



We are pleased  
to submit  
our application for consideration

# Banksia Awards 2010

Entry: Michael, Lynne and Nicholas Strong t/a Clover Hill Dairies  
105 Clover Hill Rd  
Jamberoo NSW 2533  
Phone: 02 42 360 309

Email: [lynnestrong@cloverhilldairies.com.au](mailto:lynnestrong@cloverhilldairies.com.au)  
[www.cloverhilldairies.com.au](http://www.cloverhilldairies.com.au)

Category: **Agriculture and Food Award from Paddock to Plate Sustainably**



<b>Entry</b>	<b>1</b>
<b>Appendix 1 -</b> Farm Overview Achievements and Awards	<b>2</b>
<b>Appendix 2 -</b> Farm profile & natural resource management pictorial	<b>3</b>
<b>Appendix 3- Farm case studies</b>	<b>4</b>
<b>Appendix 4 - Beyond the Farmgate</b> Agri-education activities and events	<b>5</b>
<b>Appendix 5 - Letters of Support</b>	<b>6</b>
<b>Appendix 6 - Print Media</b>	<b>7</b>
<b>Appendix 7 - Radio and TV Media</b>	<b>8</b>
<b>Appendix 8 - Media Summary</b>	<b>9</b>
<b>Appendix 9 - Media Photos</b>	<b>10</b>

## Banksia Awards 2010

### Entry: Michael, Lynne and Nicholas Strong t/a Clover Hill Dairies Category: Agriculture and Food Award from Paddock to Plate Sustainably

#### Part 1. Background, driving forces and implementation of the initiative/program

##### Our dairy enterprise

Clover Hill Dairies is an award winning 7th generation family-operated business located at Jamberoo on the NSW South Coast

Business owners Michael, Lynne and Nicholas Strong milk 400 cows three times daily on two farms to produce 4.75million litres of milk per year. [www.cloverhilldairies.com.au/](http://www.cloverhilldairies.com.au/)

Although the farms are located within two kilometres the topography is very different.

The home farm, 'Clover Hill' (Farm 1), is 100ha and is located in steep high conservation value rainforest country on the north east face of Saddleback Mountain. Improving farm efficiency and productivity of pastures in the past 10 years has enabled us to lock-up less productive land for conservation purposes so 50ha of Farm 1 is not grazed.

'Lemon Grove Research Farm' PL (Farm 2) was established in 2008 to diversify our enterprise. It has 60ha of alluvial river flats at the head of the sensitive Minnamurra River flood plain and 33% less rainfall than Clover Hill.

Our dairy businesses have a high urban interface. Clover Hill is part of a dairy centric rural residential subdivision of 12 blocks ranging from 0.4 to 40ha and Lemon Grove is located adjacent to the Jamberoo Township

Our property management plan is based on an integrated ecosystem approach. We have incorporated innovation, ongoing evaluation and continuous improvement management practices into a commercial scale dairy farming system.

##### Our achievements

Our business has experienced phenomenal growth in the past 10 years. We graze twice the industry average of cows/hectare and produce five times the industry average of litres milk/hectare whilst simultaneously reducing green house gas emissions per litre of milk produced by 30%.

We are one of Australia's most water efficient milk production systems producing 125,000 litres of milk per mega litre of captured water (industry average is 3,500 litres).

##### Our drivers

At Clover Hill Dairies we started with a mission to "be" the image we want our customers to see. Our customers want to purchase from farmers who practice the things they value – whether it be animal welfare or environmental protection. They want food produced in a way that is consistent with their own personal values and our aim has been to develop a highly efficient dairy system on a small acreage that meets or exceeds those consumer expectations.

Our vision is to optimise productivity, while minimising production impacts on the natural ecological health of the surrounding catchment. We strive to mitigate farm wastes, potential pollutants and tangibly reduce greenhouse gas emissions. We take action to optimise the conservation benefits and the thriving biodiversity benefits our farms offer to the greater catchment and our greater community. This includes engaging with neighbouring landholders, stakeholders and end consumers to find compatible ways to enhance biodiversity and agricultural production with minimum transaction costs through the supply chain.

## Significance

We believe that it is in the long-term interests of primary producers to work well beyond the farm gate, as the future of Australian agriculture is largely in the hands of our (urban) consumers. At Clover Hill we not only 'walk the talk' but 'talk the walk'. Lynne is particularly passionate about reconnecting rural and urban communities and introducing young Australians to careers in agriculture. Over the past five years she has sourced funds, managed and delivered several projects, including *Picasso Cows*, *Cream of the Crop* and the *Archibull Prize* projects. These innovative projects use art and multimedia to engage school-aged children to explore agricultural sustainability issues and show them that responsible agricultural production is a legitimate use of land, water and other resources.

## Part 2. Achievements and results

### Our environmental credentials

Clover Hill Dairies has developed a highly efficient, sustainable and profitable farming enterprise that supports agricultural production, environmental stewardship and biodiversity enhancement.

The changes we have implemented in the last ten years to improve sustainability include:

- Optimising pasture ground cover (17- 20 tonnes kgDM/ha/year) allowing us to run 4 to 5 cows/ha (2x industry average) and reduce nutrient runoff in high rainfall events.
- Improving our soil carbon levels to between 5 & 12%.
- Moving from twice-a-day milking to three times a day in 2005, increasing milk production by 20% and reducing greenhouse gas emissions by 30% (per litre of milk produced).
- Locking-up less productive land for conservation purposes (50% of *Clover Hill* farm).
- Researching and planting new water and nutrient efficient perennial pasture mixes.
- Recycling 50% of our captured water to achieve water use efficiencies 10x industry average.
- An energy audit and subsequent improvements have resulted in energy efficiency gains of 1,170 kWh per year and saved 11.72 tCO<sub>2e</sub> per year
- Installing off-stream gravity fed water troughs in all paddocks and fencing all waterways.
- Nutrient monitoring and budgeting has reduced our fertiliser use, green house gas emissions and associated production costs.
- Planting 4,000 native trees, shrubs and grasses in riparian zones and shelterbelts.
- Upgrading 2km of laneways to improve cow comfort and farm water quality.
- Increasing staff numbers from 1 full time equivalent (FTE) in 2000 to 4 FTEs and 4 part-time staff in 2010.

*(Please see Appendix 1 pages 9-14/ Appendix 2 pages 20-23 for further detail)*

### External verification

Clover Hill Dairies has completed the Dairy Self Assessment Tool and is a Proven Perfect HACCP A Grade Accredited enterprise. Our enterprise has been assessed and recognised by several outside organisations and has resulted in many industry and community awards and achievements (Appendix 1 page 15).

## Part 3. Scale and broader impact

### A broad initiative

Clover Hill Dairies dedication to, and promotion of sustainable farming practices, is part of a much broader strategy extending well beyond the farm gate and the dairy industry. We seek to enhance, enrich and promote the whole food and fibre chain from paddock to plate.

Our activities extend from our farm, to our local community, to regional schools and now nationally through our Dairy Youth Australia programs. [www.dairyouthaustralia.com.au/](http://www.dairyouthaustralia.com.au/) (see below and Part 5).

### Promoting sustainability

The Clover Hill Dairies team is very active in the promotion of sustainable agriculture to the wider community. We work closely with our local communities and industry stakeholders to build industry and community understanding of the benefits of implementing practices that improve both productivity and environmental outcomes. Examples include (more examples see Appendix 2):

- Holding field days, workshops and sharing information to encourage local landholders to implement Landcare farming practices. ( see Appendix 3 pages 70-80)
- Engaging with the local and national TV and print media. (See Appendix 6 & 7)
- Providing voluntary consultancy services. Lynne is honorary consultant on sustainable agriculture to Australian Government Lands and Coasts for Bundanon Trust and Kiama Municipal Council.
- Actively participating in the Climate Champions Program - Lynne is one of 33 farmers across Australia selected for the Climate Champions program (DAFF). [www.climatekelpie.com.au/](http://www.climatekelpie.com.au/)
- Participating in 2010 Landcare Week as ambassadors.
- Working with a number of local and international universities in the UK and Canada, opening the farm for work experience, as a case study for honours and PhD theses and as a research facility.
- Providing a wide range of opportunities for school students including traineeships and work experience.
- Establishing, chairing, mentoring and seeking funds for Dairy Youth Australia Inc. ( see Appendix 4 page 82-84)
- Developing and delivering agriculture and natural resource management education and awareness events and activities. These include the highly successful *Picasso Cows* Natural Resource Management Program (see Appendix 4 pages 86-139) and piloting the *Archibull Prize* and *Cream of the Crop* competitions.(see Appendix 4 pages 140 -159)

### Applicability of our experiences

The changes we have made to our farming enterprise are highly relevant to the wider dairy industry including using new pasture species, aligning (milk) production with customer (factory) needs, protecting sensitive areas on farms and enhancing biodiversity.

With our most productive agricultural land on our coasts (where everyone wants to live) Clover Hill Dairies has shown it is possible to have highly productive and sustainable dairy operations on the urban fringe. We protect our right to farm by actively involving local communities, communicating our journey and involving them in on farm natural resource management activities. We speak to their children in our locals schools and employ their youth on our farm.

As our productive farming land becomes more closely settled we believe other farmers will need to be equally committed to building lifelong relationships between city consumers and rural providers.

## Part 4. Innovative practices, technologies or standards developed or utilised.

### Our farms

Innovation is a key ingredient of our future success so we established the Lemon Grove Research Farm to undertake targeted research on land and herd management strategies that we are considering adopting on both farms.

The University of Sydney and R&D consultancy SBScibus have been involved in research, including the trialling of new pasture mixes based on perennial legumes and herbs rather than traditional kikuyu and annual ryegrass (that are heavily reliant on nitrogen based fertilisers).

Our farm management is approached from a continuous learning perspective. We have implemented a formal action-learning framework when implementing change on the farm and consider triple bottom line impacts of any changes. We have also established mechanisms to regularly communicate with our neighbours and customers to evaluate whether the changes we are planning to make on our farms will impact on others in the community and further down the supply chain.

We are also working with our community partners Landcare Illawarra towards a renewal of Landcare using new ideas and techniques. For example we are introducing Landcare to a new generation of Australians by engaging a local bush regeneration officer who uses her social networking skills to engage and tap into young people in our region.

### Lynne's off-farm activities

Lynne has developed a number of innovative school-based programs from her Dairy Youth Australia (Dairy Youth Australia) initiative. DYA brings together young people with a passion for agriculture, using social networking and face to face contacts (see Part 5 / Appendix 4).

## Part 5. Partnerships formed and stakeholders engaged

### On farm

At Clover Hill Dairies we believe partnerships between governments, scientists, farmers and the community offer the best opportunity for a sustainable future. Examples of the partnerships we created and/or built upon in the development and implementation of the Clover Hill Dairies' business include:

- Partnering with Southern Rivers CMA (SRCMA), Landcare Illawarra, Small Farms Network and National Heritage Trust Envirofund, as well as Community Waterwise, Advance Australian Agriculture and NSW DECC to help access over \$250,000 of funding for environmental works.
- Forming an incorporated Landcare group with our 12 rural residential landholder neighbours.
- Engaging a bush regeneration officer in partnership with our Landcare group.
- Partnering with Landcare Illawarra to collect seed from our remnant Illawarra Lowlands Grassy Woodlands and Sub-Tropical Rainforest Endangered Ecological Communities.
- Aligning our farm management plan with Southern Rivers CMA targets and the South Coast and Tablelands Dairy Industry projects and complementing work conducted in the catchment by Southern Councils Group and Small Farms Network.

## Promotional activities

We actively seek opportunities to promote agri-environmental sustainability messages to government bodies, significant others, farmers and the wider community via agricultural and non agricultural conferences, speaking engagements, hosting international delegations on behalf of the federal government and through the media (see Appendix 6).

## Outside engagement in farm activities

These have been discussed previously in Parts 3 and 4.

## Stakeholder engagement in off-farm activities

The programs developed and delivered by Lynne and her Dairy Youth Australia team have attracted considerable support from funding partners across the food value chain. The following examples highlight the phenomenal scale and reach of these activities and the level of community and corporate support:

- Accessing \$150,000 seed funding to pilot *Picasso Cows*. (See Appendix pages 106-110 student evaluations)
- Involving over 3,500 children in our regional campaigns.
- Attracting \$50,000 seed funding for Dairy Youth Australia to design and deliver events.
- Attracting \$150,000 from food value chain stakeholders including Woolworths and the GPT group to deliver Dairy Youth Australia 'Art4Agriculture' initiatives.
- Overwhelming demand for our initiatives:
  - We currently have 1,500 students in 14 western Sydney schools involved in the *Archibull Prize* program.
  - Dairy Australia has taken over the national delivery of *Picasso Cows*.
- Developing and delivering the *Cream of the Crop* social media competition. The 2009 winning entries have attracted over 9,000 hits in 4 months.
- Partnering the following organisations in delivering community-based promotional activities:
  - Kiama Municipal Council (*Picasso Cows* and a regional display of the students artwork in Hindmarsh Park Kiama in 2009) see Appendix 4 pages 129-132)
  - Royal Agricultural Society of NSW - Public displays of the *Picasso Cows* artworks at the Sydney Royal Easter Show in 2009.
  - Iconic Central District Exhibit at Sydney Royal Easter Show April 2010. (see Appendix 4 pages 142-152)
  - LandLearn NSW in a number of our 'Art4Agriculture' initiatives.



# Appendix 1

## Farm Overview Achievements and Awards



## Banksia Awards Appendix 1

### Clover Hill Dairies Farm productivity and natural resource managements achievements

#### PRODUCTIVITY

##### Farm 1 - Clover Hill

Since deregulation the same effective milking area is farmed, the herd size has increased from 80 to 200 milking cows and milk volume has increased from 800,000 litres to 2.5 million litres and herd health indicators have improved 15 %

Examples of innovations and resulting productivity achievement gains include

- I. Increasing milk production by selecting cows that can more efficiently convert pasture to milk and supplementing their pasture diet with energy dense grains and nutrients that improve cow health and increase milk production.
- II. Optimising pasture ground cover (17- 20 tonnes DM/ha/year) allowing us to run 4 to 5 cows to the hectare ( 2x industry average)and reduce nutrient runoff in high rainfall events.
- III. Optimising the productivity of the cows and the land by moving from twice-a-day milking to milking three times a day in 2005. This not only increased milk production by 20%, it also resulted in reducing greenhouse gas emissions (GHGE) by 30% per litre of milk produced
- IV. Improving farm efficiency and productivity of pastures enabled us to lock-up less productive land for conservation purposes. As a result, 50% of *Clover Hill* farm is fenced off from the cows and is now protected high conservation value rainforest which has benefits to the wider catchment and the community it supports.
- V. Recycling 50% of our captured water has allowed us to achieve water use efficiency 10 times the industry average (125,000 litres of milk per mega litre of captured water).
- VI. Improving overall business productivity and profitability allowing us to increase staff numbers from 1 full time equivalent (FTE) in 2000 to 4 FTE and 4 part-time which both actively supports the local economy while also improving our farm management effectiveness and quality of life.

## Farm 2 - Lemon Grove Research Farm PL

As part of a diversification strategy and achieve further economies of scale Clover Hill Dairies set up Lemon Grove Research Farm Pty Ltd in 2008 as a working dairy farm and a research facility.

Lemon Grove is situated adjacent to the Jamberoo Township and is 60 ha of alluvial river flats situated at the head of the sensitive Minnamurra River flood plain. Whilst this farm has 33% lower rainfall than Clover Hill we have increased stocking rate capacity by 125%, now running 4 cows/ha producing 2.2 million litres of milk (3 x increase in production levels in 2 years)

Examples of innovations and resulting productivity achievement gains include

- I. Establishing a site suitable to conduct research trials. A key part of the strategy is to document the agronomic base of the farm in terms of soils, fertiliser and plant cultivars.
- II. Recording livestock records electronically and working with the University of Sydney to assess our animal health and reproduction management. This data forms a key base for trials that will be conducted on agronomic and pharmaceutical products.
- III. Researching and planting new water and nutrient efficient perennial pasture mixes that are:
  1. Accessing moisture and nutrients leached into the deeper soil profile by our high rainfall events.
  2. Improving our drought resilience.
  3. Responding well to nutrient supplied by our dairy effluent and also recycling this valuable pool of nutrients.
  4. Providing high quality fodder and improving milk production during autumn and winter when this is traditionally regionally challenging
  5. Delivering sustainable triple bottom line outcomes by efficiently using effluent nutrients while reducing deep leaching losses into the water table and allowing us to take advantage of higher milk prices paid by our processor in autumn and winter.

Since 2005 partnerships with Southern Rivers CMA (SRCMA), Landcare Illawarra, Small Farms Network and National Heritage Trust Envirofund, Caring for our Country as well as Community Waterwise, Advance Australian Agriculture and NSW DECC has generated over \$250,000 of funding which we have matched to enhance our landscape and waterways and ensure productivity gains have minimal impact on the environment including:

## LANDSCAPE

- I. Planting 4000 native trees, shrubs and grasses in riparian zones and shelterbelts to increase biodiversity and carbon sequestration and to provide shade for the cows, and habitat protection for indigenous animals that include the endangered spotted quoll.
- II. Fencing off, rehabilitating and revegetating 4km of riparian land.
- III. Improving our soil carbon levels currently between 5 & 12 %. Not only does this improve soil moisture and nutrient holding capacity, it also sequesters substantial carbon from atmospheric pools
- IV. Upgrading 2km of laneways to improve cow comfort. This has the added benefit of improving downstream and on farm water quality as faster cow flow means more nutrients stay on the paddocks and less is deposited in the laneways
- V. Nutrient monitoring and budgeting. Striving for very high soil fertility through a combination of both manure based and inorganic fertilisers, we soil test bi-annually and run a nutrient budget aiming to improve long term problem paddocks, capturing nutrient excesses and fertilising to requirement. By measuring what goes in and out we reduce unnecessary fertiliser use, green house gas emissions and associated production costs.
- VI. Controlling weeds by successfully encouraging competition from desirable species
- VII. Ensuring "sacrifice" paddocks are located as far away as possible from watercourses and runoff is directed towards nutrient buffer zones.
- VIII. Initiating, chairing and funding seeker for rural residential subdivision landcare group and partnering with them to reduce common land environmental weeds, undertake effluent runoff mitigation strategies in high rainfall events, and plant 500 trees and 500 wetland grasses and sedges in nutrient buffer zones.
- IX. Forming a partnership with Landcare Illawarra who collect seed from our remnant Illawarra Lowlands Grassy Woodlands and Sub-Tropical Rainforest Endangered Ecological Communities (EECs) to ensure local provenance is maintained. The seed is grown by local nurseries that have the skills and capacity for this work and the seedlings are planted to increase the biodiversity and climatic adaptability of our high conservation value landscape areas
- X. Undertaking pasture trials to increase pasture production and returns, through the validation of integrated feeding and management systems.

## WATER:

- i. Improving water quality by increasing and constructing further areas of wetland, nutrient buffer zones, silt traps and reed beds to facilitate nitrogen removal.
- ii. Stabilising riffles, locking-up bed load sediment and contributing to pool formation. The improvements in water quality benefit adjoining downstream farms, which currently use water from Fountaindale Creek to water stock. Improvements in water quality and a reduction in sediments and nutrients
- iii. Installing off stream gravity fed water troughs in all paddocks and fencing of all our waterways. This has resulted in reducing sediment and pathogens in drinking water for our cows and the wider catchment, less riparian erosion and reduction in stationery energy use
- iv. Developing an innovative dairy effluent management system plan which reuses 50% farm production captured water
- v. Installing buffer zones and trialling a variety of deep rooted nitrogen absorbing grasses to trap and filter the excess nutrients from the farm.

## ENERGY EFFICIENCY

- i. Undertaking an energy audit and subsequent improvements have resulted in energy efficiency gains of 1170 kWh per year and saved 11.72 t CO<sub>2</sub> per year
- vi. Moving from 2x daily milking to 3x daily milking increasing the amount of milk produced from the same number of cows by 15 to 20% equating to a 30% reduction in methane
- vii. Upgrading dairy resulting in renewable energy efficiencies gains including natural lighting, recycled water operating hydraulic pump that controls cow entry and exit.
- viii. Optimising feeding strategies for heifers (replacement stock) from day 1 to ensure they enter the herd at 2 years of age reducing their time as non productive green house gas emitters.
- ix. Optimising animal nutrition and GHGE mitigations strategies include feeding rumen modifiers, highly digestible energy efficient grains as well as protected fats
- x. Landscaping dairy surrounds and cow comfort optimised

## Community Partnerships

Our dairy business has a high urban interface. Clover Hill is part of a dairy centric rural residential subdivision of 12 blocks ranging from 0.4 to 40ha and Lemon Grove is located adjacent to the Jamberoo Township.

At Clover Hill Dairies we believe partnerships between governments, scientists, farmers and the community offer the best opportunity for a sustainable future.

On farm a key success factor in the development and implementation of Clover Hill Dairies sustainability plan is our commitment to

- Actively seek information from industry experts, natural resource management agencies and research scientists about new technologies and concepts that can improve resource use efficiency whilst enhancing environmental outcomes.
- Remain ahead of the curve by examining closely where society is heading and the environmental challenges arising and moving into that space with clear goals and areas of expertise.

Examples of the partnerships we created and/or built upon in the development and implementation of the Clover Hill Dairies sustainable dairy business are

- Partnering with funding bodies and advisory bodies such as Southern Rivers CMA (SRCMA), Landcare Illawarra, Small Farms Network and National Heritage Trust Envirofund, Caring for our Country as well as Community Waterwise, Advance Australian Agriculture and NSW DECC
- Forming an incorporated landcare group with our 12 rural residential landholder neighbors to work together to protect and enhance the unique community environment of farming land, rainforest and waterways and ensure the dairy farm is a long -term thriving commercial enterprise.
- Engaging a bush regeneration officer in partnership with our landcare group.
- Partnering with Landcare Illawarra to collect seed from our remnant Illawarra Lowlands Grassy Woodlands and Sub-Tropical Rainforest Endangered Ecological Communities to ensure local provenance is maintained. The seed is grown by local nurseries that have the skills and capacity for this work and the seedlings are planted with the assistance of Conservation Volunteers Australia and local youth groups to increase the biodiversity and climatic adaptability of our high conservation value landscape areas
- Working closely with other regional natural resource management agencies. The Clover Hill Dairies Farm Management Plan ties into Southern Rivers CMA targets and the South Coast and Tablelands Dairy Industry projects on neighbouring dairy farms. Our farm management plan complements work conducted in the catchment on dairy and beef farms by Southern Councils Group and Small Farms Network
- Communicating our endeavours. Partner Lynne Strong has communicated our endeavours to government bodies, significant others, farmers and the community via agricultural and non agricultural conferences, speaking engagements, hosting international delegations on behalf of the federal government and extensive media.

## Beyond the farmgate

In the past 30 years we have become acutely aware from our neighbours and visitors that we (as farmers) have to dramatically improve our efforts to build trust with the wider community – from paddock to plate

We found that generally people are wary of modern farming methods and technology. Equally engaging with the community on so many levels has opened our eyes to the passion they do share for agriculture and their thirst for knowledge.

At Clover Hill Dairies we are walking the talk and engaging with urban communities now so they feel connected with the bush and understand the efforts taken by farmers to protect the natural resource base. We are showing them agricultural production is a legitimate use of land, water and other resources and agriculture has a future and is a great career for their children.

Our programs are fun, genuine and full of hope for a sustainable future and have attracted considerable support from funding partners across the food value chain. The following examples not only highlight the phenomenal scale and reach of our activities and events over the past 3 years and equally the community and corporate support for our initiatives

- Accessing \$150,000 seed funding to pilot *Picasso Cows*
- Involving over 3500 children in our regional campaigns
- Attracting \$50,000 seed funding for Dairy Youth Australia to design and deliver events design and deliver community events that are a true celebration of the diversity, sustainability, creativity and progress of primary industries, their people, place and produce
- Engaging the corporate sector. Lynne recently accessed \$150,000 from stakeholders across the food value chain sector including Woolworths and the GPT group to deliver Dairy Youth Australia Art4Agriculture initiatives
- Overwhelming engagement in our initiatives. An expression of interest in Western Sydney schools for a 5 school pilot over the *Archibull Prize* attracted 25 schools within a ten day period. With the support of our funding partners we currently have 1500 students in 14 western Sydney schools involved in this program which invites students in suburban high schools to learn with hands on experience about the challenges of housing and feeding the world and the competition for natural resources. Once again we use art to explore current issues in Australian agriculture. The finished artworks and curriculum activities must explore and communicate contrasting stories about the future of agriculture in their local area under the theme "Love it Or Lose It".
- Developing and delivering the highly successful social media campaign the *Cream of the Crop Competition* [www.dairyouthaustralia.com.au/creamofthecrop/](http://www.dairyouthaustralia.com.au/creamofthecrop/). The 2009 winning entries are loaded on the web and have attracted over 9,000 hits in 4 months, proving the community is interested in contemporary authentic, positive and popular stories about agriculture and the environment written by young people for young people.
- Partnering with
  - Kiama Municipal Council who were not only inaugural sponsors of Picasso Cows but also provided support for a regional display of the students artwork in Hindmarsh Park Kiama in 2009 [www.slideshare.net/LandLearnNSW/picowssso-art-in-the-park-a-dairy-youth-australia-initiative](http://www.slideshare.net/LandLearnNSW/picowssso-art-in-the-park-a-dairy-youth-australia-initiative)
  - RAS of NSW - Public displays, of the *Picasso Cows* students' bovine artworks and the programs' key messages at Sydney Royal Easter Show, the largest event of its kind in the southern hemisphere have been viewed by over tens of thousands of people.
  - Iconic Central District Exhibit at Sydney Royal Easter Show April 2010. The *Archibull Prize* was integrated into their exhibit and the building of the showcase was captured by time lapse photography. So not only was it viewed by the tens of thousands of people who visit the show it went worldwide via the net. [www.eastershow.com.au/animals-competitions/district-exhibits.html](http://www.eastershow.com.au/animals-competitions/district-exhibits.html)
  - LandLearn NSW. Clover Hill Dairies and Dairy Youth Australia are proud supporting partners of Landlearn NSW and contribute content [www.landlearnsw.org.au/educators/partners-](http://www.landlearnsw.org.au/educators/partners-)

## Achievements and Awards

- 2010 Guest Speaker Woolworths Agricultural Business Scholarships Course
- 2010 Hidden Treasures Honour Roll
- 2010 Guest Presenter Dairy Research Foundation Symposium
- 2010 National Landcare Australia Primary Producer Ambassador
- 2010 National Landcare Woolworths Primary Producer Award Winner
- 2010 Climate Champions Program
- 2010 Guest Presenter Australian Government Lands and Coast *NRM Corporate Engagement - What's Working Forum*
- 2009/10 NSW Landcare Heroes Primary Producer of the Year
- 2009 ABC Landline
- 2009 Landcare Heroes Champion of the Catchment award for outstanding contributions to natural resource management and education
- 2009 Guest Presenter *Keep it Real Conference* Total Quality Assurance Launceston Tasmania
- 2008 Lynne Strong Cover of the Wollongong Yellow Pages "Celebrating Australian Flavour" nominated by the local community as their local food hero
- 2007 Guest Presenter *NZ Grasslands Conference* Lake Taupo
- 2005 Lynne Strong NSW Honour Roll for Women Inductee for services to agriculture and the community
- 2005 Lynne Strong Kiama Electorate Woman of the Year



# Appendix 2

## Farm Profile and Natural Resource Management Achievements





# Clover Hill Dairies

**A partnership between  
our cows, our landscape  
and our community**





Marilyn  
Holtz  
James H.S.H.  
Australia 2333  
Ph 02 4236 0309



# 2010 Woolworths Primary Producer Award Winner

# Clover Hill Dairies

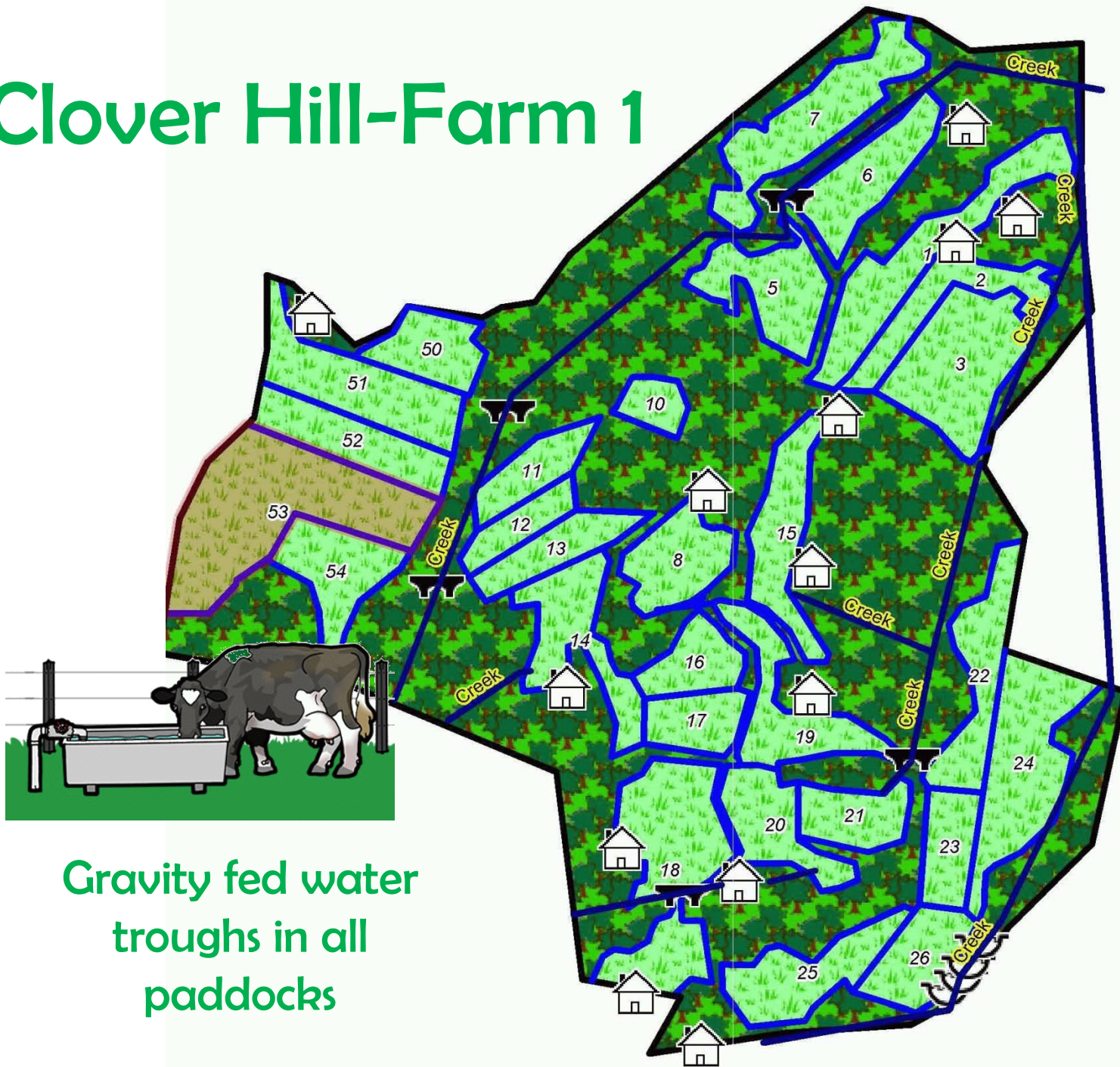


National  
Landcare  
Awards

Woolworths  
*the fresh food people*



# Clover Hill-Farm 1



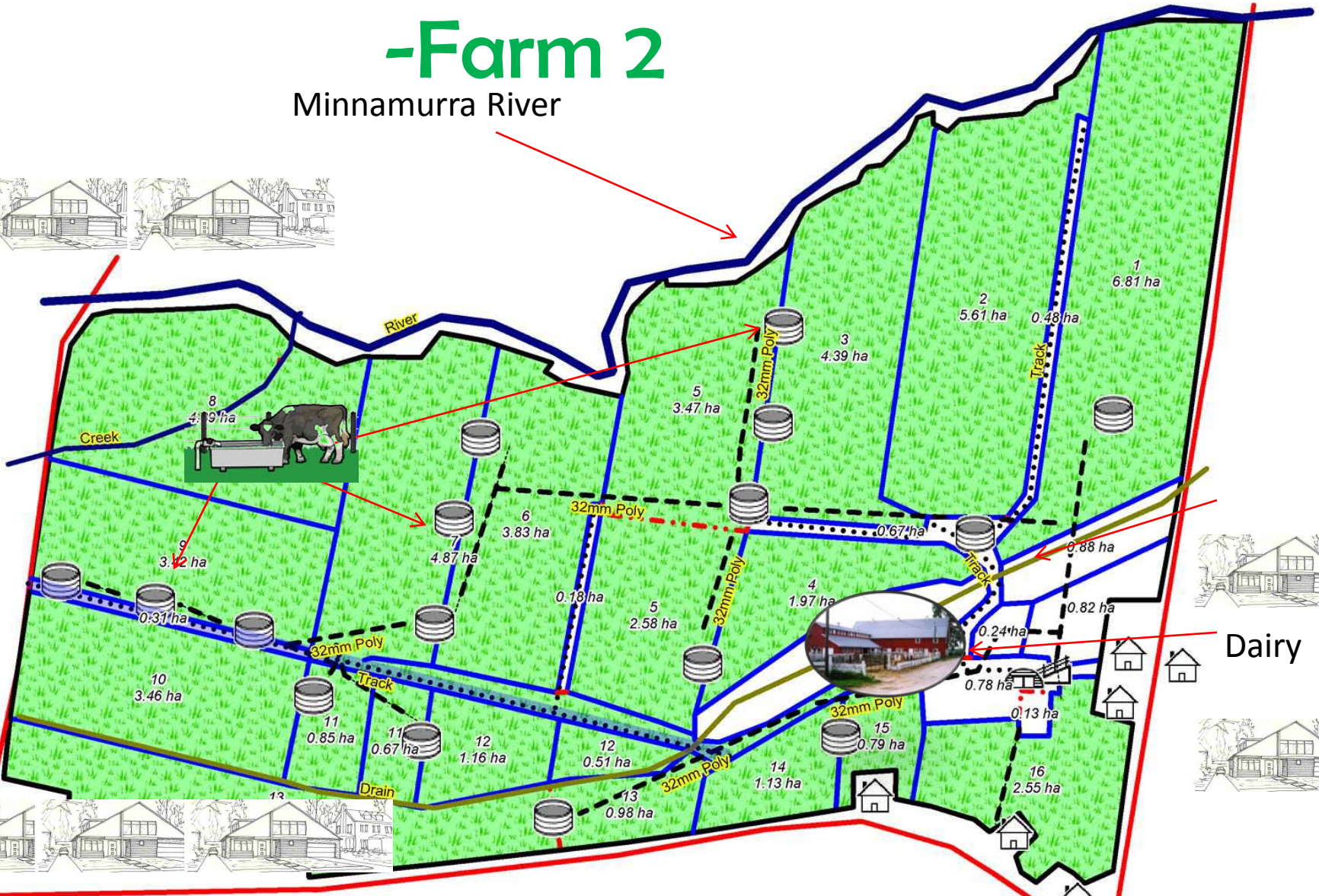
Gravity fed water  
troughs in all  
paddocks



Cow Nos	200 milkers
Effective Area	50ha
Stocking rate	4cows/ha
Breed	Registered Holsteins– Nth American Genetics
Production	170,000 kgMS/yr trend is 34000 kgMS/ha trend is 850 kgMS/cow trend is
Somatic Cell	<200 X10 <sup>3</sup> trend is
Lactation No Average	4.5
Feed conversion Efficiency	1.7
Water Use Efficiency	125,000 litres milk/mega litre of captured water/ year
Pasture Management System	Zero tillage and herbicide Kikuyu base overplanted with annual rye/oats
Supplements Fed	3.6tonne/cow/yr trend is
Rainfall	1500mm to 2000mm/yr No irrigation
Soil type	Clay loam
Soil Carbon %	Variation is 5 to 12% with upward trend
Farm nutrient balance for NPKS	Biannual nutrient mapping and annual nutrient budget
Topography Gradient	Steep 5-6
Effluent Disposal	1 portable sprinkler
Fertiliser Use	300kgN/Ha/yr trend and manures to provide maintenance P and K, liming as necessary

# Lemon Grove Research Farm PL -Farm 2

Minnamurra River



Dairy



Jamberoo Township

Main Road



Cow No's	Target 240 in milk
Effective Area	60 ha
Stocking rate	4 cows/ha
Breed	Holsteins – Nth American Genetics
Production	Target 12000L 840kgMS/cow,
Somatic Cells	<200 x 10 <sup>3</sup> trend is
Pasture Management System	Zero tillage 50% Kikuyu base overplanted with annual rye/oats and 50% perennial legumes, herbs and brassicas over planted with annual rye/oats
Supplements Fed	3.6 tonne/cow/yr ( on pro rata basis per farm)
Rainfall	1300mm to 1500mm
Soil type	Clay loam
Soil Carbon %	Varying between 5-12% with upward trend
Farm nutrient balance for NPKS	Biannual nutrient mapping and annual nutrient budget
Topography Gradient	Alluvial river flats and flood plain
Effluent Disposal	Solids trap and traveler irrigator
Fertiliser Use	Nitrogen as urea, effluent manures to provide maintenance P and K, liming as necessary



# Before - traditional kikuyu and annual ryegrass



After - Water and  
nutrient efficient  
perennial legumes,  
herbs and brassicas





## Sustainability integrated across whole farm business



### THE FARM

**Nick, Lynne and Michael Strong**

Clover Hill Dairies, Jamberoo, NSW (South Coast)

Clover Hill Dairies (CHD) has developed a highly efficient, sustainable and profitable farming enterprise that supports agricultural production, biodiversity and minimises the contributions of climate change. The farm business is seeking an optimal level of operations and greater outputs from the original 50 ha holding, while minimising the dairy's impact on the local catchments and output of greenhouse gases.

"Our commitment to stewardship starts from the ground-up. We focus on maintaining good soil fertility and structure and grass cover, which has helped avoid the problems of erosion, soil loss and pugging associated with other high-intensity farms," Lynne said.

### Changes to the farming system

The following on-farm changes have been made to improve energy efficiency:

- An energy audit realised energy efficiency gains of 1170 kWh per year and saved 11.72 t CO<sub>2</sub> per year through the installation of:
  - a variable speed motor on the vacuum pump; and
  - a water storage tank to capture plate cooling water for dairy yard washing.
- Moving from milking twice a day to three times a day increased the amount of milk produced from the same number of cows by 15% to 20%, which equates to a potential 25% reduction in methane emissions per litre milk.

### BUSINESS SNAPSHOT

- Herd numbers: 200 milkers
- Effective farm area: 50 ha
- Breed: Holsteins (North American)
- Production:
  - 170,000 kgMS/yr
  - 34,000 kgMS/ha
  - 850 kgMS/cow
- Pasture management system:
  - Zero tillage and herbicide
  - Kikuyu base overplanted with annual rye by broadcasting
- Supplements fed: 3.6 tonne/cow/yr
- Rainfall: 1,500-2,000 mm
- Irrigation: none
- Soil type: Clay loam
- Soil carbon levels: 5-12%

Nick (pictured), Lynne and Michael Strong have improved the energy efficiency of their dairy with progressive improvements to the equipment and facilities and by moving from milking twice a day to three times daily.



### LESSONS LEARNED

- Strive for high soil fertility through a combination of manure-based and inorganic fertilisers. Soil test bi-annually and run a nutrient budget aiming to improve long-term problem paddocks, capturing nutrient excesses and fertilising to requirement. Maintain or increase high soil carbon levels and improve the soil pH.
- Increase biodiversity and reduce GHG emissions by planting native trees, shrubs and grasses.
- Practise zero tillage, avoid use of herbicides and apply fertilisers to paddocks with good residuals to minimise runoff risk.
- High organic carbon levels improve soil moisture and nutrient holding capacity, also sequesters substantial carbon from atmospheric pools.
- Monitor inputs and outputs with the aim of being carbon neutral.

- Dairy shed upgrade efficiencies included natural lighting, recycled water operating the hydraulic pump that controls cow entry and exit.
- Optimal animal nutrition and GHG mitigation strategies include feeding rumen modifiers, highly digestible energy-efficient grains and protected fats.
- Dairy surrounds extensively landscaped and cow comfort optimised

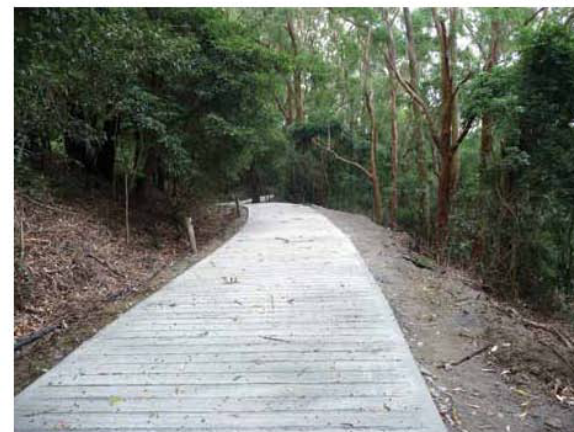
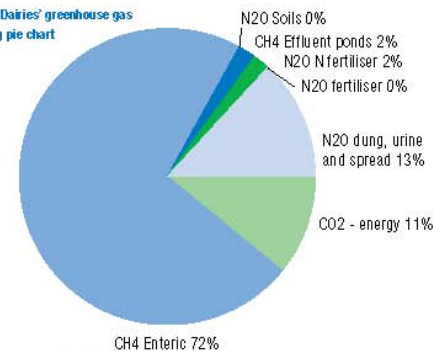
### Information/resources needed to make the changes

Partnerships with Southern Rivers CMA (SRCMA), Landcare Illawarra, Small Farms Network and National Heritage Trust Environd, as well as Community Waterwise, Advance Australian Agriculture and NSW DECC.

Combined funding from these sources generated more than \$250,000 that the Strongs have matched to enhance their landscape and waterways and ensure productivity gains have minimal impact on the environment.

More information on the Strongs' environmental program is available at: <http://www.cloverhilldairies.com.au/environmental.htm>

Clover Hill Dairies' greenhouse gas accounting pie chart



Improvements to the farm's laneways, landscape and waterways ensure productivity gains have minimal impact on the environment



### CONTACT

Jess Jennings, mobile 0423 224 750, e-mail [j.jennings@uws.edu.au](mailto:j.jennings@uws.edu.au)



Retain  
Reuse  
Recycle





# OUR PARTNERSHIPS



CARING  
FOR  
OUR  
COUNTRY



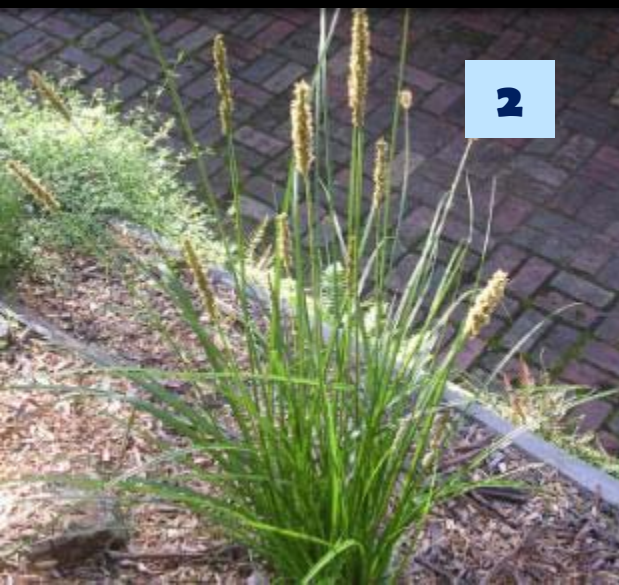
# Community Landcare Group Residents



# Community Landcare Group



Legend	Grasses
1	Baumea Articulata
2	Carex Appressa
3	Leperonia Articulata
4	Lomandra Hystrix
5	Lomandra Longiflora
6	Schoenoplectus mucronatus 31
7	Schoenoplectus vallidus





## PROJECT KEY POINTS

- Laneways redesigned and upgraded for cows and vehicles
- Riparian zones fenced and restored using Natural Sequence methods
- Off stream water system extended
- Wetlands rehabilitated



Mitigation of Major Rainfall Event Effluent Runoff into Fountaindale Creek (Project No: 63733)

Funding: \$44,574

Total project: \$.....



## INNOVATIVE COMMUNITY COLLABORATION FOSTERING FARMING FUTURES

The Strongs operate a highly productive dairy farm at "Clover Hill" located in the upper Minnamurra River catchment, a sensitive wetland and mangrove environment.

The Strongs realised that, as their herd size increased, farm infrastructure had to be developed to support production and minimise their impact on the environment: laneways, stockwater, shade and shelter belts as well as the milking shed yards and effluent systems.

This challenge is additionally complex as Clover Hill Dairies operates amongst a 12 house rural subdivision with blocks ranging from 0.4 to 40 ha, each block comprising mostly bush.

The formation of the "Tangalla Community Streams and Rainforest Inc" group provides a mechanism for the dairy farm and rural residents to live cooperatively side by side, resolve potential conflicts and enhance their unique environment.

The Tangalla CS&R group successfully completed a \$44,574 Envirofund 9 Rivercare project they identified as high priority.

This innovative project showcases dairy farmers and rural residents working together to solve cow and vehicle access issues as well as improve the high value conservation streams and rainforest areas.

## LANEWAYS DESIGNED FOR DAIRY COWS, VEHICLES AND THE ENVIRONMENT

Well built laneways are a key part of the Strongs' farm infrastructure allowing milking cows to move efficiently between pastures and milking shed three times a day. Properly designed and built laneways create a win-win-win situation with benefits for production, the environment and the rural residents of the Tangalla CS&R Inc.

The extensive gravel laneway network on Clover Hill Dairies has been improved by the Envirofund Project at specific problem areas: laneway sections with potential conflict between dairy cows and vehicles have been redesigned and upgraded and the impact of cows and vehicles on downstream water quality have been minimised.

The improvements to the laneways mean that cows do not walk through creeks and cow movements can be controlled to minimise manure build-up on the vehicle access lanes.

The result is easier stock handling and faster cow movement and reduced manure deposited on the laneways. Any manure that is dropped on the laneways is easily scraped clean and effluent runoff is captured and treated in newly constructed wetlands. The wetlands contain actively growing plants which filter and utilise and filter nutrients.

The outcome for the rural residents is reduced hold-ups on the access roads by the milking herd and reduced manure loads on the common laneways.



# Bush Regeneration Team





# Teamwork



Best practice riparian management. Solarising weeds(*tradescantia fluminesis*) minimising use of herbicide in sensitive frog habitats



# School Groups Landcare Activities



# Hands on learning

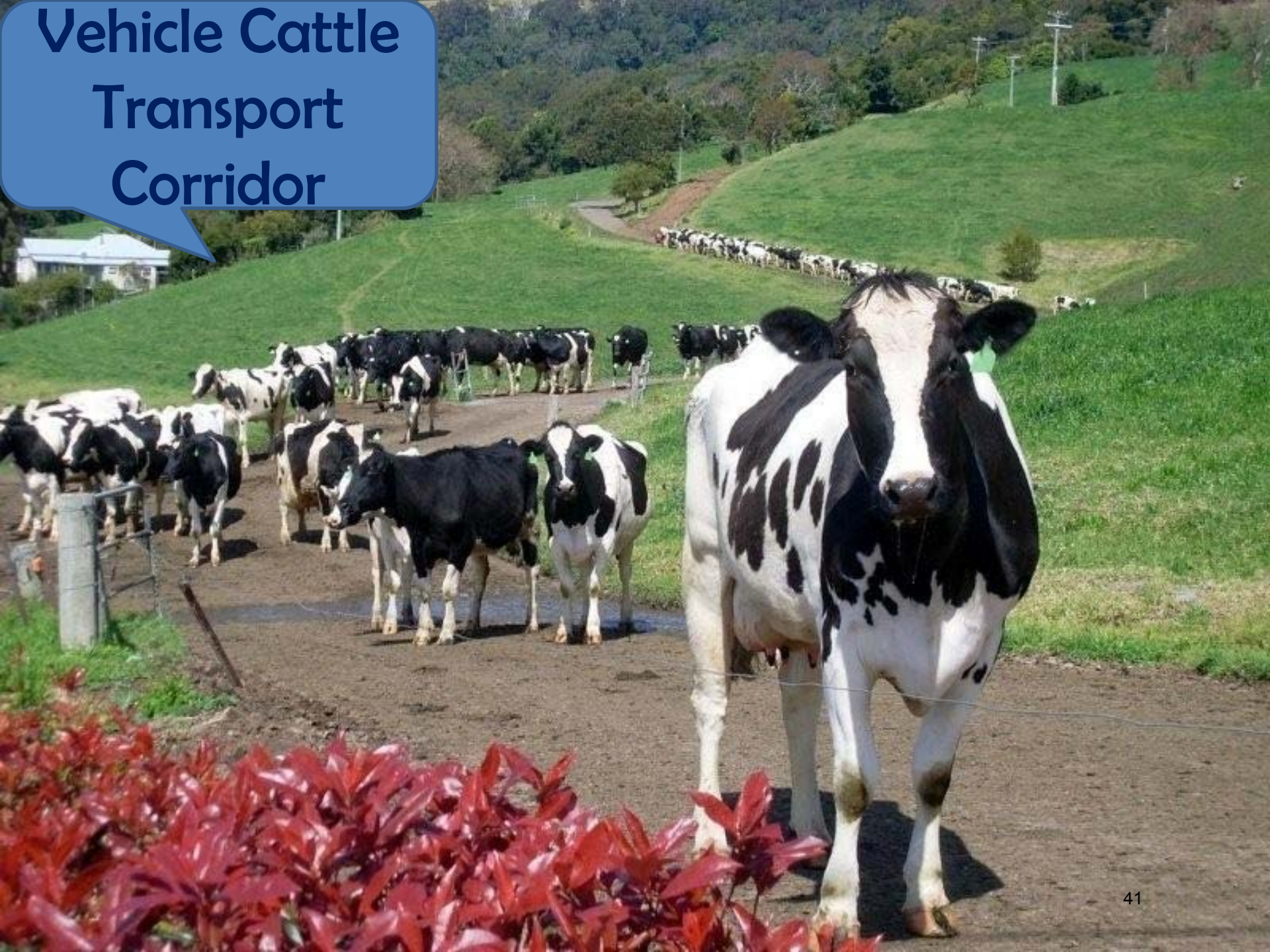




# Natural resource management activities



# Vehicle Cattle Transport Corridor



A photograph of a dirt road in a lush, green environment. The road is heavily rutted and muddy, with a large puddle of water in the center. The surrounding area is filled with dense vegetation, including ferns and various trees. A blue speech bubble is overlaid on the right side of the image, containing the text "The problem".

# The problem



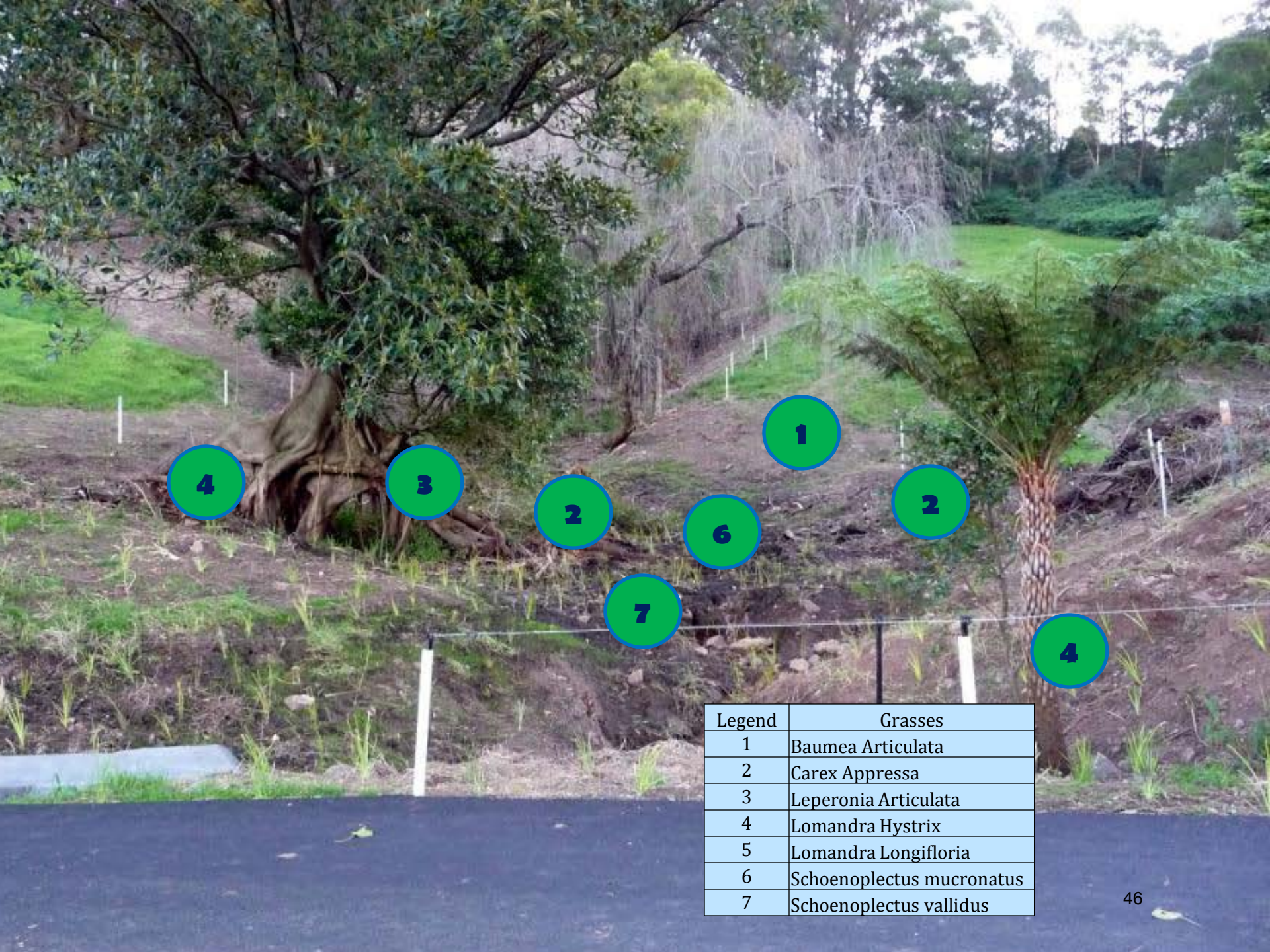
**Prior to  
rehabilitation**




# Lantana Infestation

A gravel driveway curves through a lush, green landscape. The driveway is made of light-colored gravel and is bordered by dark mulch. To the left, there is a stone retaining wall and a concrete pipe. The background is filled with various trees, including tall evergreens and deciduous trees, on a grassy hillside. A blue speech bubble is overlaid on the right side of the image.

# Rehabilitation



Legend	Grasses
1	Baumea Articulata
2	Carex Appressa
3	Leperonia Articulata
4	Lomandra Hystrix
5	Lomandra Longifloria
6	Schoenoplectus mucronatus
7	Schoenoplectus vallidus



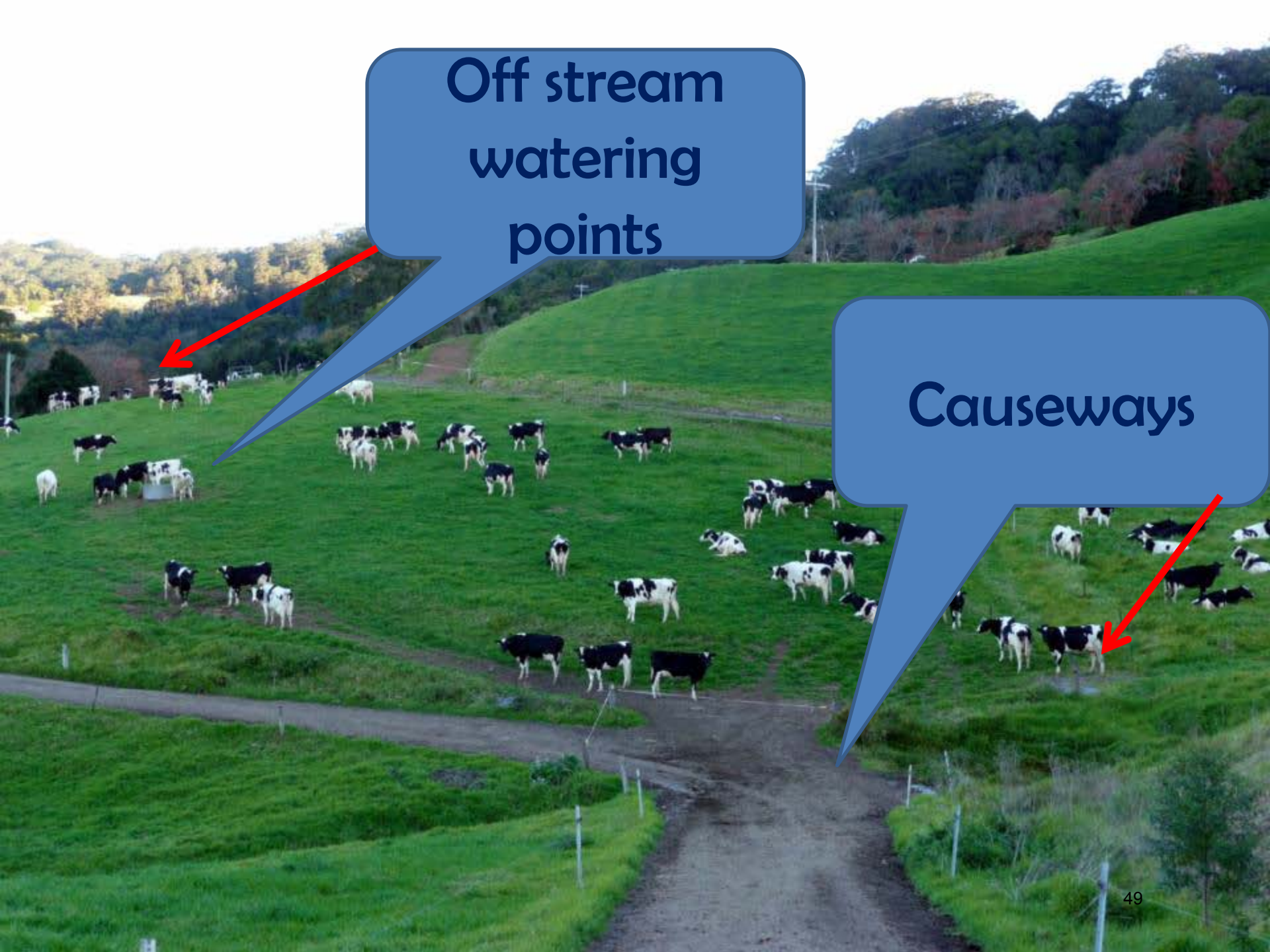
**6 weeks after planting  
Ryegrass establishing well to  
mitigate erosion**

**The solution  
10 weeks later**



Off stream  
watering  
points

Causeways



**Before - vehicle cattle  
transport corridor after  
MINOR rainfall event**



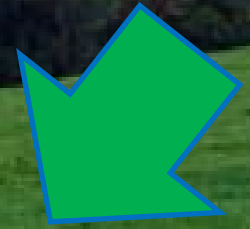
**Previous vehicle cattle  
transport corridor after  
MINOR rainfall event**





**Effluent runoff  
prior to work**

Redirection of  
effluent runoff into  
wetland area







Legend	Grasses
1	Baumea Articulata
2	Carex Appressa
3	Leperonia Articulata
4	Lomandra Hystrix
5	Lomandra Longiflora
6	Schoenoplectus mucronatus
7	Schoenoplectus vallidus

# Riparian Management



Laneway  
upgrade  
&  
Madeira Vine  
Control





# WEED FACT SHEET



**Madreia Vine**  
*Andredera cordifolia*

A photograph of a stream flowing through a dense forest. The water is very muddy and brown, indicating sediment runoff. The stream flows from the upper right towards the lower left. The surrounding area is covered in dark brown soil and some green vegetation. A blue speech bubble with a white border is overlaid on the upper right side of the image, containing the word "Before" in a dark blue, sans-serif font.

**Before**

A wide, light-colored wooden boardwalk path winds through a dense forest. The path is made of horizontal wooden planks and is scattered with fallen leaves and small twigs. The forest is lush with green foliage, and the trees have thin, light-colored trunks. The path curves gently to the right in the distance. A blue speech bubble is overlaid on the right side of the image, containing the word "After".

**After**

**Before verges rehabilitated  
and revegetated**



A herd of black and white cows is walking along a dirt laneway. The cows are in a line, moving from left to right. The laneway is bordered by native grasses on both sides. In the background, there are dense green trees. A white text box is overlaid on the left side of the image.

Laneway  
upgrade  
verges planted  
with native  
Grasses



# Healthy Landscapes



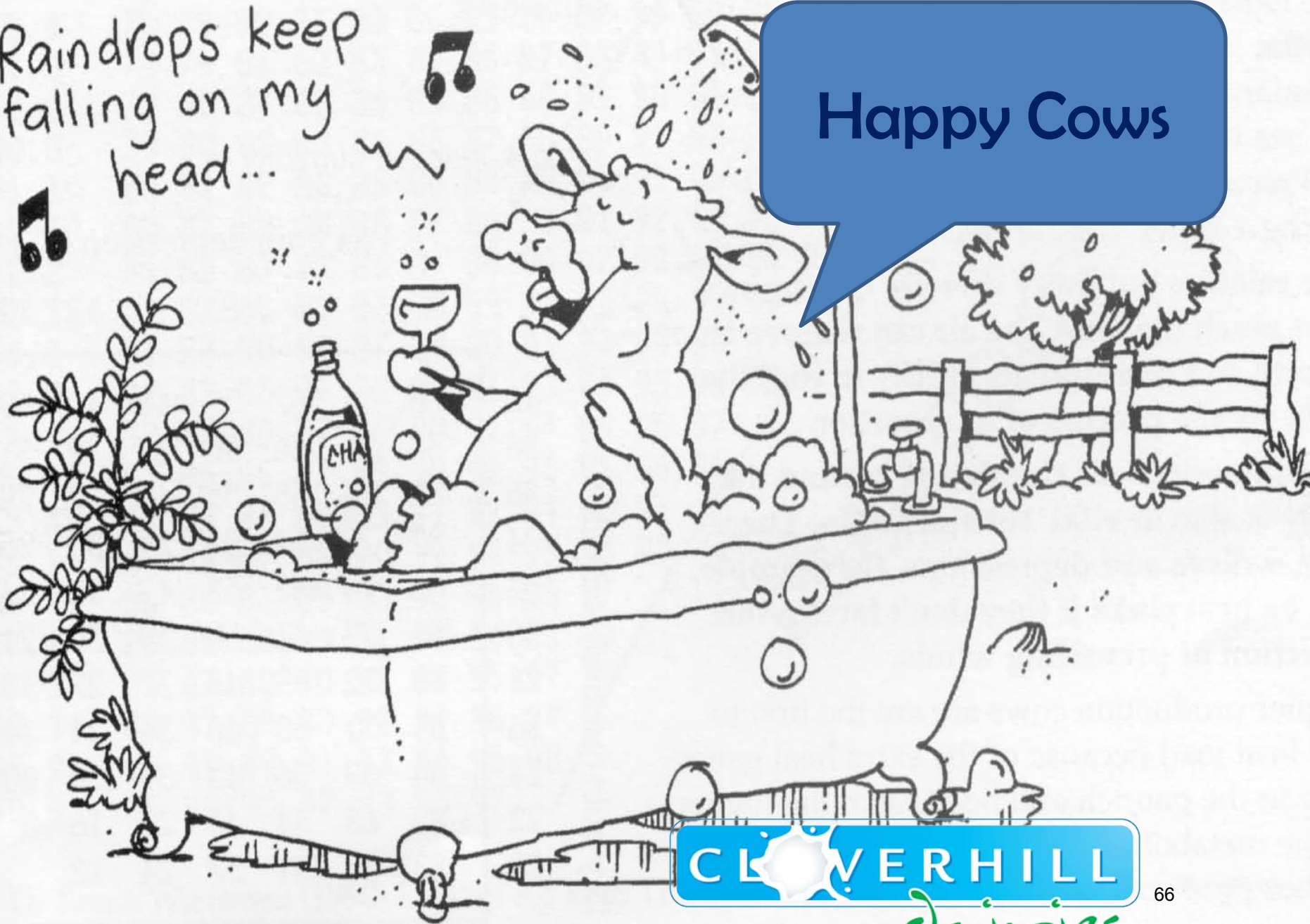
A herd of black and white cows is grazing on a green hillside. In the foreground, a stream flows through a riparian zone with various plants and rocks. A blue speech bubble is overlaid on the image, containing the text "Healthy Waterways".

# Healthy Waterways

Raindrops keep  
falling on my  
head...



Happy Cows



CL<sup>OW</sup>VERHILL

dairies

# Healthy Happy Communities working together



# Cow to Consumer

Wholesalers

Distributors

the  
**STRONG**  
value chain

Manufacturers

Retailers

Farmers

Consumers





# Appendix 3

# Farm Case Studies



## Sustainability integrated across whole farm business

### THE FARM

#### Nick, Lynne and Michael Strong

Clover Hill Dairies, Jamberoo, NSW (South Coast)

Clover Hill Dairies (CHD) has developed a highly efficient, sustainable and profitable farming enterprise that supports agricultural production, biodiversity and minimises the contributions of climate change. The farm business is seeking an optimal level of operations and greater outputs from the original 50 ha holding, while minimising the dairy's impact on the local catchments and output of greenhouse gases.

"Our commitment to stewardship starts from the ground-up. We focus on maintaining good soil fertility and structure and grass cover, which has helped avoid the problems of erosion, soil loss and pugging associated with other high-intensity farms," Lynne said.

### Changes to the farming system

The following on-farm changes have been made to improve energy efficiency:

- An energy audit realised energy efficiency gains of 1170 kWh per year and saved 11.72 t CO<sub>2</sub> per year through the installation of:
  - a variable speed motor on the vacuum pump; and
  - a water storage tank to capture plate cooling water for dairy yard washing.
- Moving from milking twice a day to three times a day increased the amount of milk produced from the same number of cows by 15% to 20%, which equates to a potential 25% reduction in methane emissions per litre milk.

### BUSINESS SNAPSHOT

- Herd numbers: 200 milkers
- Effective farm area: 50 ha
- Breed: Holsteins (North American)
- Production:
  - 170,000 kgMS/yr
  - 34,000 kgMS/ha
  - 850 kgMS/cow
- Pasture management system:
  - Zero tillage and herbicide
  - Kikuyu base overplanted with annual rye by broadcasting
- Supplements fed: 3.6 tonne/cow/yr
- Rainfall: 1,500-2,000 mm
- Irrigation: none
- Soil type: Clay loam
- Soil carbon levels: 5-12%



Nick (pictured), Lynne and Michael Strong have improved the energy efficiency of their dairy with progressive improvements to the equipment and facilities and by moving from milking twice a day to three times daily.

- Dairy shed upgrade efficiencies included natural lighting, recycled water operating the hydraulic pump that controls cow entry and exit.
- Optimal animal nutrition and GHG mitigation strategies include feeding rumen modifiers, highly digestible energy-efficient grains and protected fats.
- Dairy surrounds extensively landscaped and cow comfort optimised

## Information/resources needed to make the changes

Partnerships with Southern Rivers CMA (SRCMA), Landcare Illawarra, Small Farms Network and National Heritage Trust Envirofund, as well as Community Waterwise, Advance Australian Agriculture and NSW DECC.

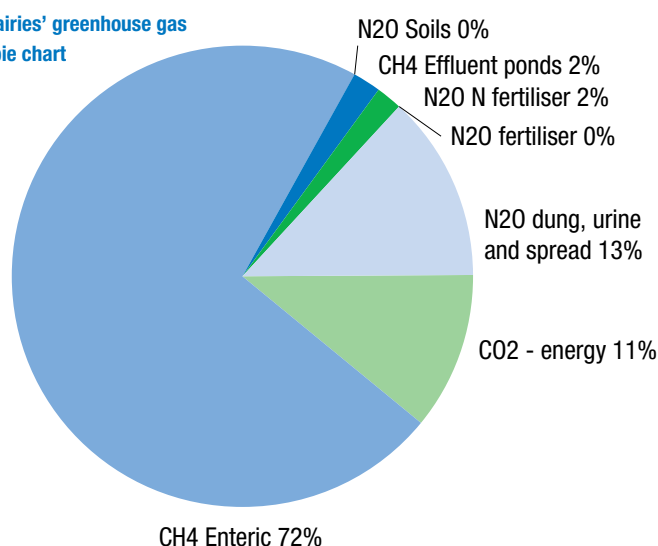
Combined funding from these sources generated more than \$250,000 that the Strongs have matched to enhance their landscape and waterways and ensure productivity gains have minimal impact on the environment.

More information on the Strongs' environmental program is available at: <http://www.cloverhilldairies.com.au/environmental.htm>

## LESSONS LEARNED

- Strive for high soil fertility through a combination of manure-based and inorganic fertilisers. Soil test bi-annually and run a nutrient budget aiming to improve long-term problem paddocks, capturing nutrient excesses and fertilising to requirement. Maintain or increase high soil carbon levels and improve the soil pH.
- Increase biodiversity and reduce GHG emissions by planting native trees, shrubs and grasses.
- Practise zero tillage, avoid use of herbicides and apply fertilisers to paddocks with good residuals to minimise runoff risk.
- High organic carbon levels improve soil moisture and nutrient holding capacity, also sequesters substantial carbon from atmospheric pools.
- Monitor inputs and outputs with the aim of being carbon neutral.

Clover Hill Dairies' greenhouse gas accounting pie chart



Improvements to the farm's laneways, landscape and waterways ensure productivity gains have minimal impact on the environment.

## CONTACT

Jess Jennings, mobile 0423 224 750,  
e-mail [j.jennings@uws.edu.au](mailto:j.jennings@uws.edu.au)

# Dairy Effluent Recycling at Clover Hill Dairies



**Location:** Jamberoo, NSW

**NRM Region:** Southern Rivers Catchment Management Authority

**Industry:** Dairy farm – 200 milking cows

**Issues:**

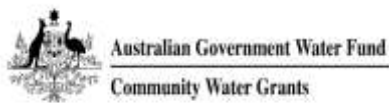
- Water and nutrient run off into Fountaindale Creek
- Milking three times a day
- Limited vegetation buffers on tributaries

**Landholder Vision:**

*“Balancing productivity and treading lightly at the interface of a rainforest and a rural residential subdivision”.*

**Funding:**

- Australian Government Community Water Grants is part of the \$2 billion Australian Government Water Fund..



smallfarms.net.au

Small Farms and Rural Living Network

Southern Councils Group

**Background**

Clover Hill Dairies is situated on the northeast face of Saddleback Mountain at Jamberoo NSW, and is located at the headwater of three major tributaries (Carwa, Fountaindale & McFaul’s Creek) of the Minnamurra River, a sensitive wetland and mangrove environment. Rainfall in this vicinity is up to 2,000mm per annum and it is not unusual for up to 10% of this rain to fall within a 24-hour period.

Clover Hill Dairies is 300 acres in total, of which 100 acres of this area is effective farming land. The remaining 200 acres contains large areas of important remnant rainforest communities.



*View from Clover Hill Dairies looking over the old solids trap*

**Existing problem**

Clover Hill Dairies currently runs 200 cows and milks three times a day, using up to 27,000 litres of water daily for operational needs. Dairy runoff was previously washed into a solids trap before filtering across a calf paddock, which created weed management, nutrient leaching and animal health issues. The leaching of nutrients may have contributed to an increase nutrient loading of the Minnamurra estuary / mangrove systems and water quality issues for landholders downstream who use this water for livestock and domestic use.

**Project solution**

With design assistance from the Southern Rivers Catchment Management Authority (CMA) Dairy Effluent Consultant, an upgrade of the existing system was completed which complies with NSW Guidelines for Effluent Management (DPI). These guidelines included:

- Building an adequate collection area.
- Dispersal system to spread nutrients over a sufficiently large area within minimum buffers.
- Wet weather storage.



*Effluent tank installed below the dairy*

**Actions undertaken**

- A 91,000 litre concrete tank was installed to collect effluent and wash down water from the dairy.
- Mono pump and nelson gun irrigator was installed to spread effluent over pastures reducing irrigation water requirements and provide nutrients for pasture growth.
- Riparian vegetation was fenced and enhanced through revegetation, acting as a nutrient buffer before entering local waterways.

**Effluent management plan**

Clover Hill Dairies has a Dairy Effluent Plan which outlines a number of key management actions to ensure on going system maintenance occurs, animal health issues are addressed and soil nutrient levels are monitored. Clover Hill Dairies will be expected to:

- *Maintain* - A “best practice” dairy effluent system. Reduce nutrient loading, improved water quality of local waterways and monitored this by water testing local tributaries.
- *Monitor* - Over a number of years soil nutrients. Initial soil nutrient sampling and mapping has



*Irrigating effluent water over pastures*



been completed through the South Coast and Highlands Dairy Industry Group project. The Phosphorus (P) levels in the soil profile (in the reuse area) will become elevated and reduced fertiliser application of (P) will be required. This will be monitored by soil testing every two years.

- *Enhance* - Local rainforest riparian buffer zones, linking Saddleback Mountain to Minnamurra River swamplands.
- *Showcase* - Provide a working example to regional dairy farmers of what can be achieved sustainably on farm using a “best practice” recycled effluent system.

Clover Hill Dairies use an average of 0.5 mega litres per year (50% is now recycled) to produce over 2,500,000 litres of milk, from 200 cows compared with the industry average of 4 mega litres per hectare.

### Other Projects at Clover Hill Dairies

The farm team who manage Clover Hill Dairies have a very strong commitment to sustainable and profitable dairy farming and have undertaken a number of on ground projects to ensure the environmental impact is minimal to the wider community and catchment.

#### Southern Rivers CMA and South Coast and Highlands DIG Project

In 2006, Southern Rivers CMA and South Coast and Highlands DIG provided funding for Clover Hill Dairies to create a 150m shelterbelt on the western side of the dairy. The shelterbelt will provide shade for the dairy herd, reduce heat stress and create a barrier from severe westerly winds for a calving paddock. Furthermore the shelterbelt was positioned to provide a link between remnant vegetation and the farms steep riparian zone.



*Shelterbelt on western side of calving paddock and dairy.*

In 2007, the same program provided further funding to extend the original shelterbelt by 300m, constructed one concrete causeway crossing and installed 2 off stream watering troughs to further enhance the original project.

#### Envirofund 2007 – Installing creek crossings and off-stream watering

The aim of the project was to provide alternate water sources and access routes for dairy cattle, farm machinery and fertiliser trucks on farm to protect creeks and riparian vegetation. The project completed a six-year farm plan that aimed to eliminate casual stock access from all farm watercourses, minimise essential stream crossings for stock, machinery and vehicles & provide off stream stock watering points and shade. This helped reduce nutrients, sediment and faecal coliforms entering Fountaindale Creek and improve downstream water quality.



*One of five causeways installed.*

To achieve this, Clover Hill Dairies installed 5 concrete causeways over 3 major tributaries and installed 14 off stream watering troughs. Waterways were fenced (1.6km of 2-strand electric fencing) to prevent cattle gaining access to the creek, with planting occurring at some sites (200 tubestock), and natural regeneration of Illawarra riparian rainforest to occur in other areas.

### Fountaindale Creek Catchment Focus

Fountaindale Creek has been a major focus for the Small Farms Network over the past four years. The project aims to engage landholders in a variety of projects to improve water quality, remove riparian weeds such as Coral Tree and Privet, and create a corridor of native vegetation from Saddleback Mountain to the Minnamurra River. In 2005, the Small Farms Network received NSW Environmental Trust funding to remove Coral Trees, undertake revegetation and complete structural works on Fountaindale Creek. The project is on going and secondary weed maintenance is a major issue facing the revegetation of some areas. The project will continue to work with landholders and establish a diversity of riparian vegetation over the next 5 years, with the regrowth of Coral Trees to be monitored and livestock access to the creek to be further reduced.



*3-yr-old revegetation above 1 of 4 rock structures installed on Fountaindale Creek*

### More Details

For more details about any of the highlighted projects, contact Andrew Britton, Small Farms Coordinator on (02) 4232 3200 or email [abritton@southerncouncils.nsw.gov.au](mailto:abritton@southerncouncils.nsw.gov.au)



# WEED FACT SHEET



**Madreia Vine**  
*Andredera cordifolia*



## DESCRIPTION

A vine with fleshy, heart-shaped leaves. The plant has numerous potato-like aerial tubers along the stem and in the ground. Underground tubers can be extensive and numerous. Flowers in March-April with a long (10-20cm) spray of cream-coloured flowers. Flowers do not produce viable seed however; the plant spreads vegetatively so any part of the leaves, stem, roots or tubers can grow. Often seen as a dense mass of thick leaves draped over trees and fences.

## ENVIRONMENTAL IMPACTS

The spread of Madeira Vine in coastal communities is rapid due to copious amounts of aerial tubers. It has the potential to smother native vegetation as it forms a blanket over the tree canopy. It grows aggressively in many types of environments and tolerates a wide range of conditions including salt and drought. It particularly favours sheltered gullies and warm, damp conditions so is a particular threat to local rainforest communities. It is also poisonous to stock. Madeira Vine is difficult to completely eradicate because of the extensive underground tubers which require tedious hand digging and years of ongoing maintenance.



**Madeira Vine Aerial Tubers** – never cut the vine until you inactivated the tubers



**Dense Madeira Vine at Wingham Brush smothering native vegetation**

*Photo Courtesy of B. Mathie*

## HOW TO CONTROL IT

There are a number of methods to effectively remove Madeira Vine however a long term maintenance regime is essential to ensure eradication. Effectively reducing the spreading potential of the infestation is a good initial strategy. It is important to act early and remove the first signs of the plant.

**Aim to contain it-** remove vines from the canopy and small trails of vines that are creeping out from the main patch. It is possible to spray the lower vines with glyphosate, but always use Biactive spray if spraying near waterways. Follow-up maintenance will always be necessary with Madeira Vine so be patient with it!



**Madeira Vine covering a fence in Gerringong**

## METHODS

Keep in mind that Madeira vine spreads easily by the aerial tubers which drop to the ground when the vine is severed. Try not to cut the vines that are going up trees unless you have laid a tarp or plastic sheet down to catch the aerial tubers. Note these can take a number of weeks to drop.

The Stem scrape method is a good strategy to try and slowly allow the poison to be absorbed into the aerial tubers before they drop. To do this, scrape a thin layer of the outer surface of the vine in 20cm lengths from ground level to as high up as possible. This may have to be repeated as the plant slowly dies over a number of weeks.

The underground tubers need to be removed by hand digging with a trowel and placed in a bag to be removed off-site.

It is possible to spray the dense infestations with Glyphosate 1:50 solution however this will still require follow up sprays or hand removal.



## THE STEM-SCRAPE METHOD

1. Scrape the top layer of the stem surface in 10-20cm sections starting from the ground using a knife or secateurs
2. Quickly apply a generous amount of straight Glyphosate 360 solution in a hand applicator bottle to the scraped section
3. Work your way up the stem to as high as possible
4. Repeat for all stems you can reach
5. Wait a few weeks and return to retreat the stems that are still alive

## DISPOSAL

Madeira Vine must be removed off-site in bags. Leave the tubers sealed in the bag and completely dry them out. Then burn them or dispose of them in a sealed bag in the hard rubbish. Contact local waste management services for more information.

## OTHER INFORMATION

- Video Demonstration [www.youtube.com/watch?v=4L7GBMF2NU4](http://www.youtube.com/watch?v=4L7GBMF2NU4)  
By Pittwater Eco-Warriors
- Noxious Weeds  
[http://www.pittwater.nsw.gov.au/environment/noxious\\_weeds/vines\\_\\_and\\_\\_scramblers/madeira\\_vine](http://www.pittwater.nsw.gov.au/environment/noxious_weeds/vines__and__scramblers/madeira_vine)



## PROJECT KEY POINTS

- Laneways redesigned and upgraded for cows and vehicles
- Riparian zones fenced and restored using Natural Sequence methods
- Off stream water system extended
- Wetlands rehabilitated

# INNOVATIVE RURAL COMMUNITY PARTNERSHIPS WORKING TOGETHER

Clover Hill Dairies is a highly productive dairy farm at Jamberoo located in the upper Minnamurra River catchment, a sensitive wetland and mangrove environment.

Farm proprietors the Strong's realised that, as their herd size increased, farm infrastructure had to be developed to support production and minimise their impact on the environment: laneways, stockwater, shade and shelter belts as well as the milking shed yards and effluent systems.

This challenge is additionally complex as Clover Hill Dairies operates amongst a 12 house rural subdivision with blocks ranging from 0.4 to 40 ha, each block comprising mostly bush.

The formation of the "Tangalla Community Streams and Rainforest Inc" group provides a mechanism for the dairy farm and rural residents to live cooperatively side by side, resolve potential conflicts and enhance their unique environment.

The Tangalla CS&R group successfully completed a \$44,574 Envirofund 9 Rivercare project they identified as high priority.

This innovative project showcases dairy farmers and rural residents working together to solve cow and vehicle access issues as well as improve the high value conservation streams and rainforest areas.

## LANEWAYS DESIGNED FOR DAIRY COWS, VEHICLES AND THE ENVIRONMENT

Well built laneways are a key part of the Clover Hill farm infrastructure allowing milking cows to move efficiently between pastures and milking shed three times a day. Properly designed and built laneways create a win-win-win situation with benefits for production, the environment and the rural residents of the Tangalla CS&R Inc.

The extensive gravel laneway network on Clover Hill Dairies has been improved by the Envirofund Project at specific problem areas: laneway sections with potential conflict between dairy cows and vehicles have been redesigned and upgraded and the impact of cows and vehicles on downstream water quality has been minimised.

The improvements to the laneways mean that cows do not walk through creeks and cow movements can be controlled to minimise manure build-up on the vehicle access lanes.

The result is easier stock handling and faster cow movement and reduced manure deposited on the laneways. Any manure that is dropped on the laneways is easily scraped clean and effluent runoff is captured and treated in newly constructed wetlands. The wetlands contain actively growing plants which filter and utilise nutrients .

The outcome for the rural residents is reduced hold-ups on the access roads by the milking herd and reduced manure loads on the common laneways.



Mitigation of Major Rainfall Event Effluent Runoff into Fountaindale Creek (Project No: 63733)

Funding: \$44,574

Total project: \$129,564



## NATURAL SEQUENCE FARMING ADOPTED

Natural sequence farming principles were adopted in the waterways to stabilise and enhance riparian zones on specific project sites. This is a pilot initiative in this region and if successful will be used in other areas on Clover Hill and the broader catchment. As part of the repairs to the riparian zones some 800 native trees, shrubs and grasses were planted. These plantings will increase biodiversity on the farm, provide shade for stock, lower water table and balance greenhouse gas emissions.

A total of 400m of creek fencing is preventing access and damage by stock and vehicles to waterways.

These measures will have long term benefits for the local environment. Creek banks are less likely to be eroded or compacted by cattle, and there is increased opportunity for native vegetation to regenerate, stabilising banks, and improving water quality.

## OFF-STREAM WATER FOR MILKING HERD

Fencing off the waterways means Clover Hill Dairies high producing cows need alternative access to stock water. An additional 3 water troughs and 300m of poly pipeline were installed to extend the network of troughs and pipelines on Clover Hill.

The stock water system on Clover Hill is gravity-fed from an elevated spring via a

50mm poly pipeline to two 22,000 litre storage tanks to provide high quality drinking water for the dairy herd.

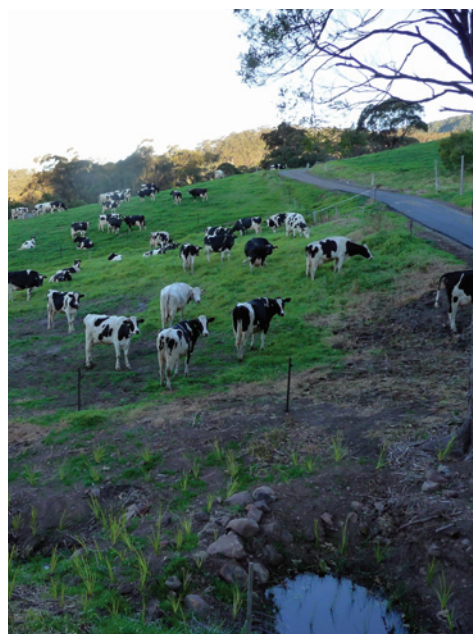
The result is Clover Hill Dairies has a fully reticulated water system and cows no longer access waterways for drinking water.

## WETLANDS – A VALUABLE BUFFER

Existing wetlands on Clover Hill provide a buffer to minimise impact of the farming operations on the waterways.

These wetlands were rehabilitated and revegetated by planting 1200 native wetland species.

An additional six nutrient buffer zones were created and three, wetland areas were enhanced by planting reed beds and installing silt traps.



*Natural sequence farming*

## HAPPY COWS, HAPPY RESIDENTS AND HEALTHY WATERWAYS

The Envirofund project funds were used for a range of improvements to vehicle and cow access corridors:

- 3 creek crossings were constructed to keep cows and vehicles out of the waterways
- The sections of laneways used by both cows and vehicles have been redesigned and upgraded to minimise potential for conflict and to capture nutrient runoff.
- Fencing and cattle causeways were realigned to provide effective control of cow movements;
- A concrete surface was laid in the high cow/vehicle traffic areas to ensure faster cow movements with minimal manure deposited and to allow surfaces to be scraped clean.
- Drainage from above the laneway has been contained and piped under the new laneway to allow all runoff to be captured and treated in newly constructed wetland areas
- Trees and weeds have been removed along the laneway to prevent shading and cattle camps, creating a safer environment for the landscape, cows and residents.

For more information on the project and outcomes, please contact:

**Lynne Strong**  
Clover Hill Dairies  
lynnestrong@cloverhilldairies.com.au  
www.cloverhilldairies.com.au





## Appendix 4

# Beyond the Farmgate Agri-Education Activities and Events



# DAIRY YOUTH AUSTRALIA

## WHO WE ARE AND WHAT WE DO

Dairy Youth Australia Inc is a network of young people who share a passion to tell others about the pivotal role Australian farmers play in feeding the world.

We are committed to developing within the broader Australian population a deeper understanding of and greater respect for, the essential role Australian farmers play in producing food and supporting the nation's economy, community and rural amenity.

To achieve this goal Dairy Youth Australia deliver self managed events and activities that focus on youth, career opportunities, the arts and community – all linked with agriculture.

Originally formed to share dairy farming experiences with school students and the wider community, we have now extended our brief beyond dairy. Recognising primary industries share common ground, we have tailored our new programs to both enhance the image of agriculture and encourage young people to consider agribusiness as a future.

Our Art4Agriculture school initiatives use education, creative arts, multimedia and teamwork to engage urban and rural students in the challenges of primary production, such as the land degradation, dwindling water supplies and climate change.

Our programs partner with Landlearn NSW and other sponsors and include:

1. The [\*Cream of the Crop Competition\*](#) invites students involved in primary industry and natural resource management studies to create a PowerPoint about a unit of their studies with the chance to win cash prizes for their efforts. The winning entries will be loaded on the web providing contemporary authentic, positive and popular stories about agriculture and the environment written by young people for young people. This initiative is vital as the changes to the way farmers manage their properties have moved much faster than educational resource development.

2. [The Archibull Prize](#) –invites students in suburban high schools to learn through hands on experience about the challenges of housing and feeding the world with a declining natural resource base. The finished artworks and curriculum activities must explore and communicate contrasting stories about the future of agriculture in their local area under the theme “Love it Or Lose

Our programs are a true celebration of the people and the places behind the food we eat. They deliver strong rural sustainability messages - not just to the students involved, but also to the wider community. They showcase the positive things farmers are doing and empower them to share their stories.

They are earning accolades across Australia. The Primary Industries Education Foundation has declared the “Archibull Prize” & and the “Jet and Emma Farm Management Series” two of the top three agricultural education and awareness programs setting the standard of excellence in Australia.

Our activities are genuine, contemporary, engaging, fun and full of hope for a sustainable future

## DAIRY YOUTH AUSTRALIA – OUR KEY TO SUCCESS

Dairy Youth Australia bring together social entrepreneurs in the agricultural sector, tapping inspiration and creativity of the next generation and providing them with a platform to share their passion and their vision.

Our programs are cutting through with realistic messages that resonate with young people - linking up city and country and taking on old perceptions with new creative ways of getting through with the real messages using art and technology.

We are ambassadors who not only promote but listen and bring messages about to better inform producers.

We use social networking sites to overcome distance to anticipate social, economic and environmental change, and act early.

We are working with our partners towards a renewal of Landcare using new ideas and techniques opening it up to a new generation of passionate and engaged landcarers

## OUR NEXT PROJECT - 'PERCEPTIONS AND REALITIES - BRIDGING THE RURAL URBAN SCHISM'

'Perceptions and Realities - Bridging the Rural Urban Schism' aims to partner with our other projects to kick-start changes in the attitudes and behaviour of students studying in our cities and large regional towns.

These students are our future consumers, decision makers and farmers. They hold the key to the long term future of our agricultural industries.

This program will recruit and clone 'farming champions' to be the face of agriculture in their local region. Our farming faces & industry champions will partner with us to deliver our education programs directly into their local primary and secondary schools.

The farmers will use their own stories to interact with the students to start them thinking about local issues and potential solutions.

Equally importantly our farmers get to learn first-hand about their end customers – their perceptions and needs of their urban communities.

We will create and provide our farming faces with a range of flexible, authentic and contemporary learning tools that allow young people to explore the environmental challenges of modern agriculture and work with real farmers to seek solutions.

This model can be packaged up and spread right across the nation.

## GOING FORWARD

We now have a proven way for the next generation of Australia's consumers and decision-makers to get first hand exposure to the issues that farmers must deal with to provide our consumers with their most basic of needs.

All our programs work with the next generation of consumers. The short term results are easy to measure but it is long term results we are seeking.

We (as farmers) must engage with the urban communities. We must reconnect them with the bush. Only then will they understand the efforts taken by farmers to protect the natural resource base.

The future generation of consumers and decision makes must see responsible agricultural production as a legitimate use of land, water and other resources.

It takes both courage and vision to lead from the front and we will be inviting both Government and the corporate sector to combine forces to deliver our joint messages through successful, genuine and fun programs like ours to show our urban communities that agriculture has a future and is a great career for their children.

A profitable and sustainable healthy future for the farming sector is achievable – the health and welfare of all Australians, and many people around the world depends on it

Dairy Youth Australia Project Manager  
Lynne Strong  
105 Clover Hill rd  
Jamberoo NSW 2533  
Email: [lynnestrong@cloverhilldairies.com.au](mailto:lynnestrong@cloverhilldairies.com.au)  
[www.dairyouthasutralia.com.au](http://www.dairyouthasutralia.com.au)





Picasso Cows  
A MOOVING WORK OF ART



# Picasso Cows 2008

## Natural Resource Management





## PICASSO COWS... AN UDDERLY FUN WAY TO BRING COUNTRY TO OUR KIDS

Grab a hoof print for your art classes – put some dairy in your day – and you could WIN \$1000!

Help your kids learn with hands on experience about the traditional agricultural industry of the Illawarra and Shoalhaven.

Dairy Australia and supporting partners are proudly offering a FREE art activity - Picasso Cows – A MOOVing Work of Art... an agricultural and environmental introduction for students from grade 3 to 6.

The program will deliver a blank life-size fibreglass cow to 10 regional schools. Commercial art supply company Matisse Derivan will supply water-resistant paint for students to decorate the cow in ONE of the following environmental themes:

1. Clean water
2. Healthy landscapes
3. Energy-efficient dairies

*...Everything the modern Australian dairy industry is striving for!*

Picasso Cows is a multi-layered educational experience with a free educational resource kit supplied.

Students will:

- visit a dairy farm and talk with dairy farmers about the farm environment
- Complete cross curricular activities that have been provided to schools
- Receive an invitation to the Final Presentation and Awards day

A grand finale, in partnership with the RAS of NSW, will see the cows featured in the Sydney Royal Easter Show's Education Pavilion in 2009.

Photos will be taken by Project Organiser and, together with the completed cows and curriculum activities will be judged by an expert panel from Dairy Australia, Australian LANDCARE Magazine and Matisse Derivan.

Afterwards, some schools might chose to auction their cows as a school fund-raiser or they might choose to keep them as a reminder of the fun – and fundamental – presence of dairying in all our lives.

And don't forget there are six \$250 prizes on offer. Maximum prize possible for an individual school is \$1000

Don't just be part of the herd as places are limited... Get MOOVIN<sup>®</sup> and contact:

NSW Project Contact  
Lynne Strong  
PO Box 20  
Jamberoo NSW 2533  
Phone 02 42 360 309  
Email [lmnstrong\\_adsl@hotmail.net.au](mailto:lmnstrong_adsl@hotmail.net.au)



PICOWSSO  
ART IN THE PARK



# The Art





Kiama Mitre 10 Hardware

Burnouts

Kiama Supermarket Ltd.









KIAMA PUBLIC SCHOOL  
Let Your Deeds Shine



So that's  
What the past  
really looks  
likes. That's  
hysterical, I  
mean historical.












**Picasso Cows**  
A MASTING WORK OF ART



*Scream and moo-o-o-o-in!*



Kiama is the cradle of Australia's world leading dairy industry... and 15 Kiama High School students have honoured their heritage. They have designed and painted three unique interpretations of the billboards promoting the region and the industry that helped make it.



*Where it all began...*

The region around Kiama is the home of Australian dairying, the progressive innovation and birthplace of Australia's own dairy cow, the Friesian. It remains the pre-eminent dairying region in the state and takes a national lead in sustainable agriculture.

*Get your own Australian Dairy Traditions...*

- Australian dairying is our third largest agricultural industry
- It employs more than 100,000 people
- More than 50% of Australia's milk is exported to more than 150 countries, with two-thirds going to Asia





Face  
Painting  
Here









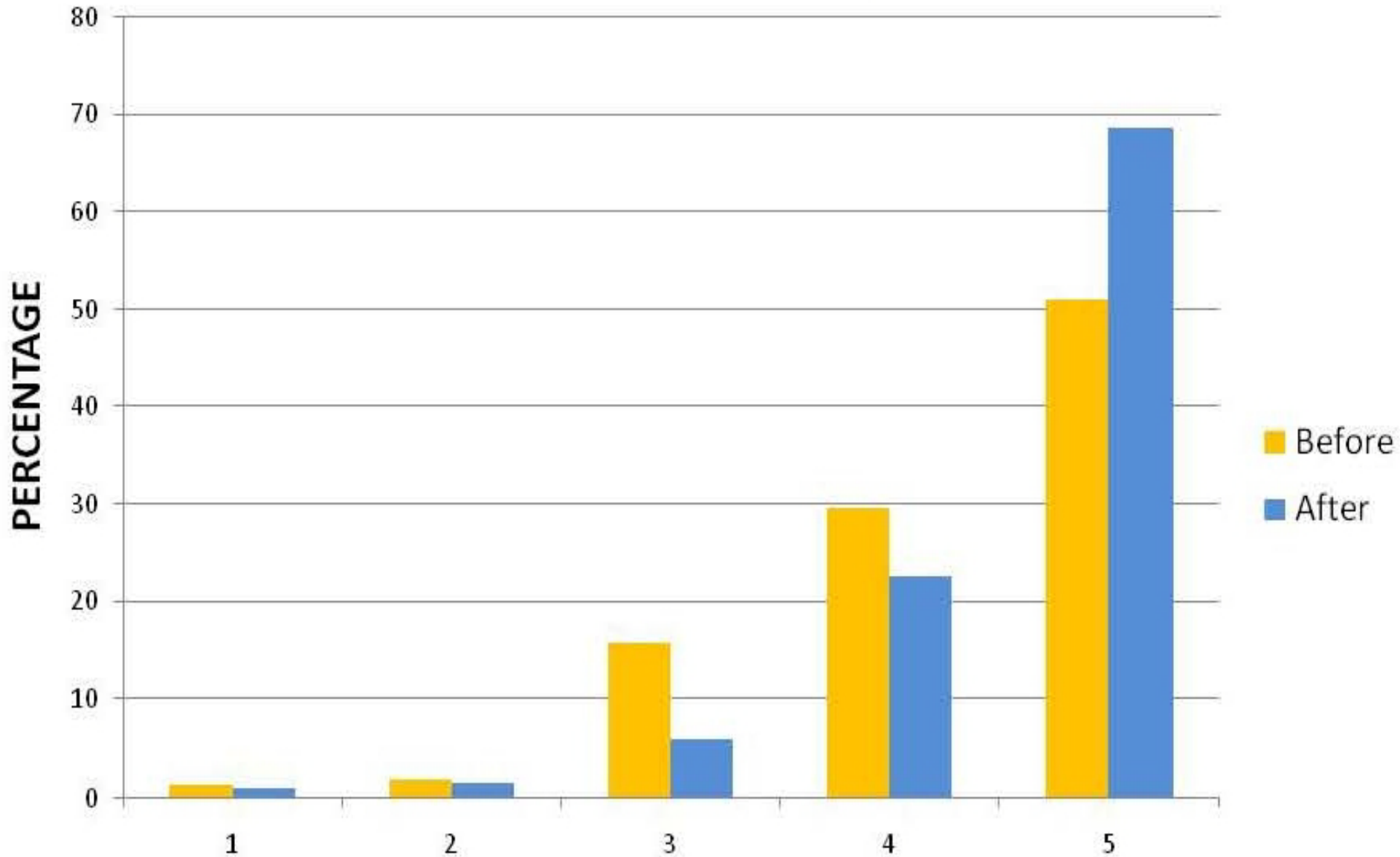


Picasso Cows  
A MOOVING WORK OF ART



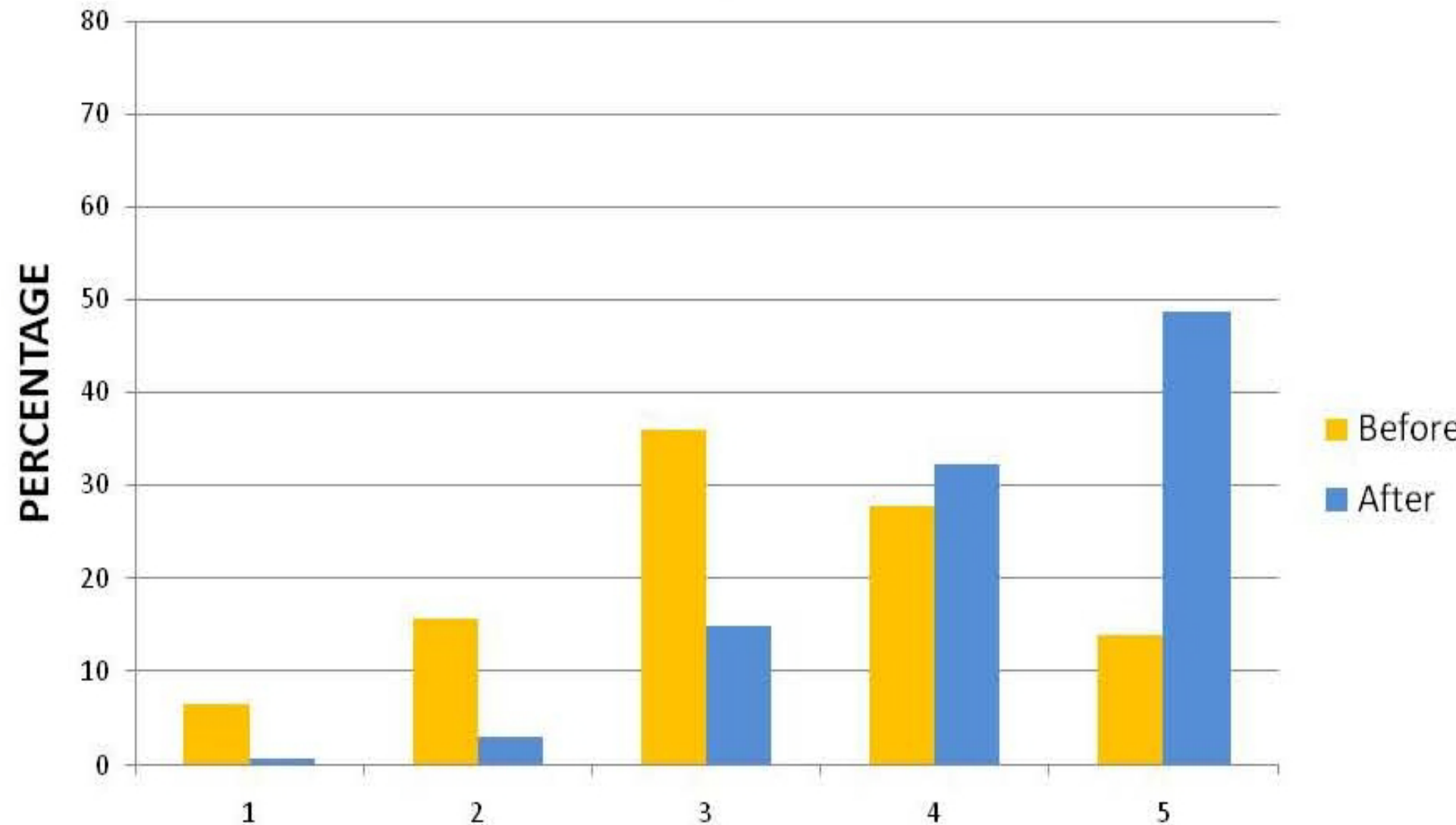
# What the students said

# Protection of the environment is important to me



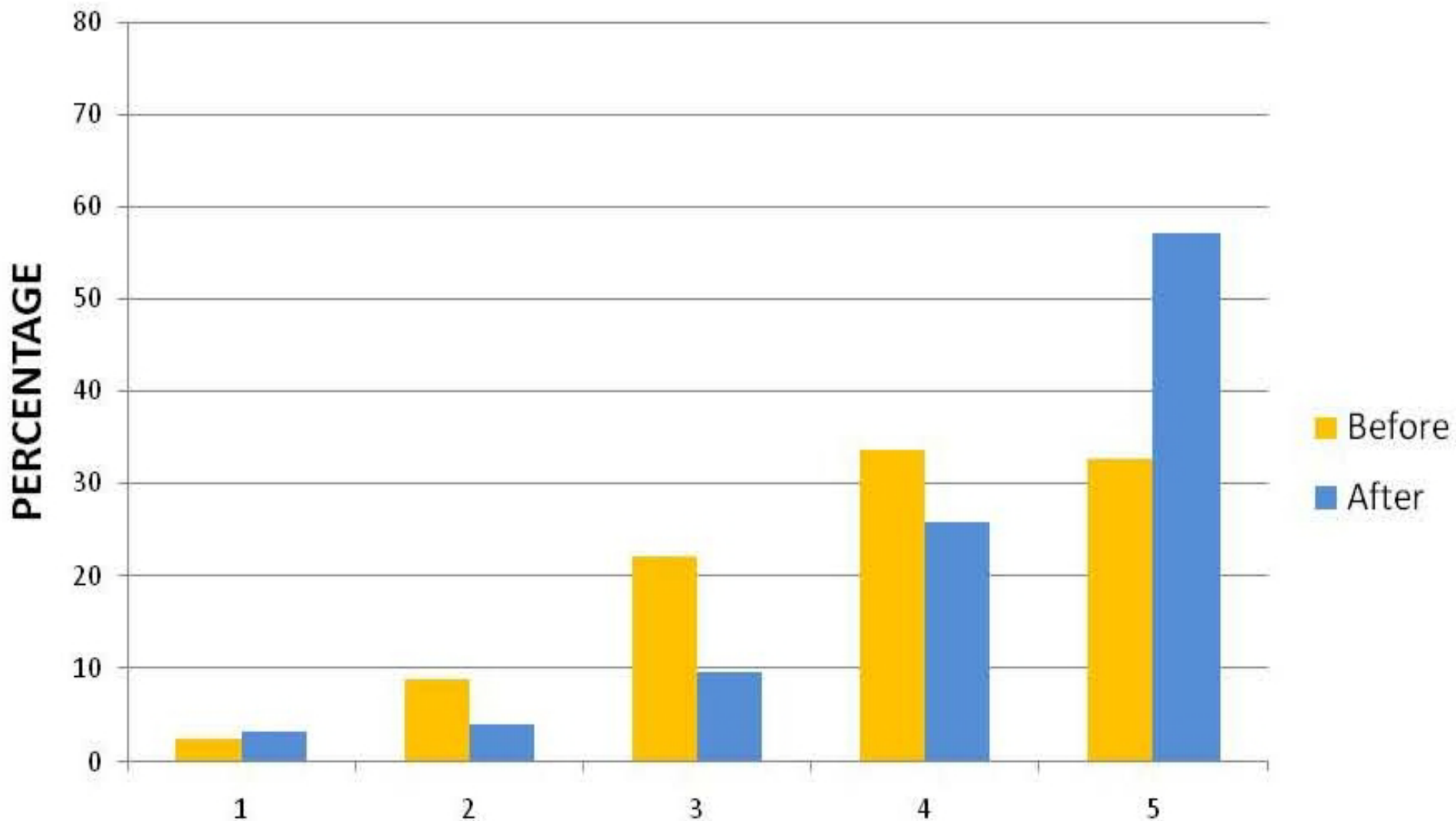
INDICATORS: 1 = STRONGLY DISAGREE TO 5 = STRONGLY AGREE

# The dairy industry is a responsible environmental manager



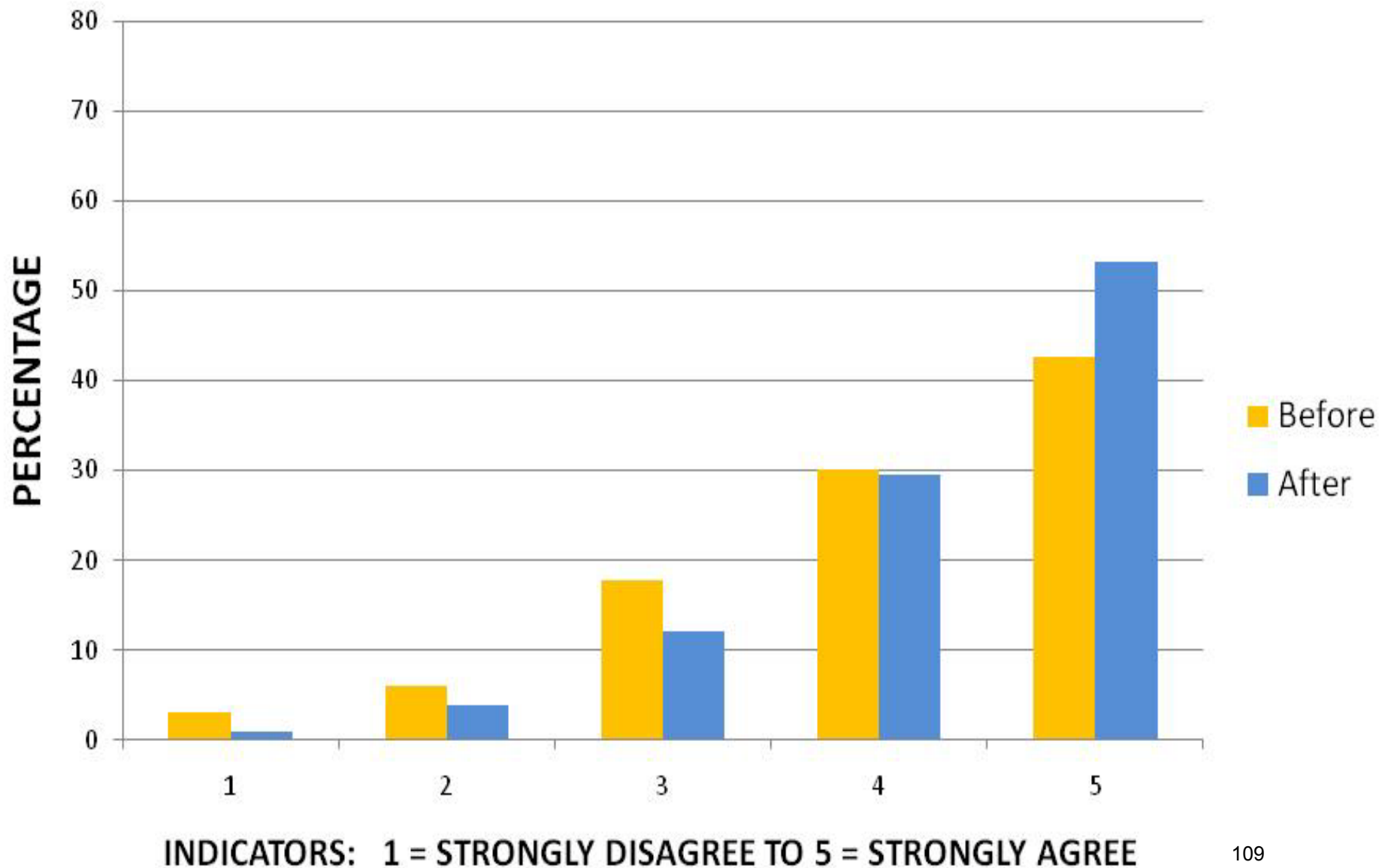
INDICATORS: 1 = STRONGLY DISAGREE TO 5 = STRONGLY AGREE

# The Picasso Cows project has taught me more about how we can look after the environment

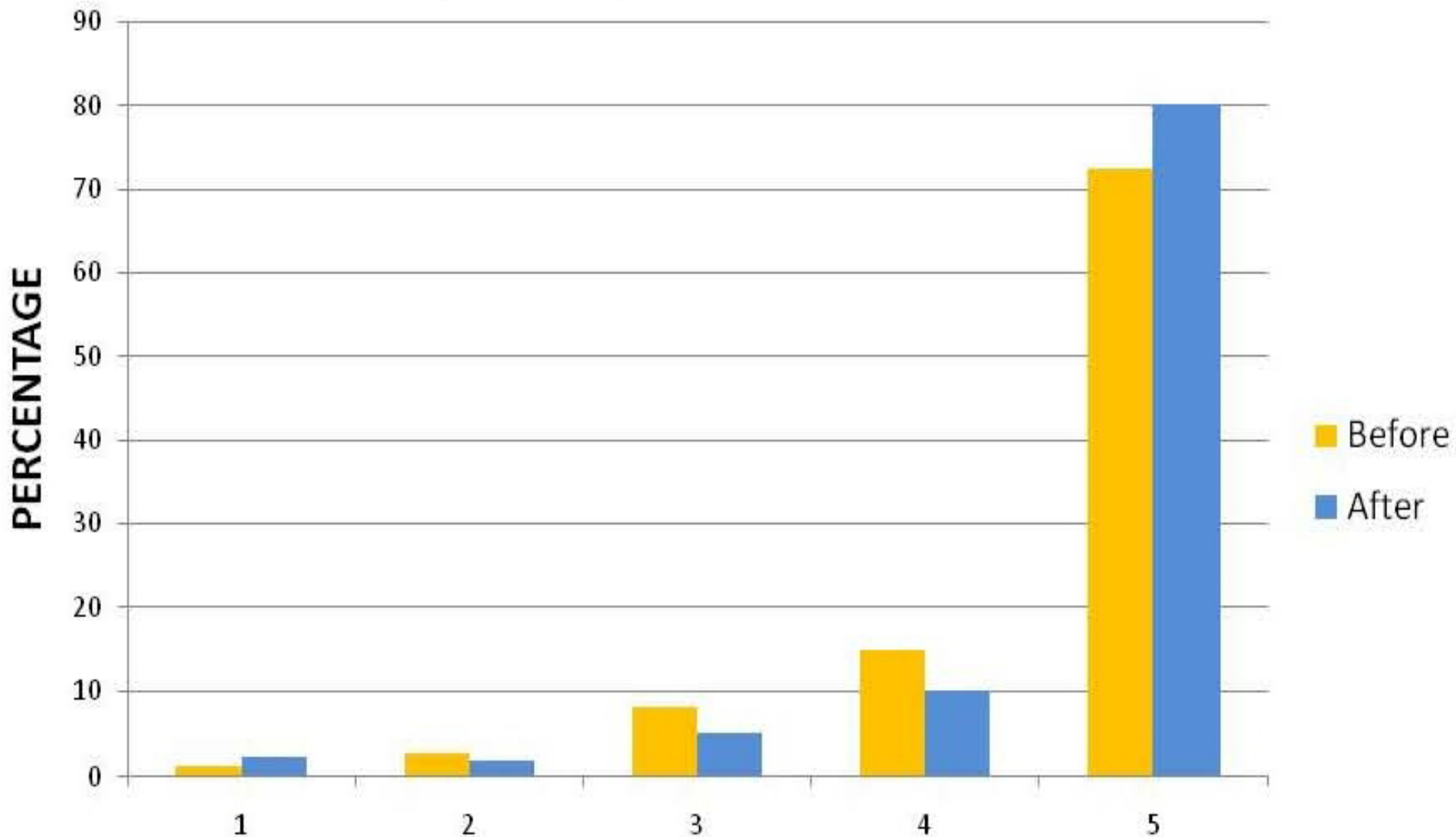


INDICATORS: 1 = STRONGLY DISAGREE TO 5 = STRONGLY AGREE

# I can make changes in my day to day life to help the environment



# The Picasso Cows project was a fun way to learn about the dairy industry and environmental issues



INDICATORS: 1 = STRONGLY DISAGREE TO 5 = STRONGLY AGREE



Picasso Cows  
A MOVING WORK OF ART



# What the judges said



Picasso Cows  
A MOVING WORK OF ART



**Rod Cameron Victorian Cluster of Education Excellence 2008 Picasso Cows judge**

I think the collective efforts of these 10 schools showcase 'world's best practice'. The quality of learning profiled here, and the consistency of learning (process and product) is sensational, and an absolute credit to all involved. **Brilliant!**

**Carmen Perry Schools Education Coordinator (LandLearn NSW) Communication Programs Unit**

Thankyou for the opportunity to see the wonderful results of the Picasso Cows Program. The schools involved have excelled and created some wonderful pieces.  
For the schools involved, Picasso Cows has made learning about local dairying fun and hands-on. I am sure they will remember the experience for years to come.

**Patrick Francis Editor Australian Farm Journal and Australian Landcare Magazine**

Congratulations to all the children, parents and teachers who participated in Picasso Cows 2008. It is clear everyone involved learnt a great deal about producing healthy food from healthy landscapes and healthy, happy cows. The children's idea to compare sustainable farming ecosystems with unsustainable approaches on many of the cows is innovative and helps them to understand why a holistic approach is so important for the future of ecosystems and healthy food production. Other schools made a link to local indigenous land management as well as the pioneer farming era which established the dairy industry in the district. Recognising and understanding history is important for moving forward with sustainable food production ecosystems.



Picasso Cows  
A MOVING WORK OF ART



### **Leesa Swan SRCMA dairy partnerships project officer**

The children have worked hard and shown an understanding of what is needed to achieve sustainable landscapes through community partnerships. Picasso Cows provides a unique way for schools to explore and gain knowledge about the dairy industry and to reflect on the role individuals can play in shaping the future of the landscape.

### **Andrew Britton SRCMA small farms network coordinator**

I really enjoyed the simplicity of the designs and the obvious comparison of not looking after our environment compared to a healthy landscape full of diversity, from the soil to the animals. The curriculum work illustrated the children development through the program and stories backed up the logic and theory behind their designs.

### **Cathy Phelps National NRM Coordinator Dairy Australia**

I found this a very difficult competition to judge; all the schools put a lot of thought and time into their designs and came up with excellent ideas and artistic masterpieces. They all should be congratulated. Many schools used the split theme approach very creatively and effectively and provided choices for people to think about. They did a great job conveying how the eco-system works and the role dairy can play in maintaining the landscape.

### **Steven Patterson CEO of Matisse**

All the schools cleverly communicated strong environmental messages through the artwork on their Picasso cow. My choice for sponsors favourite is the Mt Terry Public School cow which juxtaposed what the consequences from non-sustainable farming practices could be against what can be achieved when thought and effort is put into good farming represented by the earth worms & windmill.



Picasso Cows  
A MOVING WORK OF ART



# What the teachers said



## Cambewarra Public School – Joanne Rogers

As a result of this program, and in particular the excursion, I think the children have a much greater appreciation of dairying as an industry and the environmental considerations that are necessary to have a sustainable dairy industry.

Whilst the children are too young to seriously consider employment opportunities in dairying they are certainly not too young to be interested in environmental issues and I think they now have a good basis on which to build more knowledge in areas related to dairying. I think the most important lesson learned has been not to take things like milk on the table for granted! The cow of course has been the focus of both the program and our class. Through the process of design and research we have all become very fond of her and will surely miss her when she leaves us for greener pastures.





Picasso Cows  
A MOVING WORK OF ART



## Tullimbar Public School – Matthew Best Class Teacher

The Picasso Cows competition has been a fantastic learning experience for all the students in our class. During the 6 week long project students they have experienced working in teams, taking on different roles and responsibilities within the team to create a group idea for the cow designs. As well as the social skill and team work part of the program, students have enjoyed engaging in cow curriculum and have really developed empathy towards where the milk that they drink comes from and the processes it goes through to get there.

Our class had the topic "Energy Efficient Dairies" and after a couple of weeks researching and the real life experience of visiting a dairy farm was a learning experience that they will have forever. Culminating all of this learning into the creation of our cow called Milkshake was a great way to cement the learning. The students are already asking can we go in the competition next year.



## Mt Terry Public School Renee Harris Class Teacher

The Picasso Cow competition has been a fantastic program to be a part of. The students involved have been engaged in a variety of worthwhile and beneficial activities and have gained a more in-depth knowledge of dairy farming, the milking process and the need for sustainable living. Our Picasso Cow project formed an integral part of our class curriculum for the past two terms. The background lessons complimented the HSIE and Science & Technology units being taught and the designing, creating and making of our artwork provided me with a multitude of lessons to integrate into my visual arts curriculum.

The children genuinely enjoyed being part of the project and gained valuable skills and knowledge. I hope that Mount Terry will be given the opportunity to be part of this wonderful program in the future.



## Illawarra Christian School Juliette Poulter Class Teacher

The children have learned so much about art techniques as well as the importance of sustainability in industry. As local young citizens, they want to purchase dairy products, but they want the environment to be looked after. This project has helped them understand the balance that our local farmers strive to achieve.

A MOOVing experience! Picasso Cows inspired the students to stretch their leadership skills, minister to the needs of those less fortunate and take their 'cow expertise' further. When they discovered that TEAR Fund actually provide cows to impoverished farmers, they knew they had found their cause. The students will be using the funds to purchase a cow through TEAR Fund which will provide much needed income for a village in Afghanistan or India.

It's one thing to hold a school fund-raiser. It's an altogether different thing when 11 and 12 year olds are inspired to do something, of their own accord.



## Ingrid Richardson Class Teacher Gerringong Public School

"Picasso Cow" has been an enlightening experience ..... our younger children really are environmentally aware and they really do care! Our "Daisy-Rose" journey reinforced and refreshed values and knowledge that we have always hoped were vital to our children's environmental conscience.

At the outset of the project their responses to the question "What would you expect to see in a "Healthy Landscape?" were diverse, sensitive, astute, concrete and abstract.

Our children learn about the environment in numerous contexts, and then "live" healthy environment by protecting their spaces and places through their knowledge and actions. Now even more so because Daisy-Rose embodies all those values.



# What did the schools spend their prize money on

- As our theme was 'Healthy Landscapes', 3/4H and I felt that the money we won should be used in conjunction with our theme. We chose to donate the money to the school environment committee, who in turn is using it to develop a rainforest habitat in the school grounds. This habitat will include a frog pond and will be used as an outdoor learning environment, so not only the school and students will benefit, but also various living organisms and in turn our 'landscape'. A plaque will be placed in the rainforest and will mention and thank 3/4H and the Picasso Cow project for its creation. The students are very proud of their decision, and feel like they have made a real achievement. Renee Harris Class teacher



Picasso Cows  
A MOOVING WORK OF ART



# What the media said



The Australian

JANUARY  
FEBRUARY  
2008

# dairy farmer



- International Dairy Week preview
- Herd Health update
- Computer software guide

Using

# art

to promote

# dairy



Jamberoo students proudly display one of the finished cows – Liam Hedges, Thomas Wilson, Daniel Edwards, Taylah Grant, Callum Sparkes, Josie Maclean, Lauren Markowski and Mikaela Ryan.

## Cows as canvasses lift dairy's image

**D**AIRY-RICH areas of Australia are merging the beauty of the bovine form with the legacy of landscape in a national public art project. Picasso Cows puts the sustainable farming message on the flanks of fibreglass cows.

Decorated by professional artists, amateurs or school children, the cows become statues in public places to remind passers-by of the importance of dairying for today and tomorrow.

Mid-October saw the latest decoration project by 12 primary-aged students from Jamberoo in New South Wales.

Set in glorious rolling hills near Kiama, the region has a long-standing and proud dairying tradition – it is the home of the Illawarra breed of dairy cow.

However, urban encroachment and farm consolidation has seen the local industry contract. Fewer people work on dairy farms and the impact of agriculture on the landscape is under closer scrutiny.

Teacher, Carolyn Worthy, said that the five-week project involved pupils from the school's extended art class for gifted and talented artists.

The children, from year's three to six, went to the local dairy farm of Lynne,

### KEY POINTS

#### IMAGE

- ✓ Artwork project aims to promote positive image for dairy
- ✓ Shows dairy industry as environmental stewards

Michael and Nicholas Strong. None of the children come from dairy farms.

"They had a choice of three themes to represent. They talked about what we saw and decided on a healthy landscape theme," Ms Worthy said. "They brainstormed that theme, we discussed what the farmers were doing and they worked those ideas into their artworks."

Parents and local artists helped transpose the children's designs onto the broad, blank flanks of the fibreglass cow.

"It's looking good," Ms Worthy said. "The children are very happy with it."

The cow is destined for display at the Royal Easter Show with the idea of promoting the message that the dairyfarmers are trying to lessen their environmental impact.

Cows as canvasses are not a completely new concept in this picturesque rural area.

Kiama's much loved sculpture 'Daisy', named after its true-life model, was created by local artist Ernesto Murgo in 1991. She is repainted regularly by a succession of local artists and is a focal point for the town. Kiama Art Society members Philip Cooper and Rosalyn Hanson completed the latest painting of Daisy on behalf of Kiama Council, who are strong local supporters of the Picasso Cows project.

Mr Cooper and Ms Hanson are long-term residents of the area and have seen the environmental changes that have occurred in the local landscape.

"In the painting, we've tried to capture the delicate and diverse ecosystem that we have here – with elements of sun, beach, rainforest, introduced trees, sea life, dairying and also some iconic built structures like the Lighthouse," Mr Cooper said.

Dairyfarmer Lynne Strong said the work of these artists and the Jamberoo school children marked a new initiative in bringing the sustainability message to the streets.

"It's an opportunity for them to be part of an industry-wide project to 'paint' dairying as part of the new generation of agriculture, to reveal dairying as a natural



Some of the students from Jamberoo with their partly completed cows early in the project – Emily Willims, Callum Sparkes, Ashleigh Wright, Sophie Hewitt and Jessica Fleming.

resource innovator and to reinforce the role of dairy foods in the national context, as well as in a healthy diet," she said.

The Picasso Cows project involves 10 sponsors supporting the artworks on 10 fibreglass cows decorated by primary school students from Bega to Wollongong. Other themes they are exploring include clean water and energy efficiency.

The cows are delivered to the schools with a special message.

"The cow is introduced and the chil-

dren hear about the particular issues surrounding dairying, with a particular focus on the environment but also spanning other issues, including the career opportunities that dairying offers," she said.

"The Jamberoo project is to be start of a national campaign that sees dairying, art and natural resource management blended in a strong and lasting statement.

"It brings environmental stewardship into the streets and into the minds of forthcoming generations."

**D**

## Share in some bovine art action

SIGN up for some art action by sponsoring a Picasso Cow. There are funding opportunities ranging upwards from \$2500 that could see a company or organisation gaining prominence on the rump of a beautiful bovine.

The national project has already attracted backing from the NSW Department of Primary Industries, Weston Animal Nutrition, Cows-R-Us, Matisse Derivan, RAS of NSW, Australian Landcare Magazine, Dairy Processors and local government authorities.

"These organisations all see the value in this unique example of multi-generational marketing," project coordinator Lynne Strong said. "The cows deliver a message through the children participants to the adults. The cows are a vehicle that speaks volumes as an industry-good activity.

"These sponsors are getting in at the outset of what will prove a widespread and enduring movement that will lift dairying's profile nationally."

Sponsorship prospectus, including add-on sponsor benefits, is available by contacting Lynne Strong, phone (02) 4236 0309 or email <lmstrong\_adsl@hotmail.net.au>.

# LANDCARE

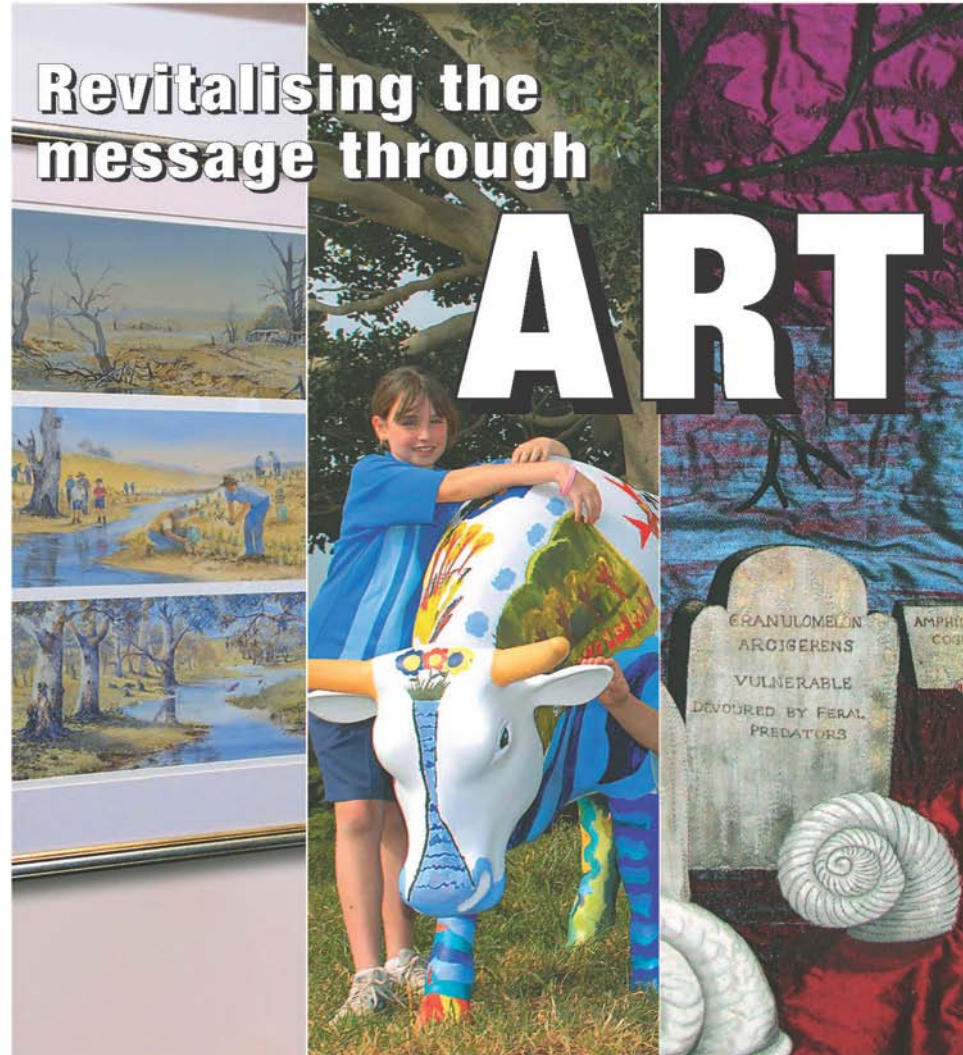


The Australian  
Farm Journal

Supported by the Australian Government

Revitalising the  
message through

# ART



# Picasso dairy drive into schools

**M**ORE than 300 students, their families and teachers are getting creative with cows. They are befriending bovines through the innovative Picasso Cows project of the Australian dairy industry.

Last June saw the 2008 NSW launch of this successful project, which serves up a message of eco-sustainability.

*Australian LANDCARE* magazine is helping to promote the initiative, which sees schoolkids decorating model life-sized cows with environmental messages. The 10 NSW primary schools will be competing for a \$1000 prize.

The painted cows then become the stars of the 2009 Sydney Royal Easter Show's Education Pavilion. In March, the cows were featured on television on Channel Nine's *Mornings with Kerri Anne*, on a podium at the Illawarra 2020 summit, and at the recent Healthy Cities Conference.

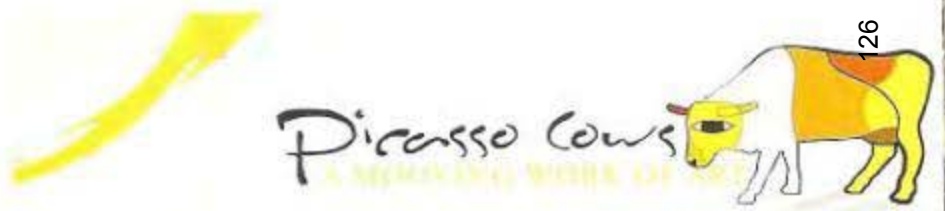
Afterwards, schools could choose to auction their cows as a school fundraiser or keep them as reminder of the fun and fundamental presence of dairying in all our lives.

Dairyfarmers are supporting this national effort which includes excursions to dairy farms and visits from farmers and natural resource management (NRM) experts. The project also links students via email to industry mentors from catchment management authorities and the NSW Department of Primary Industries.

Dairy Australia has developed and promoted the project, which now enters its third year. Commercial art-supply company Matisse Derivan supplies schools with paint.

Dairy Australia's John McKew says: "Participating in the project offers kids a new awareness of agriculture and its links with the environment through art."

The program is tailored to direct schools into the 'Cows Create Careers' project, also backed by Dairy Australia.



## NATURAL RESOURCES MANAGEMENT 2008



The project incorporates a customised curriculum incorporating science, literature and maths as well as art.

The two projects aim to give kids a double dip at dairy, McKew says.

### Sponsors

Other backers of the project include ANZ Bank, South Coast Dairy and Weston Animal Nutrition.

ANZ's south-east NSW regional manager, Mark Nightingale, says the project "provides insights into the dairy industry, including how farming can be a career

choice as well as environmental consciousness”.

South Coast Dairy's Graeme Abbott says: “We believe it will bring the dairying message to the next generation ... and possibly to children who have never before had any direct experience of the dairy industry.”

Weston's general manager Pat Hickson, says: “We see this as an extension of the work we already undertake with the dairy industry.”

The youngsters have a choice of three themes for their four-legged artworks: clean water, healthy landscapes or energy-efficient dairies. The project's website offers information links on environmental sustainability and agriculture, as well as facts and figures on Australian dairying.

The project incorporates a customised curriculum incorporating science, literature and maths as well as art. The curriculum was developed by Rod Cameron, acting principal of a rural primary school close to a Victorian dairying region. Cameron also devised the curriculum content for ‘Cows Create Careers’.

“The intent of Picasso Cows is that the cow would be a device through which the kids would learn the NRM message,” he says. “It's about science and also about social science – how we live our lives, our future and our responsibilities.”

“The learning comes down to the kids in little bits and pieces and the learning is a whole-of-lifestyle approach. They can create their own knowledge. Picasso Cows engages the child in a whole learning experience. They can explore information on the environmental themes.”

Visit website <[www.australianlandcaremagazine.com.au](http://www.australianlandcaremagazine.com.au)> for updates as 10 NSW primary schools paint their life-sized fibreglass cow.

### Find out more:

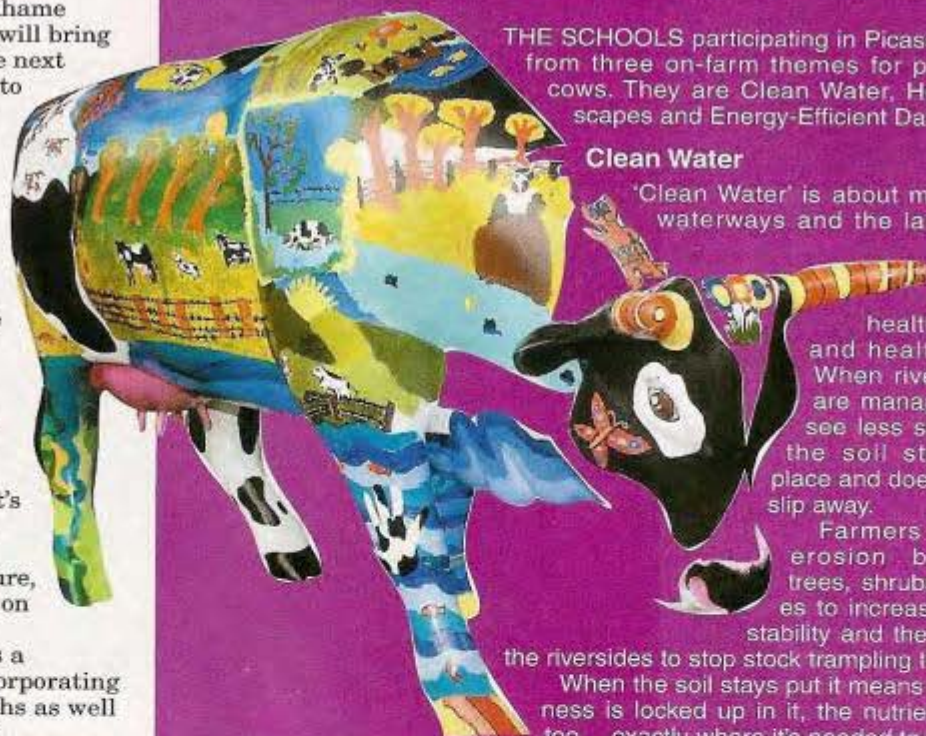
Lynne Strong

[lmstrong@hotmail.net.au](mailto:lmstrong@hotmail.net.au), John Hutchison

& Deanne Kennedy, Jaydee Events, (03)

5659 4219, [jaydeeevent@dcsi.net.au](mailto:jaydeeevent@dcsi.net.au)

## Three themes for 2008 Picasso Cow 127



THE SCHOOLS participating in Picasso Cows pick from three on-farm themes for painting their cows. They are Clean Water, Healthy Landscapes and Energy-Efficient Dairies

### Clean Water

‘Clean Water’ is about managing our waterways and the land near our rivers and streams to make for healthier animals and healthier farms. When riverside areas are managed well you see less soil erosion – the soil stays in one place and doesn't trickle or slip away.

Farmers reduce soil erosion by planting trees, shrubs and grasses to increase river bank stability and then fencing off the riversides to stop stock trampling the plants.

When the soil stays put it means all the goodness is locked up in it, the nutrients, stay put too ... exactly where it's needed to grow grass.

When soil and nutrients fall into rivers, they become murky and it upsets the food balance for all the water-dwelling animals. Sometimes it encourages the growth of algae that can poison animals. Sometimes the murky water means fish and other water-dwellers can't pull enough oxygen out of the water and they die.

Dairy farmers are careful to stop mucky water washed down from dairies getting into rivers, streams and dams. Instead, they divert this water – (it's often full of cow poo) – into settling ponds to let nature clean it up. It can also be processed and recycled to irrigate and fertilise paddocks. By doing this pasture grasses and legumes grow more leaves and roots and add carbon to the soil. Higher soil carbon is important for improving soil water holding capacity and as a result reduces surface runoff carrying sediments into waterways

### Healthy Landscapes

Planting trees and shrubs and maintaining thick, vigorous pastures year round means many good things for birds and native animals, for other plants, for the soil microorganisms and ... oh yes for the cows, too.

Planted in rows, trees offer shelter from wind, rain and hot sun. These shelterbelts of trees and plants make life more comfortable for the dairy cows ... and the people who work with them.

Across the paddock thick pasture protects the soil and the billions of microorganisms, worms and insects that live in it. As well, vigorous pasture provides the best feed a cow can eat, it keeps them healthy and content and something to ruminate on when they lie down to rest.

Down below the ground, shelterbelts and pastures are doing more good work. Their powerful roots are pushing through the soil to drag up water. This action means that the soils do not get too soggy, or waterlogged.

Nor do they get too full of salt – that's a problem called soil salinity. A web of powerful roots deep underground also helps hold the soil together and keeps its nutrients exactly where they're needed.

Soils become well-conditioned and able to grow better pasture. Stronger soils and better pastures are then better-able to fight off attacks from weeds and harmful insects. An added benefit of a thick shelter of trees and bushes is the protection of native animals from other animals that are trying to eat them.

A lot of shelterbelts close to each other give the native animals enough space to travel through. These 'wildlife corridors' give them room to eat, live and breed without danger.

### Energy-Efficient Dairies

Farmers don't want to stress the cows – or themselves – during milking. They need everything to be efficient, from the amount of time taken to milk the cows, right down to the power they use for milking. The easier and smoother they make the milking, the better it is for the animals and the more milk they are likely to produce.

So energy-efficient dairies make sense... as well as dollars!

If farmers spend less time milking it means they can spend more time on other things – maybe something they enjoy doing more. If the farmer employs staff to do the milking, an efficient milking shed makes for a better and safer workplace.

For the cows, the design of the shed and holding yards can improve their comfort and make them easier to handle during milking.

Energy-efficient water cooling systems and hot water systems, energy-efficient dairy plant equipment replacing old, worn parts, correctly-sized coolers and heaters connected to off-peak timers, along with regular maintenance and efficiency checks, all help make the dairy run smoothly and aid to increase the farm's profits.

There are several simple changes dairy farmers can make to reduce energy use (and reduce greenhouse gas emissions). It all begins with using energy more efficiently. Dairy farmers consider things like:

- replacing mercury vapour lights with fluorescent fittings
- locating the dairy so that it is sheltered from chilly winter winds and captures cooling summer breezes
- designing thermal efficient dairies that keep out unwanted heat (or cold) and keep in wanted heat (or cold)
- using renewable energy sources such as solar or wind power.

To reduce greenhouse gas emissions farmers ensure their cows are fed high energy dense and water use efficient pasture and other feed stuffs.

Dairy farmers design their farms to allow their cows to



The 'Clean Water' theme is about managing waterways for healthier animals and farms

spend as much time as possible eating, drinking and resting, and as little time as possible in the dairy, and walking to and from the dairy.

An evenly well-lit area, using lots of natural light or energy-efficient lighting, helps cut down accidents and makes the milking process simpler. Nobody likes to be pushed and shoved in a noisy crowd in a dark place ... not even cows. They want things to be s-mooooo-oooo-th.

sms  
the editor

Tell us with your  
thoughts, gripes  
and opinions.

Send your  
sms to

**0447 844 558**

Please include your first name or  
initials and your suburb.



# Kiama Independent

Founded and published by the Weeton family since 1963

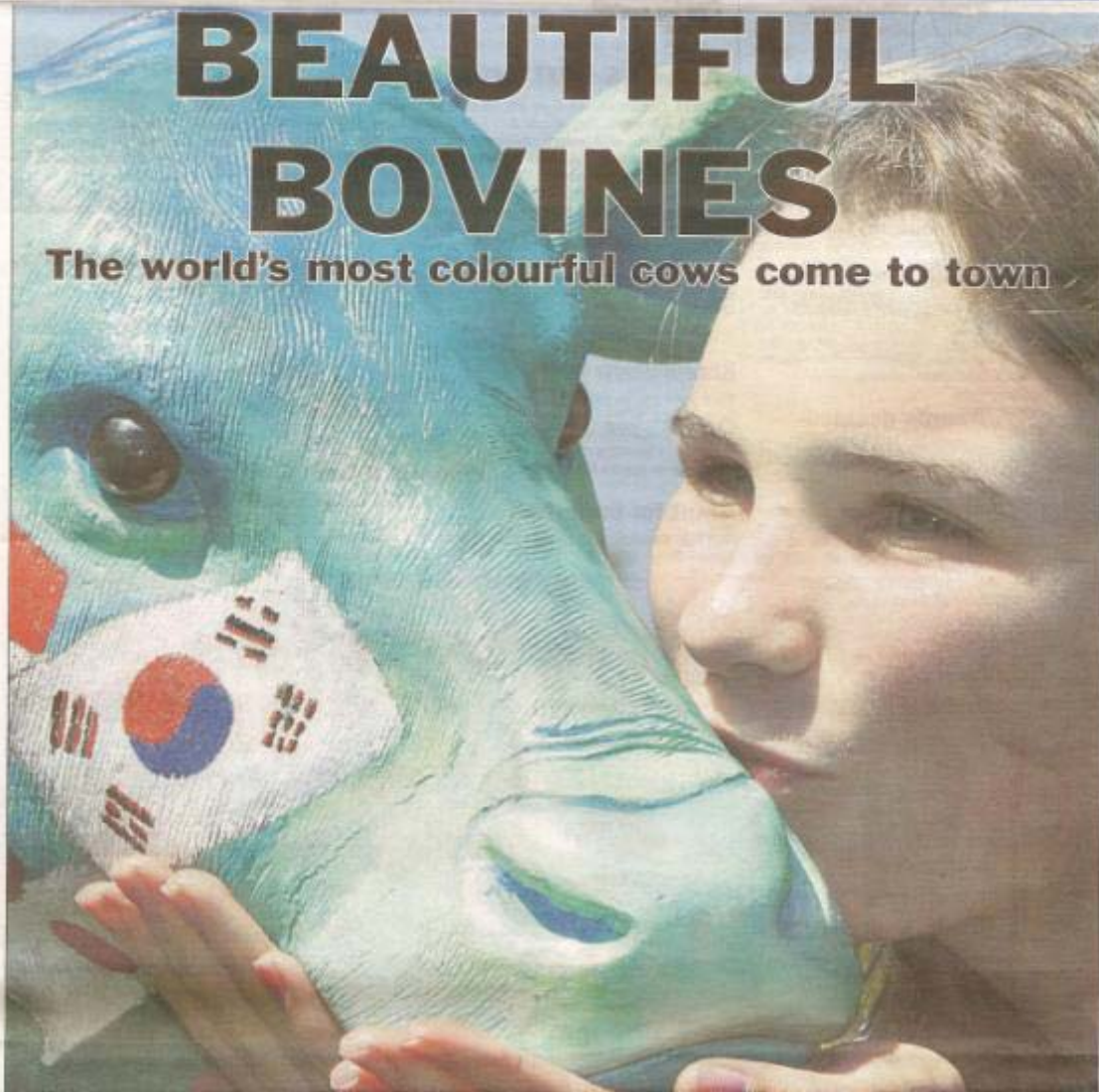
[www.kiamaindependent.com.au](http://www.kiamaindependent.com.au)

Published by Southern Independent Publishers - Ph 4232 0000

Vol. 146 No.

## BEAUTIFUL BOVINES

The world's most colourful cows come to town



# Cows milk interest of visitors

JESSICA BINETH  
on work experience

THE prize-winning herd of cows grazing at Kiama's Hindmarsh Park were celebrated last Thursday at the closing ceremony for the PiCOWsso Art in the Park.

Kiama Public School's "Little Miss Sunshine" was awarded the People's Pick Champion Cow winner for its detailed portrayal of the historic dairying and farming story with the clever inclusion of Kiama landmarks.

Mayor Sandra McCarthy said Kiama Public School had depicted the two sides of the dairying story very well.

"It was a good display of the past and the way things were done and the future where things will be done differently," she said.

Cambewarra Public School and Mt Terry Public School were also awarded for their artistic efforts with prize money donated by ANZ Bank.

The exhibition, launched on January 8, displayed a group of fibreglass cows decorated by regional primary schools spanning as far as Wollongong and Shoalhaven and received an overwhelming amount of support.

Exhibition co-ordinator Lynne Strong said there had been a great response from visitors and residents to the display.

"Monitoring the entries via postcode indicated more than 5000 people visited the herd with 50 per



• Kiama Public School vice-captains Emma Hatton (Year 6) and Shayd Flegg (Year 5) with (front, from left) teacher Dianne Quill, Picasso Cows co-ordinator Lynne Strong, teacher Margaret Osmond and ANZ district assistant Jenny Hart.

cent of those people being from the Wollongong and Nowra regions," she said.

The event was originally conceived to celebrate and share the important place the dairy industry holds in the community

"Picasso Cows is a valuable, meaningful, hands-on project providing lessons that will stick with

the children through life," Cr McCarthy said.

"The investment in the project highlights the importance of dairy as the major agricultural industry for the Kiama area."

Cows for the exhibition were to be painted in one of the environmental themes of clean water, healthy landscapes and energy-efficient dairies that demonstrate the dairy

industry commitment to sustainable farming practice.

"We owe these talented children so much for creating these superb bovine masterpieces," Mrs Strong said.

"The effect of this art activity touches the consciousness of immediate family and circle of friends, many of whom will recall dairying of the past."

# You herd it on the bovine

By MICHELLE HOCTOR

IT was a long way from Abbey Road and the pedestrians couldn't carry a tune, but a classic album cover was definitely milked.

Nine life-size fibreglass cows made the journey across Kiama's Terralong St on Thursday, a la The Beatles, en route to the inaugural Breakfast with the Bovines event.

The "come together" is on today from 8am to 10am when residents and holiday-makers can enjoy breakfast in Hindmarsh Park as part of the PiCOWsso Art in the Park launch.

Kiama Mayor Sandra McCarthy will perform the official honours, unveiling the nine cows that have been painted by students of Illawarra Christian School and Cambewarra, Berry, Kangaroo Valley, Gerrington, Kiama, Minnamurra, Tullimbar and Mt Terry public schools.

A 10th cow, painted by Corrimal Public School students, has been commandeered by the Royal Agricultural Society of NSW.

As part of the art project, the specially selected schools were asked to use one of three environmental themes, clean water, healthy landscapes or energy-efficient dairies.

The breakfast will in-



**Moo-mania:** Lynne Strong and Sue Spence shepherd the cows across Terralong St, Kiama. The cows have been painted by school children across the region as part of PiCOWsso Art in the Park which runs until January 22. Picture: GREG TOTMAN

clude sausage and onion sandwiches, cheese toasts, milkshakes and juice, all on offer for a small donation.

Free balloons, cow face-

painting and tattoos to celebrate all things dairy will also be available.

The project will culminate with the cows herded for display at the 2009 Syd-

ney Royal Easter Show, after which the schools can choose to auction their bovines as a fundraiser.

Councillor McCarthy said the project highlighted the

importance of dairying as the major agricultural industry in the Kiama area.

PiCOWsso Art in the Park will be on display daily from 9am to 4pm until January 22.

## Police find thefts haul

By MICHELLE HOCTOR

A 15-YEAR-OLD boy has been charged over a series of house break-ins in the Shoalhaven.

Police stopped the teenager at Sussex Inlet during a patrol of the town on Monday and allegedly found a quantity of car keys and house-breaking implements in his possession.

At the time, police from the Shoalhaven Local Area Command were investigating a spate of break-ins and vehicle thefts.

Police searched the youth's home and allegedly found a considerable amount of property suspected of being stolen or unlawfully obtained, linked to the break and enter incidents.

The youth has been charged with two counts of aggravated break, enter and steal, two counts of entering a dwelling with intent to commit a serious indictable offence, two counts of stealing property, driving a vehicle without the consent of the owner, being carried in a vehicle without the consent of the owner and eight counts of possessing house-breaking implements.

He will appear in court on February 5.

# Vibrant herd called in for a big show



• Hannah Jones 15, Ruby Stovin-Bradford 14, Matt Dempsey 14 and Haisley Formosa 15, with one of the cows which will be on display. **Picture: ELENOR TEDENBORG**

**EMMA SPILLETT**  
espillett@kiama-independent.com.au

KIAMA residents will be able to view a herd of a different kind this week as the first PiCOWsso Art in the Park display is held.

A joint venture between Kiama Municipal Council, Kiama Tourism and ANZ bank, the display will feature fiberglass cows decorated by students from schools in the area as part of a project to promote the importance of the dairy industry and sustainability.

Event organiser Lynne Strong said the quality of the students' work deserved to be viewed by a regional audience.

"I was so proud of their efforts and I thought it would be great for people to see before it is displayed at the Sydney Royal Easter Show," she said.

Mrs Strong said the program was

vital in providing students with an understanding of the regional dairy industry.

Mayor Sandra McCarthy will officially open the display on Saturday at a "Breakfast with the Bovines" and praised the students for their work.

"Picasso Cows is a meaningful hands-on project providing lessons that will stick with the children through life," she said.

The display has also been a cross-generational project as Hank van der Wijngaart, the 87-year-old father of Kiama deputy mayor Ben, built the platforms to hold the mighty herd.

"Breakfast with the Bovines" will be held from 8am to 10am and will include balloons, cow face-painting and spray tattoos.

The display will be held daily from 9am to 4pm up until Thursday, January 22, 2009.

Australian

MARCH 2009

[www.australianlandcaremagazine.com.au](http://www.australianlandcaremagazine.com.au)

# LANDCARE



The Australian  
Farm Journal

Celebrating 20 years of landcare

## Coastcare's Life on the Edge challenge



Picasso Cows  
Winners



## Landcarers accommodate climate change

# Regional Picassos

**B**lack and White is 'so last season' in fashionable dairy regions on the south coast of New South Wales. Colourful cow hides were herded together at the Jamberoo School of Arts in December when more than 300 students presented their bovine artworks as part of Dairy Australia's *Picasso Cow* project.

The innovative art-based marketing program pitches dairy at the next generation by offering children a new awareness of agriculture and its links with the environment. The young artists explore environmental themes such as clean water, healthy landscapes and energy-efficient dairies ... everything the modern Australian dairy industry is striving for.

"The 3D sculptural creations are ongoing statements to locals and visitors. The region around Kiama is the home of Australian dairying.

"It remains the pre-eminent dairying region in the state and takes a national lead in sustainable agriculture. Our community is committed to sustainable landscapes and the designs show our students are the ones with the energy, creativity and idealism to take the industry forward," said Lynne Strong, Picasso Cows co-ordinator and dairy farmer.

Dairy farmers are supporting this national campaign, which includes excursions to farms and visits from farmers and natural resource management experts.

Students get information and activity kits from Dairy Australia, and commercial art Supply Company Matisse Derivan supplies schools with water-resistant paint.

During 2008, 10 schools competed for the opportunity to display their cow at the Royal Easter Show in 2009, as well as cash prizes.



Joint winners of the Grand Champion School Award for 2008, Minnamurra Public School and Illawarra Christian School with "Minnamooa" and "Hepzibah Daisy" (right).



LEFT: Mt Terry Public School won both "Sponsors Favourite" and "Healthy Landscapes" theme with "Little Miss Moo". ABOVE: Dairy farming without thought for the environment is displayed on the cow's off side.

## on the winner's podium

The schools involved are: Kiama Public School, Minnamurra Public School, Mount Terry Public School, Tullimbar Public School, Illawarra Christian School, Corrimal Public School, Gerringong Primary School, Berry Primary School, Kangaroo Valley Primary School and Cambewarra Primary School.

Rod Cameron from the Victorian Education Centre for Excellence who wrote the Picasso Cows curriculum and judged the entries said: "I think the collective efforts of these 10 schools showcase 'world's best practice'."

The quality of learning profiled here, and the consistency of learning (process and product) is sensational, and an absolute credit to all involved. - Brilliant!"

### 2008 Winners

Five regional schools have taken out top honours with Minnamurra Public School tying with the Illawarra Christian School to take out the Grand Champion School Award and Kiama Public School scooping the cream in the Energy Efficient Dairies theme and Mt Terry Public School both "Sponsors Favourite" and "Healthy Landscapes" theme and Cambewarra Public School the "Clean Water" category.

Illawarra Christian School also took out the curriculum prize for Champion Class Learning Journal.

Carmen Perry School's education co-ordinator LandLearn NSW from the NSW Department of Primary Industries who is a major sponsor of the program said of the Minnamurra Public School cow: "Minnamooa, with her pink lip, pink eyelashes and sunshine crown shows us a more sustainable farming future."

"We see people living and using the landscape with an awareness of the plants, wildlife and even insects which share the landscape with them. We see people planting trees and conserving river bank vegetation."

"The design reminds us about the connection between the top of the catchment and the sea. It is a future landscape where people, nature and even energy



Kiama Public School's split art painting "Little Miss Sunshine" won the Energy Efficient Dairies theme award.  
INSET: The history of the district is displayed on the cow's off-side.



generation (wind farming) can coexist. The more you look at this design the more you see and learn."

Mario M Vallejos Director of Community Services at Kiama Municipal Council said of "Little Miss Sunshine" Kiama Public Schools winning entry in the Energy

## 2009 cows move into art of nutrition

ARTISTIC cows are putting dairy on the palette – and the palate – as Australian youngsters discover the importance of dairy foods to healthy eating.

Dairy Australia's Picasso Cows are coming to schools across the nation from February 2009.

Students will decorate a life-sized fibreglass cow as part of an innovative national program.

The term project in schools offers the young artists a new awareness of agriculture and dairying's links with nutrition through art.

Nationally, dairy farmers are supporting the project which includes excursions to dairy farms and visits from farmers and natural resource management experts.

The cows and all art materials are supplied by Dairy Australia, the national industry organisation. Dairy Australia

has also developed a co-ordinated curriculum for the project. Picasso Cows dovetails into another Dairy Australia project Cows Create Careers (CCC) – designed for secondary students.

Dairy Australia's Richard Lange said: "It gives our children a double dip at dairy. The CCC project, which started in 2004 has reached 3,361 secondary students and 113 schools across all Australian dairying states."

"The students care for loaned dairy calves and incorporate the experience in subjects as diverse as biology and English, while learning about dairying careers."

The 2008 Picasso Cows curriculum covering the themes of Clean Water, Healthy Landscapes, and Energy-Efficient Dairies will be replaced with the dairy nutrition theme.

Contact: Jaydeeevents@dosi.net.au.



Cambewarra Public School took out the "Clean Water" category with "Cambe Anne".

Efficient Dairies theme "A very witty and creative split art painting with good rural message" and Patrick Francis editor of the *Australian LANDCARE Magazine* went on to congratulate Kiama Public School on making a link to the pioneer farming era which established the dairy industry in the district.

"Recognising and understanding history is important for moving forward with sustainable food production ecosystems."

Students at the Tongarra campus of Illawarra Christian School have taken a great idea from the dairy industry and turned it into a cash cow for the Third World.

Inspired by *Picasso Cows*, this innovative art-based marketing program organised by Dairy Australia, raised money to buy a cow to provide much-needed income for a village in Afghanistan or India.

Teacher Juliette Poulter is proud of the initiative her students who took from the project: "It's one thing to hold a school fund-raiser. It's an altogether different thing when 11 and 12-year-olds are inspired to do something, of their own accord."

"The children have learned so much about art techniques as well as the importance of sustainability in industry. As local young citizens, they want to purchase dairy products, but they want the environment to be looked after."

"This project has helped them understand the balance that our local farmers strive to achieve," said Poulter.

#### Healthy Landscapes

Renee Harris class teacher at Mt Terry Public School home of Little Miss Moo who won the "healthy Landscapes" theme and also caught the attention of the sponsors said: "The Picasso Cow competition has been a fantastic program to be a part of."

"The Picasso Cow project formed an integral part of our class curriculum for the past two terms. The background lessons complimented the HSE and Science & Technology units being taught and the designing, creating and making of our artwork provided me with a

multitude of lessons to integrate into my visual arts curriculum.

"The children genuinely enjoyed being part of the project and gained valuable skills and knowledge."

The sponsor judges were full of praise for Little Miss Moo. Patrick Francis editor of *Australian LANDCARE Magazine* said "the children's idea to compare sustainable farming ecosystems with unsustainable approaches on Miss Moo was innovative and helps them to understand why a holistic approach is so important for the future of ecosystems and healthy food production."

Andrew Britton from the Southern Rivers Catchment Management Authority followed up with: "I really enjoyed the simplicity of the design and the obvious comparison of not looking after our environment compared to a healthy landscape full of diversity, from the soil to the animals."

#### Clean Water

Cambewarra Primary School also found themselves on the winner's podium with their beautiful bovine "Cambe-anne" who took out champion cow in the theme "Clean Water".

The students enlisted the help and knowledge of the local Aboriginal community through David and Laddie from the Aboriginal Arts and Craft Centre at Huskinson to tell the story of traditional landholders and their land management principles.

Cambewarra teacher Joanne Rogers admits she grown very fond of fibreglass on four legs that her class has been decorating as part of a dairy industry project called *Picasso Cows*.

"We have all become very fond of her and will surely miss her when she leaves us for greener pastures," the teacher said.

"Cambewarra was initially a dairying area, however most of the farming land is now being used for residential and mixed farming and as a result the children had little real knowledge of the dairy industry, although one child whose father is a vet was able to fill us in on the delicate operation of artificial insemination."

"As a result of this program, and in particular the excursion, I think the children have a much greater appreciation of dairying as an industry and the environmental considerations that are necessary to have a sustainable dairy industry."

"I think the most important lesson learned has been not to take things like milk on the table for granted."

Leesa Swan Southern Rivers Catchment Management Dairy Partnerships Project officer said: "Cambe-anne is a very clever innovative split artwork created by Cambewarra Public School. Cambe-anne's story about the Shoalhaven's journey from the mountains to the sea reminds us that everyone along the river has a responsibility to keep it clean."

Enlisting the help and knowledge of the local Aboriginal community is to be commended. Southern Rivers is committed to building partnerships and to see schools, landholders, industry and Aboriginal communities working together is fantastic.

Each of these groups have something to contribute to the long-term sustainability of healthy landscapes. The children have worked hard and shown an understanding of what is needed to achieve this."

Another bovine destined for the *Louvre* is Gerringong Public Schools Daisy Rose

"Gerringong Public was one of the standout artistic



## Moooved to cheers: painted cows put dairy on the map

Painting foreglass cows might seem an odd way to promote dairying, but New South Wales's Picasso Cows art project has earned astonishing upwings of approval.

New survey results show students involved in the project have not only dumped "don't know" dairy attitudes, but believe they now know a lot about the dairy industry.

Surveys taken before the primary students started the project showed that nearly 40% were uncertain if dairying was important to their region of NSW.

Following their involvement with the project, however, the "don't know" factor dropped to about 13%, and a total 82% agreed or strongly agreed that dairying was important.

Primary school children from Corrimal near Wollongong to Cambewarra near Shoalhaven decorated the cows as a celebration of the dairy industry.

Prior to their involvement, a total of 76% of children said they disagreed, strongly disagreed or simply didn't know if they knew a lot about dairy industry.

Afterwards, that group fell to 12% while those who agreed or strongly agreed that they knew about dairying rose to 87%.

Dairying as an environmental manager earned negative votes before the project; 58% were negative, including the "don't know" vote. Afterwards, however, positive responses to dairying's environmental record rose from 40% to 83%.

Individualy, children responded to the project's environmental message. Post-project, the total who very strongly felt that protecting the environment was important shot up from 51% to 86%.

Similarly, the number who felt they now very strongly knew how to look after the environment rose from 32% to 57%.

The group overwhelmingly voted for another dose of dairy – 80% went to participate in Picasso Cows again.

Dairy farmers supported the national effort which included excursions to dairy farms and visits from farmers and natural resource management experts.

The project also linked students via email to industry mentors from catchment management authorities and the NSW Department of Primary Industries.

The project culminates with the painted cows becoming the stars of the 2009 Sydney Royal Easter Show's Education Pavilion.

Afterwards, schools can choose to auction their cows as

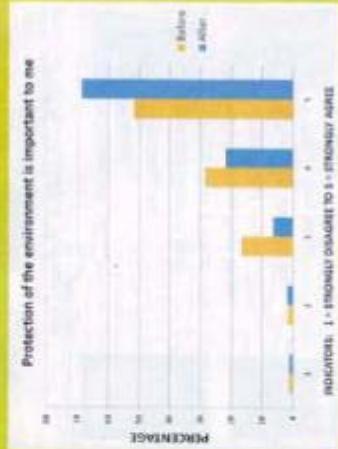
bovines because it used good clear messages, with lots of colour topped off with the wonderful idea of the healthy landscapes cape" said Cathy Phelps National Natural Resource Manager for Dairy Australia.

Steven Patterson chief executive of Matisee Derrivan, whose company provided the paint for the Picasso Cows competition, also spoke highly of Daisy Rose "an outstanding cow, I believe the work captures the spirit of

AUSTRALIAN LANDCARE March 2009



Berry Primary School students head off to discover more about the relationship between agriculture and the environment, on a local dairy farm



a school fund-raiser, or keep them as a reminder of the fun – and fundamental – presence of dairying in all our lives.

creating awareness of how our current actions will influence our future landscapes in a very artist way".

### Find out more:

National Project Co-ordinators John Hitchison and Deanne Kennedy  
Japies Events, [japiesevents@bcsl.net.au](mailto:japiesevents@bcsl.net.au)





- RAS of NSW Agriculture GM Bernie O'Sullivan, RAS of NSW board member and Dairy Cattle Committee chairman Philip Bruem, Food Farm co-ordinator Heather Cotton, and Paul Timbs and Vicki Smart from South Coast Dairy with Minnamooa at the Sydney Royal Easter Show.

## Moooving among State's best

A COW statue painted by Minnamurra Primary School students was named Grand Champion by show patrons and included in the parade of champions at the recent Sydney Royal Easter Show.

The fibreglass cow, called Minnamooa, rolled alongside the best of the best of NSW livestock.

Also selected for the parade as Grand Champion Mini Moo by show patrons, was Kyamooma, which was painted by Kiama High School Year 10 students in 2008.

It was part of a trilogy to tell the story of the humble beginnings of the dairy industry in Kiama to a billion dollar Australian industry exporting to more than 130 countries.

Regional tourism icon the Illawarra Fly partnered with Sebel Harbourside Kiama and Kiama Tourism to sponsor the "People's Pick" competition, which invited show



- Internationally renowned artist Peter Griffen painted a cow he aptly named Desert Pea.

patrons to pick their favourite bovine canvases for the Grand Parade. The competition was won by Wahroonga resident Gabriel Burfitt.

Jamberoo dairy champion Lynne Strong described the moment: "Wow! How spectacular was it to watch the students work and the region showcased in the grand parade - it reduced me to tears."

Mrs Strong took the Illawarra to the show, sponsoring a highly successful display that also had backing from the

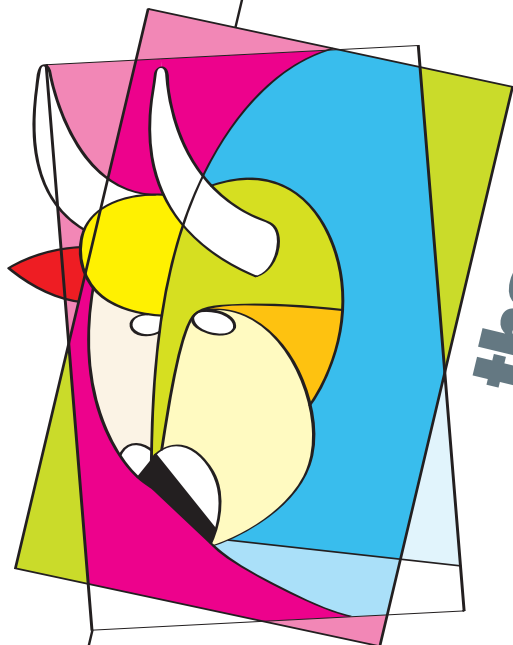
RAS of NSW, South Coast Dairy and Matisse Derivan.

The display featured internationally renowned artist Peter Griffen, who also painted a cow he aptly named Desert Pea to deliver an important environmental message about sustainable farming.

"Awareness of the links between the environment and agriculture are brought to the forefront in this attractive artwork," Mrs Strong said.

"The harsh desert scene on Desert Pea highlights the consequences of not considering the environment in direct contrast with the students' cow art themes of healthy landscapes, energy-efficient dairies and clean water.

"It was a highly successful exhibition and a fitting final tribute to six months of hard work by all the schools, students and teachers involved in Picasso Cows 2008."



# the **ARCHIBULL** PRIZE

.....Your school and your students  
can turn creativity into cash cows

Grab a hoof print for your art classes - put some country in your day - and you could **WIN \$3000!**

Help your students learn with hands on experience about the challenges of Feeding Sydney.

Art4Agriculture and supporting sponsors are proudly offering a FREE art activity – the Archibull Prize ... an art and environmental experience for students from year 7 to 10.

## How it Works...

Each school will be provided with two life size fibreglass cows, on which the students create an artwork about the future of farming in their area. The school is also provided with paint materials and a resource kit.

## The Task...

1. Use two blank fibreglass cows to inspire or create an artwork. Paint it, film it, project onto it, create an animation with it, drape it, photograph it, create an installation or a sculpture.
2. Produce a project diary which documents the journey of your artwork.
3. Produce a PowerPoint for publishing via the Landlearn NSW website which communicates the importance and relevance of your sustainability learnings.

## The Challenge...

The finished artworks must explore and communicate contrasting stories about the future of agriculture in your local area under the theme "Love it Or Lose It".

**Cow 1.** Your region with a profitable and sustainable agricultural landscape.

**Cow 2.** Your region where food security is a thing of the past.



## Issues Covered...

Examples of issues covered

- The repercussions of dwindling water supplies.
- Declining rural sustainability for the country as a whole.
- The effects of urban encroachment on traditional farming land and its impact on food production.

## Cow-Spiration And Food For Thought...

Web links will be provided to give the students both background knowledge and inspiration.

## Significant Reward For Effort

Prizes will be awarded for the....

- \$500 - Best two Cows
- \$500 - Best project diary
- \$500 - Best PowerPoint presentation
- \$500 - Best teacher developed, Archibull linked, integrated unit of work which involves two or more subjects.
- \$1000 - Overall Winning School – The Archibull Prize

**Don't just be part of the herd as places are limited... Get MOOVIN' and contact:**

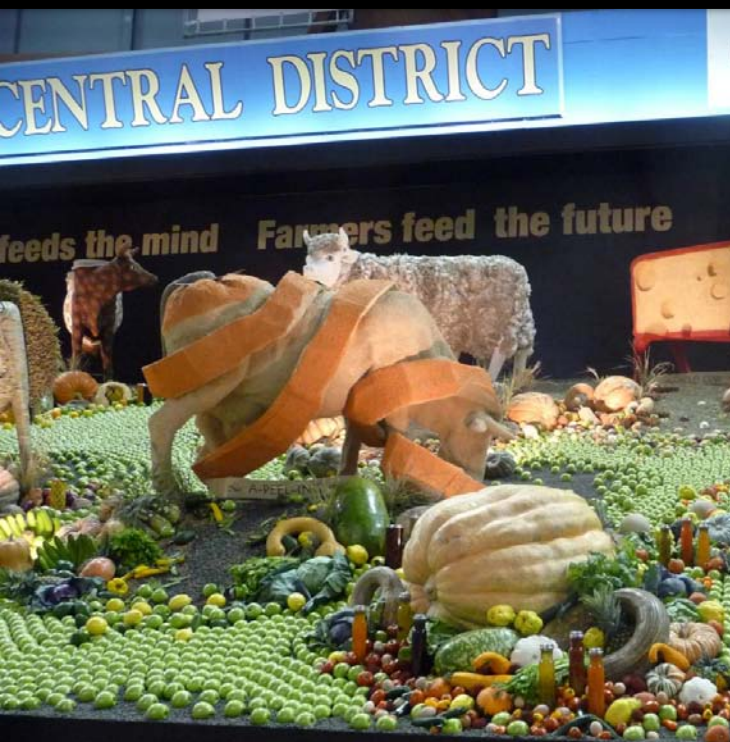
Lynne Strong  
PO Box 20  
Jamberoo NSW 2533  
Phone 02 42 360 309  
Email [lynnestrong@cloverhilldairies.com.au](mailto:lynnestrong@cloverhilldairies.com.au)

*Archibull Prize is an Art4Agriculture initiative supported by funding from the Australian Government Department of Agriculture, Fisheries and Forestry under its Australia's Farming Future initiative.*

## Project Partners



Art feeds the mind Farmers feed the future



schools learning about agriculture through art

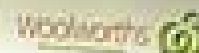


the ARCHIB



Industry & Investment

# CENTRAL DISTRICT



Art feeds the mind Farmers feed the future







MOO-RINO





COW PUMPKIN

CATTLE PUMPKIN

LandLearn  
NSW



COW PEAS

LandLearn  
NSW



COWBERRIES NET SAUVIGNON

LandLearn  
NSW



 CORNERED BEEF

LandLearn  
NSW



HOLEY COW

Home > Animals-competitions > District Exhibits

## District Exhibits

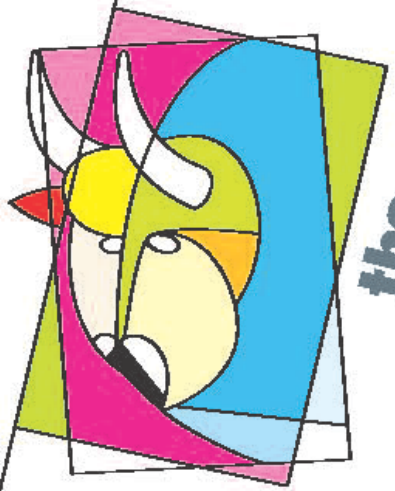


These spectacular constructions of vegetables, fruit and other produce are one of the highlights of The Sydney Royal Easter Show. Created with the support of Industry and Investment NSW and Woolworths, these giant displays are a cooperative work by growers that reflect the diversity and excellence of their regional produce. Each consists of more than 10,000 pieces of fresh produce from five agricultural districts throughout NSW and South East Queensland.



**The Building Of The 2010 Central District Exhibit - Timelapse video**

Cannot **View** the **video**? [Click here](#) | [Share this video](#) Facebook My Space



# the ARCHIBULL PRIZE

You are invited to join  
The Hon. Tony Burke MP,  
Minister for Agriculture,  
Fisheries and Forestry  
to celebrate the  
**launch of the  
Archibull Prize**



# Leading the Archibull to a China ship

by Kietley Isrin

LOCAL students will get a taste of how food is produced and prepared from paddock to plate when they participate in the 2011 Archibull Prize Challenge.

Hawkesbury Harvest has partnered with the program to offer students a hands on experience about the challenges of feeding Sydney.

Huge names such as Woolworths, Landlearn NSW, Royal Agricultural Society of NSW and Rouse Hill Town Centre have also jumped on the bandwagon to bring an understanding of agriculture to local year 6 to 10 students.

"We all start off eating food at a young age, so it is important to teach kids and for them to learn where food comes from," Alan Eagle from Hawkesbury Harvest said.

Pitt Town Public School and Windsor High are among the 14 schools from Windsor to the North Rocks taking part in the competition.

Creative Director Lynne Strong said the aim of the program is to reconnect the next generation of consumers and decision makers with the heart of the food chain.

"We want to reconnect young people with the farmers and give them an understanding of what actually takes place throughout the chain," she said.

In the coming weeks, each participating school will receive two life size fibreglass cows, on which the students create an artwork about the future of farming

in their area. The school is also provided with paint materials and a resources kit.

"Students will be required to produce a project diary which documents the journey of their artwork as well as produce a powerpoint presentation for publishing via the Landlearn NSW Website."

The finished artworks must explore and communicate contrasting stories about the future of agriculture in the local area under the theme "Love it Or Lose it".

Students will be visited by a diverse range of industry representatives throughout the challenge including industry advocates, farmers and environmental advisors from Woolworth's.

"By participating in the program, students will be involved in an innovative, original and genuine program that showcases the people who grow their food, how they live and where they live," Mrs Strong said.

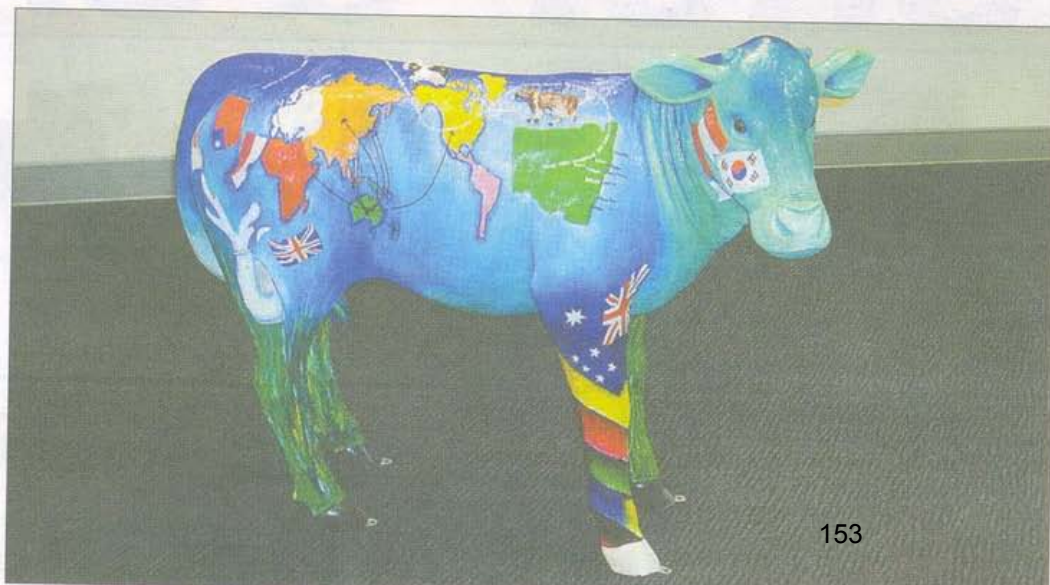
The competition will end on November 14, and the bulls will then be put on show at Rouse Hill Town Centre.

Prizes include \$500 for best two cows, \$500 for best project diary, \$500 for best powerpoint presentation, \$500 for best teacher-developed unit of work, and \$1000 for overall winning school.

"Through the Archibull Prize we aim to kick-start changes in attitudes and behaviour of students studying in our cities and large regional towns who do not have an agricultural connection".



Right to Left: Lynne Strong (Clovehill Dairies and Creative Director), Samantha Zdjelar (Marketing Manager RHTC) and Rebekah Earp (Community Investment Manager, Woolworths Ltd) and (below) their bullish entry.





**DAIRY YOUTH**  
AUSTRALIA INC.

HOME

ABOUT US

EVENTS

COMPETITION

JET & EMMA SERIES

SPONSORS

MEDIA

CONTACT US

**NSW students  
are being asked to  
take the bull by the  
horns and turn their  
rural tales into cash cows.**



**Can you spin a yarn about sheep?  
Chew the fat about pigs?  
Talk turkey about poultry?**

Don't just be part of the herd ... Get MOOVIN' and get your entry in



**CREAM OF THE CROP 2010  
ENTRIES ARE NOW OPEN**

[www.dairyyouthaustralia.com.au/competition](http://www.dairyyouthaustralia.com.au/competition)



## NSW students are being asked to take the bull by the horns and turn their rural tales into cash cows.

- Can you spin a yarn about sheep?
- Chew the fat about pigs?
- Talk turkey about poultry?

### What is it and how it works

The Cream of the Crop Competition provides an innovative and fun tool for students to document and share with others their studies and story. The competition is open to students in NSW secondary schools and tertiary institutions involved in agriculture, primary industry and natural resource management related studies.

The Cream of the Crop Competition invites students to reflect on the social, environmental and economic implications of their studies and communicate this newfound knowledge to the wider community. Entrants must explain why their studies matter and link what they do to everyday living.

### The task

Students are invited to create a PowerPoint presentation about a unit of their studies, why it matters and how it's relevant to everyday life. They are to assume the people reading the presentation have very little knowledge about their area of study.

Think of it like this....if you visited your local fish and chip shop owner and he asked you, "What do you do?", What would you say to engage him, and help him value what you do and understand your passion?

### Reward for Effort

#### Prizes on offer:

#### Secondary School

- Junior High School (Year 7 & 8) \$500 Best Presentation
- Junior High School (Year 7 & 8) \$250 Runner-Up
- Middle High School (Year 9 & 10) \$500 Best Presentation
- Middle High School (Year 9 & 10) \$250 Runner Up
- Senior High School (Year 11 & 12) \$500 Best Presentation
- Senior High School (Year 11 & 12) \$250 Runner-Up

#### Tertiary Studies

- Undergraduate and TAFE \$500 Best Presentation
- Undergraduate and TAFE \$250 Runner-Up
- Postgraduate \$500 Best Presentation
- Postgraduate \$250 Runner-Up

\* Prizes will be Woolworths Wish Gift Cards, which can be redeemed at Woolworths supermarkets, Big W and Dick Smith.

The best 15 entries will be posted on the Landlearn NSW website <http://www.landlearnnsw.org.au>

Landlearn NSW is an education program run by the NSW Government, NSW Farmers and the Royal Agricultural Society of NSW.

### For full details and entry form visit:

[www.dairyouthaustralia.com.au/competition](http://www.dairyouthaustralia.com.au/competition)



# Life-sized cow artworks aim to teach kids about agriculture

**L**IFE-SIZED fibreglass cows decorated with paper-maché and coloured seeds to make them look like giant cow/vegetables mark a new program promoting agricultural and environmental awareness.

The Archibull Prize, an Art4Agriculture initiative uses art and creativity to link agriculture and school students to reconnect the “bush with the burbs” ... and create a whole new generation of agricultural ambassadors.

The Archibull Prize vision bought to life for the first time throughout the Central District Exhibit at the Sydney Royal Easter Show was launched by Simon Marnie of ABC local radio Sydney.

“This program is about getting children to learn about sustainability in a creative and fun way,” says Lynne Strong, Archibull Prize project coordinator.

“Students from cities and large regional towns without an agricultural connection are the target audience for this novel program. We aim to get children to understand the challenges involved in feeding and housing the world. The kids also learn about agriculture and its links with food security,

health and urban society. “The schools involved in the project will be provided with two life-sized fibreglass cows and paint materials. Schools can use the cow in any way they like to create an artwork. The cows can be painted, filmed, animated, photographed, made into an installation or sculpture, the possibilities are endless,” Strong says.

Central District display designer Wendy Taylor jumped at the opportunity to use the cows in her display at the Sydney Royal Easter Show this year. “I had seen the cows used by Lynne and her team in other rural awareness programs and thought they were the perfect way to promote agriculture and sustainability awareness,” Taylor says.

“The district displays at the Royal Sydney Show are about promoting locally grown, fresh produce and agriculture. The Archibulls is about promoting sustainable agriculture. Having the two combined in our display is a great cross-fertilisation of ideas.”

The Central District display shows the cows peacefully grazing in a field of local produce, but look closer and the cows have been

decorated as local produce. There are cows in the form of pumpkins, giant cobs of corn and pods of peas.

Professor Bill Bellotti, Vincent Fairfax Chair of Sustainable Agriculture and Rural Development guest speaker at the launch said “the Archibulls is an excellent example of primary industries education curriculum development for schools. I congratulate Lynne and the Art4Agriculture team for their boldness, the tenacity and creative genius of this watershed program.

“The 2010 Archibull Prize will be piloted in secondary schools in Western Sydney.”

Strong explains the program aims to help students develop a deeper understanding of the essential role played by Australian farmers in producing food, supporting the nation’s economy, building rural communities and protecting the rural amenity.

“Along the way participants will gain insight into the diverse work and career opportunities that agriculture offers,” she adds.

A prize pool of \$3000 provided by Woolworths will provide further incentive for involvement by schools and students.

### Find out more:

**Lynne Strong**  
(02) 4236 0309,  
lynnestrong@  
cloverhildairies.com.au



From left: Wendy Taylor, designer Central District Exhibits; Lynne Strong, Art4Agriculture; Glenn Dudley, president of the Royal Agricultural Society of NSW; and Jennifer Dudley in front of Central District winning Archibull Prize exhibit.



# Students collect the cream

Winners of the Middle High School Section of the Cream of the Crop Competition were students from Carolyn Chisholm College. Pictured here with their agriculture teachers Shelley Baldwin and Colin Gribble are, from left, Alexandria Borg, Laura Signorelli, and Laura Patterson.

**S**TUDENTS from NSW’s rural fringes were named the cream of the creative crop in a competition aimed at promoting rural industries.

The winners of the Cream of the Crop competition, initiated by Dairy Youth Australia Inc, were announced at this year’s Royal Easter Show in Sydney.

The competition asked students to explore why rural studies matter, and how they are relevant to everyday life.

Chairman of Dairy Youth Australia, Lynne Strong says: “The competition is about showcasing rural and regional youth while building community knowledge about primary production and the natural resource management and the role farmers and consumers play.

“We want to reinforce to the students that they are part of a rural community which values what they do, and that they have a responsibility to explain this to other Australians,” Strong says.

“We asked the students to think of it like this... if the local fish-and-chip shop owner asked, ‘what do you do?’ what would you say to get them to understand and keep them interested?”

The competition offered a total prize pool of \$5750 for students in various categories, including best entry from junior, middle and senior high school and best tertiary entry.

Thirteen-year-old Vardhman Jain from Hurlstone Agricultural High School took the top prize for students in years 7 and 8 with his entry ‘From Cow to Carton’.

The year 8 student saw the competition as an opportunity to draw on the skills he had learned in technology classes with his love of agriculture, and dairy in particular. He created an interactive display showing how milk goes from the farm to the factory to the final product.

“Almost every food product you pick up contains dairy in some form. The dairy industry is incredibly important for feeding the world,” he said. “I can see myself working in the dairy industry in the future, though perhaps working on the technology side in the factory, rather than on a farm.”

“The Story of Mini Moo – or how to convince dad to bring a calf home in a car” described Narara Valley High School student Kristy Woodhead’s experiences at hand-rearing a calf.

“I learned the great lesson that it is very difficult to raise calves by hand. It’s not commercially viable,” she said.

Kristy, a year 12 student, had a number of challenges while raising the calf, including early-morning and late-night feeds and severe bouts of scours.

“It was a great experience raising Mini Moo. I had lots of help from other kids in the school and support

from my teacher. I really learnt a lot about farming, sustainability and economics,” said Kristy. “I would definitely do it again.”

Kristy’s presentation won her first prize in the senior high school category of the competition.

The entry by Caroline Chisholm College which gained top prize in the middle school category was a team effort. Year 9 students Alexandria Borg, Laura Patterson and Laura Signorelli prepared a presentation depicting their school’s effort at raising prime beef with a Poll Hereford steer named Optimus Prime.

Supervising teacher Shelley Baldwin said the Cream of the Crop competition gave students experience beyond the school gate.

“The students learn about the relationship between plants and animals and how they affect each other. They come to understand that caring for one means caring for another,” says Baldwin. “And they also learn that caring for both means looking after the land.”

The Cream of the Crop Competition is now open for 2010 and details can be found at <http://www.dairyouthaustralia.com.au/competition/index.html>

The best 2009 presentations across the categories have been uploaded on to the Dairy Youth Australia Inc and can be found at <http://www.dairyouthaustralia.com.au/competition/index.html>



Supporting environmental education



LandLearn NSW  
The Journey Begins Here...

Primary industries

Production chains

Sustainability

Maps and facts

Home

Primary industries

Production chains

Sustainability

Maps and facts

Educators

Students

Careers

Games

Find a program

Publications

Image library

Links

About this site

Search

Contact us

## Cream of the Crop Competition

### Students collect the cream

Students from NSW's rural fringes were recently named the cream of the creative crop in a competition aimed at promoting rural industries.

The winners of the Cream of the Crop competition, initiated by Dairy Youth Australia Inc., were announced at the Royal Easter Show on 2 April 2010.

The competition asked students to explore why rural studies matter, and how they are relevant to everyday life.

Chairman of Dairy Youth Australia, Lynne Strong said:

"The competition is about showcasing rural and regional youth while building community knowledge about primary production and the natural resource management and the role farmers and consumers play.

"We wanted to reinforce to the students that they are part of a rural community which values what they do, and that they have a responsibility to explain this to other Australians," Ms Strong said.

"We asked the students to think of it like this....if the local fish-and-chip shop owner asked, 'What do you do?', what would you say to get them to understand and keep them interested?"

The competition offered a total prize pool of \$5750 for students in various categories, including best entry from junior, middle and senior high school and best tertiary entry.

Thirteen-year-old Vardhman Jain from Hurlstone Agricultural High School took the top prize for students in Years 7 and 8 with his entry *'From Cow to Carton'*.

The Year 8 student saw the competition as an opportunity to draw on the skills he had learned in technology classes with his love of agriculture, and dairy in particular. He created an interactive display showing how milk goes from the farm to the factory to the final product.

"Almost every food product you pick up contains dairy in some form. The dairy industry is incredibly important for feeding the world," he said. "I can see myself working in the dairy industry in the future, though perhaps working on the technology side in the factory, rather than on a farm."

*'The Story of Mini Moo - or how to convince dad to bring a calf home in a car'* described Narara Valley High School student Kristy Woodhead's experiences at hand-rearing a calf.



See the best of the 2009 'Cream of the Crop' presentations on the [Dairy Youth Australia Inc. website](#). Details for the 2010 competition can also be found here.

"I learned the great lesson that it is very difficult to raise calves by hand. It's not commercially viable" she said.

Kristy, a Year 12 student, had a number of challenges while raising the calf, including early-morning and late-night feeds and severe bouts of scours.

"It was a great experience raising Mini Moo. I had lots of help from other kids in the school and support from my teacher. I really learnt a lot about farming, sustainability and economics," said Kristy. "I would definitely do it again."

Kristy's presentation won her first prize in the senior high school category of the competition.

The entry by Caroline Chisholm College which gained top prize in the middle school category was a team effort. Year 9 students Alexandria Borg, Laura Patterson and Laura Signorelli prepared a presentation depicting their school's effort at raising prime beef with a Poll Hereford steer named Optimus Prime.

Supervising teacher Shelley Baldwin said the Cream of the Crop competition gave students experience beyond the school gate.

"The students learn about the relationship between plants and animals and how they affect each other. They come to understand that caring for one means caring for another," said Mrs Baldwin. "And they also learn that caring for both means looking after the land."

Guest speaker at the awards, 11-year-old Lachlan Hoyle from Parkes, winner of the Dubbo Speech Spectacular, amused and enthralled the audience with his take on the topic "Farming needs a Makeover".

The Cream of the Crop Competition is now open for 2010 and details can be found at <http://www.dairyouthaustralia.com.au/competition/index.html>

Note: The best 2009 presentations across the categories have been uploaded to the Dairy Youth Australia Inc. website and can be found at:

<http://www.dairyouthaustralia.com.au/competition/index.html>

## Picasso Cows – A MOOving work of Art!

Michael Ison

Dairy Officer – Human Resources, Paterson



Picasso Cows came to 10 primary schools on the South Coast of NSW during the past two terms, having quite an impact on the students. The Picasso Cows concept is new to the dairy industry and involves the delivery of unpainted, life-sized fibreglass cows to participating schools. Students designed and painted the cows according to a theme.

The theme this year was the environment, broken down into three areas; clean water, healthy landscapes and energy efficient dairies. One major sponsor, the Southern Rivers Catchment Management Authority, was particularly pleased with the finished products.

As an opportunity to involve students in an educational activity, Picasso Cows came out on top. As Carmen Perry pointed out, "For the schools involved, Picasso Cows has made learning about local dairying fun and hands-on. I am sure they will remember the experience for years to come." Carmen is the Schools Education Coordinator (LandLearn NSW) with NSW DPI based at Maitland.

The cows will be displayed at important events around NSW giving the public an opportunity to get up close and personal with all the dairy divas.

Many thanks are extended to Lynne Strong for driving this project along and for initiating an ongoing series of Picasso Cows, supported by Dairy Australia, during 2009 and beyond.

Other sponsors who have contributed to the project including ANZ, the Royal Agricultural Society, South Coast Dairy, Landcare Magazine, Westons Animal Nutrition, Cows R Us, Kiama Council, Matisse Derivan, South Coast and Highlands Dairy Industry Group and Tangalla.

---

**The Picasso Cows will be on display at the Royal Easter Show in Sydney  
and Tocal Field Days in May 2009.**

---



# Appendix 5

# Letters of Support



Banksia Environmental Foundation

Level 1/40 Albert Rd

South Melbourne Vic 3205

16<sup>th</sup> July 2010

Letter of Support

Banksia Award: Agriculture and Food Paddock to Plate Sustainably

To whom it may concern

This letter is to advise of my strong support for the nomination of Clover Hill Dairies for a Banksia Environmental Award.

Lynne Strong and her family have worked tirelessly to develop Clover Hill Dairies as an outstanding example of a sustainable, productive dairy farm that enhances its local environment whilst reducing its carbon footprint. The improvements in management practices have been across all aspects of the farming system including energy efficiency, nutrient and fertiliser management, biodiversity, water use efficiency and riparian protection.

The management practices at Clover Hill Dairies demonstrate a strong commitment to both environmental stewardship and productivity and are rated as industry best practice.


A key success factor in the development and implementation of Clover Hill Dairies sustainability plan has been Lynne Strong. Lynne actively seeks information from industry experts, NRM agencies and research scientists about new technologies and concepts that can improve resource use efficiency whilst enhancing environmental outcomes. The outstanding work being done by Clover Hill Dairies in implementing and promoting best practice principles was recognised this year when they received the National Woolworths Primary Producer Landcare Award.

Lynne works closely with local communities and industry stakeholders to promote and build industry and community understanding of the benefits of practices that improve both productivity and environmental outcomes. An example is the highly successful Picasso Cows NRM program developed and implemented by Lynne in 2007-2008. In terms of creating greater awareness and understanding about environmental issues this program was an outstanding success. Participating students, schools and their communities all rated the program highly. The social and cultural environment fostered by the artistic component of Picasso Cows has attracted new and different groups of young people to agriculture and has in turn led to the formation of Dairy Youth Australia Inc.

Dairy Youth Australia Inc is a network of young people who conduct events and activities which focus on youth, career opportunities, the arts, the environment and community – all linked with sustainable agriculture. Lynne's mentoring role with Dairy Youth Inc has enabled her to share her passion to tell others about the role Australian dairy farmers can play in enabling sustainable production of dairy products. Lynne's active commitment to pursuing and promoting environmental excellence is highly valued by the Australian dairy community. Of particular value is her dedication to showcasing sustainable farming practices to government agencies, regional NRM bodies, schools and local government.

I have no hesitation in supporting the Clover Hill Dairies nomination for a Banksia Environmental Award. Clover Hill Dairies is an outstanding nominee.

Yours sincerely,



Natural Resource Management Program Manager  
Dairy Australia



## STRATEGIC BOVINE SERVICES

ABN: 111 264 05105

2 Broughton Street

PO Box 660 Camden 2570 Australia

Phone: 02 46 558532 Fax: 02 46 558501

---

### **Banksia Environmental Foundation**

**Level 1/40 Albert Rd**

**South Melbourne Vic 3205**

### **Letter of Support**

#### **Banksia Award: Agriculture and Food Paddock to Plate Sustainably**

20<sup>th</sup> July 2010

It is my pleasure to provide a letter of support for Michael, Lynne and Nicholas Strong of Clover Hill Dairies in regard to the Banksia Award: Agriculture and Food Paddock to Plate Sustainability Award. In my experience, there is no equivalent achievement in the area of land care and productivity to that achieved by Clover Hill Dairies as indicated by their recent National Landcare Primary Producer Award. This bold statement obviously requires support and qualification.

The criterion underlying this statement is that stewardship of the land has its best expression in the execution of strategies of improvement of properties that result in increased productivity and improved environment. I have been fortunate to observe the changes on the Clover Hill farm since the early 1990's

With deregulation approaching, rather than look "over the fence" or over the Great Dividing Range or the border, the Strong's of Clover Hill Dairies decided to focus on the resources they had in their own back yard.

Realizing that proximity to markets is as valuable to proximity to inputs; the Strong's have set about developing a highly efficient dairy system on a relatively small acreage at Jamberoo, NSW.

Focusing first on human capital, Lynne, Michael and their son Nick started building on their own solid background in dairying by up skilling and attending as many conferences and discussion groups as they could.

They also contracted private consultancy services that could help them synthesise the abundance of often confusing generic information into a plan that was specifically suited to their own enterprise and ambitions.

The key resources of fertile soils and good climate were then coupled with high genetic merit cows to provide a highly productive and sustainable pasture system that has been integrated with aggressive supplementary feeding strategies to more than triple farm production in six years. Regular soil testing and balanced fertiliser inputs have kept soils and pastures at the peak potential for production while respect for their local natural environment has allowed maintenance and improvement of their interface with the lush sub-tropical rain-forest that is interwoven through the property.

With accessible land area being scarce and of extremely high value, the Strong's have also been able to focus all their home farm's resources into the milking herd while developing a network of lease properties for raising of young stock and dry cows. This has not only turned a number of local marginal region hobby farms into highly productive, well cared for and profitable holdings, it has also given the Strong's the springboard and the local respect to allow them to lease and develop a second dairy farm in the valley near by.

By continuing to look at what can be done with what is in reach, the Strong's have been able to develop a highly sustainable and profitable enterprise in an area that still has a bright future as a dairy region in NSW.

Whilst these achievements are impressive, these have been matched by a passionate dedication to protect and enhance their landscape with a marked increase in trees on the property, protection of riparian zones and improvements to effluent systems. There is no soil tilling and the carbon contents of the soils supporting the mixture of permanent and annual pastures are high.

The Strong's have successfully tapped into local networks for both funding and advice. They wisely plan with a long term view, using a step by step approach to reach their objectives.

The farm is always a delight to visit and the care and attention of Nick, Michael and Lynne is always evident. Furthermore, I am familiar with the rural residential subdivision network surrounding the farm that is now involved in establishing opportunities to improve the sustainability of their environment. This also represents a substantial achievement. The combined impact of greatly increased productivity and markedly improved environmental amenity is stunning and deserves praise.

Given, these achievements, it is not surprising that Lynne has turned her energy towards bridging the gap between the city and country. Her experience in pharmacy and the farm geographic location on the edge of Wollongong and proximity to Sydney provide her with excellent insights into the pressing need for primary producers to reconnect with their consumers. In particular, she is keenly aware of the need to effectively communicate the passion of most farmers for the environment and their willingness to achieve sustainable production. This contrasts with the stereotype image prevalent in the city of those on the land merely extracting resources and using non-sustainable methods to do so.

Lynne's initiative in reaching out to and partnering with local youth and the community through the Picasso Cows project and now her partnership with Dairy Youth Australia Inc group to roll out the cross industry Art4Agriculture initiatives is extremely important and successful and I have first hand knowledge of the impact on schools in the region. I am aware of publicity gained and the children who have now engaged with primary industries and natural resource management as a direct result of these initiatives. These initiatives have also been very useful in countering the prevailing antipathy towards agriculture present in urban areas.

I have watched and supported Michael, Lynne and Nicholas in a number of their initiatives. In each case, the relentless drive and energy to deliver an innovative and valuable outcomes for at the start the dairy industry, and now agriculture in general, has been achieved with overwhelming success.

Yours Sincerely

Dr. Ian J Lean  
BVSc, PhD, MACVSc  
Adjunct Professor University of Sydney  
Winner 2009 Gilruth Prize and Medal

**Banksia Environmental Foundation**

**Level 1/40 Albert Rd**

**South Melbourne Vic 3205**

16<sup>th</sup> July 2010

**Letter of Support**  
**Banksia Award: Agriculture and Food Paddock to Plate Sustainably**

To whom it may concern

I am pleased to support Michael, Lynne and Nicholas Strong T/A Clover Hill Dairies application for the 2010 Banksia Awards.

The Clover Hill Dairies team is one of a dedicated group of Australians who is making a real difference to the way sustainable farming is practiced.

Today agriculture is evolving beyond productivity alone; farmers are learning to become natural resources and landscape stewards in conjunction with production of food and fibre. Clover Hill Dairies holistic decision making process to ensure higher quality of life, financial stability, consistent profitability, animal welfare, and the confidence of knowing their decisions are improving the environment and the community they live in embodies this approach. The Strongs are at the frontier of change in this respect.

An important component of their management is monitoring both production, environmental and animal welfare indicators under the control of the business. Monitoring key indicators not only provides a solid base for decision making but also substantiates claims about improving trends. Not only does Clover Hill Dairies say it is improving the environment in conjunction with productive dairy farming it has the evidence to demonstrate it.

Clover Hill Dairies provides a great service in facilitating urban/rural ecological connections and sets an example on their own family dairy farm to show how productive agriculture can be undertaken in tune with improving the environment.

Acknowledging, the more people from different backgrounds are brought together, the greater the opportunity to change the face of Australian agriculture and the way Australians' view agriculture, Clover Hill Dairies have successfully engaged with their neighbours and have others talking and sitting down to work out solutions to common problems.

The family is self motivated and has a passion for educating children and the general public about sustainable Australian agriculture

The Picasso Cows program that Lynne started in 2007 and continued in 2008 is one of the most effective children's educational experiences I have witnessed. It gave the children the opportunity to experience dairy farming, its interaction with the environment and turn what they learnt into effective messages to the wider community through art on the Picasso Cows.

I participated in judging the entries in November 2008. It provided an amazing insight into children's initiative and ability to understand then interpret relatively complex concepts. The children, through their cows, demonstrated they understood the links between healthy farm ecosystems, healthy and productive cows and happy farm families and community relationships.

Michael, Lynne and Nicholas Strong's application has my full support.

Yours sincerely,

A handwritten signature in black ink that reads "Patrick Francis". The signature is written in a cursive, flowing style.

Patrick Francis  
Editor Australian Farm Journal  
Editor Australian LANDCARE Magazine  
Ph: 03 9379 2607  
e: [francis@ozonline.com.au](mailto:francis@ozonline.com.au)



28 July 2010

Banksia Environmental Foundation  
Level 1/40 Albert Rd  
South Melbourne Vic 3205

To whom it may concern

I am very pleased to support Lynne, Michael and Nicholas Strong T/A Clover Hill Dairies' application for the 2010 Agriculture and Food – Paddock to Plate Banksia Awards. The family team at Clover Hill Dairies are dedicated to promoting sustainable farming practices, extending well beyond the farm gate. They seek to enhance, enrich and promote the whole food and fibre chain from paddock to plate.

The Clover Hill's Dairies' sustainable performance and innovative approaches are led by Lynne Strong's authenticity as a producer, wife, mother and business partner in the Clover Hill enterprise.

Lynne is a dynamic and community-driven rural woman who is able to inspire people across a broad spectrum of ages and sectors with her vision and commitment to action. The first thing that people notice when they meet Lynne Strong is her passion. Lynne is totally committed to encouraging and supporting Australian farmers and policy makers to examine and adopt increasingly sustainable production and consumption approaches to food and fibre.

Lynne informs her vision with in-depth research, genuine consultation and rigorous evaluation. Her action-learning framework is founded on good science and economics. It is also underpinned by a resilient social conscience and sense of individual responsibility. Lynne says the buck stops with her as a producer, no matter what changing economic, environmental and social circumstances may prevail.

Lynne Strong embodies a holistic approach in dynamic landscape of rural and urban sustainability and connectivity. She brings rural and urban players together in an informed discussion about improving supply-chain sustainability.

Traditional approaches, including farm visits and workshops, have been employed but also innovative initiatives using art and modern communication technology have been highly successful. They have helped bridge geographic and age gaps in dealing with modern environmental challenges.

Lynne has a commitment to two-way communication in helping agricultural industry lift its economic, environmental and social sustainability performance. She focuses on meeting and anticipating rising consumer expectations that can in turn be reinforced in a virtuous circle of sustainable supply chain delivery – or a supply-demand bracelet as Lynne likes to call it. Performance is Lynne’s compelling proposition to stakeholders. She says agriculture has to live or die on its sustainable performance in production and market acceptance terms. The outstanding performance of Clover Hill Dairies has been recognised by industry and the market, not only in financial terms, but in community excitement at new approaches acknowledged in a series of awards.

Lynne is incredibly generous in sharing her insights with farmers, government, her local community, interest groups and most especially the broad Australian community. She is focused on creating a groundswell of rural and urban connectivity and heightened sustainability outcomes.

I find Lynne Strong’s environmental commitment and performance very compelling and she would be a very worthy winner of the 2010 Agriculture and Food – Paddock to Plate Banksia Award.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Ken Moore', with a large, stylized initial 'K'.

Ken Moore  
A/g General Manager  
National Rural Issues



Banksia Awards  
Level 1, 40 Albert Road  
South Melbourne, VIC 3205

To whom it may concern

### **2010 Banksia Environmental Awards**

*LandLearn NSW*, the state-wide schools education program about primary industries and natural resource management coordinated by Industry & Investment NSW (I&I NSW), is pleased to support Lynne Strong from Clover Hill Dairies in her application for a Banksia Award.

Schools are at the forefront of providing students with the tools and information needed, as the potential producers and consumers of tomorrow, to participate in informed discussion, decision making and action to sustain our environment, economy and lifestyle.

In recent years, there have been major changes in the area of environmental and natural resource management; these changes have moved faster than school curriculum development and teacher training.

Issues such as climate change, water restrictions, and drought, food and fuel prices are driving an increased interest in natural resource management and primary industries.

We are increasingly being asked to consider, for example, ethics, health, the environment, animal welfare, economics and the future when it comes to natural resource management and primary production by the media, through government policy, by retailers and, by educators.

With 75% of people in NSW living in the highly urbanised environments of Sydney, Newcastle and Wollongong Lynne Strong's innovative programs help bridge the urban rural divide and link students with the people and processes which produce their food.

There is an opportunity for primary industry focused organisations to work together to coordinate and support schools education initiatives to fill the gap in knowledge and classroom teaching resources. And this is exactly what Lynne Strong is doing.

Lynne is founder of Dairy Youth Australia (DYA), established in 2008; this group of young people between 16 and 25 are committed to developing within the broader Australian population a deeper understanding of and greater respect for, the essential role played by Australian farmers in producing food and supporting the nation's economy, community and rural amenity.

To achieve their goal DYA conduct events and activities which focus on youth, career opportunities, the arts, the environment and community – all linked with sustainable agriculture.

To date DYA have:

- Designed and created a series of educational PowerPoint presentations published on the internet by Industry and Investment NSW and viewed around 175 times each per month.
- Run the *Cream of the Crop* competition for NSW students. This competition called on students to create a digital presentation about an aspect of primary industries or natural resource management. The submitted works were loaded on the web and attracted over 9,000 hits in 4 months, proving the community is interested in contemporary authentic and positive stories about agriculture and the environment written by young people for young people.
- Developed the *Archibull Prize* program. This program is currently being piloted with 1500 students in 14 western Sydney schools. The *Archibull Prize* invites students in suburban high schools to learn with hands on experience about the challenges of housing and feeding the world and the competition for natural resources.

During 2009, DYA assisted with the delivery of the Picasso Cows art competition which saw Illawarra primary schools decorate life sized fibreglass cows with environmental messages based on the themes of clean water, healthy landscapes and energy efficient dairies. This program dramatically changed the knowledge and attitude of participants. For example in response to the statement, *the dairy industry is a responsible environmental manager*, 12% strongly agreed before the program began and 50% after the program was completed. And, in response to the statement, *I know a lot about the dairy industry*, 8% strongly agreed before and 68% strongly agreed afterwards. This program is now delivered nationally to over 400 schools.

DYA members, led by Lynne, voluntarily conduct these activities and their message of sustainable production is reaching people who don't normally take much interest in sustainable agricultural issues – youth and urban communities.

Their activities and outputs are authentic, contemporary, engaging, fun and full of hope for a sustainable future. Lynne's open, collaborative partnership approach draws out the best in everyone, all this on top of managing a successful dairy farm.

Dairy Youth Australia's list of collaborators continues to grow and, besides Industry and Investment NSW, includes Woolworths, the Royal Agricultural Society of NSW, Kiama Council, Landcare, Hawkesbury Harvest, University of Western Sydney, GTP and the Australian Government's Rural Industries Research and Development Corporation.

Industry and Investment NSW is pleased to support Lynne Strong's Banksia Award application.

Yours sincerely,



Carmen Perry

Schools Education Coordinator (LandLearn NSW)  
Industry and Investment NSW

P: 02 4931 6540 E: [carmen.perry@industry.nsw.gov.au](mailto:carmen.perry@industry.nsw.gov.au)





# Appendix 6

# Print Media





# Web's Strong point

By SIMONE SMITH

MILKING cows is a profession. If you doubt that, key in the name Clover Hill Dairies into any internet search engine.

A corporate-style brand dominates the left-hand corner of the page and drop-down menus are spread beneath a banner picture of Holsteins grazing lush rolling hills.

Your eyes immediately move to the heading titled "Our Vision."

At this stage, you could be forgiven for forgetting the website is for a family owned and run dairy farm.

It is this professional, clean, green and enticing image that joint owner of NSW-based Clover Hill Dairies, Lynne Strong, has been working hard to develop.

"You have to be what the consumer wants to see," Lynne said.

"Increasingly, customers are providing feedback to supermarkets — they want to know more about the products they buy.

"So what the product is, where the product is grown, and who grows it, is becoming more important to the consumer.

"Our website is our shop window for our brand, and aims to educate and engage the community and prospective customers.

"Our website lets people know who we are, what we do and how we think.

"They can then see if it aligns with their thinking."

Drawing on extensive experience as a pharmacist in the retail sector, Lynne said marketing had the same principle everywhere — consumers form lasting impressions in the first seven seconds they enter a shop, or in this case, drive on to a farm or visit a website.

"Image is so important. It needs to be created and it needs to be actively managed," she said.

"Your marketing focus must be on the consumer and what you can provide to the consumer that adds value to

them, and will make them want to choose your product over all the other options that they have in the supermarket."

Situated in the rolling hills of Jamberoo, near Wollongong on the NSW South Coast, it is hard to imagine that maintaining this image can prove difficult.

Lynne, her husband Michael and son Nick run two farms: the home property and a newly acquired leased farm, known as Lemon Grove Research Farm, closer to Jamberoo.

Both farms are immaculate. The registered Holstein herd, comprising 450 milking cows across both farms, graze on the plentiful kikuyu pastures.

The business supports five full-time (including partners) and five part-time employees.

● Continued Page 34



**Business sense:** Lynne Strong, with some of the Holstein milking herd at Clover Hill Dairies at Jamberoo in NSW, uses her website as a shop window



# Web makes a Strong point

## • From Page 33

Admitting that while the Clover Hill Dairies brand was yet to deliver a higher price for milk, it had opened industry doors.

The Strongs were recently approached by a processor interested in purchasing their milk and using their operation as a marketing tool.

Other opportunities have included involvement in trials testing the health value of their milk.

Results showed their milk had "very high levels of nutraceuticals" and this is something the Strongs will look to market.

Back on the farm, every detail of production is documented, along with natural resource management goals and achievements.

Last year, the 200-head Clover Hill herd produced 170,000kg of milk solids with a feed conversion efficiency of 1.7 litres per kilogram of dry matter consumed.

Cows each consumed an average 3.6 tonnes of supplementary feed last year, with the 50ha effective milking area stocked at four cows per hectare.

Production goals for the Lemon Grove Research Farm include 840kgMS/

cow, 10kgMS/cow less than Clover Hill.

In 2005 the Strongs switched to milking three times a day in a bid to increase production.

Within the first two weeks, production lifted 30 per cent. It has since dropped 5 per cent but has stabilised.

Even when milking drops back to twice a day — during hot weather and times of farm development — Lynne said the extra milk tissue the cows had developed ensured production always remained higher.

Cows consume an average 25kg of dry matter per day with a grain to pasture ratio of 2:3. Fresh milkers produce an average 45 litres each day.

Clover Hill Dairies is the more intensive of the two operations.

All cows calve at this farm and remain there for the first 100 days of milking.

After that, provided they remain healthy, they get transferred to the flat country of Lemon Grove Research Farm.

The Strongs calve all-year round — easing off in January and February because of the heat — and supply milk to Dairy

Farmers.

It is this high production, combined with the Strongs' environmental practices, that won the family the NSW Landcare Primary Producers Award last year.

Describing the win as a "highlight" of their farming journey, Lynne said some examples of their environmental work included re-vegetating creeks, improving farm access for stock and machinery to avoid crossing water courses and limiting the nutrient run-off into water ways.

Every member of the Strong family works to their strengths. Nick looks after farm operations, Michael is in charge of the herd and Lynne looks after business development and marketing.

If there is something they do not know, they call in the experts, whether that be a nutritionist, environmental expert or a graphic artist.

With this in mind, Lynne has used her skills and "ability to find money" for projects to assist the entire dairy industry.

Developing the concept of Picasso cows, an industry-driven project that takes dairying into schools

by encouraging students to decorate their own cow statue, as well as moving the Cows Create Careers project into NSW, Lynne wants to ensure the industry is viewed in a positive light. "My aim is to make the dairy industry a sexy place and a place where people want to be," she said.

She concedes that issues such as animal welfare and climate change have, in some cases, put dairy into the spotlight for the wrong reasons, but insists that even small changes will help the industry's overall image. Lynne's plan for the industry is similar to what her family has rolled out for their business.

Her dream would be an industry where consumers understood, appreciated and valued dairy farming and dairy products. On the flip-side, farmers would work closely with consumers to promote their product.

Perhaps like the Clover Hill brand, an internet search for the term "dairy" would generate the same reaction — that of a professional, clean and green industry and most importantly, an enjoyable way to live.



**Good operator:** Nick Strong cleans up after milking. The herd is milked a third time in the evening



**Healthy:** the Strong farm is a Landcare award winner

## PROTECTING THE ENVIRONMENT



The Strong's pay particular attention to grazing management to ensure there is always sufficient pasture cover to limit runoff into surrounding bushland and water ways.

# Clover Hills: partnership

By Jillian Staton

**C**lover Hill Dairies must be one of Australia's most intensive and productive dairy farms, with its stocking rate of four cows per hectare, thrice-daily milking and an annual milk production of 2.5 million litres. Its owners, Lynne and Michael Strong, and son Nick, also claim to be among Australia's most environmentally progressive and responsible dairyfarmers.

The Strong's' claim may seem surprising, given the intensity of their operations and Clover Hill's environmentally sensitive location in steep rainforest hinterland at Jamberoo, NSW.

However, the Strong's are so confident about their environmental stewardship, their longer-term plan is to market their own niche brand of milk underpinned by their environmental credentials.

"Market research indicates consumers are prepared to pay a premium for specialist niche products with demonstrable health and environmental benefits," Lynne Strong says.

She cites Enviromeat (pasture-fed meat produced on farms with an EMS in place, *Australian Farm Journal*, September 2005) as an

example. She firmly believes Clover Hill's milk, produced by pasture-fed cows using environmentally aware farming methods, fits the specialist niche perfectly.

### Holistic environment plan

Strong recognises minimising environmental impacts of farming means more than just fencing off riparian areas and planting a few trees, particularly with a highly intensive operation such as Clover Hill.

Having been a pharmacist, she is also aware of the need to continuously monitor all environmental inputs and outputs to determine whether Clover Hill is, in fact, achieving its stated goal of balancing high productivity, progress and minimal environmental impacts.

As well as participating in all dairy-related quality assurance programs, the Strong's prepare an annual nutrient budget (aiming for nutrient-neutrality); have just begun calculating Clover Hill's greenhouse gas emissions; and plan to set up WaterWatch monitoring sites on the farm to keep track of water quality.

Soil tests have been carried out regularly on all paddocks and



Lynne Strong uses financial assistance provided under various programs to help make improvements to the intensive dairy farm's environmental footprint.

# of productivity & environment

riparian areas. These tests have revealed sulphur and magnesium deficiencies, and varying levels of phosphorus and potassium in different paddocks throughout the farm.

The sulphur deficiencies were revealed following the move to 3x daily milking. As a result, the Strongs have begun using Green-TopK™, with a sulphur-nitrogen ratio of 1:10. Any magnesium deficiency (common in red soils) usually occurs following the spring flush and is corrected by adding magnesium to the milker ration.

Strong believes the high levels of phosphorus in some paddocks are probably due to heavy applications of poultry manure, and accordingly, they have eased off on its use in those paddocks.

Although their soil type indicates the phosphorus should remain bound to the soil, they will monitor their water to detect whether any leaching has occurred. Paddocks experiencing low levels of phosphorus are given extra poultry manure.

Strong attributes the high potassium levels in some paddocks to their use as night paddocks. But as they no longer follow this practice, she believes the potassium should fall back to more desirable levels over time.

The Strongs also keep a close eye on the state of their paddocks, rainforest and riparian areas, and adjust their management strategies to avoid damage to the environment.

Andrew Britton, the small farms co-ordinator at the Southern Rivers CMA, commends the Strongs for their pro-active approach, particularly following the move to 3x daily milking, which put extra pressure on the natural environment.

Britton is particularly impressed with the Strongs' grazing management, which has resulted in a strong pasture cover.

Selection of the right species for the area (kikuyu base with rye and oats in winter), careful paddock rotation, and a focus on maintaining good soil fertility and structure, have helped the Strongs avoid many problems associated with high-intensity farming such as erosion, soil loss and pugging.

At the same time, they produce at least 20 tonnes of dry matter per hectare required to feed the herd to maintain milk production.

## Thrice-a-day milking

The move to 3x daily milking was certainly beneficial in terms of production (generating 20-25% extra milk) and improvements in

## PROTECTING THE ENVIRONMENT



Lynne Strong is developing environmental credentials for the farm so if Clover Hills becomes a niche, branded milk product supplier she can re-assure consumers that the environment is being protected.

### Clover Hill fact file

**Owners:** Lynne and Michael Strong, with son Nick;

**Workforce:** 2.2 full-time (before the drought, the Strongs employed one casual employee for 35 hours per week);

**Farm size:** 50ha pasture, 50ha conservation/riparian;

**Environmental philosophy:** Minimal impact on surrounding natural resources while enhancing the property's natural resources;

**Production approach:** 180 high-genetic-merit Holstein cows milked three times a day;

**Milk production:** 13,000 litres per cow per 305 days (43 litres/cow/day average);

**Greenhouse-gas emissions:** 1225t CO<sub>2</sub>;

**Cow longevity:** Average 3-4 lactations.

cow health but the environmental impacts had the potential to be very serious.

The existing laneways were not coping with the additional trip to and from the dairy, which was putting pressure on the surrounding rainforest and riparian areas.

The Strongs rebuilt their laneways using road-grade crushed rock at a cost of \$30,000. They also obtained National Heritage Trust funding to fence off all their riparian areas and build five new creek crossings and 14 off-stream watering points.

Costing more than \$50,000 (the Strongs contributed half of the funds), these works have facilitated rapid movement of the herd through the rainforest (which covers 50% of the property) and riparian areas, minimising any damage to these areas.

The other major impact that 3x daily milking had on the natural environment was the amount of effluent being generated in, and around, the dairy. The existing effluent pond was too small to store the additional effluent which, in major rainfall events, was escaping into the creek.

As the area was too mountainous to accommodate a second pond, the Strongs collaborated with their local CMA to install nutrient buffer zones and silt traps in their riparian areas, and trialled various grasses to trap excess nutrients, including vetiver grass (*Vetiveria zizanioides*), an introduced species that is both non-invasive and palatable to stock.

While these strategies have had moderate success (and have certainly improved biodiversity), they have not been sufficient to prevent all effluent reaching the creek as run-off.

So the Strongs have arranged to install a new effluent and water-recycling system costing about \$40,000 that will be partly funded through a Community Waterwise grant.

As well as trapping the effluent and reducing the amount of water used to wash down the yards, the new system will enable the untreated effluent to be distributed over nearby paddocks as fertiliser.

Farm consultant Neil Moss, who prepares Clover Hill's nutrient

budget and has been heavily involved in designing the new system, will monitor the paddocks treated with the effluent carefully and will adjust the fertiliser mix accordingly.

Clover Hill favours using organic fertilisers such as poultry manure, and using effluent is expected to further reduce the proportion of inorganic compounds being applied to the soil.

Moss says they will now focus on improving soil structure although the fact that the Strongs have always used zero-tilling and broadcasting on most of their paddocks means they are already in a good position in this regard.

### CO<sub>2</sub> emissions cut

Other plans the Strongs have to improve their environmental performance include replacing their electric generator with a solar-powered generator to reduce their greenhouse-gas emissions (GHGE).

Replacing the diesel generator with solar will reduce the Strongs' GHGE by 100 tonnes carbon dioxide (CO<sub>2</sub>) to 1125t CO<sub>2</sub>. Beyond that, Strong says, "it's all up to science and technology".

"To negate it entirely, we would have to cover 80% of the farm with Sydney blue gums," she says. "Obviously, every little bit counts, and we're certainly doing our bit at the coal face/milk vat.

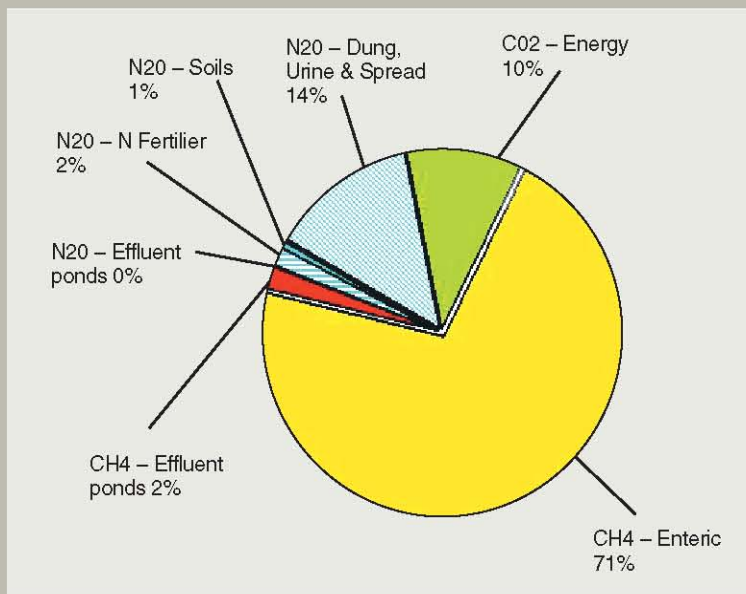
"But it's one of those times when some would say, 'In a perfect world, there would be no animals', and that's not my definition of a perfect world."

According to the Cooperative Research Centre for Greenhouse Accounting's on-line tool for calculating dairy farm greenhouse gas emissions, Clover Hill's commitment to greenhouse-gas reduction is already at the top end of the scale.

This is mainly because Clover Hill has adopted most of the dietary initiatives proven to reduce GHGE, including using rumen modifiers, optimising carbohydrate quality and feeding highly digestible feeds. Providing such a high-quality (and high-quantity) diet is difficult during drought.

"Ongoing drought aggravates your ability to manage environ-

Figure 1: Clover Hills greenhouse gas emissions breakdown



The agricultural sector is responsible for about 18% of Australia's total greenhouse-gas emissions, according to the National Greenhouse Gas Inventory (2003).

Most of those emissions are attributable to livestock. The dairy industry is the dominant livestock enterprise in south-eastern Australia.

The Cooperative Research Centre has developed a web-based dairy, beef, sheep and grains greenhouse-accounting framework to help farmers calculate the extent of their enterprise's greenhouse-gas emissions.

The tool can be accessed as a spreadsheet via <[www.greenhouse.unimelb.edu.au](http://www.greenhouse.unimelb.edu.au)>.

When the Strongs calculated the Clover Hills emissions (figure 1) methane from cows was the major contributor.

mental impacts against the more imminent need to feed your stock," Strong says.

The Strongs began feeding out hay at the end of January. Confining the herd to two or three sacrifice paddocks and feeding via a feed pad creates an effluent problem, as well as putting unwanted pressure on the already sparse pasture cover.

If a heavy rain event occurs, the risk of soil loss is high, as is the probability of weed invasion following new growth.

To address the effluent problem, the Strongs have located their sacrifice paddocks as far away from watercourses as possible and have directed run-off towards specially designed nutrient buffer zones.

Strong also has confidence their environmental strategies will

maintain the landscape in such a state that it will regenerate immediately in response to rain.

"As soon as we get a rain event," she says, "we can be back into a normal system within 14 days."

In the meantime, the Strongs will continue to take advantage of funding opportunities and specialist advice to improve productivity and fine-tune their environmental performance, with the goal of marketing their own 'eco-friendly' brand of milk in 2008 or 2009.

**Find out more:**

**Lynne Strong** phone (02) 4236 0309, email <[lmnstrong\\_adsl@hotmail.net.au](mailto:lmnstrong_adsl@hotmail.net.au)>



22nd Annual Conference of the Grasslands Society of New South Wales

**MANAGING IN A VARIABLE CLIMATE  
Battle Plans and Winning Strategies**

18th-19th JULY – Bicentennial Hall, QUEANBEYAN, NSW

**Key Themes:** Climate and the environment; Developing and managing plants for variable climates; Maximizing cash flow under adversity; On-farm management of water.

**Contacts:** Colin Langford (02) 4828 6626 email: [colin.langford@dpi.nsw.gov.au](mailto:colin.langford@dpi.nsw.gov.au)

Mike Keys (02) 6297 1861 email: [mike.keys@dpi.nsw.gov.au](mailto:mike.keys@dpi.nsw.gov.au)

or visit the NSW Grasslands website at <http://www.grasslandnsw.com.au>





# We all have a steak in it

Farmers need to develop links with consumers to ensure farming has a future, writes **LYNNE STRONG**

THERE is no denying food is a hot topic.

But all too often, food is viewed by consumers as an end-product, independent of the land that produces it, and the hands that grow it.

Most media items about food are about cooking and eating, recipes and restaurants, with little attention paid to the origins of the key ingredients. That's us — Aussie farmers.

However, modern consumers have high expectations that the food they buy will be produced on farms with high standards of animal welfare and environmental stewardship.

Many are well informed — often by the negative images portrayed in the media.

Images portray farmers as being country hicks, living perpetually in drought and requiring constant hand-outs.

Consumers all want farms to look nice, that is, out of a car window at 100km/h.

But they don't understand how that relates to the steak on the table or the milk on their cereal.

It is these urban communities that will shape the future for primary producers — as consumers, governments, and as competitors for Australia's natural resources and future workforce.

We cannot expect the Australian public to trust farmers if they have no relationship with them. The farming community has to do something fast.

The cause of this disconnect between city and country is food's current value-chain model. If you look at the model, farmers are at

one end and consumers are all the way down at the other.

In between is a vast array of packers, wholesalers, manufacturers and distributors.

Generally, these latter groups have their heart in the right place but the result has been that our urban communities have become disconnected from the consumer base.

There is a pivotal link that's missing in the value-chain model — the link that directly connects consumers with the farmers who know and love and work the land.

My team and I are rolling out programs to remodel the chain to add the missing link and create, if you like, a value bracelet.

I believe this is the key to locking consumers into lifelong relationships with the producers of their food and fibre.

So can we reconnect the city with the country and bridge the rural-urban divide? Can we use the community's interest in food and natural resource management to achieve our goals?

From my experience the answer to these questions is yes, yes, yes we can.

I am fortunate to lead an enthusiastic and creative group of young farming people called Dairy Youth Australia.

Together, we deliver self-managed events and activities that focus on youth, career opportunities, the community and the arts — all linked to agriculture

Our programs provide a means to invite urban and rural communities to visit and get to know each other — to share stories, improve their understanding and work through potential issues.

We put real faces to products for our consumers and our farmers get to learn first-hand about their end-customers

So we now have some tools that can really make a difference.

Working with school children is a long-term strategy but I think we owe it to our children and the next generation of Aussie farmers to build the importance and reputation of primary production.

My Dairy Youth Australia team is working on a national project to bridge the rural-urban divide.

We aim to recruit "farming champions" to be the face of agriculture in their local region.

Our champions will help us to deliver our education programs to their local primary and secondary schools.

To change perceptions, we need "grass roots" action: farming men and women who can get out there and sell the message that agriculture is alive and well.

Farmers today have to be out in their communities, committed to "walking the talk" — from paddock to plate, from cow to consumer, building trust between rural and urban communities.

Just imagine what we could achieve with an Australia-wide network of trained, passionate farmers talking directly with the communities they supply.

We must engage with the urban communities now so they feel connected with the bush and understand the efforts taken by farmers to protect the natural resource base.

They must see responsible agricultural production as a legitimate use of land, water and other resources. We need to show them that agriculture has a future and is a great career for their children.

A profitable, sustainable healthy future for the farming sector is achievable: the health and welfare of all Australians and many people around the world depends on it

**• Lynne Strong, of Clover Hill Dairies, was the Woolworths national Landcare primary producer of the year**

  
back



**Down to earth:** Lynne Strong is optimistic about the ability of consumers and farmers to re-connect



Home Programs News Events Features Message Boards Weather About Us Contact Us

## National Landcare Winners 2010

By Rural Reporters from Canberra 2600  
Friday, 25/06/2010

It's the night of nights for community groups and environmental achievers who gathered in Canberra to celebrate the National Landcare winners for 2010.

Hundreds of community volunteers, passionate local groups and campaigners heard an inspiring range of stories from those who are leading the way with sustainability around the country.

The national winners were from across Australia – including urban, rural and regional groups – and all had a fascinating story to tell. These are just some of the national winners.

### South Australia - Ag Innovation in Sustainable Farm Practices

In South Australia, BST Oyster Supplies at Cowell were recognised for their landmark work on farming oysters.

The BST Adjustable Longline Oyster Farming System was developed, produced and commercialised by three local oyster growers to suit the rough and weedy conditions in Franklin Harbour.

The system is now recognised world-wide as an example of best practice oyster farming and has added to the positive growth of Cowell, a rural coastal town north of Port Lincoln, as well as the development of the aquaculture industry.

### NSW - National Primary Producer

In NSW, a dairy farm took out the award for National Primary Producer.

Clover Hill Dairies (CHD), run by seventh generation dairy farmers Michael, Lynne and Nicholas Strong, has developed a highly efficient, sustainable and profitable farming business that supports both agricultural production and enhances biodiversity.

In the past six years, the herd size has increased from 80 to 210 milking cows, with the milk volume increasing from 800,000 litres to 2.5 million litres.

Today, CHD is one of Australia's most water efficient milk production systems with the herd holding numerous milk production records and is believed to contain the highest producing pasture fed cows in Australia.

### Victoria - Australian Government Coastcare Award

The Warrnambool Coastcare Landcare Group and the Point Danger Committee of Management took out the Australian Government Coastcare Award for their work in the protection of the Middle Island and Portland penguin colonies.

The project has contributed to the sustainable management as well as the increasing number and spread of penguin colonies.

A Natural Resource Management student working with the group, who had experience with Maremma guardian dogs at a free-range chicken farm, suggested the approach to protect the penguins.

Maremma guardian dogs are used to protect chicken and sheep in Australia. The project took a tried and true agricultural method and adapted it for conservation in what is believed to be a world first.

### Tasmania - Local Government Landcare



Lynne Strong on Clover Hill Dairy, NSW Finalist in National Landcare awards 2010, Jamberoo NSW (Sarina Locke)

### Photo Gallery

Click image for larger version:



### Audio

Lynne Strong at Clover Hill Dairy, NSW Primary Producer Landcare award winners, talks to Sarina Locke

Listen: [MP3](#)

Kim Honan talks to Kathryn Puddey from Karangi Public School.

Listen: [MP3](#)

Southern Tasmania's Huon Valley Council Mayor, Robert Armstrong and NRM officer Kerry Johnson talk to Anna Vidot about the council's commitment to Landcare.

Listen: [MP3](#)

Leanne Kohler from Desert Channels Queensland which took out the Australian Government Landcare NRM Region Award speaking with Amy Phillips.

Listen: [MP3](#)

Mel Kelly, now NRM officer from eastern Tasmania's Glamorgan Spring Bay Council, has been involved with the Little Swanport Catchment Management Plan Implementation Committee as a landholder from its beginning 10

## Partnerships

While many local councils are working towards more sustainable communities, the Huon Valley Council won a National Landcare Award for its commitment to many local Care groups.

The Council has a long history of supporting Landcare, Bushcare, Rivercare and Coastcare groups in the Huon Valley providing financial assistance, tools, administration and technical support through its Natural Resource Management (NRM) unit.

In response to pressure from development in the area, over the past ten years Council has adopted sustainable land management practices, fostered communication between stakeholders and provided ongoing support and knowledge to the community.

## Queensland -Australian Government Landcare NRM Region Award

Desert Channels Queensland took out the National award for the Australian Government Landcare NRM Region Award.

Desert Channels Queensland (DCQ) prides itself on its organisational stability, its innovation, and its capacity to develop valuable and productive partnerships across its very dynamic region.

## Queensland - Landcare Facilitator/Coordinator Award

Charters Towers' John David Nicholas won a National Landcare Award for leading his local Landcare network resulting in improved land management practices in the Upper Burdekin Rangelands

Over the past four years, John has worked tirelessly to improve and enhance landholder awareness and adoption of improved management practices in his role with the Dalrymple Landcare Committee.

Through a suite of field days, forums, training and on farm property demonstrations as well as state and federally funded projects, John has been the driving force behind Landcare in the district working closely with landholders in the Upper Burdekin Rangelands to improve land management practices.

## Western Australia - Indigenous Award

South Coast NRM won the National Landcare Award for the development and implementation of its innovative Restoring Connections project which partners with the Aboriginal people of the South Coast region of Western Australia.

Developed to strengthen participation and engagement of Aboriginal people of all ages, Restoring Connections is a community driven project working with Noongar communities across the region to identify, protect and restore cultural places at risk of degradation.

## Tasmania - Landcare Community Group Award

Little Swanport Catchment Management Plan Implementation Committee (LSCMPIC) won a National Landcare Award for its work with a wide range of natural resource management projects including fencing of riparian land and looking after vegetation such as saltmarsh, as well as engaging the community in water quality monitoring activities.

A highlight of LSCMPIC activities is the Sustainable Grazing on Saline Lands (SGSL) salinity trial in the lower catchment. This trial was a part of the National SGSL Program and it could be included in the salinity program for the Cooperative Research Centre for Sustainable Farming Systems.

## NSW - Australian Government Individual Landcarer

Attunga's Kate McLaren won a National Landcare Award for her work in establishing and sustaining the largest conservation area in north west NSW.

Kate is the driving force behind Landcare and conservation forums, projects and field days in the Tamworth region, getting directly involved and sharing her knowledge and experience with the community.

She was instrumental in the formulation of educational brochures about Landcare and has spent much time and effort lobbying and applying for government and industry assistance for a range of conservation projects in the

years ago speaking with Anna Vidot.

Listen: [MP3](#)

Ashley Turner from BST Oysters about why he feels it is so important to be sustainable in the oyster industry speaking with Brooke Neindorf.

Listen: [MP3](#)

## Related Stories

- [Canberra's Billabong Aboriginal Development Corporation - Landcare finalist](#)
- [Jamberoo dairy - providing clean milk and water](#)
- [Orara Valley up for Landcare Education Award](#)
- [Age no barrier to Landcare work](#)
- [Landcaring farmer can see the rewards](#)
- [Port Lincoln landcarers up for award](#)

area.

## WA - Education Award

Baldivis Primary School won the National Landcare Award for its work in creating the Baldivis Children's Forest. From humble beginnings of revegetation plantings to restore an area of bushland provided by the City of Rockingham in 2001; the Baldivis Children's Forest has developed into a vibrant Environmental Study Centre, providing an extensive range of programs and learning experiences for school children and community members.

The project has grown significantly from an annual planting day by Baldivis Primary School students, to a project involving many schools, parents, volunteers, interest groups, businesses, industry and local government partners.

## Young Landcare Leader

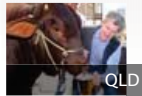
Erin Rowe, 27, has been nominated for a National Landcare Award for her work with Green Corps and the inspiration and encouragement she has given to many of the participants.

Erin has managed three Green Corps teams, overseeing teams of 10 young people and organising a diverse and achievable 26-week Landcare program.

Erin has earned the respect of each team member and helped to turn the lives around of several participants who have disabilities and difficulty finding work.



© 2010 ABC | [Privacy Policy](#)



Send us News tips and photos

# THE LAND

Home News Sport Opinion Weather Markets Community Classifieds About Us Jobs Real Estate Auto

 Search

News → State News → Agribusiness and General → General → Strong snares Landcare win

## Strong snares Landcare win

ALAN DICK  
01 Jul, 2010 04:00 AM

Print A+ A-

A scheme which helps protect 50 hectares of high conservation value subtropical rainforest has helped Jamberoo district dairy farmer, Lynne Strong, win this year's national primary producer Landcare award.

The winner of the Woolworths-sponsored award was announced last week at the National Landcare Awards function in Canberra.

Last year, the operation – Clover Hill Dairies – won the 2009 NSW Landcare Heroes Primary Producers Award, sponsored by Rural Press, publisher of *The Land*.

Ms Strong with her husband, Michael, and son, Nick, own Clover Hill Dairies and milk 450 Holstein cows over two properties, covering a total of 160ha that are run for maximum water and pasture use efficiency.

Traditional coastal pastures such as kikuyu and annual ryegrass have been replaced with a mixture of lucerne, red and white clover, chicory and plantain, to overcome various shortcomings of those species.

Use of gravity-fed water troughs has allowed waterways to be fenced off, and extensive tree plantings provide both shade for the cows and shelter for indigenous animals.

The preserved rainforest area includes what Ms Strong calls a "dairy-centric rural residential subdivision" with 12 blocks ranging from 0.4ha to 40ha in size.

The residents of the subdivision have formed an incorporated body with the dairy farm, working in partnership to protect the rainforest and waterways, while maintaining the dairy farm as a long-term commercial enterprise.

Ms Strong said most of the remnant rainforest left on the South Coast was on private land.

She said the rainforest area included some endangered plant species and local conservation groups had reported seeing spotted-tailed quolls in the neighbourhood.



Winners of this year's national primary producer Landcare award, Lynne and Michael Strong, on their South Coast farm, Clover Hill Dairies, at Jamberoo. They are pictured with their 2009 NSW Landcare Heroes Primary Producers Award.

SEND, SAVE & SHARE

The Land  
Source: <http://www.theland.com.au>

**Vodafone Mobile Phones**  
Need A New Mobile? Check Out The Latest Range Of Handsets @ Vodafone  
Ads by Google

## comments

Ausmeclin  
**BEEF WEEKS**  
2010  
CLICK HERE

Boarding Schools Expo  
Narrabri 30-31 July  
[www.boardingexpo.com.au](http://www.boardingexpo.com.au)

THE AUSTRALIAN GRAINS INDUSTRY CONFERENCE  
**2010**

### Most popular articles

1. Guess who's coming to dinner?
2. Rice farming frontier
3. Profiting more from less water
4. Little box – big gains
5. Not stealing water: Joyce
6. Grain storage: Know your plan
7. Nyngan's super sorghum

Rabobank's Business Management

# Strong case for cover girl status

**W**ELL known Holstein identity and rural campaigner Lynne Strong, of Clover Hill Dairies, Jamberoo, on the NSW South Coast, features on the cover of the new Wollongong White Pages.

Sensis, which publishes the nation's phone directories, is recognising local food and beverage heroes on the covers of the 2008-09 directories. It says Lynne exemplifies this year's cover theme of "Celebrating Australian Flavour".

A sixth generation dairy farmer and pharmacist, Lynne was nominated by members of the local Wollongong community because of her tireless advocacy of the dairy industry.

Clover Hill Dairies regularly hosts a range of visitors – from school kids who watch milking demonstrations, to international delegates keen to see the strength of the Australian dairy industry.

By her own admission, Lynne is passionate about creating a sustainable future for the dairy industry, and has used her extensive networks to promote Picasso Cows – MOOving Art and Cows Create Careers programs (see below).

Both of these initiatives attempt to encourage students into



farming and strengthen ties between city and country.

Lynne was awarded the 2005 Kiama Electorate Woman of the Year and was subsequently inducted into the NSW Honour Roll for Women in 2005.

"For nearly two centuries the Illawarra region has been at the forefront of Australian dairying," she says.

"It's the cradle of the industry – Australia's first cows were milked here – and the Illawarra gave Australia its only national dairy breed. We're still leading from the front in terms of quality, innovation and environmental stewardship and these are things ~~to~~ to celebrate."

Lynne described her cover girl status as "an absolute honour".



## Landcare hero – decade of change delivers for Clover Hill Dairies

*Lynne, Michael and Nick Strong are 7th generation dairy farmers. Their farm, Clover Hill Dairies, is situated on the north-east face of Saddleback Mountain at Jamberoo NSW. Their hard work and dedication won them the Landcare Heroes Primary Producer Award at the NSW Landcare Awards held in Port Macquarie in September.*

The deregulation of Australia's dairy industry in 2000 saw a radical management change for the family dairy. Rather than look 'over the fence' or over the Great Dividing Range or the border, the Strong family decided to focus on the resources they had in their own back yard. Realising that proximity to markets is as valuable as proximity to inputs, the Strong family have set about developing a highly efficient dairy system on their small acreage.

In the past six years the herd size has increased from 80 to 210 milking cows and the milk volume has increased from 800,000 L to 2.5 million L per annum. The dairy is recognised as one of Australia's most water efficient milk production systems producing 125,000 L per annum of milk (compared with the industry average of 3500 L) per mega litre of captured water. The herd holds numerous

milk production records and is believed to be the highest producing pasture fed herd in Australia. All of these efficiency gains have been achieved on the same area of land farmed prior to deregulation.

Lynne and her family have also successfully tapped into local networks for both funding and advice. Since 2005, partnerships with Southern Rivers Catchment Management Authority/Dairy Industry Group, Landcare Illawarra, Small Farms Network and National Heritage Trust Envirofund, as well as Community Waterwise, Advance Australian Agriculture and the NSW Department of Environment Climate Change & Water has generated more than \$250,000 of funding and they have completed five projects to ensure that productivity gains have minimal impact on the environment while improving energy efficiency.

Clover Hill Dairies regularly host farmer field days and discussion groups, overseas delegations and conference delegates as well as community groups and they provide a range of opportunities for school and university students including traineeships and work experience.

Clover Hill Dairies is the case study for the award winning 'Jet & Emma Farm Management Series Education Program for K to 12' (featured in the No. 49 *Country Web*) published by LandLearn NSW [[www.slideshare.net/LandLearnNSW/presentations](http://www.slideshare.net/LandLearnNSW/presentations)].

The farm team are passionate industry advocates dedicated to bridging the urban/rural divide and promote programs showcasing the people and places behind the food we eat encouraging students into farming and strengthening ties between the city and country.

*'As we increase both the*

*distance most consumers have from the farm and the level of technology we implement in food production we have to dramatically improve our ability and commitment to build trust with our customers and consumers.*

*Today consumers want to feel good about the purchases they make; they want food that is produced in a way that is consistent with their own personal values. We believe landcare farming principles meet or exceed consumer expectations and practising landcare farming is doing the right thing by our business, our landscape and customers.*

*'Winning this award has certainly been the high point of my farming journey and we look forward to representing NSW Primary Producers at the National Awards in 2010', said Lynne.*

**For more information about the NSW Landcare Awards or to read about other winners, go to <http://nsw.landcareheroes.com>**

### NATIONAL WOMEN IN DAIRY FORUM

The National Women in Dairy Forum will be held at the RACV Club Melbourne on 24 March 2010. It will be an opportunity to share ideas with dairy women from all over Australia, listen to inspiring speakers, connect with other women industry leaders, be part of designing a national plan for women in the dairy industry and to learn about issues facing the future of the industry in Australia and overseas.

**For more information or to register, contact Karen Davies, Genetics Australia on freecall 1800 039 047 or email: [kdavies@genaust.com.au](mailto:kdavies@genaust.com.au)**

# Jamberoo dairy farm delivers a winning formula

A SEVENTH generation dairy farming family, who were almost forced out of dairying a decade ago, have won the 2010 Woolworths Primary Producer Award at the National Landcare Awards.

Clover Hill Dairies, run by Michael, Lynne and Nicholas Strong, were facing an uncertain future in 2000 when dairy industry deregulation was followed by years of drought and rollercoaster farm gate milk prices.

High regional land prices limited them from expanding their business, but they knew they had to make some big changes to their operation to remain viable or leave dairy farming altogether.

Lynne Strong says their search for new ways to keep their farm profitable also helped make the farm more environmentally sustainable.

"Our advisors told us the size of our farm capped the number of cows we could run, but our not the amount of milk we could get out of those cows," she said.

The Strong's increased milk production by selecting cows that could more efficiently convert pasture to milk and supplemented their pasture diet with nutrients that improved the cows' health and increased milk production.

"We moved to milking three times daily in 2005, which not only increased milk production by 20%, but also resulted in reducing our greenhouse gas emissions per litre of milk produced by 30%."

Another part of improving farm efficiency was to focus on improving the productivity of the pastures and to lock-up less productive land. As a result, 50ha of the Clover Hill farm is fenced off from the cows and is now protected natural rainforest.

Combining all of these strategies with an innovative effluent recycling system has

allowed Clover Hill Dairies to become one of Australia's most water efficient milk production systems "We produce 125,000 litres of milk per mega litre of captured water compared to the industry average of only 3,500 litres," Lynne said.

"We know our cows are doing what everybody else on the planet should be doing – they are using their resources as efficiently as they can."

Lynne is one of 33 farmers from across Australia who have joined forces as part of the Climate Champion Program to share information with fellow local farmers on how to better manage risks associated with climate and weather on their properties.

"This exciting initiative gives us an opportunity to help raise awareness and discussion within farming communities about new innovations for managing variable climatic conditions such as low rainfall," Lynne said.

"In our region it is predicted that our climate will actually become less variable under Climate Change, which will potentially have many benefits for local dairy farmers but we will still get periods of low rainfall and so we are very keen to share with others some of the strategies that have helped us deal with the challenges on our own farm.

"Our climate strategy is to have an efficient farm system so we can adapt to a changing climate and minimise our carbon footprint. We have developed ways to use fewer resources and to use them better. This way we can minimise the impact on our business of any future climate change legislation and the costs that will be associated with that legislation."

"The strategies recommended to farmers by industry experts to manage Climate Change are the same strategies our advisors gave us when our business was struggling financially. So we know they work for us, our



Catriona Rowntree MC Lynne Strong Clover Hill Dairies and Heather Campbell CEO Landcare Australia at National Landcare Awards

cows and our landscape and they can work for all dairy farmers"

The Climate Champion Program, run by the Managing Climate Variability program, the Grains Research & Development Corporation, and Meat & Livestock Australia provides participants with direct access to the latest climate-related research findings, allowing them to influence the development of new

weather prediction tools and technologies to better manage climate risks.

For more information on the Climate Champion program and tools and information to help farmers make decisions about their farm business see [www.climatekelpie.com.au](http://www.climatekelpie.com.au) or contact Lynne Strong on 4236 0309 or [lynnestrong@cloverhilldairies.com.au](mailto:lynnestrong@cloverhilldairies.com.au).

## Applauding Regional Achievers

THE NSW/ACT Regional Achievement & Community Awards are on the lookout for achievers in our community.

PRIME Television, and the Commonwealth Bank initiated the Awards to acknowledge and reward our unsung heroes, by nominating them this year, you will give them a chance for state-wide acknowledgement.

The Awards provide an opportunity for many communities around the state to embrace and salute the success of our local achievers through business, festivals, community service, environmental practices and regional development.

We are calling on you to nominate someone you know in one of the Award categories:

- The Land and Property Management Authority **Crown Reserve Trust Award**
- The Land and Property Management Authority **Community of the Year Award**
- The Industry and Investment NSW **Business Enterprise Award**
- The Industry and Investment NSW **Events & Tourism Award**
- The Salvation Army **Employment Plus Employment & Training Award**
- The Peabody **Environment & Landcare Award**

The Presenters PRIME Television and Commonwealth Bank are offering fantastic prizes again this year. There are \$30,000 Commonwealth Bank AwardSaver accounts and TV Airtime packages from PRIME up for grabs.

PRIME Television and Commonwealth Bank are proud to be able to seek out and reward our locals through this years NSW/ACT Regional Achievement & Community Awards.

The Awards are proudly supported by The Land Newspaper and the Local Government Shires Association.

For more information on how you can nominate or to some nomination forms please contact the local awards office on 1300 735 445 or visit the website at [www.awardsaustralia.com](http://www.awardsaustralia.com)

Nominations Close – Friday 13th August 2010

## CURTIN VACCINE RESEARCH TO BENEFIT DAIRY INDUSTRY

CURTIN University of Technology is collaborating with key Indian institutions on a research initiative to develop a vaccine for the prevention of bovine mastitis (mammary gland infection) that could lead to significant savings for the dairy industry.

Lead Australian researcher, Associate Professor Trilochan Mukkur from Curtin's School of Biomedical Sciences, said that mastitis is a major issue for the dairy industry.

"Mastitis costs the Australian dairy trade over \$100 million dollars annually, and the infection is becoming a major problem for high producers, crossbreeding, and upgrading programs aiming to increase milk output," he said.

"A number of factors contribute to mastitis, with inappropriate hygienic practices and infection with specific bacterial and environmental pathogens as the main causes.

"*Staphylococcus aureus* (commonly known as golden staph) is one of the pathogens that causes mastitis and is the most difficult one to treat because of constantly emerging antibiotic resistance, as is the case with community and hospital-acquired human staphylococcal infections."

Associate Professor Mukkur said this research was very timely as previous attempts at developing a vaccine against staphylococcal mastitis were unsuccessful.

"A significant amount of funding was made available in the late 70s to early 80s to develop a vaccine against staphylococcal mastitis at CSIRO's Division of Animal Health but the technologies required to achieve this goal were limited at the time," he said.

"Our aim now is to create an effective molecular vaccine that will be affordable and available globally, and we expect to have a vaccine ready for field trials in cattle in about three years."

Associate Professor Mukkur said the knowledge gained from this project would have direct implications for the development of a human vaccine against community and hospital-acquired golden staph infections.

"Golden staph infection is a very common infection estimated to claim as many as 6,000-7,000 lives in Australia annually particularly because of its antibiotic resistance," he said.

"A human vaccine against golden staph would be very beneficial in helping to manage this infection, especially in Australia's hospitals."

This joint three-year research project was recently funded under the Federal Government's Indo-Australian Biotechnology Fund where only 17 per cent of Australian applicants were successful in winning research grants in frontier biotechnologies.

A total of \$300,000 has been granted for

this project by the Australian Department of Innovation, Industry, Science and Research to Curtin, with the Federal Indian Department of Biotechnology granting a similar amount to the Indian partners.

The Indo-Australian Biotechnology Fund is part of the Federal Government's \$65 million Australia-India Strategic Research Fund.

Associate Professor Mukkur said a staphylococcal mastitis vaccine would also be very beneficial for the Indian dairy industry.

"In India, consequences of mastitis infection are even more serious because of extensive backyard farming and the heavy dependence of farmers, and landless labourers, on livestock compounds for their livelihoods," he said.

"The annual economic cost of mastitis for the Indian dairy industry is a staggering \$400 million (16,000 million rupees) of which 60 per cent is a result of golden staph infections.

"An affordable vaccine would be an advantage to livestock owners with one or two milkers, as well as the Indian dairy industry in general."

**communication is the problem...  
communication is the solution!**

**michael porteus media projects**

**0410 338 783 – [mporteus@gmail.com](mailto:mporteus@gmail.com)**

Contact your Genetics Australia regional representative for professional service and advice

Providing you with:

- Semen products from all domestic and international suppliers
- Heat detection and animal health products
- Liquid nitrogen deliveries and other on-farm services
- and importantly After Sales Service



**Dale Bryce**  
Central Sth Coast  
0418 488 016



**Neil Hellyar**  
Nth Coast  
0417 572 291



**Scott Alcock**  
Sth Coast-Bega  
0418 519 680

**Jonathon Thomas**  
Sth Coast-Bega  
0417 389 260

**Stephen Brown**  
Central Nth Coast  
0438 600 925

**David Johnston**  
Central Nth Coast  
0419 280 770

Call Freecall 1800 039 047 [www.genetocs.com.au](http://www.genetocs.com.au)



# Climate champions lift farm efficiency

**A**LMOST forced out of dairying a decade ago, the Strong family has managed to turn their Clover Hill Dairies business around and win an award in the process.

Jamberoo dairyfarmers Michael and Lynne Strong with son Nick, New South Wales, were recently named Woolworths top primary producer at the National Landcare Awards.

The family milks 450 cows across two farms.

Lynne said the family's search for new ways to keep their farm profitable also made their dairy more environmentally sustainable.

"Our adviser told us the size of our farm capped the number of cows we could run, but not the amount of milk we could get out of those cows," she said.

So they increased milk production by selecting cows that could more efficiently convert pasture to milk, and supplemented their pasture diet with nutrients that improved cow health and increased milk production.

"We moved to milking three times daily in 2005, which not only increased milk production by 20 per cent, but also resulted in reducing our greenhouse gas emissions a litre of milk produced by 30pc," Lynne said.

Another part of improving on-farm efficiency was to focus on improving the productivity of the pastures and to lock-up less productive land.

As a result, 50 hectares of the farm is fenced-off from the cows and is now protected natural rainforest.

Combining all of these strategies with an innovative effluent recycling system has allowed Clover Hill to become one of Australia's most water-efficient milk-production systems.

"We produce 125,000 litres of milk a megalitre of captured water compared with the industry average of only 3500L," Lynne

said.

"We know our cows are doing what everybody else on the planet should be doing – they are using their resources as efficiently as they can."

Lynne is so passionate about environmental sustainability she has become part of the Climate Champion Program, with 33 other farmers across Australia.

She hopes to share her knowledge with fellow farmers on how to manage risks associated with climate and weather on their properties.

"This exciting initiative gives us an opportunity to help raise awareness and discussion within farming communities about new innovations for managing variable climatic conditions, such as low rainfall," she said.

"In our region, it is predicted the climate will actually become less variable under climate change, which could have many benefits for local dairyfarmers. But we will still get periods of low rainfall, so we are very keen to share with others some of the strategies that have helped us deal with the challenges on our own farm.

"Our climate strategy is to have an efficient farm system so we can adapt to a changing climate and minimise our carbon footprint.

"We have developed ways to use fewer resources and to use them better. This way we can minimise the impact on our business of any future climate change legislation and the costs that will be associated with that legislation."

The Climate Champion Program, run by the Managing Climate Variability Program, the GRDC and Meat & Livestock Australia, gives participants direct access to the latest climate-related research findings, allowing them to influence the development of new weather prediction tools and technologies to manage climate risks.

• Details: [www.climatekelpie.com.au](http://www.climatekelpie.com.au)



**EMISSION BUSTERS:** Dairyfarmers Lynne and Michael Strong (centre) with their 2010 Woolworths Primary Producer Award, and Woolworths representatives Rebecca Earp, Armineh Mardirossian, Nathalie Samia and Andrew Hall. The Strongs have been able to reduce their greenhouse gas emissions a litre of milk produced by 30 per cent by increasing milk production by 20pc.

### Clover Hill Dairies

- Reduced emissions by increasing production
- Cows selected for good conversion rates
- Focus on pasture productivity
- Turned less productive land into natural rainforest
- Improved water efficiency with innovative effluent recycling system



# Appendix 7

## Radio and TV Media

(Please see Radio & TV media on CD for footage)





# Appendix 8

# Media Summary



## Media Summary

Clover Hill Dairies owners Michael, Lynne and Nicholas Strong milk 400 cows three times daily to produce 4.75 million litres of milk on two farms at Jamberoo on the NSW South Coast.

Not only is Clover Hill Dairies one of Australia's most water efficient milk production systems, pasture and herd management productivity gains has allowed them to fence off 50% of the home farm to protect and enhance the large areas of high conservation value remnant rainforest .

The Clover Hill Dairies team work well beyond the farmgate and are passionate about reconnecting rural and urban communities and introducing young Australians to careers in agriculture. They have developed and are delivering a number of highly successful innovative projects that use art and multimedia to engage school children to explore agricultural sustainability issues and show them that responsible agricultural production is a legitimate use of land, water and other resources.



# Appendix 9

## Photos for Media

(Please see separate folder on CD)

