical free environment, chemical free food and a safe environment for industry workers.

InCalf extension project

InCalf is a major project to help dairy farmers make the best possible decisions about reproductive management of their herds. The first major InCalf activity was the massive study of 33,000 cows in 168 commercial herds from far-north Queensland to Tasmania. From this data, major causes of good and poor reproductive performance in Australian dairy herds have been identified.

These findings have been translated into practical advice that dairy farmers and advisers can use in their day to day business.

Most states have now conducted one or two InCalf advisor courses. The Queensland course was held in June and July at Mutdapilly. Advisors from the Tableland, the Downs and Northern New South Wales joined local advisors to complete the three day course. Another combined advisor course with New South Wales is possible but will depend on numbers at the time. Farmer courses will start soon with courses to be held in any Queensland dairy area where there is enough demand.

The InCalf extension project provides tools and books for the farmer to use in conjunction with their trained advisors. The list of trained advisors and other information is available at the website www.incalf.com.au The great advantage of using these InCalf tools is that areas where farmers can make improvements in fertility can be identified. The present losses due to sub optimal fertility can be calculated. The cost of implementing any changes can be determined so that all decisions can be based on economics.



Monitoring and evaluation

Priorities for animal management research are assessed each year through a process of monitoring and evaluation. This involves a combination of bringing forward new issues which could be made worthwhile projects and scrutinising existing research. Those happy with the process describe a loose democratic progression with ideas being brought forward from farmers, rigorous discussion and agreed outcomes. The value seems to be the range of people who do suggest topics and the enthusiasm generated.

For the group who saw problems with the process, the main difficulties were the lack of meetings, lack of enthusiasm and lack of funds. They had some difficulties with the process itself in that there is often a lack of knowledge in the farmers of what has been done in a particular field and the propensity for some individuals "to push their own barrows".

Projects put forward by the regional teams are seen to be of value. Many are innovative and experimental such as the trial of natural products and new materials for laneways.

Links and networks

The majority of respondents said that being a member of the regional team had helped develop relationships with other organisations. The organisations mentioned ranged from government departments, processors, Mutdapilly, universities and

the QDO. The point was made that they already had good relationships with many of these organisations anyway.

NQ Newsletter valued

North Queensland produces a newsletter that is valued by all and could be seen as an example of what is valued by farmers. The Northern Dairy Times was also seen as useful. There was some complaint that communication from regional groups needs to be better and more interesting.

Achieving goals

Being a member of a regional group helped identify goals by providing information on what they should be. It has also helped farmers focus on their important issues and see that other people have similar goals.

Participants were also asked to rank the helpfulness of their regional group and the average was 3.26 out of a possible 5. The Far North Coast and North Queensland were ranked the most helpful. Gaining information and exposure to new ideas and new ways of doing things were the most valued activities. The regional group is seen as a valuable resource.

Issues for action

The motivation of the people involved, getting the message out from the regional groups and research ideas in and prioritised are the three main issues facing this portfolio.

Project Reports

Human Resources Management

Technical Coordinator

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HR portfolio objectives

The Objectives of the human resources portfolio are:

1. To build the capacity of people to ensure there are suitably skilled people to manage SD at all levels and to provide an opportunity for involvement in research, development and extension.
2. To implement inclusive priority setting processes and a system that encourages innovative projects to address these needs.
3. To maintain positive and strong relationships with individuals and organisations relevant to SD.
4. To help inform the dairy industry of the results of relevant, current research.
5. To build the capacity of subtropical dairy farmers to enable them to achieve their goals.

Stresses on industry show

An evaluation of the activities of Regional Groups was carried out using the objectives of the portfolio as a guide.

The main forms of farmer involvement were as office bearers, (40%) and managers of projects (36%). When asked about their level of involvement, 69% felt that it was at a high or medium level while 29% felt it was low. From other data, the lower involvement did not necessarily mean a lack of satisfaction. In keeping with other data, the Far North Coast has the strongest involvement of its members.

An assumption was made that if members were involved with projects, their capacity to acquire knowledge that would help with the management of their farms would increase. There were some constraints to dairy farmers being involved.

The overriding impression was that dairy farmers face considerable constraints caused by drought, lack of time, funds and that team meetings and involvement suffered as a result of this. Having said this, it was suggested that farmers could be more motivated to attend meetings through better communication, and having more meetings. Almost 30% of respondents from five of the seven teams commented that they needed more and better meetings. The majority were meeting only twice or less a year.



Subtropical Dairy Program Ltd

Statement of Income and Expenditure for the year ended June 30, 2004

INCOME		\$
SDP001 – Administration		56,179.53
SDP003 – Sub Regional Teams		54,000.00
SDP004 – Project Development		25,000.00
DAQ177 – (NHT982708)		3,478.18
SDP008 – Annual Forum		
SDP10784 – Strategic Planning		
SDP11055 – Dairyinfo.biz		76,176.21
Program Management		57,000.00
National Projects		79,026.48
Dairying Better n Better II		22,656.00
NRM Coordinator		36,000.00
AFFA Targets		
Protein Project - UQ62A		<u>13,750.00</u>
Total Income		<u>\$423,266.40</u>
EXPENDITURE		
SDP001 – SRT Expenses		13,254.45
– Communication, Annual reports etc		19,355.73
– Administration		17,172.64
SDP003		57,377.19
SDP004		31,249.09
DAQ177 (NHT982708)		3,478.18
SDP008 – Annual Forum		22,664.19
SDP10784 – Strategic Planning		1,706.21
SDP11055 – Dairyinfo.biz		49,675.70
Program Management		61,570.50
National Projects		25,340.35
Dairying Better n Better II		29,266.73
NRM Coordinator		56,964.22
AFFA Targets		20,433.22
Protein Project - UQ62A		<u>1,996.27</u>
Total Expenditure		<u>\$411,504.67</u>
NET INCOME		<u>\$11,761.73</u>



Subtropical Dairy Program Limited

Project Areas and Expenditure 2003-04 (x \$1000)

Total

Funding Source:	Subtropical Dairy	DA National Pool	Total Spending Incl collaborators
1. FEED SYSTEMS MANAGEMENT			
DAQ10785 Mutdapilly Farmlets (Walker)	90	61	930
DAQ10949 Sustainable wet area legumes (Lowe/Walker)	50	115	279
DAQ10756 Improving forage peanut seed (Cox)	21		54
UM099 Contribution to Farming Systems Coordinator	7.3		7.3
DAQ1104 Contribution to Protein Project	8.9		137
2. NATURAL RESOURCES			
SDP11519 Dairying Better n Better II			50
3. WHOLE FARM MANAGEMENT			
UQ10833 The Milk Business	30	127	1,057
4. HUMAN RESOURCE MANAGEMENT			
SDP003 SRT Small Projects	Included in Program Conduct		
REC001 Monitoring & Evaluation Project	16		16
SDSP008 Annual Forum	25		31
SDP11055 Dairyinfo.biz	40	20	200
5. ANIMAL MANAGEMENT			
Tick/Fly Control Extn			
Tick-Fungal Control Feasibility study (Turner)	QDPI		
Tick Research CSIRO/UQ/DPI&F (Turner)	DA		
CowTime delivery	20		40
6. PROGRAM CONDUCT			
SDP006 Program conduct	195		235
FNP10867 Contribution for National activities	8.3		8.3
Total	<u>\$511,500</u>	<u>\$323,000</u>	<u>\$3,044,600</u>
Total DA contribution			<u>\$834,500</u>
Total Project value			<u>\$3,879,100</u>
Value adding on R&D funds	<u>x 3.7 times</u>		

Annual Report 2003-2004



DAIRY AUSTRALIA



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