

gardiner foundation

annual review 2007



goal

The Foundation's goal is to be a premier funding body, delivering measurable and sustainable benefits to all segments of the Victorian Dairy Industry and its people, for the benefit of the wider community.

Strategies to realise the goal revolve around research and development to improve industry productivity together with a strong emphasis on addressing critical issues facing dairying communities themselves.

Indicators of success include:

- a. Demonstrable and major benefits to individual sectors of the industry, the industry as a whole and the wider community as a consequence of projects funded by the Foundation;
- b. Recognition by the industry and Government that real benefits have been achieved and that the Foundation has established its own clear and unique role.

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2006-07 key initiatives

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- > New funding commitments to projects increased by 42% above the level of the previous years.
- > Announced intention to maintain Gardiner funding at a level of \$5 million per annum, leading to new projects to the value of approximately \$25 million annually, for at least the next five years.
- > Additional funding round early in 2006-07 committed \$2.5 million to 50 new projects with a total value of \$10.9 million.
- > Final agreements secured to enable the Dairy Health and Nutrition Consortium to be established early in the 2007-08 financial year.
- > Initial and ongoing funding commitments to Dairy Innovation Australia Limited.
- > Board governance review commissioned and recommendations progressed.
- > Establishment of new biotechnology funding program to enable financial commitments to bioscience projects to continue despite the failure of the proposed Dairy Biotechnology Cooperative Research Centre to proceed.
- > Two new appointments to Program Manager positions.

chairman's review

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During the past year, the Victorian dairy industry was challenged yet again by ongoing drought. Dairy Australia has estimated that almost 90% of dairy farmers were directly affected and that average farm cash incomes for 2007 are expected to be 77% lower than normal.

Recurrent drought over the past several years has had such an impact that dairy farmers now regard climate rather than market conditions as the greatest challenge to their livelihoods. There is, however, considerable uncertainty about the way in which climate will play out and its impact on farming systems, access to irrigation water and future farm incomes.

The Gardiner Foundation is sensitive to the challenges facing the dairy industry and responded in part by increasing new funding commitments for projects by 42% compared with that of the previous years.

The 2007 funding round committed nearly \$5 million to a further 56 projects including 15 new innovation projects, 2 new biotechnology projects, 13 community and people development projects and 26 community development small grants. The 2007 funding also included \$1 million for the new Dairy Health and Nutrition Consortium and \$350,000 for Dairy Innovation Australia.

Since inception, the Gardiner Foundation has committed in excess of \$20 million in all funding streams toward projects having a total value of \$87.7 million.

Although the increased funding was across the board, we were particularly pleased to have the opportunity to work closely with the Victorian Farmers Federation (UDV) in support of their drought response program. This was seen as the most immediate way of providing tangible assistance to dairy farmers in need. The Foundation's response involved salary support for a drought coordination officer and development of the dairy component of a special website to provide information and advice on all aspects of coping with drought.

Funding was also provided to allow dairying families to come together for a mix of local community events and hands on assistance to deal with drought at home. There was a very positive reaction to our 'Back to School' initiative to distribute vouchers through schools for redemption at local shops for goods to assist badly affected families.

We are fortunate that 2006-07 was a year of solid growth in world capital markets and I am pleased to report that the Foundation's capital base has grown during 2006-07 to \$102.69 million after allowance for all disbursements. Not only did this growth provide the flexibility to respond rapidly to the drought, but the additional funding allocated for projects has been achieved without affecting the integrity of the Foundation's capital reserve. New funding commitments to projects increased by 42% per annum in 2006-07 and the Foundation announced its intention to maintain that level of funding at least for the next five years.

On a note of caution however, we must recognise that world money markets will eventually turn down and that our capacity for investment may contract at some time in the future.

One of the Foundation's strategic objectives is to use a part of its annual investment to develop the scientific and infrastructure capacity for Australia to undertake leading edge research for the dairy industry. Capability building is different from project funding where a specific outcome is sought in a finite period.

Our funding commitment to Dairy Innovation Australia Limited (Dairy Innovation) in 2006-07 was a first vital step in development of an enduring capability for good science. The Foundation was pleased to commit \$350,000 per annum over three years to support the new organisation's capacity to develop technologies and products for the post-farm sector.

The Foundation will also be a key investor in the Dairy Health and Nutrition Consortium which will commence operations in the third quarter of 2007 under the Dairy Innovation umbrella. The consortium is a joint venture by major dairy companies, Dairy Australia and the Foundation that will, in part, compile the evidence to underpin health and nutrition claims made for dairy products and their role as part of a well balanced diet.

Despite the failure of the proposed Dairy Biotechnology Cooperative Research Centre to proceed, the Foundation has decided to continue to provide significant funding for bioscience projects that offer useful outcomes for the industry. These investments are continuing within a new funding program and current projects are primarily directed at technologies for on-farm application.

The Foundation's investment in its Community and People Development program has continued to grow. Among the new projects funded this year is the development of a framework for partnering experienced industry people with younger dairy people. Another project will examine the impacts of the expansion of plantation forestry upon land prices and the viability of local dairying.

We are gratified by the high regard in which the Foundation's work to improve the lives of people in dairying communities is held and we will continue to look for further opportunities for investment in these projects.

The Board commissioned an external review of its own performance during the year to identify opportunities for improved outcomes for the Foundation through changes to Board processes. No significant deficiencies in our existing practices were found, but a number of observations made by the reviewer are being progressed by the Board. These included the need for tighter succession planning for Board members and the Chairman, and a communication plan to keep stakeholders aware of the Foundation's operations.

I am delighted to report that informal discussions over recent months culminated in a formal invitation to Professor David de Kretser AC, Governor of Victoria, to accept the role of Patron of the Gardiner Foundation. In July this year the Governor responded in the affirmative. The Foundation believes that Professor de Kretser will provide an enormous stimulus for the dairy industry and will give a lift to the self esteem, confidence and determination of dairy communities at a time of significant challenge.

I wish to record my appreciation to the Members of the Foundation for their willing participation and active support for the business of the Foundation over the past year. I am grateful also to dairying community groups and the scientific research community for their continuing positive response to the Foundation's work.

Finally, I would like to acknowledge the support and cooperation of my Board colleagues and the Chief Executive and his staff for their tireless contributions during 2006-07.

Chris Nixon
CHAIRMAN

chief executive's report

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ENGAGEMENT WITH INDUSTRY

A little more than one year ago, the Foundation finalised a review of its activities and achievements since its inception in 2001. As a result of the review, and as foreshadowed at the time, we have actively pursued initiatives over the past 12 months to improve our engagement with the dairy industry.

I am pleased to report that progress has been positive and that a number of initiatives canvassed a year ago are well down the track or have already been delivered.

Central to our engagement is the creation of key partnerships and networks with industry stakeholders. These partnerships enable the Foundation to keep up to date on emerging issues, and to share information and insights that make for better investment decisions.

An important example was the opportunity for the Foundation to take an active part in the formation of Dairy Innovation Australia, bringing together a number of bodies servicing the dairy manufacturing sector. I accepted a position on Dairy Innovation's board and the Foundation made its initial funding commitment to assist the new organisation to build a capacity for leading edge work in dairy processing.

We are convinced that science and innovation supported through our process for individual projects is vital to the dairy industry. However, those projects will only be as good as our scientific infrastructure allows them to be. For Australia to maintain its capacity for imagination, creativity and sophistication in its dairy research, we must be prepared to invest directly in developing the core scientific capability. This is the key to ensuring that our research effort is at least the equal of what our international competitors are doing. The Foundation is confident that our investment in Dairy Innovation is an important first step in this direction.

Key decisions and agreements were also finalised during the year to allow the new Dairy Health and Nutrition Consortium to become effective from the start of 2007-08. Previously known under the working title of the Gardiner Consortium, the new body will operate as a division of Dairy Innovation.

The partners believe that the Consortium's aim of assembling evidence to support health and nutrition claims made for dairy products is urgent, and work is expected to be underway in the next few months.

The Foundation is also an active participant in the National Dairy Alliance.

DROUGHT RESPONSE

The Foundation was pleased to provide a rapid and effective response to the debilitating drought that affected most dairying areas in the State.

Small projects can sometimes have an impact well beyond their scale, and the distribution of vouchers to families of primary and secondary school children was such an example. One thousand vouchers with a \$50 value were distributed for redemption at local shops. The vouchers were enthusiastically received and the substantial commitment made to the initiative by IGA supermarkets was impressive and appreciated.

The Back to School voucher program, together with the broader Foundation Small Grants program, was facilitated through our partnership with the Foundation for Rural and Regional Renewal.

The Foundation also provided funding for the dairy industry element of the VFF website and made a contribution towards the salary for the VFF State Drought Coordinator.

Funding was awarded to Murray Dairy, WestVic Dairy and GippsDairy to fund community support activities run by their Drought Coordinators under the Supporting Dairy Communities program. Approximately 4,000 people attended local community activities for dairy farmers where financial and technical information and advice was shared.

Funding was also provided for Campaspe Men's Link, an initiative of the Rochester and Elmore Health Service, to establish a network of male peers to lend a hand to farmers and their families who were struggling emotionally as a result of the drought.

FOUNDATION STAFF, INFRASTRUCTURE AND PROCESSES

The Foundation made four key appointments to its program staff during the year that we are confident will add significant intellectual horsepower to our small team. These new appointments have supplemented the efforts of the original Company Secretary, Barrie Lawson and Project Administrator, Cynthia Mrigate.

Dr Craig Miller joined the Foundation in early December to take day to day responsibility for establishing the Dairy Health and Nutrition Consortium. He has made significant progress and the Consortium is expected to be fully operational by the time this Review is published.

More recently, Dr Jan Mahoney joined the Foundation in a part time role to manage the Community and People Development program.

The new Program Manager for Innovation is Ms Megan Dyer who replaced Dr Amy Richards at the end of the financial year. Dr Richards has returned to her research post at Food Science Australia following her 12 month secondment at the Foundation.

Ms Jenny Walsh has joined the Foundation as Office Manager. Ms Cynthia Mrigate, who was previously the Project Administrator, has been appointed to the role of Program Administration and Communications Manager.

The Foundation has relocated to Level 5 at 84 William Street to provide additional space for staff as well as Board and other meetings.

Following the rationalisation of funding into two programs last year, project application guidelines have been redrafted and refocussed, with greater emphasis on defining expected outcomes for the Victorian Dairy Industry, dairying communities and the wider community. Project assessment criteria were revised and bidding processes refined. These changes are intended to strengthen our commitment to being an organisation with which it is easy to do business.

FINANCE AND ADMINISTRATION

The Foundation's statutory audit of its financial statements has been performed by Ernst & Young for the financial year to 30 June 2007. The financial benefits from the Foundation's status as a charity for income tax purposes continue to be evident.

Finally, I continue to find the experience of working with the Foundation's Chairman and Board of Directors most rewarding. I thank them for their support and inspiration during the year.

I also wish to thank all of the Foundation's staff for their valuable contributions during 2006-07.

Paul Ford
CHIEF EXECUTIVE

the gardiner foundation

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Professor David de Kretser, AC GOVERNOR OF VICTORIA
PATRON OF THE GEOFFREY GARDINER DAIRY FOUNDATION LIMITED

Professor David de Kretser's academic career has bridged medicine and anatomy having held positions at Monash University as Professor and Chairman of Anatomy, Founding Director of the Monash Institute of Reproduction and Development and Associate Dean for Biotechnology Development.

He is a Fellow of the Royal Australasian College of Physicians, the Australian Academy of Science and the Australian Academy of Technological Sciences and Engineering. He was made an Officer of the Order of Australia in 2001 and a Companion in the Order of Australia in 2006, and received the Centenary Medal in 2003.



Chris Nixon CHAIRMAN

Chris has had a 35 year career in various engineering, manufacturing and general management roles, including postings in North America and Europe, culminating in appointment as Managing Director of the international Containers Packaging group. He is a former Chairman of Bayside Trains and former Board Member of Dairy Food Safety Victoria and acts as a private adviser.



Dr Graham Mitchell AO RDA BVSc PhD FTSE FAA DIRECTOR

Graham is a veterinary graduate and University Gold Medallist of the University of Sydney. He had a distinguished research career in cellular immunology as a scientist at the Walter and Eliza Hall Institute of Medical Research and leading research organisations in California, England and Switzerland. He also served as Director of Research with CSL Limited. Graham is recognised as one of Australia's leading biological scientists. He is an adviser in science, technology and innovation to the Victorian, Tasmanian and Northern Territory Governments and is joint Chief Scientist for Victoria's Departments of Primary Industries and Sustainability and Environment. He is a non-executive director of Antisense Therapeutics Ltd, Compumedics Ltd, AVS Pty Ltd, Adelaide Research and Innovation Pty Ltd, Avipep Pty Ltd and the Institute of Child Health Research Perth.

patron & board of directors

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Professor Paul J Moughan *BAgrSc (Hons) PhD DSc FRSNZ* DIRECTOR

Paul holds the position of Distinguished Professor at Massey University, New Zealand. Currently he leads the Riddet Centre for innovation in foods and biologicals, one of New Zealand's Centres of Research Excellence. He was previously Foundation Head of the Institute of Food, Nutrition and Human Health and was also Foundation Scientific Director of the Milk and Health Research Centre, a centre focused on scientific research into the nutritional and health-promoting properties of milk components and dairy products. He is a Director of the Meat Biologics Consortium and Speirs Nutritionals Ltd. In 1996, he was awarded a Doctorate of Science for distinguished contributions to Science and in 1997 was awarded a Personal Chair at Massey University, and elected a Fellow of the Royal Society of New Zealand. He has been a Fellow of the Australia, New Zealand Food Authority, a member of the Scientific Advisory Board of Ralston Purina Ltd (USA) and Chair of the APEC Food Technology Domestic Champions Network.



Max Fehring DIRECTOR

Max has been a practising dairy farmer most of his working life. He currently operates a 350 cow dairy farm in partnership with his wife Denise. He has been a member of the United Dairyfarmers of Victoria since 1977 during which period he served as a Central Councillor (1980-1997) and as President (1997-2001). He has a special interest in water supply and policy and served as a member of the Torrumbarry Water Services Committee. He was Chairman of the Victorian Farmers Federation Water Committee and held a Churchill Fellowship in 1997 (Water Studies). Current roles include Board membership of Wimmera/Mallee Rural Water and Councillor, Shire of Ganawarra. He is a Fellow of the Australian Institute of Company Directors (AICD).



Ian MacAulay DIRECTOR

Ian is an Agricultural Science graduate from The University of Melbourne and currently operates a 500 cow dairy farm. He was the Gippsland Regional Agronomist with Pivot Fertilisers for 12 years. He was elected to the Board of Murray Goulburn Co-operative in 1991, became Deputy Chairman two years later and has been Chairman since 1998. He is a Fellow of the Australian Institute of Company Directors (AICD).



*Signing of the agreement to implement the Dairy Health and Nutrition Consortium.
Chris Nixon, Chairman, Gardiner Foundation and Andrew Donovan, Chairman, Dairy Innovation Australia (seated, l to r).
Standing (l to r): Ian Macaulay (Director GF), Isabel MacNeill (Director, Dairy Innovation), Professor Paul Moughan (Director, GF), Dr Lesley McLeod (CEO, Dairy Innovation),
Max Fehring (Director, GF), Dr Craig Miller (Program Manager, Health and Nutrition Consortium, GF), Professor Graham Mitchell AO (Director, GF) and Paul Ford (CEO, GF).*

looking to the future

with a focus on healthy dairy foods

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THE DAIRY HEALTH AND NUTRITION CONSORTIUM

The Gardiner Foundation in collaboration with Dairy Innovation Australia and the Victorian Dairy Industry has established a new Consortium to pursue issues and opportunities concerning the role of dairy foods in human health and nutrition.

The new Dairy Health and Nutrition Consortium became operational in the third quarter of 2007 combining the objectives of the proposed Gardiner Consortium and Dairy Innovation's human nutrition program.

Prior to the agreement for the merger, the Foundation had been well advanced with planning for the 'Gardiner Consortium' to undertake substantiation of health claims made for dairy products. A clear need for this work was evident from the worldwide trend for food safety regulators to demand that health benefits claimed for particular foods are able to be substantiated with scientific evidence.

The merger with Dairy Innovation means that a comprehensive program of substantiation and innovation will exist side by side and a majority of processing/manufacturing companies have agreed to participate to fund and direct the Consortium's work. Both the Foundation and Dairy Innovation executives believe that the synergies offered by creation of a combined Consortium were too important to ignore.

As part of the new arrangement, the Foundation will fund the substantiation of health and nutrition claims through a separate program within the Consortium. Funding will be provided to Australia's leading bio-medical and agri-bioscience research organisations to undertake the necessary research and development and documentation of evidence in support of label claims.

A second program for the Consortium, to be funded by Dairy Innovation, will deliver broader research and innovation services in human health and nutrition for the dairy manufacturing sector. The Consortium will be under the direction of a management committee comprising industry members who will develop and agree priorities for pre-competitive research opportunities. The management committee will also contract and review research and development projects.

For its part, the Gardiner Foundation will provide \$0.5 million to match funds from industry partners for substantiation claims.

In addition, the Foundation will fund on a \$1 for \$2 basis individual member companies to pursue innovation or substantiation research for the benefit of the community through healthy dairy foods. The commitment for this work will also be at the level of \$0.5 million per year.

The management committee recently commissioned and received a consultant's report entitled *'Building the Dairy Pyramid'* by leading health scientists Professor Nick Gough and Professor Linda Tapsell. The report identifies priorities for health and nutrition investigations as well as profiles of diseases able to be targeted with dairy products, and target demographics in key populations.

'Building the Dairy Pyramid' has been used by two major industry workshops, attended by key industry representatives, in setting strategic directions for priority issues for the Dairy Health and Nutrition Consortium. It is expected to lead to a well founded research program with commissioning of projects to commence from January 2008.

Dr Alan Hillier (l.), Science Manager, Biotechnology & Microbiology and Dr Kees Versteeg, Director Innovative Foods Centre, hosting a Gardiner Foundation visit to the Food Processing Centre, Food Science Australia at Werribee. L. to r. Max Fehring, Professor Paul Moughan, Dr Graham Mitchell, Megan Dyer, Chris Nixon and Ian MacAulay.



projects - an overview

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The Gardiner Foundation provides financial support for a diverse range of projects that benefit the Victorian Dairy Industry, dairying communities and the Victorian community at large. Extensive use is made of networks and partnerships to identify opportunities, needs and priorities across the whole dairy supply chain from farm to factory, and within communities.

Our portfolio of funded work provides a mix of short term projects offering rapid application of outcomes, together with projects where the potential gains are huge but the probability of success is lower and time frames longer. The Foundation's investment in the biosciences can readily be seen as being in the latter category. However, time frames from concept to application for the biosciences are rapidly shortening as tools and techniques improve and, in consequence, benefit-risk ratios are becoming much more favourable.

It is the Board's responsibility to constantly ensure that the balance of low and high risk projects is appropriate.

Since inception, the Foundation has supported over 300 different projects with total investment by the Foundation exceeding \$20 million. The combined value of the work, including investment by our partners, now totals over \$87 million. The most significant area of investment continues to be in research and development, accounting for two thirds of total commitments.

Collectively, projects supported by the Foundation have had impact in all areas of Victoria and upon all sectors of the dairy industry and the communities behind the industry.

In the following pages, this Review describes a selection of projects to highlight the many different elements of the Foundation's overall investment portfolio. The selection includes projects where the development of new technology is the prime purpose as well as others where opportunities for communities and individuals to improve local facilities and services and enjoy fulfilling lives are the key outcomes.

CLOSING THE LOOP

Project Leader:

Dr Graeme Allinson DEPARTMENT OF PRIMARY INDUSTRIES VICTORIA

Partner organisations:

Food Science Australia, Deakin University, RMIT University, Victorian University of Technology, Dairy Australia, Bonlac Foods, Tatura Milk Industries, Kraft Foods, Murray Goulburn Cooperative Company, Dairy Farmers, South West Water, Regal Cream Products, Warrnambool Cheese and Butter Factory, Goulburn Valley Water, Collex Victoria, Orica Chemicals.

This recently completed major research and development project was undertaken to provide the Victorian dairy industry with tools to reduce the estimated \$40 million annual expenditure on waste management. The project focussed on alternative technologies and methods to reduce salt and organic loadings in wastewaters, recover solid organic wastes, and develop best practice guidelines for composting and land application of wastes to minimise environmental risk.

Closing the Loop brought together research organisations and industry partners in a collaborative project to develop new options for treating dairy processing wastes that would be sustainable for industry as well as environmentally responsible.

Particular issues addressed by the project were the amount of salt introduced through alkali cleaning agents and the use of about 7 ML of potable water for cleaning each year. The resultant liquids and sludges are traditionally dealt with through a combination of irrigation onto land, use as stock feed by piggeries, or discharge to town sewer systems.

Results have shown that sodium loads introduced by cleaning agents can be significantly reduced without affecting cleaning efficiency, and that salt, calcium and phosphorus can be recovered from waste water ponds for reuse. It was also demonstrated that organic waste sludges can be effectively composted and the resulting compost applied to agricultural land with no discernible impact on fertility or soil structure.

There is tangible evidence that the findings of the work have led to changes at industry level in terms of the types and amounts of cleaners used and recovered in factories as well as in practices related to salt recovery and usage from waste streams. These changes in practice have led to meaningful financial savings for the Victorian dairy industry as adjudged by a range of industry experts. Fonterra's Jane Sugrue said the Cobden factory has already changed cleaning agents following the project.

Jeff Roberts from Tatura Milk Industries said his company had engaged a site-wide salt water audit in conjunction with the local water authority, EPA and DPEC, and the outcomes from the audit, along with several other TMI initiatives, had seen an approximate hydraulic load reduction in the order of 20% and a sodium reduction of almost 50%, and with more investment this will reduce further.

Grant McFarlane from Orica Australia said that his company was taking up the challenge to develop new cleaning materials for use in dairy factories that would reduce their environmental impact.

Conditions, under which the various technologies offer the greatest value, and guidelines for their use, have been documented in a series of fact sheets. These are already available to all dairy factories and are being widely used. The fact sheets together with other project reports are available at <http://diaa.asn.au/resources/closing-the-loop/112/default.aspx>.

SMART DRYING

Project Leader:

Dr Martin Palmer DAIRY INNOVATION AUSTRALIA LIMITED

Partner organisations:

Monash University, INRA France, University of Queensland

Spray dried dairy powders account for over 50% of the \$2.6 billion dollars of dairy product exported annually from Australia. Central to the maintenance of these markets is the need for continual improvements in the efficiency of powder production and the capacity to develop products to tight specification for specialty markets that attract a premium.

A recently funded project led by Dairy Innovation Australia aims to address several issues that currently limit milk powder production. Firstly, processing efficiencies are limited because industry lacks objective information for optimising drying parameters in manufacturing plants. Trial and error approaches are used to establish dryer settings for safe performance and once established, these tend to remain in use without further evaluation and with little further regard for optimisation of energy usage.

Secondly, the time taken to alter dryers to produce milk powders to tight customer specification is often too slow and potential new markets can be lost. Reliable modelling data for dryer performance and its rapid manipulation is urgently needed.

The project is applying new techniques in process modelling, chemical engineering and materials science to develop a capability to make incremental improvements to plant efficiency and the ability to make rapid changes to powder specification to meet customer needs. The prime beneficiaries of this work will be dairy manufacturers with flow on effect to milk suppliers where higher value powders enter the market.

It is anticipated that efficiency gains through energy savings in the drying process will be available by late 2008 with the remainder of the project objectives to be delivered by the end of 2009.

An important partner in the research is the French National Institute for Agricultural Research (INRA) which has well developed models for predicting the performance of spray dryers under different operating conditions.

IMPROVED VARIETIES OF WHITE CLOVER AND PERENNIAL RYEGRASS FOR DAIRYING

Project Leader:

Professor John Forster & Dr Kevin Smith MOLECULAR PLANT BREEDING CRC

Partner organisations:

Department of Primary Industries Victoria

Plant breeding methods used for improvement of pasture species have traditionally been relatively slow due to the need to assess breeding value of individual plants by biochemical or visual evaluation.

The Molecular Plant Breeding Cooperative Research Centre has been actively supported by the Foundation, along with Dairy Australia and Meat and Livestock Australia, to produce innovative and effective new plant breeding methods for the main-stays of dairy pastures, white clover and ryegrass.

The new approach developed by the project team is to use genetic markers for early-stage identification of individual plants that carry superior versions of genes for valuable agricultural characters such as nutritive quality and digestibility. Many thousands of young plants can be screened very rapidly and accurately for the presence of these superior gene variants. Screening is performed using high-performance instrumentation located at Victorian AgriBiosciences Centre at Bundoora, Melbourne.

The process is an extremely powerful method of plant selection. Activities in the first four years of this program have established a powerful and world-leading suite of resources, tools and strategies for implementation in plant breeding programs. The first generation of gene-based technologies, targeted on herbage quality, are now being tested in commercial ryegrass breeding pools in collaboration with a major industry partner. Success in this area will ensure early adoption into routine plant breeding programs within the next couple of years.

The researchers are now extending their DNA profiling technology beyond the initial breeders' traits to search for plants with better disease resistance, heat tolerance, drought tolerance and soil nutrient usage. Linkages with commercial seed producers will allow delivery of novel varieties to the market, with major economic benefits for local producers in the pastoral industries due to superior feeding quality, productivity and persistence.

IMPROVING WATER EFFICIENCY, PRODUCTION SYSTEM AND ENVIRONMENTAL PERFORMANCE IN DAIRY PASTURES – UTILISING SUB-SURFACE DRIP IRRIGATION

Project Leader:

Associate Professor Roger Wrigley THE UNIVERSITY OF MELBOURNE

Project Coordinator:

Professor John Langford UNIWATER

Partner/Participant Organisations:

The University of Melbourne Faculties of Engineering, Land & Food and Veterinary Science; Department of Innovation, Industry and Regional Development; Goulburn-Murray Water; Netafim Australia Pty Ltd, Plastro Asia Pacific Pty Ltd, Toro Australia Pty Ltd, National ICT Australia, IMJ Consultants Pty Ltd, Goulburn Broken Catchment Management Authority

About one quarter of Australia's milk production has come from cows grazing irrigated pastures in the Goulburn Broken catchment in northern Victoria. However, with the diminishing availability of irrigation water, the irrigated pasture oriented component of our dairy industry is seeking urgent ways to improve its water use efficiency and must be prepared to operate in a competitive market for water.

New technologies are emerging that can improve water use efficiency. One of these, sub surface drip irrigation, is new to a grazed pasture based dairy industry but has been used in horticulture and row cropping for many years. Trial information for dairying is very limited and there are many unanswered questions about its efficacy and longevity as a means of water delivery.

A joint research program on sub-surface drip irrigation for grazed dairy pastures has been established.

The main objective of the program is:

“To explore, evaluate and demonstrate the feasibility and wider benefits of using sub-surface drip irrigation for pasture production, and to make clear recommendations about its applicability for the dairy industry.”

The program comprises two projects:

- > The first project is funded by the Gardiner Foundation and is undertaken by The University of Melbourne. It focuses on targeted exploration of the limiting criteria that govern the successful application of sub-surface drip irrigation to dairy production systems.
- > The second project is funded by Victorian Water Trust through Department of Sustainability and Environment, Department of Primary Industries, Dairy Australia and Murray Dairy and is undertaken by Department of Primary Industries. It focuses on the feasibility in dairy commercial operations and catchment implications of sub-surface drip irrigation for pasture production under grazed conditions.

The Gardiner Foundation project is exploring how water quality, soil characteristics, stocking rates, system design, operations and maintenance affect sub-surface drip irrigation performance in terms of system pressures and flows, clogging, bio-fouling, pugging, conduit damage (including the possible protective effect of pasture above the conduit), lateral water distribution and root propagation. These issues are complex and inter-related. Drawing on laboratory and field experiments, the project will establish the potential for production system and environmental benefit from possibly ‘niche’ deployment of the sub-surface drip technology. This will include establishing management practices such as water filtration and treatment, alternative layouts and operating modes.

A third project ‘*Regional Benefits through Smarter Irrigation*’ has been underway at the University of Melbourne since July 2005. Supported by a Science, Technology and Innovation Grant from the Victorian Government, this project develops and uses innovative wireless sensor networks to more tightly match and control the delivery of irrigation water to meet plant needs. The larger component of this project focuses on border check irrigation in the dairy industry, with the aim of using real-time measurement and control to increase economic water use efficiency and environmental performance. This project and the Gardiner project have been designed to complement each other and are both being undertaken at the University of Melbourne’s dairy farm at Dookie. This provides the opportunity for side-by-side comparison of border check irrigation and sub-surface drip irrigation under optimum conditions. The technology for real-time measurement and control may well prove key in the effective delivery of sub-surface drip irrigation.

MINING AUSTRALIAN BIODIVERSITY TO IMPROVE PROFITABILITY OF THE VICTORIAN DAIRY INDUSTRY

Project Leader:

Dr Kevin Nicholas DEPARTMENT OF ZOOLOGY, UNIVERSITY OF MELBOURNE

Partner organisations:

CRC for Innovative Dairy Products, Massey University New Zealand

The biosciences are opening a wide range of new opportunities for the dairy industry.

Any technology that improves the production capacity of cows or the market value of milk offers significantly improved returns to farmers and to the supply chain. This project has focussed on two key areas - opportunities to improve farm productivity through extending lactation length, and identifying and developing higher value components in milk.

Although there is genetic diversity among cows for control of lactation, it is limited compared to what is observed in native animals. Some Australian natives appear to be able to control aspects of lactation and milk composition in very unique ways.

The Tammar Wallaby, for example, is able to regulate both the level and composition of milk production so as to control the growth and development of the young in the pouch. Growth can be either slowed or accelerated according to the availability of feed. Of particular interest is their ability to increase milk production later in lactation, a characteristic that would be highly valued in cows.

The Australian fur seal by contrast faces a different challenge. Lactating females must alternate long feeding periods at sea with short periods suckling their young while back on shore. Milk production is down regulated at sea and rapidly increased during short lactation sessions. Once again, these animals exhibit the ability to control lactation in ways that cows do not.

This project is looking for the specific genes or milk components in Australian natives that determine the persistence of lactation and the composition of the milk. Once this knowledge is available, it should enable a more effective search for these same traits in cows or the development of technology to encourage the traits to be displayed by cows.

The first stage of the project has been completed yielding a wealth of data. For example, analysis of the expression of over 10,000 Tammar genes has identified nine that are considered the most likely to be involved in regulating milk protein synthesis. In addition, a large number of bioactive proteins have been identified in the milk from wallabies, seals and the platypus that appear to be related to lactation.

These genes and milk components of interest will be rapidly followed up within a new project funded by Dairy Australia to evaluate their significance and application in dairying.

THE IMPACT OF BLUE GUM PLANTATION FORESTRY ON THE DAIRY INDUSTRY

Project Leader:

Associate Professor Kevin O'Toole DEAKIN UNIVERSITY

Partner organisations:

Corangamite and Glenelg/Hopkins Catchment Management Authorities Shire of Corangamite

Blue gum forestry plantations have become widespread in the higher rainfall areas of Victoria over the past 15 years. It is estimated that there are now over 150,000 hectares of blue gum in Victoria and they are growing by about 10,000 hectares per year.

Western district dairying communities are becoming concerned by the number of dairy farms already transformed into plantations. Their concerns stem from the loss of farming families and the flow on effects including contraction of local economies, loss of services and a decline in infrastructure.

Unfortunately there is little information available to quantify these impacts or to fully allow for the contribution from value adding through processing on the economic health of total communities and regions.

A current project by the Warrnambool campus of Deakin University is undertaking an objective study of the impact of a change in land use on local economic and social profiles. The project will develop specific information about both forestry and dairying enabling industry and local government planners to undertake comparative analysis and to make more informed decisions.

Data is being gathered from the Heytesbury area, but the resultant analysis information will enable the dairy industry, local communities and entire regions to develop their own policy positions for local land use more widely across the State.

To date the project team has undertaken development of the analytical framework for the study including the selection of regions for study, a review of relevant literature, trends and established policies, overseas experience and development of structured questionnaires for interviews.

Progress with the project is positive and a final report for the Foundation is due in April 2008.

SUSTAINABLE DAIRY FARM FAMILIES (SFF) - THE HUMAN RESOURCE IN THE TRIPLE BOTTOM LINE

Project Leader:

Ms Susan Brumby WESTERN DISTRICT HEALTH SERVICE

Partner organisations:

United Dairyfarmers of Victoria, Colac Area Health, RMIT University, La Trobe University, WestVic Dairy, Department of Primary Industries Victoria

This project forms part of a larger study of the health status of Australian farming families. The Foundation has provided funding to enable inclusion of dairying families in the study.

The program was developed by Western District Health Service, Hamilton and has now been trialled with over 700 farm families from 2004 to 2007 across Australia. It was awarded a Victorian Public Health Award in both 2005 and 2006 for excellence in service delivery and farmer participation and the Royal Melbourne Institute Technology Research Partnership Award in 2006.

At the outset, the program focused on engaging farmers and increasing their awareness of the early signs of illness, particularly the key risks of cardiovascular disease, cancer, diabetes, stress, diet and nutrition as well as farm safety. Evidence supports that these have significant impact on the long term success of farming businesses.

The emphasis throughout was on giving dairy farming families the knowledge and ability to take control over their own health, wellbeing and safety through focus group discussions, structured workshops, physical health assessments, questionnaires and surveys.

An indication of the success of the program to date is that 84% of farmers recruited to the study have retained their interest and involvement for over three years and have undertaken changes to their lifestyles that have resulted in reduced indicators of diseases such as cardiovascular disease, diabetes and cancer. They are also making increased use of protective aids on farm machinery, planning definite farm holidays and using stress reduction techniques. WDHS has facilitated other Victorian health services in using the SFF program with 54 health professionals now trained in the SFF process. The Dairy program has been a key part of this roll out.

Examples of changed behaviours noted among dairy farmer participants have included more physical activity, inclusion of high fibre components in diets, better sun protection and follow up on health referrals. In earlier projects body mass and cholesterol levels have fallen and high risk alcohol consumption has been reduced.

A full report will be available in terms of:

- > changes in health indicators such blood sugar, cholesterol, body mass index, blood pressure and injuries
- > changes in health behaviours, exercising more, increasing safety, use of protective equipment and gear, alcohol consumption
- > changes in attitudes towards farm business decision-making and the impact that health, wellbeing and safety has on this.

The findings from the Sustainable Dairy Farm Families project will interest farming communities, government, industry and health services. Policy makers in areas such as OH & S, education, rural infrastructure, primary industries, social justice and health will also find the results useful and informative.

Recently, the Victorian Government announced that it will provide \$2.9 million over two years to support all agricultural industries to access the Sustainable Farm Families program and help 1000 farm families across Victoria address the physical and mental health impacts of prolonged drought. This is an excellent outcome and the Gardiner Foundation has been a significant and important part of the Sustainable Farm Families expansion.

DAIRYSAGE MENTORING – A SUSTAINABLE MENTORING FRAMEWORK FOR THE DAIRY INDUSTRY

Project Leader:

Mr Mike Weise WESTVIC DAIRY INC.

Partner organisations:

Dairy Australia Limited

Dairy farming is, by its nature, a demanding and isolated activity. Dairy company and service industry staff can also find themselves operating in isolated environments.

One option to develop the people in the dairy industry is to establish mentoring partnerships to provide safe advice and engender confidence and motivation. Impacts of mentoring can range from business gains through to personal development. Previous attempts to establish mentoring programs have failed by not properly embedding them into key dairy industry organisations to ensure they are effectively managed and supported.

Following an examination of mentoring schemes operating in Australia, the project team will develop a framework suited to dairying and a resources kit for participants. Within each key dairying region of the State, an organisation will be recruited to become the champion for the program and will receive advice, training and a package of support materials.

Mentors and mentees will be offered a 2-day introduction training workshop which will cover the essentials to set them up for a productive mentoring experience. DairySage Mentoring will include an evaluation over the life of the project as well as monitoring the mentoring partnerships.

2006-2009 SOUTH WEST LOCAL AND REGIONAL VOLUNTEERISM INITIATIVE: STRENGTHENING AND SUSTAINING SW COMMUNITIES

Project Leader:

Ms Sue Meyer COMMUNITY CONNECTIONS (VICTORIA)

Ms Josie Black OAM SOUTH WEST COMMUNITY CAPACITY CONSORTIUM

Partner organisations:

Warrnambool City Council, South West LLEN, Terang and Mortlake Health Service, Department of Planning and Community Development

The South West Community Capacity Consortium is a partnership of eight regional organisations across five local government areas in the south west region of Victoria. This project stems from the recognition that in strong communities, individuals and organisations have the capacity to manage their own affairs and work collectively to obtain positive change. Volunteerism is an essential component of strong communities and sustainability of the volunteer sector is essential for the future of towns and rural communities.

The project aims to establish a strong and sustainable volunteerism network in South West Victoria based on a partnership between governments, community and the private sector.

The project has established an enthusiastic reference group from across the region, representing different volunteer sectors and interests, and created a web site to collate information, services and advice for volunteers and their organisations.

The Sustaining Volunteerism Initiative has engaged two Community Facilitators to work with communities across South West Victoria – Helen Bayne having responsibility for the Glenelg, Southern Grampians and Warrnambool Local Government areas and Emily Lee-Ack for the Corangamite, Moyne and Warrnambool Local Government areas.

The Sustaining Volunteerism Initiative has created a web site to offer relevant training materials on a range of topics related to volunteering, reducing the cost burden for volunteers and volunteer organisations, as well as promoting the work of volunteer groups across the region. The web site can be found at www.swvolunteerinitiative.org.au.

The Sustaining Volunteerism Initiative has been instrumental in the creation of a Supportive Volunteering Pathways Group which seeks to increase the participation of volunteers with physical, intellectual and mental health disabilities in volunteering by providing support to volunteers and host organisations.

Corporate and philanthropic participation in volunteer group sustainability is also a priority for the project, beginning with a conference stream at the Community South West Conference in February 2008, which will explore additional opportunities for businesses and trusts in the South West to provide their skills and expertise to local voluntary groups.

DEVELOPING DAIRY COMMUNITIES

Project Leader:

Ms Jenny Frederiksen UNITED DAIRYFARMERS OF VICTORIA

Partner organisations:

WestVic Dairy, GippsDairy, MurrayDairy, Australian Dairy Farmers Ltd, Murray Goulburn Co-operative Co Ltd, Fonterra Australia (Bonlac Foods Ltd), Dairy Australia, Warrnambool Cheese and Butter Factory Co Ltd, Goulburn Ovens TAFE, Tatura Milk Industries Ltd.

The Victorian dairy industry actively pursues strategies that assist younger people to enter and remain within the industry and to develop satisfying and successful careers. Currently, many young people are not returning to farming for a variety of reasons including a lack of awareness of the opportunities available in dairying. There is also a perception of poorer standards of facilities in rural communities such as schools, tertiary institutions, public transport and arts and entertainment.

Another important deterrent is the feeling of isolation, absence of accessible networks for industry and business learning, and opportunities for social interaction.

Over the past several years, the Foundation has provided funding to support a young dairy farmer development program in Gippsland which has successfully demonstrated how education and social opportunities for young people can be provided. This earlier project has now been extended to the present State-wide project led by the United Dairyfarmers of Victoria.

The program aims to develop an integrated industry program to build the capacity of younger people in the dairy industry and to create and maintain a strong network of younger people in industry sectors and local communities. The project works simultaneously on personal development, industry development and community development. All industry sectors (farming, process and service) are included in the program.

Overall management and strategy for the project is provided by a State Steering Committee and State Coordinator, while Local Advisory Committees (LACs) made up mainly of young farmers, service providers and key local personnel organise activities that best meet their needs. Typical functions include dinners with guest speakers, financial seminars, barbeques, social events, tours and trips.

Three Regional Coordinators work with the LACs and their role also includes the identification of training and personal development opportunities, such as offered by the National Centre for Dairy Education Australia (NCDEA), Department of Primary Industries, UDV programs and courses.

These training programs and extension activities may offer the option of accreditation into formal educational qualifications. The project also provides the opportunity for participants to progress within an identified leadership pathway.

There is positive feedback from communities together with strong industry support for the program.

PARTNERS IN EDUCATION

Project Leader:

Mr Paul Stolz TYPO STATION

Partner organisations:

Victoria Police Wodonga, Catholic Education Office, Sandhurst Diocese, Pavilion Education Reengagement Project
Grange P-12 College Hoppers Crossing

The Typo Station organisation provides educational and experiential learning opportunities for disadvantaged young people at a campus on a previous cattle station in north east Victoria. Over recent times, the Gardiner Foundation has provided bursaries each year to enable participants from dairying districts of the State to undertake the Typo Station program.

The Foundation recently agreed to take a more proactive role in facilitating an extension to the program involving additional numbers of attendees, a wider range of programs and partnerships with schools and community groups in a number of areas across the State.

The new programs involve the development of leadership programs for disadvantaged young people from both metropolitan and regional Victoria as well as personal development and curriculum extension programs for alternative education settings.

Anticipated outcomes from these programs include greater interest created in the dairy industry by managed career introduction and the 'Cows Create Careers' Program in selected schools. It is also intended that these programs will support young people to remain in their local community, particularly in regional and rural Victoria and to build a network of support to enable this to happen in a deliberate manner. It is hoped that this will build strength in the local community where young people can find work and be constructive contributors to the community at large.

YARRAM COMMUNITY LINKS PROJECT

Project Leader:

Mr John Rojo YARRAM SECONDARY COLLEGE

Partner organisations:

Yarram Community Health Centre Central Gippsland TAFE, Victoria Police (Yarram Branch), Yarram Youth Group,
Bakers Family Counselling Centre Wulgunggo Ngalu Learning Place Wellington Shire Council, Youth Pathways, Yarram Rotary Club

A partnership has been formed between key education, social and government organisations led by Yarram Secondary College to offer an alternative education opportunity. The new program is attempting to give disadvantaged youth the education, motivation and confidence to take an active and positive role in their community.

Yarram is typical of small dairying communities in Gippsland in being challenged by its isolation and downgrading of critical infrastructure. In particular, the community has a declining capacity to care adequately for the social, health and educational needs of disengaged young people.

During 2007 the Foundation supported the establishment of physical infrastructure including the relocation and recommissioning of a building and provision of computers and associated equipment.

An off campus program has been established at the Old Yarram Station where 20 young people are now enrolled. All students participating in the course at the Station have the opportunity to complete a Victorian Certificate of Advanced Learning (VCAL). This is a Year 12 qualification which provides the option to undertake TAFE and VET subjects to suit individual needs.

Emphasis is placed on providing computer literacy but students are also encouraged and motivated to take an active part in community programs. All students must undertake part time employment amounting to 100 hours per semester. Students completing the course will have the basic qualification to gain apprenticeships or full time employment in areas for which they are suited.

In addition the Foundation encouraged the collaboration of the Community Links Project and the Yarram Agriculture Society to assist the show society in running the Commercial Cow Challenge.

COWS CREATE CAREERS

Project Leader:

Ms Deanne Kennedy & Mr John Hutchison LIONS CLUB OF STRZELECKI

Partner organisations:

Dairy Australia Limited, ANZ Bank

Cows Create Careers is a school program that introduces students in years 7-11 to the dairy industry using a calf rearing project and mentoring by industry people. Local dairy farmers loan female calves for three weeks and visit the school to teach students about looking after the calves and about careers in dairying.

The project, initially operated on a 100% volunteer basis, was first granted Gardiner Foundation support in 2005 when the Lions Club of Strzelecki launched the program in nine schools involving about 140 students. From its humble beginning, the program expanded to 44 schools and 1200 students by the end of 2006. From 2006 Dairy Australia became a major financial supporter of CCC, enabling the project to also be introduced in New South Wales. The latest figures indicate involvement of 78 schools and 2500 students across Victoria and NSW and in 2008 it will be implemented also in Tasmania and South Australia.

Gardiner Foundation again became a financial supporter of the project in 2007 and were joined as a co-funder by the ANZ Bank, with Dairy Australia maintaining its support. Murray Goulburn, Reid Stockfeeds, Shoof International and Landmark have continued their support throughout.

The program was recently presented at a girls' school in suburban Melbourne. Teachers have revealed that enrolments in agricultural courses have grown from 40 to over 100 since the hands on experience with animal husbandry. Students have enthusiastically embraced the program and early indications are that veterinary science and animal technology fields have become increasingly popular as potential career options.

The project is an excellent example of what can be achieved by innovative project management, working with the dairy industry and education system, to raise awareness of the various career opportunities the dairy industry provides. It has brought regional and metropolitan students into contact with the dairy farming community, through provision of the calves for schools, farm visits and mentoring, as well as introducing students to dairy research at the Department of Primary Industries Dairy Research Institute at Ellinbank, near Warragul. It has also increased awareness of related issues to dairy farming, such as catchment and natural resource management on farm.

NUFFIELD SCHOLARSHIP WINNER GAINS INSIGHTS FROM TRAVEL

Project Leader:

Mr Jim Geltch AUSTRALIAN NUFFIELD FARMING SCHOLARS ASSOCIATION

For the second time the Foundation has sponsored a Nuffield Scholarship winner to travel both domestically and internationally in order to study market and farming conditions in other countries. Through the scholarship, recipients are assisted to become better farm managers and are urged to share their knowledge and to take on leadership roles in their own communities.

The Gardiner Foundation was proud to sponsor the 2006 winner, Merrigum dairy farmer Jamie Snell. His travel included visits to the US, Canada, China, the Philippines, Ireland, France, New Zealand, United Kingdom, and the Netherlands where his special interest was in farm business efficiencies, opportunities for new entrants, and succession planning as well as the efficient use of irrigation water for fodder production.

Jamie looked first-hand at dairying in Canada where 'supply management' protects the dairy industry from imported supply of milk and milk products. The system means Canadian dairy producers have to belong to a dairy organisation and have to own quota in order to supply milk. Jamie says supply management means Canadian farmers have a very mature market, with relatively high prices compared to the rest of the international market. However, growth prospects are limited, he says, as to purchase a kilogram of quota costs around Can \$30,000. An average 200-cow herd would need to invest around \$6 million dollars in quota alone, before any other costs associated with owning and operating a dairy farm, he says.

Constant themes during Jamie's travels were the environment and energy. Many of the dairy operations he visited in the US states of Wisconsin, and Illinois, could see more of a future farming corn for ethanol production rather than persisting with dairying following the Bush administration's mandate, earlier this year, for the production of ethanol from corn.

Jamie says the US's mandate has seen an amazing flow-on effect across world economies. *"Record prices for food products are currently being paid, and agriculture currently seems to have a very profitable future,"* he says. *"I believe to sustain the current levels of confidence in agriculture we need to have Australian policies in place that allow the uptake of new technologies, training and educational options that makes agriculture a career of first choice, not last resort."*

The Gardiner Foundation is pleased to support the Nuffield Farming Scholars program and recognises the excellent work done by Nuffield in disseminating learnings and outcomes from the activities of its scholars. Jamie is becoming increasingly involved in dairy industry issues, and his full report will be available early in 2008 on www.nuffield.com.au.

*A visit to the Yarram Community Links project, a partnership between key education, social and government organizations led by Yarram Secondary College.
L. to r. Paul Ford, Shane Ponsford (TAFE Outreach), Eddie McDonald (Yarram Agricultural Society), Damian Yodgee (Yarram Youth Group/Police Youth Officer), Cynthia Mrigate (Gardiner Foundation), John Rojo (Community VCAL Coordinator), Melanie Mitchell (Student Welfare Officer) and Terry Harrington (Principal Yarram Secondary College).*

Students from the Kerang Technical High School, participating in the Cows Create Careers program, promoting careers in the dairy industry.

Photo by Yarram Standard News



funding commitments

gardiner foundation funding commitments 2006-07

An additional round of funding early in the 2006-07 financial year committed \$2.5 million to 50 projects with a total value from all partners of \$10.9 million (see table below).

The funded projects are included in the following project lists, together with projects funded in the 2007 annual round of funding.

	2005-06 \$'000	2006-07 \$'000	Change ±%
Annual funding rounds	2,503	3,569	+42
Dairy Innovation Australia	-	350	na
Dairy Health and Nutrition Consortium	-	1,000	na
Additional funding round	-	2,500	na
	2,503	7,419	na

innovation program 2006-07

Project Organisation & Partner Organisations	Project Title
Austin Hospital Medical Research Foundation Dairy Australia Limited Murray Goulburn Co-operative Co Ltd Warrnambool Cheese and Butter Factory Monash University	A dairy based protein, calcium and vitamin D supplement, will improve bone structure and reduce bone fragility and fractures in aged care residents
Australasian American Oil Chemists Society	AAOCS Conference, December 2006
Dairy Food Safety Victoria The University of Melbourne DTS Food Laboratories	Developing a Learning Network for Dairy Food Safety in Victoria
Dairy Industry Association of Australia	2007 Dairy Science World Series Conference, August 2007 Turning barriers into benefits – The science behind dairy regulation
Dairy Innovation Australia Limited Monash University Dairy Process Engineering Centre Institut National de la Recherche Agronomique (IINRA), France The University of Queensland	SMART DRYING: A collaborative research initiative to engineer a step change in the international competitiveness of the Australian dairy industry
Department of Primary Industries	Environmentally sustainable and productive use of dairy pond sludge for forage production on farm
Department of Primary Industries J Craig Venter Institute	Uncovering the secrets of the rumen – environmental genomics capturing the vastly uncharacterised rumen microflora
Food Science Australia	Creating transport efficiency through bulk movement of dairy powders

innovation program 2006-07 cont.

Project Organisation & Partner Organisations	Project Title
Food Science Australia Dairy Innovation Australia Limited	Kill the bugs and save the proteins
Food Science Australia	Effective strategies for the control of biofilms in dairy factories
Food Science Australia Monash University University College Cork	Improved functional dairy products through high pressure processing
Food Science Australia	Food Innovation, Emerging Science and Technology Applications (FIESTA) Conference, November 2006
GippsDairy Board Inc Macalister Research Farm Co-operative Limited Department of Primary Industries	Demonstration and communication of best practice management of dairy effluent ponds and their nutrients, and impact on profitability
Molecular Plant Breeding CRC Dairy Australia Limited Meat and Livestock Australia	Development and Implementation of Candidate Gene-based Markers in Out crossing Forage Species
National Dairy Alliance	National Dairy Alliance Forum, March 2007
National Dairy Alliance	Dairy Science 2007, August 2007
The University of Melbourne The University of Melbourne Departments of Physiology and Medicine	Optimising the bone response to dietary calcium: a physiological approach
University of South Australia Nutritional Physiology Research Centre	Pentadecanoic acid: a unique marker to explore relationships between dairy fat intake and metabolic risk
Warrnambool Cheese and Butter Factory	An extension project to increase milk protein supply and improve milk quality and composition to enhance manufacturing productivity and market value of dairy products in western Victoria

biotechnology program funding 2006-07

Organisation	Project Title
CSIRO Livestock Industries MG Nutritionals Deakin University	Commercial production of the milk protein Muc1 for existing and new markets
The University of Sydney XY Inc Total Livestock Genetics	Sex selection of dairy cattle sperm for the Victorian dairy industry

community & people development program 2006-07

Organisation	Project Title
Agribusiness Gippsland Inc.	Supporting Gippsland ABARE Conference
Alpine Valleys Community Leadership Program	Alpine Valleys Annual Conference and Graduation, June 2007
Australian Red Cross Victoria	Save-a-Mate. Promote the health and wellbeing of young people by providing education, service and support on key current and emerging health issues, particularly those related to alcohol and other drug use and mental health
Co-operative Federation of Victoria Co-operative College, UK United Dairyfarmers of Victoria Murray Goulburn Co-operative	Co-operative development and training for the Victorian Dairy Industry
Dairy Australia Limited National Dairy Alliance National Centre for Dairy Education Australia (NCDEA)	People capability for the on-farm and service provider sectors of the Australian dairy industry
Deakin University Corangamite Shire Council Corangamite Catchment Management Authority Glenelg Hopkins Catchment Management Authority	A model of analysis for measuring the impact of farm forestry in dairy country in south west Victoria
DemoDAIRY Co-operative Regional Development Victoria Corangamite Shire Council	DemoDAIRY multipurpose building and Dairy Extension Centre
Gippsland Community Leadership Program	Gippsland Dairy Industry Leadership and the Gippsland Community Leadership Program
Gordon Institute of TAFE Colac Otways Shire Council Australian Industry Group WestVic Work Force South West Local Learning and Employment Network Western District Employment Access Colac Otway Workforce/Victorian Group Training Company	Milk it for all its worth – explore a career within the dairy industry
Lions Club of Strzelecki Dairy Australia Limited ANZ Bank	Cows Create Careers
Loddon Murray Community Leadership Program Inc.	Loddon Murray Community Leadership Program – Dairy Leadership Scholarship
Murray Dairy Inc. GippsDairy Board Inc WestVic Dairy Inc	Dairy Farming Families Program – funding of drought-related social and information activities
Murray Goulburn Co-operative	Improving farm to factory transport safety

community & people development program 2006-07 cont.

Organisation	Project Title
National Centre for Dairy Education Australia (NCDEA)/Goulburn Ovens TAFE	Creation of Establishment Bursaries to support students entering the first year of the industry-developed program <i>Advanced Diploma of Agriculture (specialising in Dairy)</i>
National Centre for Dairy Education Australia (NCDEA)/Goulburn Ovens TAFE	Creation of Establishment Bursaries to support students entering the industry-developed dairy farm management program (incorporating Certificate IV, <i>Diploma and Advanced Diploma of Agriculture (specialising in dairy)</i>)
Northern District Community Health Services	Development and implementation of schools community water resources project – Loddon Hub
Nuffield Australia	Nuffield farming scholarship for a Victorian dairy farmer
Rochester and Elmore District Health Service Shire of Campaspe Campaspe Community House	Campaspe Men's Link
The Goulburn Murray Leadership Program (Fairley Leadership)	Sponsorship of 2 places in the Fairley Leadership Programme for individuals involved in the dairy industry
Typo Station Victoria Police (Wodonga Branch) Catholic Education Office (Sandhurst Diocese) The Pavilion Education Reengagement Project The Grange P-12 College	Partners in education
Typo Station Ltd	Sponsoring disadvantaged and troubled youth in dairy communities to build life-skills, initiative and resilience for more positive futures
Victorian Dairy Conference	2007 Victorian Dairy Conference – "My Future, My Business"
Victorian Farmers Federation United Dairyfarmers of Victoria Education Centre Gippsland (ECG)	UDV office bearer training – capacity building program
Victorian Farmers Federation/United Dairyfarmers of Victoria Marcus Oldham College	Leadership development of Victorian dairy farmers – Marcus Oldham Rural Leadership Program
Victorian Farmers Federation/United Dairyfarmers of Victoria Federated Farmers of New Zealand	VFF/UDV Dairy Apprentice Tour of New Zealand 2007
Victorian Farmers Federation/United Dairyfarmers of Victoria	Funding for the Dairy Component of the VFF drought website www.drought.org.au
Victorian Farmers Federation/United Dairyfarmers of Victoria	Funding of the State Drought Coordinator position at the Victorian Farmers Federation
Victorian Farmers Federation/United Dairyfarmers of Victoria	Travel bursaries for the Fourth World Congress of Rural Women, Durban, South Africa

community & people development program 2006-07 cont.

Organisation	Project Title
United Dairyfarmers of Victoria	32nd UDV Annual Conference, June 2007
Western District Health Services CIRCLE at RMIT University	Improving the sustainability of the Dairy Farmer Workforce – an economic evaluation of the Sustainable Dairy Farm Families Program
WestVic Dairy Inc Dairy Australia Limited	DairySage – a sustainable mentoring framework for the dairy industry
WestVic Dairy Inc Department of Primary Industries	Great South Coast Dairy Employment Awards
Yarram Secondary College Yarram Community Health Centre Central Gippsland TAFE Victoria Police (Yarram Branch) Yarram Youth Group Bakers Family Counselling Centre Wulgunggo Ngalu Learning Place Wellington Shire Council Youth Pathways Yarram Rotary Club Yarram Agricultural Society	Yarram Community Links Project (incorporating Yarram Agricultural Society – “Cow Challenge”)
Yarram Youth Group Inc	Youth project to transport former education building from Won Wron Prison to the Yarram Railway reserve for community use

On the steps of Parliament House, Melbourne. 2007 project leaders with Gardiner Chairman Chris Nixon and CEO Paul Ford, having just been presented with their award certificates by the Minister for Agriculture, Hon. Joe Helper MP (2nd from right).



small grants funding

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A partnership program of the Gardiner Foundation and the Foundation for Rural and Regional Renewal.

small grants funding 2006-07

Organisation	Project Title
Boisdale Public Hall	Fitness for all - Establishment of a fitness centre to conduct day and evening strength and fitness programs for all age groups.
Buffalo Community Centre	Community involvement – replacing tables and chairs - Provision of new tables and chairs to improve facilities at the Community Centre.
Camperdown Community House Inc.	Garden work and storage shed - Purchase of a 6x6m shed to provide all-weather working space for 12 community groups.
Cohuna Neighbourhood House	Cohuna men's shed - Purchase of woodworking equipment for the Cohuna Men's Shed – a project with strong community support for use by retired and disabled men who act as mentors for students at the local high school.
Denison Recreation Reserve Committee Inc	Waste management - Purchase of a new water tank, waste management and food handling facilities at the Recreation Reserve.
Dingee Memorial Hall	New drink and food refrigerator for hall - New commercial-size refrigerator for community hall used by the school and local community groups.
Hedley Hall & Recreation Reserve Committee Inc.	Upgrading water storage - Replacement of spouting and downpipes, and purchase of a tank and pump to supply water needs independently of town water supply.
Kialla West Primary School	Community multi-purpose room - Grant to be used to upgrade facilities (floor covering, tables and chairs) for two rooms at the School developed as a Community Multipurpose Facility.
Korumburra Kindergarten Inc	Korumburra Kindergarten administrative equipment purchase - Provision of a photocopier, networking computers and ADSL internet connection to assist with administrative and teaching activities.
Kyabram Theatre Group	One-act Play – playwriting competition and performance - The Group is holding a one-act play writing competition on the theme of 'Water', winning entries to be judged and performed in November 2007. Grant to be used for production costs to enable the program to be offered at little or no cost to the community in this severely drought affected area.

small grants funding 2006-07 cont.

Organisation	Project Title
Leitchville & District Progress Association	Contribution to tractor purchase for town care - Funding toward purchase of a tractor to power a slasher for trimming roadside verges and tree plantations, to improve amenity and help with fire prevention.
Lockington & District Bush Nursing Centre Inc.	Community exercise classes - Equipment for a Community Exercise Program for all age groups in newly completed multi-purpose day room
Macorna Playgroup & Recreation Reserve Inc.	A warm welcome to families – playground equipment - Purchase of equipment for a multi-age playground to promote physical and mental wellbeing of both mothers and children.
Maffra & District's Landcare Network	Let's talk about drought and fire - A project aimed at helping primary school children understand the impacts of drought and fire also with an environmental focus on the effects on native plants and animals – in an area impacted by drought, fire and flooding this year.
Neerim Memorial Hall Committee	Table replacement - Provision of ten replacement tables to meet OH&S standards in the Memorial Hall.
Northern Disability Services Inc	Numurkah Community Kitchen - The Community Kitchen program involves a group of people with disabilities meeting weekly to learn basic cooking, shopping, nutrition and budgeting skills.
Rushworth P-12 College	Support for Stephanie Alexander Kitchen Garden Project - Funding for the first year of the school's participation in the Stephanie Alexander Kitchen Garden Project, to become self-sustaining in the future.
Tallandoon Recreation Reserve	Children's playground and barbeque - Improvement of playground and barbeque facilities to meet OH&S standards in a \$100,000 Community Centre established with previous Federal funding and community fundraising.
Tarwin Valley Preschool Inc	Photocopier upgrade - Purchase of a new and more efficient photocopier with scanning and double-sided printing to facilitate administrative activities and production of teaching materials.
Taste of Tatura Festival	Showcasing the Taste of Tatura - Sponsorship of the Taste of Tatura Festival to augment local industries' sponsorship, this year badly affected by the impact of drought conditions on the local economy.

small grants funding 2006-07 cont.

Organisation	Project Title
Tongala Primary School	<i>Discovering Employment Opportunities Within – Our Environment Learning Centre</i> - Establishment of a permanent visual display highlighting employment opportunities within dairying industries in the region, in a Environment Learning Centre for which the group has already raised \$25,000.
Toolamba Primary School Council	<i>Developing community links – equipping the kitchen</i> Purchase and installation of kitchen equipment in the Community Facility building, established with funds raised by Toolamba PS – to be shared by the school, kindergarten, maternal health service and local community groups.
United Dairyfarmers of Victoria District Council 3	<i>Online resources for dairy farmers</i> - Establishment of a localized website to highlight regional dairy issues to dairy farmers.
Venus Bay Community Centre	<i>Fostering participation of young people in activities within the local community</i> - In an area with no public transport and little entertainment for youth, the project will involve youth in consultation about activities they would like to have available, with the objective of forming a Youth Club at the Community Centre.

Presentation of a Small Grants Award to Northern Disability Services for the Numurkah Community Kitchen which develops basic cooking, shopping, nutrition and budgeting skills in groups of people with disabilities.

L. to r. The Rt.Hon Ian Sinclair AC, Chairman of FRRR, Norma Young and Maxine Minotti of Northern Disability Services, and Chris Nixon, Gardiner Foundation Chairman.



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The Gardiner Foundation has an up to date website that offers full information about the Foundation as well as forms and guidelines for applications for funding.

Visit our website at:

www.gardinerfoundation.com.au

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