

Countdown Downunder 2001 to 2004 – The Short Report

In the six years since it was launched, Countdown Downunder's principles and terminology have been incorporated into the language of dairying. Rather than worrying about technical uncertainties or waiting for new technologies, there is wide acceptance that mastitis can be controlled by good management.

Awareness of best practice as described in the *Countdown Downunder Farm Guidelines for Mastitis Control* is high and many farmers have significantly changed aspects of their farm management to align with best practice through the Countdown Downunder Farmer Short Course. All farmers benefit from the industry investment in building the capacity of local advisers to support change on farm.

Doing the simple things well is a winning strategy

In the two years since they completed the course, Leigh and Kellie Schuurung have dropped their herd's Bulk Milk Cell Count from a season average of 400,000 to well below 100,000 cells/mL.

"The (Countdown Downunder Farmer Short) course had a major impact on the way we run the farm," Leigh says, "it influenced our whole attitude to herd health".

Leigh milks 390 cows in a 30 swing-over shed in Togari in north-west Tasmania. He attributes the change solely to good farming practice, "do the simple things, do them really well, and always be consistent".

At milking there is no shouting in the dairy and the herd is always moved calmly and quietly. Leigh is very careful that cups don't stay on the cows too long and believes teat disinfectant after milking is a must. "You've got to teat spray otherwise it's not worth milking the cows."



Kellie and Leigh Schuurung (pictured with their children Taya and Tobey) won The Weekly Times Countdown Downunder Milk Quality Award in 2005.

Changes in the way calving and drying-off are managed have also significantly improved the cell count.

Leigh's vet, Peter Wendell-Smith, keeps an interest in the herd. "If he's here, he goes and checks the ticket."

Leigh and Kellie are happy with the progress made in their herd, "being under 100,000 for most of the season makes a big difference to our profits".

*Story: Megan McNaught, The Weekly Times
Photograph: Ilsa Cunningham, Circular Head Chronicle*

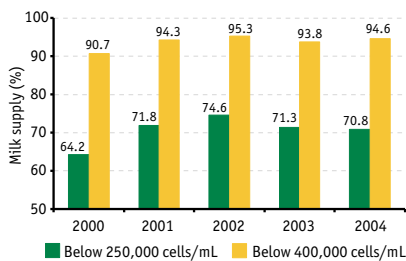
Progress toward the goals

Achieving the cell count goals would increase farm profitability by about \$33 million per year

Countdown Downunder goals for 2001-2004:

1. Work toward the industry cell count goals of having all milk supply below 400,000 cells/mL and 90% of supply below 250,000 cells/mL;
2. Lower the number of clinical cases of mastitis in the Australian dairy herd by 20%; and
3. Contribute to an industry-wide plan for sustainable and effective use of antibiotics.

The third goal was achieved in full and the first two were achieved in part.



Progress toward the national cell count goals

The steady progress towards the cell count goals reversed in 2003 as farm management focused on surviving the ‘one-in-100-year’ drought (see bar chart). Under extreme monetary pressures, farmers reduced their expenditure on products and services integral to mastitis management such as teatcup liners, Dry Cow Treatment or testing milking machine performance. Many significantly reduced herd size and sold heifers to reduce the need to supplementary feed and the subsequent lack of replacement stock has restricted the opportunity for strategic culling. Stock movements increased as cows were sold or ‘parked’ on other farms with concomitant movement of bacteria that cause mastitis. These management decisions were made in difficult circumstances and increased the risk of mastitis spreading. Nevertheless, the ongoing benefit achieved for lowering the national cell count from the 2000 to the 2004 level is estimated to be about \$10 per cow every year.

Countdown Downunder Farmer Short Course survey herds had a lower BMCC in the drought of 2003

In 2003 milk supply with BMCC below...	Farmer Short Course herds (150)	All herds (10,167)
400,000 cells/mL	97.7%	93.8%
250,000 cells/mL	83.5%	71.3%

A survey of farmers who had participated in the Countdown Downunder Farmer Short Course showed that they had maintained lower cell counts than the national herd during the drought of 2003. These farmers had used their skills and understanding to better manage risks.

The extent of the achievement of the second goal was not able to be reliably measured at a national level. However, a downward trend in the sale of lactating cow treatments (indicating fewer clinical case treatments) in one of the larger dairy regions between 1999 and 2003 was consistent with the cell count results.

Every year the 5% of suppliers across Australia who consistently supply milk with the lowest Bulk Milk Cell Count are honoured in The Weekly Times Countdown Downunder Milk Quality Award. Achievements in these herds were inspirational as many were sizeable dairy farms and some winners had overcome mastitis problems to achieve excellent milk quality. The dairy companies participating in the Milk Quality Awards between 2001 and 2004 were:

Bega Cheese Co-operative
Bodalla
Bonlac Foods
Burra Foods
Cadbury Schweppes
Challenge Dairy
Dairy Farmers Co-operative

Gerringong
Green Valley
Lactos
Murray Goulburn Co-operative
National Foods
Nestle
Norco
Pantalica

Parmalat
Pauls
Peters and Brownes
Tatura Milk Industries
United Dairy Power
Warrnambool Cheese and Butter Factory



Dairy Australia continued to fund Countdown Downunder to support:

- **the production of high-quality milk;**
- **sustainable skills and networks of farmers and their advisers; and**
- **industry-wide responses to high priority udder health issues.**

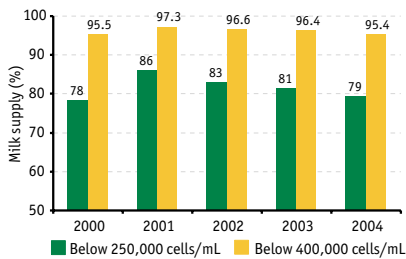
The resources developed by the project to achieve this are shown below.

Countdown Downunder resources for farmers, advisers and industry

Resource (Fact File)	Output
Countdown Downunder Farm Guidelines for Mastitis Control	11,000 copies of manual describing industry-agreed best practice distributed/sold (RRP \$22).
Countdown Downunder Farmer Short Course	1,804 farmers participated in 89 courses designed to improve the udder health of their herds. Farmers rated 95% of courses as highly satisfactory.
Insights from farmer progress in mastitis control	Factors driving change and adoption of best practice on farms researched and published as <i>Insight to the dairy industry's capacity to manage mastitis</i> .
Countdown Downunder Mastitis Focus	Report designed and software developed to the beta-version to help farmers use milk recording information to better manage mastitis.
Countdown Downunder 'Cups on to cups off'	Training for milk harvesters to minimise spread of infection at milking developed and first pilot of course conducted.
Countdown Downunder Technotes	More than 1,000 copies of the manual detailing the scientific rationale behind the Farm Guidelines sold (RRP \$108.35). New information released as Update Pack (Feb 2003,) as the core material for the 2003 Adviser Conferences.
Relevant and timely messages for the adviser network	Bi-monthly bulletins sent to 1,863 stakeholders to reinforce key messages and provide communication resources to advisers. 393 advisers subscribe to e-mail discussion list, Countdown-L, to exchange thoughts about real cases.
Countdown Downunder 2003 Adviser Conferences	398 advisers attended conferences at 12 regional centres held to strengthen advisory skills and networks.
Countdown Downunder Adviser Short Course	408 advisers across Australia attended 14 courses (5 since June 2001) to develop skills in solving mastitis problems and working in multi-disciplinary teams.
Countdown Downunder Mastitis Investigation Pack	Countdown Downunder Mastitis Investigation Pack developed and available since 2003 to enable a comprehensive, team approach to problem-solving.
Countdown Downunder Certificate for the performance testing of milking machines	Qualification in the performance testing of milking machines available to machine technicians since 2002.
A new approach to managing antibiotics	Consensus reached on the need for an industry-wide plan and an approach recommended to Dairy Australia.
Cell Check	Software and Technote developed and support provided to help dairy companies meet the European Union cell count reporting requirements.
Countdown Downunder Mastitis Model	Model developed to assess long-term impact of changes in mastitis management. Used to assess economic benefits of improving mastitis control.
Milk Quality Award	<i>The Weekly Times</i> featured winners (herds with BMCC in the lowest 5%) from all regions annually since 2001.
National and regional cell count statistics	National cell count statistics (BMCC since 2003) reported annually to the AMAC.

The regional capacity to manage mastitis

A competent and responsive network of local advisers enables farmers to access the support they need to strategically manage risk and progressively improve the herd's performance. The bar charts show the progress toward the industry cell count goals in each of the regions.



Western Australia

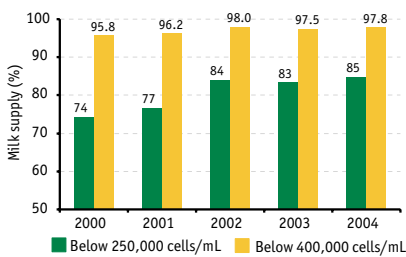
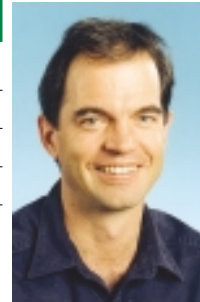
Peter Rosher 08 9751-2311 rosher@cattlevets.com.au

280 dairy farms: 87 farmers attended 4 Farmer Short Courses

117 advisers: 31 attended the Adviser Short Course or 2003 Conference

Approved trainers: Dario Nandapi, Peter Rosher

Challenges: Industry restructuring and lower farmgate milk prices have reduced focus on farm productivity issues such as mastitis control. Although the number of farms is relatively small there are adequate numbers of service providers with good dairy expertise. The state has a high rate of non-family employed labour (1.3 labour units on average).



South Australia

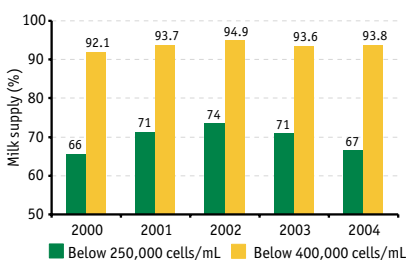
Glen Beath (2001-2002) Kirstie Murphy (2002 onwards) 08 8536-3958, kmurphy@adam.com.au

402 dairy farms: 209 farmers attended 10 Farmer Short Courses

102 advisers: 38 attended Adviser Short Courses or the 2003 conference

Approved trainers: Glen Beath, Alison Gunn, Bernie Mason, Bill Morgan, John Penry

Challenges: Dairying is located in a number of distinct regions across the state. The south east 'growth' region faces limited access to skilled farm workers to milk cows. Very few service providers are dedicated solely to dairying. Demand for milking machine technicians is far greater than supply.



Western Victoria

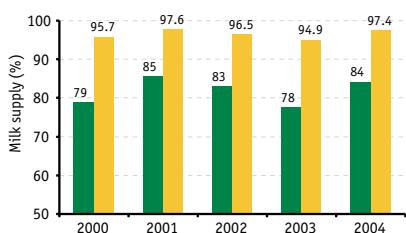
John Penry 03 5593-1077, john@camperdownvet.com.au

1,975 dairy farms: 136 farmers attended 7 Farmer Short Courses

224 advisers: 98 attended Adviser Short Courses or the 2003 conferences

Approved trainers: Charlie Blackwood, David Colson, Jim Hancock, Ian Henderson, Bill Morgan, John Penry, Michael Wraight, Peter Younis

Challenges: Severity of drought varied across the region. Some farms took cows in 'cow parking' arrangements and need to manage the attendant risks to mastitis and milk quality.



Tasmania

Ian Hubble 03 6434-5424, Ian.Hubble@dpiwe.tas.gov.au

535 dairy farms: 209 farmers attended 10 Farmer Short Courses

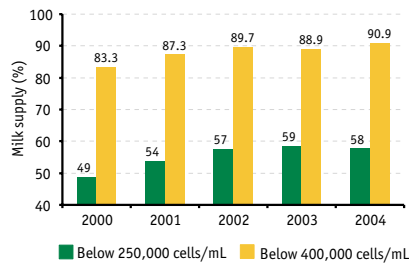
150 advisers: 48 attended the Adviser Short Course or 2003 conference

Approved trainers: Ron Harris, Graham Harrison, Ian Hubble, Peter Wendell-Smith

Challenges: Dairying is only a small proportion of the business for many advisers, but they still have good dairy expertise. Tasmania has larger herd sizes (more than 300 cows compared with the national average of 230) and a high rate of non-family employed labour (1.2 labour units on average).



THE SHORT REPORT



Queensland

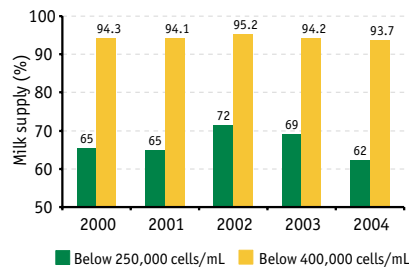
John Miller 07 4169-9800, john.miller@dpi.qld.gov.au

1,025 dairy farms: 64 farmers attended 3 Farmer Short Courses

197 advisers: 41 attended the Adviser Short Course or 2003 conference

Approved trainers: Marcus Anstey, Ian Bradshaw, Alison Gunn, Joe Nechwatal, John Miller, John Ryan, Howard Smith, Bill Tranter

Challenges: 90% of farmers were adversely affected by the drought. Drought and lower milk prices have reduced focus on farm productivity issues such as mastitis control. Replacement heifers have been sold and heifers now comprise 20% of herds on average. Dairying is located in isolated regions across the state. Very few service providers are dedicated solely to dairying.



New South Wales

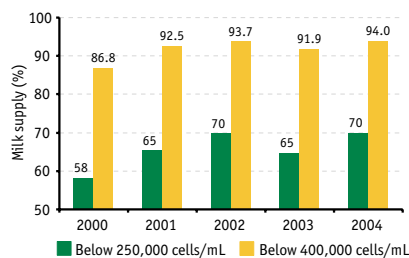
Dick Buesnel (Southern NSW) 02 6492-1733, dick.buesnel@agric.nsw.gov.au and Anthea Young (Northern NSW) 02 6545-1800, anthea.young@agric.nsw.gov.au

940 dairy farms: 163 farmers attended 8 Farmer Short Courses

260 advisers: 74 attended Adviser Short Courses or 2003 conferences

Approved trainers: Bruce Adams, Dick Buesnel, David Chaffey, David Crawford, Tony Dowman, Ray Johnston, Kerry Kempton, Anthony Neal, Jeffery Schrale, Roger Went, Anthea Young

Challenges: Financial survival was the main focus for many dairy farm businesses with 90% of farmers adversely affected by the drought, high feed prices and low milk prices. Dairying is clustered in pockets along the coast. Dairying is only a small proportion of the business for many service providers.



Northern Victoria and Riverina

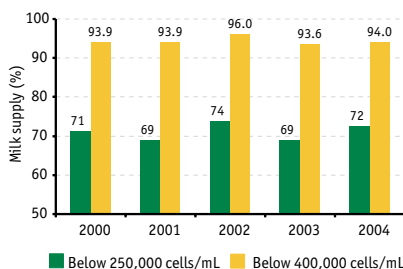
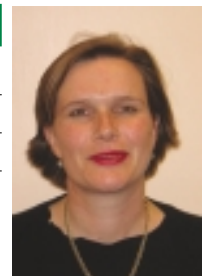
Fiona Smolenaars 03 5823-2835, fiona@sodenterprises.com.au

2,525 dairy farms: 546 farmers attended 28 Farmer Short Courses

319 advisers: 134 attended Adviser Short Courses or 2003 conferences

Approved trainers: Mark Burgemeister, Dianne Brennan, Paul Clavin, Rod Dyson, Keith Fletcher, Peter Grant, Tim Humphris, Bruce McIntyre, Alistair Murray, Durham Prewett, Fiona Smolenaars, Sabine Suess, Bill Tom

Challenges: The focus has been financial survival, with 98% of farmers adversely affected by the drought. Many farmers sent cows to other districts on 'cow parking' arrangements and need to manage the attendant mastitis and milk quality risks. Many cows and heifers were sold. Replacement heifers now average 19% of herds.



Gippsland

Carol Bradshaw (2001-2003), Barry Zimmermann (2004 onwards) 0418 124 809, bz738182@bigpond.net.au

2,070 dairy farms: 390 farmers attended 19 Farmer Short Courses

285 advisers: 122 attended Adviser Short Courses or 2003 conferences

Approved trainers: Simon Beasley, Carol Bradshaw, Bill Darmody, Gerard Davis, Gabriel Hakim, Rod Irwin, Darold Klindworth, David Lemchens, Jakob Malmo, Jamie McNeil, Bruce Robertson, Duncan Runciman, Barry Zimmermann

Challenges: The severity of the drought varied across the region. Many cows and heifers were sold to reduce feeding requirements (especially in Macalister Irrigation Area), but some farms took cows in 'cow parking' arrangements and need to manage the attendant risks to mastitis and milk quality.



Building the capacity to manage mastitis on farms



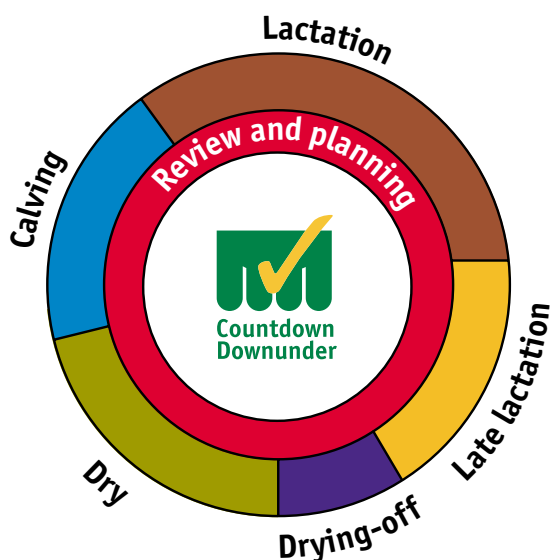
1 Recognise the opportunity to improve and be motivated to do it

Research conducted by Countdown found that financial incentives, personal standards, progress toward a discernable endpoint, aversion to risk and awareness of what their peers achieve motivate farmers to improve mastitis control. The milk payment systems used by Australian dairy processing companies and the desire to avoid the frustration and expense of managing clinical mastitis (where each clinical case costs \$169 on average) both provided strong financial incentives for farmers to take action. Modelling by Countdown showed that even herds achieving premium payment could financially benefit from further reducing their annual average Bulk Milk Cell Count (the level of mastitis in the herd) due to increases in milk production and reductions in clinical mastitis and culling.

Rather than the traditional approach of responding to problems as they arise, strategic management enables farmers to incrementally improve udder health and milk quality in their herds. The way that Countdown Downunder has been building the capacity to manage mastitis on farms is described in terms of elements 1 to 6.

1 I recognise the opportunity to improve on my farm and am motivated to do it

6 I review and update my plans on a regular basis

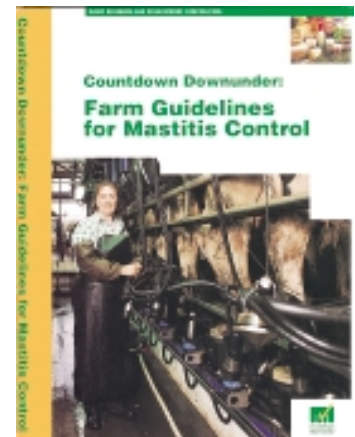


6 Review and update plans on a regular basis

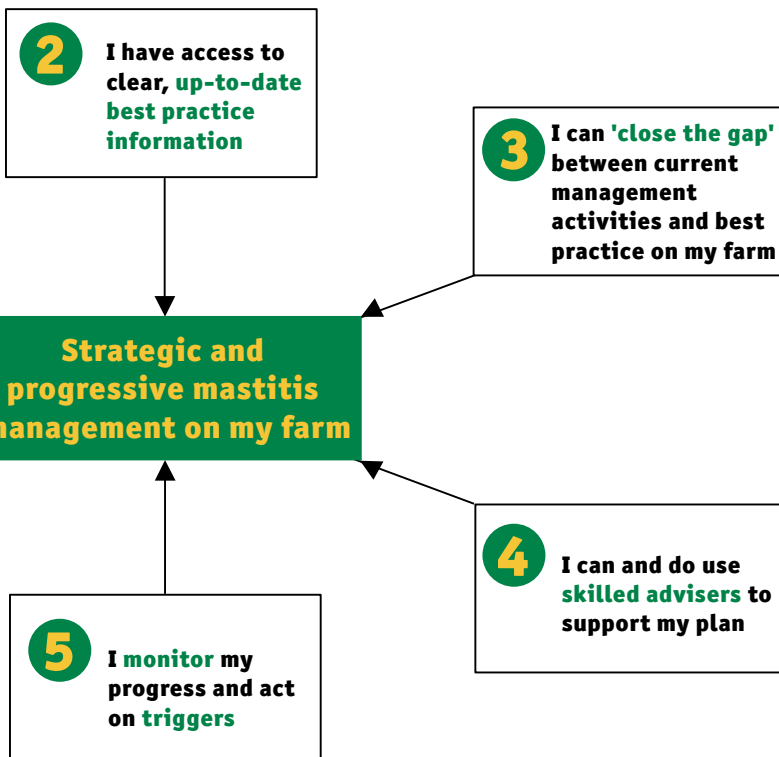
Although many farmers are intuitively good at planning what happens from day-to-day, they often do not plan strategically to improve performance over the longer term. The Mastitis Action Plans developed by farmers at the Farmer Short Course provided a clear checklist of what needed to be done and how and when to do it. Course participants sustained changes to products or routines and most (91%) fully or partially achieved their stated goal in the short-term. However as circumstances changed, Bulk Milk Cell Count or clinical case issues started to re-emerge because the planning process itself was not being repeated and there was no way to recognise and respond to the change. Action planning is a formal process to give the best chance of achieving change. To enable farmers to respond effectively to change, the challenge for the industry is to embed planning skills in the marketplace.

2 Have access to clear, up-to-date best practice information

The *Countdown Downunder Farm Guidelines for Mastitis Control* describe the best practice recommendations for managing mastitis in the Australian dairying industry and continue to be the core project resource. Awareness and understanding of the Farm Guideline recommendations is high. Key messages were reinforced during routine interactions between farmers and advisers, through publications (including *The Australian Dairyfarmer*, advisory newsletters and local media), presentations, training (especially the Farmer Short Course) and mastitis investigations. Recommendations have been kept up-to-date by brokering industry agreement to emerging issues such as teat sealants or how to use water quality test results. Advisers were brought up to speed on the new information through e-mail bulletins, information posted on the website, Technote updates and meetings such as the 2003 Adviser Conferences. This helped farmers receive relevant and timely advice.



The Countdown Farm Guidelines continue to be cornerstone of the project



3 'Close the gap' between current farm management and best practice

Many farmers have significantly changed aspects of their farm management to align with best practice. The increase in understanding, skills and confidence was especially evident in the 1,804 farmers who have attended the Countdown Downunder Farmer Short Course since its pilot in 2001. The Farmer Short Course helped farmers use their knowledge and experience to develop a practical Mastitis Plan for by 'closing the gap' between what happened on the farm and best practice as described in the Farm Guidelines. A survey conducted in November 2004 found two-thirds of respondents had lowered the BMCC in their herds and were more confident about managing clinical cases of mastitis.

5 Monitor progress and act on triggers

To maintain a focus on performance in a changing and complex operating environment, farmers must be able to routinely assess what is happening in the herd. The Farm Guidelines provide practical measures that alert farmers to changes in the mastitis dynamic in the herd. These triggers for action were the most highly valued element of the Farmer Short Course. Triggers rely on keeping good on-farm records and making the time to analyse them. Release of the Countdown Downunder Mastitis Focus report in 2006 will make this task easier. It will also enable udder health information to be used to make decisions about the herd (and not just individual cows as is the usual practice).

4 Use skilled advisers to support action plans

A regional advisory capacity is needed to support farmers in change and respond to local issues. To build the competence and confidence of advisers, Countdown maintained the adviser network (keeping contact details current and sending bi-monthly e-mail bulletins), held regional conferences, provided training opportunities (the Countdown Downunder Adviser Short Course and a new qualification for milking machine technicians) and hosted Countdown-L to enable advisers to discuss real cases. As the advisory population is very dynamic, there is an ongoing need for update meetings and training to maintain active and effective regional networks.

The next steps 2004-2007

The challenge for Countdown in its third and final phase (2004-2007) is to translate the knowledge and skills of the whole farm team (farmers and advisers) into continuous improvement and risk management on farm. Farmers and their advisers will need to work jointly in active partnerships to prioritise udder health activities and regularly review and build on the outcomes. To help achieve this, Countdown will extend the planning skills of the farm team and develop new tools to help them review progress, make informed decisions at critical times and assess how effort in mastitis control and milk quality fits within their overall farm business.



“Part of the joy of the course both for presenters and participants and a reason for its success is the sharing of information together with the friendships that arise. The course creates a language and an approach that enables you to jump into a mastitis investigation or milk quality issue quicker and more deeply. However, unless contact is regular, this connection can fade.”

*– Jamie McNeil,
Countdown Downunder Farmer
Short Course trainer, Gippsland*

Jamie McNeil (right) with Doug and Alison Billing

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