

# Australian Dairy Herd Improvement Report 2008



ADHIS is an initiative of Australian Dairy Farmers Ltd (ADF) and is partially funded by dairy farmer levies via Dairy Australia.

ADHIS acknowledges the contribution of the Victorian Department of Primary Industries.

## Enquiries



ADHIS Pty Ltd ABN 97 006 475 378  
Level 2, Swann House  
22 William Street  
Melbourne Victoria 3000  
T 03 8621 4240  
F 03 8621 4280  
dabernethy@adhis.com.au  
www.adhis.com.au



National Herd Improvement Association of Australia Inc. Reg No. A0008711E  
Unit 1/112 Synnot Street  
Werribee VIC 3030  
T 03 9742 7244  
F 03 9742 7696  
carol@nhia.org.au  
www.nhia.org.au

Copyright ADHIS Pty Ltd 2008. All rights reserved ©.

This Report is published for your information only. It is published with due care and attention to accuracy, but ADHIS and NHIA accept no liability if, for any reason, the information is inaccurate, incomplete or out of date whether negligent or otherwise.

All intellectual property rights in Australian Breeding Values (ABV™) detailed in this publication are owned by ADHIS Pty Ltd. Neither the ABVs nor any part of this publication, may be reproduced without the prior written permission of ADHIS Pty Ltd. Permission to reproduce or copy will not be given by ADHIS Pty Ltd, where the proposed reproduction or copy may, in the sole opinion of ADHIS Pty Ltd, result in a use of the ABV, which is likely to mislead or confuse stakeholders in the Australian dairy industry.

2008 In Review .....	2
NHIA Chairman's report .....	2
ADHIS Chairman's report .....	3
NHIA Activities .....	4
ADHIS Activities .....	6
ADHIS Board and Committees .....	10
Partner Projects .....	11
InCalf Report .....	11
Countdown Downunder Report .....	13
National Herd Recording Statistics 2007-2008 .....	15
2008 Australian Breeding Values .....	22
Look Up Charts.....	27



# NHIA Chairman's report



*By Gordon Stewart  
NHIA Chairman*

The word 'change' is synonymous with the history of the world, of the evolution of mankind and related achievements. Lately, the world has been obsessed with climate change while financial markets and the world economy changed irrevocably during 2008. The advances in new technologies such as electronics and communications and issues like genomics also are bringing change to our industry.

The data contained in this annual Australian Dairy Herd Improvement Report for 2007/2008 helps us to actually measure change in the dairy industry.

Compared with last year's report, we have 496 fewer dairy herds participating in official herd recording, a decline of some 11% in the past 12 months. Not surprisingly, we see a similar decline of some 10.5% in the number of cows on herd test. Clearly, despite an improvement in milk prices overall, the dairy industry continues to struggle with drought, high input prices and difficult conditions. This continual decline in participating herds and cow numbers is of course a cause for concern in our industry.

On the positive side, average production per cow continues to rise with increases recorded in litres of milk, kilograms of fat and kilograms of protein. It is a statistic worthy of mentioning that in the past 10 years between 1997/1998 and now, the weight of protein production per herd-recorded cow lactation has increased by a staggering 29%. Herd recording and genetics definitely play a vital role in the productivity of the Australian dairy industry.

Directly related to this productivity improvement is the volume of data from herd recording that provides the foundation for all herd improvement activity. The more herd recorded cows we collect and measure data from, the stronger and more reliable will be the results of our Australian Breeding Values (ABVs). We simply have to find ways to increase the volume and accuracy of data from our national dairy herd – we need more cows on official herd test and we need to make it easier for dairy farmers to record their data and send it on where it will count. It is important for dairy farmers to realise the extra benefits that they can achieve from sharing their on-farm records.

Today, more than ever, herd improvement organisations and dairy farmers have a need for intelligent, integrated and cost-effective solutions for data. By far the most sensible way to moderate costs is by sharing them between as many users as possible.

Perhaps the time has arrived where the Australian dairy industry needs to come together and create the tools we need to progress into the future – the first of which is a single, integrated industry database. NHIA stands ready to play its part in taking this concept forward.

# ADHIS Chairman's report

Over the past 12 months ADHIS has continued to review the organisation and develop a new vision for the future. This process culminated in the development of a new ADHIS Strategic Plan that will guide our efforts and investment over the next five years. There are three key components of this plan, namely: Genetic Evaluation; Data and Data Services; and Education and Extension. It has become clear over recent years that with the advent of new technologies such as genomics it is even more important to have a sound and strong evaluation unit to deliver the benefits from this technology to Australian dairy farmers. The new strategic plan is aimed at focusing ADHIS on achieving this requirement.

It would be fair to say that farmers are being confronted with a mushrooming of information related to new technologies, in particular the utilisation of genetic markers. Recent announcements have been made in the US indicating an initial release of breeding values based on their technology is to occur in early 2009. Locally this technology has been used by Genetics Australia in pre-screening progeny test bulls for a couple of seasons now, with the release of a pre-screened team a few months ago.

Over the coming 18 months ADHIS will be incorporating this technology into our evaluation system. To maximise the benefits from this technology it will be important to clearly articulate what it means and how farmers should use the various outputs. As a result, extension efforts are being undertaken to better inform the industry about this technology. Although the selection of bulls will be the first use of this technology I am excited about the prospects for testing cows. Could you imagine what the future may hold? Better selection decisions, improved herd analysis, greater confidence in stock purchases and possibly even understanding which cows perform better under different farming systems.

This year we welcomed new staff members and thanked those who have served ADHIS in the past. Earlier this year Gert Nieuwhof joined the team at the Department of Primary Industries (Victoria) as ADHIS Geneticist / Team Leader. Gert took over from Kevin Beard, who retired after 18 years as a geneticist for ADHIS. Kevin was integral in developing ADHIS during that time and was fundamental to the development of the production index (PI) provided on herd test reports, and in the development and release of more than 12 breeding values, including the Australian Selection Index (ASI) and the Australian Profit Ranking (APR). Although Kevin has retired from operational activities ADHIS has retained him on a part-time basis to undertake specific project management roles. We thank Kevin for his efforts over the years and look forward to continuing to work with him during the development of key initiatives.

In early 2008 we also saw the departure of John McQueen and Robert Poole from ADHIS' parent company, Australian Dairy Farmers (ADF). John was the inaugural Executive Officer of ADHIS, seeing its formation into the national genetic evaluation organisation in the early 1980s. Robert also served as ADHIS' Executive Officer from 1997 to 2003 and was leading ADHIS during the implementation and release of the APR. Although both John and Robert were not directly involved in ADHIS activities in recent years they both provided valuable support and advice to the current board and management and I would like to thank them for their contributions to ADHIS and genetic improvement over their many years of service.

As always, the coming year will provide us with many challenges and opportunities. The Board of ADHIS continues to develop the business in order to provide farmers not only with leading-edge genetic evaluation services, but also with information, education and extension messages to increase the understanding and utilisation of breeding values for your ultimate benefit.



*By Allan Burgess  
ADHIS Chairman*

## NHIA activities

This report provides a vital service to the dairy industry. The figures and statistics that follow will be very helpful to those whose role it is to provide dairy farmers with advice as well as products and services related to herd improvement.

What do the figures tell us? Some of the information is already well known, such as the fact that Victoria is Australia's biggest dairy state with more herds and cow numbers than all the other states combined. Some of it is less well known, for example, Western Australia has the highest average milk production per cow, or that Tasmania has the lowest average cell count, or South Australia has the biggest average herd size.

A comparison of the Annual Reports for 1997/98 and 2007/08 provides interesting reading and reminds us how much has changed in a decade (see table on next page).

Clearly, it must be remembered that these figures relate to herds and cows enrolled on officially recognised herd recording programs – not the entire dairy population. However, the figures are symptomatic of an industry that has changed substantially in a relatively short period of time.



Of all the figures in the table, the one that should perhaps receive the most attention is the last one, the increase in the average lactation length from 298 days in 1997/98 to 321 days in 2007/08. This number is hugely significant and represents a major cost to the profitability of dairy farmers.

What this is telling us is that the significant increases in production per cow have come at a price. And that price is that it is getting more and more difficult to get cows back into calf. Herd fertility has become one of the biggest issues in Australian dairy farming today.

**46% of herd-recorded cows calved in the months of July/August/September in 2007/08**

**75% of herd-recorded Holsteins, 70% of herd-recorded Jerseys and 83% of herd-recorded Australian Red Breeds were bred via AI**

**46% of Australia's 1.7 million\* milking cows were herd recorded in 2007/08**

*– Dairy Australia In Focus 2008*

**The protein production of Victorian herd-recorded cows increased by about 2.9% in 2007/08 from the previous year**

As an industry, we need to apply more resources to increasing herd fertility and, especially, to providing dairy farmers with the knowledge that they need to manage the fertility within their own herds. NHIA, through the medium of the DHIF fund has contributed towards the Extended Lactation Project managed by the Victorian Department of Primary Industries in conjunction with The University of Melbourne. The final results of the project will be available to the industry early in 2009 and will assist farmers in making important decisions regarding herd fertility management in the future.

We need to do a much better job of helping dairy farmers understand the basics of bovine reproduction and physiology, of the links between nutrition and fertility, of the best practice for AI technique and semen handling, of using the sire summaries to select bulls which are above average for fertility and of choosing the best practice strategies for breeding synchronisation programs. Knowledge is power.

In the past year, NHIA has become involved in Artificial Insemination training in conjunction with the National Centre for Dairy Education Australia (NCDEA). The first block of AI Training courses were delivered in Victoria in July/August 2008 and further programs are scheduled for April/May 2009. A great deal of work has gone into improving the effectiveness of AI training, but at the same time ensuring that industry standards are maintained and exceeded where possible. This partnership aims to provide appropriate training solutions for industry which are effective, sustainable and consistently deliverable throughout Australia.

NHIA is aiming to deliver a range of further industry-specific training options in the near future which, alongside our established accreditation programs for professional AI technicians and semen and embryo handlers will help to enhance our members' ability to deliver quality services to farmers.

A decade of herd improvement 1997/98 to 2007/08.

	1997/98	2007/08	Percentage change
Number of herds (Australia)	7292	3966	-45.6%
Total cows herd tested	976,070	785,462	-19.5%
Average herd size	133.9	198	+47.9%
Milk – litres	5254	6596	+25.5%
Fat – kg	213	264	+23.9%
Protein – kg	171	220	+28.6%
Lactation length – days	298	321	+7.7%

**On average an AI cow is \$53 more profitable each year than a naturally bred counterpart.**

– HaileMariam & Goddard, 2008

**The production of milk solids by Victorian herd-recorded cows has lifted by more than 50% since the mid '80s.**

**On average, herd recorded cows produced 37% more than non herd recorded cows .**

– Dairy Australia In Focus 2008 and ADHIS

**There were an estimated 7,953\* dairy farms in Australia of which 50% participate in herd recording.**

\* Dairy Australia In Focus 2008

## ADHIS activities



*By Daniel Abernethy,  
ADHIS General  
Manager*

During 2008, ADHIS has continued to work towards its mission of maximising the opportunity for Australian dairy farmers to profit through independent world leading dairy genetic improvement services.

Having undergone a governance review in 2007, the ADHIS Board developed a Strategic Plan which sets the direction of the organisation through to 2013. This next five year period promises to be an exciting time in the area of genetic improvement. To take full advantage of the available productivity gains, ADHIS carries a vision that all dairy farmers understand and use Australian Breeding Values to drive their genetic gain. To achieve this, the ADHIS Board has developed three key goals for the next five years:

- Improved genetic evaluation systems
- Provide efficient management of Australia's herd improvement data system and services
- Maximise understanding and use of ABVs

To progress these key goals, a number of projects and activities are currently under way or are being developed.

### Major ADHIS events in 2008.

- Gert Nieuwhof appointed as Geneticist / Technical Team Leader.
- Two official releases of Australian Breeding Values (ABVs) April & August 2008 under a new release schedule
- Genetics Learning Package commences
- New ABV Expression for non-production traits released in April 2008.
- Update of the ABV base (average)
- Introduction of latest genetic evaluation model for the cell count trait
- Initial stage of the redevelopment of ADHIS' genetic evaluation system (GES) completed.
- Planning for the incorporation of genomics commences.
- New Industry Stakeholder Meeting held
- Continued support for research and development projects including Department of Primary Industries (Victoria) APR validation project and the dairy industry projects Countdown Downunder and InCalf.



*Gert Nieuwhof, ADHIS Geneticist*

### Staff updates

In May 2008, ADHIS announced the appointment of Gert Nieuwhof as Geneticist / Team Leader with ADHIS / Department of Primary Industries (Victoria).

Originally from the Netherlands, Gert has had many years involved with genetics and genetic evaluation of sheep, beef and pigs. Gert has also conducted genetic research in dairy cattle having spent time at Wageningen Agricultural University where he completed his Masters and at the USDA Animal Improvement Programs Lab in the US. Gert has recently submitted his PhD thesis on the genetics of disease resistance at the University of Edinburgh.

Gert's previous role was as senior geneticist at the Meat and Livestock Commission (MLC) in Great Britain. In this role he was responsible for the scientific integrity of national sheep and beef evaluations, including addition of new scientific developments and maintenance. The role included extensive communication with all staff involved in this process including data entry staff and extension officers, as well as with industry.

Gert will be responsible for leading the ADHIS/DPI team in the continued development of the ADHIS



system including the release of Australian Breeding Values to the industry.

In September 2008, Paul Koh joined the ADHIS team as Data and Service Manager while Erica Jewell is on maternity leave. Paul has a computer science degree and a graduate diploma in digital communications. He has extensive experience in databases and software development, mainly in the area of Parts Inventory and Warehouse Management Systems within the automotive industry. Prior to joining ADHIS, Paul spent a brief period at Victoria Police as a Telecommunications Evidentiary Specialist.



*Paul Koh, ADHIS Data and Service Manager'*

## 2008 ABV Releases

ADHIS released Australian Breeding Values (ABVs) in April and August to help dairy farmers make objective decisions about sires to use over their herds. Interbull ABV(i)s were published in January, April and August.

The April 2008 ABV release introduced four significant improvements that will simplify bull selection for farmers. These updates were; the introduction of the new expression of non-production ABVs; an update of the ABV base (average); a new ABV release schedule and improved accuracy and reliability of Cell Count ABVs.

The ABV Summary flyer listing top active sires was distributed to all farmers in the *Australian Dairyfarmer* magazine in May and September 2008.

### *New expression*

The new way of expressing non-production ABVs was the most obvious change to dairy farmers. While production ABVs (such as kg protein) stayed the same, all other traits are now expressed as a percentage more or less than the average of 100, where 100 represents the current industry average.

This will make it much simpler for dairy farmers to consider traits such as overall type, daughter fertility, liveweight, calving ease, survival and workability.

The overhaul is part of an ADHIS strategy to make it easier for dairy farmers to select bulls that suit the breeding objectives of their business and is based on feedback from farmers and herd improvement service providers which was collected through an industry workshop.

### *New average*

The April 2008 ABV release included an update to the ABV base. The base (average) represents the modern dairy cow and is a reference point for all ABVs. ADHIS analysed the national milking population to determine the group of cows that represent the average of the current milking population. The base (average) is set at 0 for production traits and 100 for non-production traits.

Historically, ADHIS had a policy of updating the base every five years. However feedback from farmers and the wider herd improvement industry highlighted the confusion which a base update created. As a result support was given to updating the base more frequently. A more frequent update means that changes to breeding values resulting from an updated base are minor and more easily explained. From April 2008 the base will be updated annually to keep pace with trends in the Australian dairy herd.

The base (average) is set at 0 for production traits and 100 for non-production traits with all breeding values being expressed relative to this average. As a result farmers are able to determine the merit of bulls relative to the modern dairy population.

### *New ABV release schedule*

From 2008 ABVs will be released twice a year, in April and August. This timing will improve the reliability of new bulls as additional data can be used in their first proof. Reducing the number of official releases from three to two will provide farmers with the most up-to-date data during the lead up to breeding seasons while reducing the 'overload of information' received by farmers throughout the year.



*Since April 2008, non-production traits have been expressed as a % more or less than 100.*

The new timing is based on feedback from the herd improvement industry which recommended that two official releases a year, in April and August, were optimal for the Australian dairy market.

### *Improved accuracy and reliability of Cell Count ABV*

The fourth improvement implemented in April 2008 was the utilisation of the latest genetic evaluation model for the cell count trait. Over the last two years ADHIS scientists have been developing this model utilising the latest in world's best practice evaluation. This model initially developed for the cell count trait was utilised for the first time in an official release in April 2008.

This is a major achievement for ADHIS and the technical staff which has resulted in a significant increase in the reliability for the cell count trait. This has also led to more bulls having a publishable breeding value for cell count. Although this model is more complex than the old model ADHIS scientists have been able to reduce the time taken to calculate this breeding value and thus enable greater time for quality assurance.

## Redevelopment of the Genetic Evaluation Database System

As part of ADHIS' goal to provide efficient management of Australia's herd improvement data system and services, a project is under way to redevelop the genetic evaluation database system. The first phase of the redevelopment was completed in November 2008. There are five overarching objectives of this redevelopment project. These include; Utilisation of Modern Database and IT technology, Automation of Processes, Data Quality, Maintainability and Flexibility. The initial phase of the project has provided a detailed specification of all requirements of the system allowing for increased requirements likely to be requested in the future. Discussions on the further development of this project will take place in early 2009.

## Genomics Implementation Project

The Department of Primary Industries (Victoria) and the Dairy CRC have undertaken research into genomics over the past eight years. This research, which has utilised the ADHIS database, has focused on identifying differences in animals' DNA (markers) that are linked to superior performance. As these markers are identified, animals who possess these superior genes can be identified. With the completion of the Dairy CRC in 2008, a new research project has commenced to combine the research of both parties in order to generate a single genomic evaluation method. This joint research project will take place over the next 12-18 months with outputs from this final research phase being implemented in a staged approach. ADHIS is planning for the release of data based on this research from 2010.

## Genetics Learning Package

The goal of the Genetics Learning Package is that Australian dairy farmers have increased their rate of genetic gain for profit, based on a greater understanding and use of ABVs. A reference group comprised of representatives from NHIA, AB Companies, National Centre for Dairy Education Australia, Dairy Extension Centre, Australian Dairy Farmers, ADHIS Board and Staff and individuals with specific education/extension expertise was formed to guide the development and implementation of the Genetics Learning Package. This group had one meeting in 2008 to guide to the project's initial planning stage.

Social research, by the University of Melbourne's Innovation and Change Management Group has assisted in understanding how farmers make bull selection decisions. The research results have influenced the development of project and activity plans. A further phase of this research is ongoing.

The launch of the new expression of non-production ABVs was the predominant extension activity for the first half of 2008. Specific communication approaches were developed and implemented for the herd improvement service sector, farmers and their advisers. Communication activities included an increase in ADHIS' presence in the media, industry meetings in most states, paid advertising and Technotes for service providers. The ABV Summary



# ADHIS Board and Committees

## ADHIS Pty Ltd Board of Management

The Board met five times during the year to progress the newly developed strategic plan and to discuss key projects such as the genetic evaluation system re-development project, implementation of genomics and the Genetics Learning Package.

*Members:* Mr Allan Burgess (Chairman), Mr Peter Aldridge, Mr John Harlock, Mr Stewart McRae and Mr Stuart Twedde, Mr Ian Carkeek, Mr Ivan Jones, Mr Daniel Abernethy (General Manager and Secretary).

## Industry consultation

### *Annual Stakeholder Meeting*

Effective industry consultation is an underpinning element of the ADHIS Strategic Plan. A review of the ADHIS committee structure revealed new opportunities to engage with the dairy industry. One of these is an annual stakeholder meeting which was held in June 2008. The annual stakeholder meeting gathers a larger stakeholder group to provide strategic advice and input to the Board of ADHIS. Representatives of AB Companies, data processing centres, semen resellers, state dairy organisations, regional development programs, Australian Dairy Farmers and Dairy Australia joined farmers and the ADHIS Board to discuss new technology and current activities related to genetic improvement.

## Genetics Committee

This committee will meet early in 2009 to review genetic developments within ADHIS, namely the incorporation of genomic data into the calculation of Australian Breeding Values and the outcomes / recommendations from the APR validation project.

*Members:* Prof. Mike Goddard (Chairman, University of Melbourne), Dr Mick Carrick (Department of Primary Industries Victoria), Dr Julius Van der Werf (University of New England), Prof Frank Nicholas (Sydney University), Dr Mekonnen Haile-Mariam (University of Melbourne) and ADHIS Staff.

## Records Standards Committee

This committee will meet early in 2009 to discuss data related issues in the development stage of the Genetic Evaluation System re-development project.

*Members:* Mr Ivan Jones (ADHIS, Chairman), Mr John Stevenson (Dairy Express), Mr Peter Nish (Tasher), Mr Frank Treasure (HISWA and CHISWA), Dr Mike Larcombe (Mistro Group), Mrs Michelle Canavan (AUSherd) and ADHIS staff

## Type Assessment Committee

In 2008, meetings were held with Holstein Australia and Jersey Australia together with bull breeding companies to review and plan the Linear Type Evaluations for the coming year. Various improvements were made in the organisational aspects of the data collection which should improve the amount of data collected and ultimately increase the reliability of ABVs produced from this data.

# Herd fertility across Australia

## Background

InCalf aims to improve the fertility of Australian dairy herds. It is a national program that started in the mid-'90s following concerns about poor reproductive performance in many herds.

A two-year study of more than 200 commercial dairy herds across Australia at the start of the project found most of the variation in fertility between herds could be explained by management factors that were understood but not necessarily implemented on farms.

A logical starting point for the extension program was to provide farmers with an easy mechanism to analyse their herd fertility and identify areas requiring attention. This culminated in the development and release of the InCalf Fertility Focus report in March 2004. The report enables farmers to confidently compare the in-calf and not-in-calf rates of their herd from year-to-year and with other herds because of the stringent criteria used in the calculations.

It was a natural corollary to apply the same algorithms to the ADHIS dataset to follow trends in fertility in a large number of Australian dairy herds.

This is InCalf's second analysis of herds from across the nation and it describes changes in reproductive performance over the decade from 1997 to 2007.

## Long-term trend shows a decline in herd fertility

Herd fertility in all calving systems is lower than it was 10 years ago. After being reasonably stable from 1997 to 2001, there has been a small but on-going decline in the fertility of Australian dairy herds from 2002 onwards (see table below).

It is important to note the wide variation of in-calf rates achieved in herds (see the vertical lines around the middle herd on the graph on the next page). Although more herds have lower fertility than in previous years, other herds have maintained their fertility and not experienced the same decline. Ideally the in-calf rate typically achieved by herds would be increasing and there would be less variation in rates between herds.

## Factors contributing to the decline

Some of the decline in the overall in-calf rates is due to the changing population of milk recording herds. The decline was less marked in herds that stayed in milk recording and maintained the same calving pattern for four consecutive years. These herds provide a more accurate picture about what is happening within herds over time.



By Barry Zimmermann  
InCalf

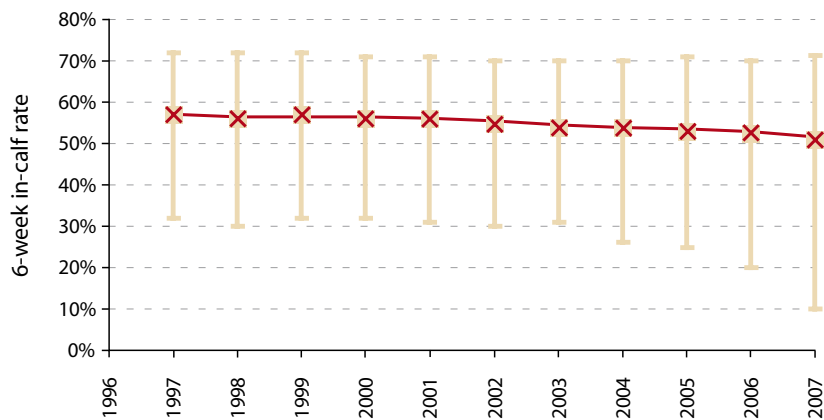


**Contact:**  
 Dr Barry Zimmermann  
 InCalf Project Leader  
 Level 2, Swann House  
 22 William Street  
 Melbourne Victoria 3000  
 Phone: 03 9620 7283  
 Fax: 03 9629 1051  
 E-mail: [bzimm@incalf.com.au](mailto:bzimm@incalf.com.au)  
 Web: [www.incalf.com.au](http://www.incalf.com.au) or [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au).

In-calf rates in 2007 are lower than they were 10 years ago					
Calving system	In-calf rate of the middle herd			Annual decline of these rates	
	In 1997	In 2001	In 2007	1997-2001	2001-2007
Seasonal	57% at 6 weeks	56% at 6 weeks	51% at 6 weeks	0.2% per year	0.8% per year
Split	55% at 6 weeks	55% at 6 weeks	52% at 6 weeks	0.0% per year	0.5% per year
Year-round	38% at 100 days	38% at 100 days	32% at 100 days	0.0% per year	1.0% per year



*The range of in-calf rates being achieved on farm is widening (the bars show the range of in-calf rates in seasonal herds)*



Several factors may have contributed to the decline in herd fertility over the past six years, such as:

- reduced body condition due to high grain and hay prices during the drought and subsequent feed-fibre shortage;
- longer spells of hot weather depressing cow and bull fertility;
- changes in farm systems and management including changes to calving systems, increased complexity of managing larger herds, and deliberately delaying mating to extend lactations; and
- maintenance of herd fertility not being as high a priority as other herd management issues.

While ADHIS does not collect the necessary data to assess these possibilities, the available data shows how some of the drivers behind in-calf rates have changed over the past six years.

To get in-calf, cows must be submitted for mating (naturally or through artificial insemination) and then conceive.

Submission rates are affected by cow body condition, non-cycling cows, heat detection and the calving pattern of the herd. From 2002 to 2007 we can say:

- Submission rates in the first 3 weeks from the start of mating in seasonal and split herds generally decreased slightly (1%).
- Heat detection efficiency decreased slightly (by 1%).
- Calving patterns have not changed significantly in either heifer or cow populations.

Submission rates in the second 3 weeks of the mating period would have been of considerable interest but this data was not available.

Similarly, conception rates cannot be assessed due to the limited amount of pregnancy test data that currently flows through to the ADHIS database. Although conception rates are the more accurate and preferred measure, information was available on non-return rates which are sometimes used to estimate conception rates. The non-return rate of all herds in the database decreased slightly (by 2%) over the past six years - in other words more cows have been returning to heat after insemination. Whether cows then conceive depends on factors such as semen quality, inseminator technique and bull health.

## Summary

Herds in the same region with the same calving system often had very different levels of fertility.

Furthermore there were herds in every region that did achieve commendable in-calf rates:

- about one-quarter of seasonal and split calving herds had 6-week in-calf rates of 60% or higher;
- about one-fifth of year-round calving herds had 100-day in-calf rates of 45% or higher.

This analysis shows most Australian herds could (and would benefit financially) by improving their fertility. The challenge seems to be to encourage people to act in multiple areas to improve the drivers of the in-calf rate.

For more information on the InCalf program visit [www.incalf.com.au](http://www.incalf.com.au) or [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au).

# Use milk recording to stop the spread of mastitis

Countdown Downunder was launched 10 years ago to improve mastitis control on Australian dairy farms. Better udder health increases dairy farm profitability and helps satisfy the domestic and export market demand for high quality dairy produce.

Countdown has helped build the industry capacity to improve udder health by publishing best practice guidelines, developing the skills of farmers and advisers, encouraging a team approach to mastitis control, and designing tools and services that promote the regular review of mastitis control in herds.

## The national milk cell count

Countdown's objective is to reduce the milk cell count of the national herd as elevated counts (except in the few days after calving) indicate mastitis.

Australia's milk cell count is 217,000 cells/mL. This measure is calculated from bulk milk cell counts provided by dairy processing companies for the 2007 calendar year and reported using the International Dairy Federation recommended method.



Changes in national bulk milk cell count since 2000.

This year's national milk cell count is 217,000 cells/mL – a level similar to the first measure in 2000. Australia is maintaining its position as a supplier of high quality milk despite intervening falls and rises in the cell count. These fluctuations follow extended dry conditions, feed shortages and, more recently, milk prices that reward volume.

## Changes over nine years

Most mastitis infections in herds are subclinical. This means there are no obvious signs of infection even though bacteria have entered the udder (usually via the teat end) and the body has mounted an immune response to contain the infection.

Milk recording provides an easy and accurate way of detecting subclinically infected cows. It can provide valuable information on the level of infection in herds (how many cows have high cell counts) and when they became infected within their lactation.

Countdown has been able to compare the level and timing of mastitis infection in milk recording herds this year to the situation nine years ago using ADHIS data. The situation in 2008 does not look that different to where it was in 2000.

The spread of infection to cows during lactation has decreased slightly and there has been a small increase in the proportion of heifers that are becoming infected within the first 30 days after calving.



By Pauline Brightling  
Countdown  
Downunder



**Contact:**

Dr Pauline Brightling  
Countdown Downunder  
Level 2, Swann House  
22 William Street  
Melbourne Victoria 3000  
Phone: 03 9620 7283  
Fax: 03 9629 1051  
E-mail:  
info@countdown.org.au  
Web:  
www.countdown.org.au



## Changes in some udder health indicators.

	2000	2008
Proportion of cows in the milking herd that became infected:		
Heifers with clinical or subclinical mastitis	27.0%	27.8%
Cows with clinical or subclinical mastitis	63.5%	61.9%↓
Timing of infection:		
Heifers infected at calving	4.8%	5.4% ↑
Cows infected at calving	9.6%	9.4%
Heifers first infected during lactation	22.2%	22.4%
Cows first infected during lactation	45.5%	43.8%↓

## Taking action to stop spread of infection on farm

What happens both day-to-day and month-to-month on dairy farms will affect the spread of mastitis in a herd.

Wearing gloves at milking, using teat disinfectant effectively, breaking the vacuum before taking cups off, milking infected cows last, regularly maintaining the milking machine and changing teatcup liners are just a few of the factors that help stop the spread of infection from cow-to-cow. And having a clean, dry calving environment reduces the risk of infection to cows and heifers at calving.

Taking immediate action when mastitis is actively spreading in the herd may help avert a clinical case outbreak. Information on spread of infection is readily available in a Countdown Mastitis Focus report for herds that participate in milk recording.

Farms that enter all intramammary antibiotic treatments into their herd management software can also assess the effectiveness of:

- their clinical case management;
- the calving system; and
- the previous dry cow strategy (this is important as it is usually the one opportunity to cure subclinical infections in herds).

In 2009 many herd improvement organisations will be able to generate Countdown Mastitis Focus reports on request. Contact your herd improvement centre to find out more or visit the Countdown website [www.countdown.org.au](http://www.countdown.org.au).





# National Herd Recording Statistics 2007-2008

Table 1: National and state totals and production averages.

State	Herds and cows recorded				Production averages						
	Number of herds	Included in averages	Excluded from averages	Total cows	Herd size	Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
Victoria	2,431	351,704	132,326	484,030	199.1	6,423	4.0	259	3.3	215	316
New South Wales	543	79,094	24,742	103,836	191.2	7,242	3.9	283	3.3	238	339
Queensland	334	30,197	20,986	51,183	153.2	5,922	4.2	250	3.5	207	330
South Australia	292	49,613	12,464	62,077	212.6	7,153	3.8	275	3.3	234	334
Tasmania	220	38,922	12,561	51,483	234	6,130	4.1	251	3.4	211	296
Western Australia	146	28,733	4,120	32,853	225	7,312	3.8	274	3.1	230	333
Australia	3,966	578,263	207,199	785,462	198	6,596	4.0	264	3.3	220	321
Victorian regions											
Northern	1,000	113,731	55,011	168,742	168.7	6,589	4.1	269	3.4	221	323
Eastern	876	141,116	43,129	184,245	210.3	6,199	4.1	252	3.3	206	312
Western	555	96,857	34,186	131,043	236.1	6,555	3.9	258	3.4	222	314

Table 1a: National totals and production averages 1997-2007.

Year	Herds and cows recorded				Production averages						
	Number of herds	Included in averages	Excluded from averages	Total cows	Herd size	Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
1997/1998	7,292	897,799	78,271	976,070	133.9	5,254	4.1	213	3.3	171	298
1998/1999	7,175	952,073	83,266	1,035,339	144.3	5,497	4.1	224	3.3	181	302
1999/2000	6,976	947,104	81,129	1,028,233	147.4	5,691	4.0	230	3.3	187	302
2000/2001	7,405	940,712	286,248	1,226,960	165.7	5,682	4.0	229	3.3	186	302
2001/2002	6,930	888,497	303,269	1,191,766	172	6,027	4.0	243	3.3	200	307
2002/2003	6,358	842,113	335,786	1,177,899	185.3	5,877	4.0	235	3.3	193	303
2003/2004	5,704	722,074	298,727	1,020,801	179	6,048	4.0	242	3.3	201	310
2004/2005	5,080	725,374	224,352	949,726	187	6,257	4.0	251	3.3	207	314
2005/2006	4,746	701,852	208,536	910,388	191.8	6,402	4.0	255	3.3	212	316
2006/2007	4,462	655,212	222,592	877,804	196.7	6,452	4.0	257	3.3	216	312
2007/2008	3,966	578,263	207,199	785,462	198	6,596	4.0	264	3.3	220	321

Table 2: Number of herds in fat production categories by region.

State	Total herds	Average fat production (kg per cow)									
		< 125	125-149	150-174	175-199	200-224	225-249	250-274	275-299	300-324	> 324
Victoria	2,431	56	59	131	162	246	365	393	331	167	125
New South Wales	543	7	7	21	26	40	64	102	79	65	61
Queensland	334	7	7	16	28	32	35	28	21	12	14
South Australia	292	3	4	11	16	22	41	42	56	41	30
Tasmania	220	2	6	20	19	28	33	16	16	21	16
Western Australia	146	1	1	7	2	11	11	27	32	31	11
Australia	3,966	76	84	206	253	379	549	608	535	337	257
Victorian regions											
Northern	1,000	18	16	36	49	82	119	143	144	63	65
Eastern	876	22	27	51	67	106	154	159	118	62	30
Western	555	16	16	44	46	58	92	91	69	42	30

# National Herd Recording Statistics 2007-2008

Table 3: Number of herds in protein production categories by region.

State	Total herds	Average protein production (kg per cow)									
		< 100	100-124	125-149	150-174	175-199	200-224	225-249	250-274	275-299	> 299
Victoria	2,431	49	90	160	257	405	398	350	192	91	43
New South Wales	543	6	9	28	37	66	108	95	62	42	19
Queensland	334	6	9	25	31	46	36	24	9	7	7
South Australia	292	2	6	15	23	37	63	46	43	18	13
Tasmania	220	2	13	28	26	29	20	20	14	11	14
Western Australia	146	1	3	5	8	17	25	36	29	6	4
Australia	3,966	66	130	261	382	600	650	571	349	175	100
Victorian regions											
Northern	1,000	15	25	44	87	144	141	148	81	28	22
Eastern	876	23	41	66	116	159	176	122	60	28	5
Western	555	11	24	50	54	102	81	80	51	35	16

Table 4: Production averages by age group.

Age group	Number of cows	Milk litres	Production averages				
			Fat %	Fat kg	Protein %	Protein kg	Lactation length days
2-year-old	98,410	5,823	3.93	229	3.33	194	326
3-year-old	100,398	6,401	3.97	254	3.37	216	324
Mature cow	379,455	6,848	4.02	275	3.33	228	319
Total	578,263	6,596	4.00	264	3.34	220	321

Table 5: Production averages by age group and mating type.

Age group	Number of cows	Average fat (kg)		Average protein (kg)	
		Artificially bred stock	Naturally bred stock	Artificially bred stock	Naturally bred stock
2-year-old	98,410	233	214	199	179
3-year-old	100,398	262	235	223	197
Mature cow	379,455	287	256	239	212
Total	578,263	272	248	228	205

Table 6: Production averages by percentage of artificially bred cows in herds.

Percentage of artificially bred cows in herd	Number of herds	Production averages		
		Milk litres	Fat kg	Protein kg
< 10	477	5,575	228	187
10-19	184	5,925	241	199
20-29	211	6,171	244	205
30-39	214	5,933	239	198
40-49	271	6,288	255	210
50-59	361	6,561	260	217
60-69	420	6,877	273	230
70-79	512	6,927	275	230
80-89	580	6,920	272	230
> 89	736	6,839	275	229
Total	3,966	6,596	264	220



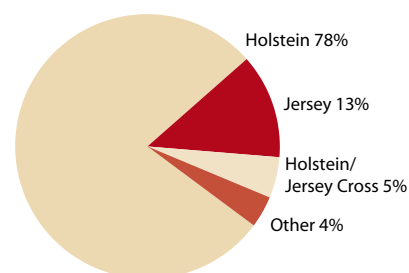
# National Herd Recording Statistics 2007-2008

Table 7 : Production averages by breed.

Breed	Number of cows	Production averages					
		Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
Holstein	392,581	7,034	3.87	272	3.28	230	325
Jersey	64,289	5,070	4.83	245	3.72	189	310
Holstein/Jersey Cross	24,882	6,042	4.38	265	3.53	213	309
Guernsey	1,612	5,215	4.28	223	3.42	178	327
Ayrshire	2,710	5,337	4.06	217	3.34	178	311
Dairy Shorthorn	290	4,509	3.67	165	3.23	146	307
Illawarra	5,414	5,781	3.97	230	3.39	196	313
Unknown Breed	76,765	6,062	4.02	243	3.34	202	315
Aust Red Breed	6,263	5,641	4.09	231	3.47	196	310
Brown Swiss	3,301	5,997	4.15	249	3.49	209	326
Other	156	4,650	4.72	228	3.77	185	304
<b>Total</b>	<b>578,263</b>	<b>6,596</b>	<b>4.00</b>	<b>264</b>	<b>3.34</b>	<b>220</b>	<b>321</b>

How do we decide which cows should be included in the statistics?

- Cows are considered for inclusion in the statistics if:
  - They had a lactation that reached 305 days between July 1 and June 30 of the following year or
  - They were terminated between these dates and had not reached 305 days prior to July 1.
- A cow is only counted once where:
  - The same data is supplied for the cow in more than one herd
  - More than one lactation record is supplied that satisfies the criteria
- There must be at least 30 cows in a herd in order for the cows to be included in the statistics.
- Cows which pass the above tests are included in the total number of recorded cows and hence in the average herd size.
- Cows are not included in the production averages if:
  - The termination date is less than the calving date
  - The lactation exclusion code is set to R indicating it should be rejected
  - The standard milk yield is not provided or yield is not valid
  - The first test date is before the calving date
- Cows are automatically excluded from the production averages for any of the following reasons:
  - Lactation length is less than 120 days
  - First test is more than 100 days after calving
  - Heifer that calved at less than 18 months of age
  - Interval between tests is greater than 150 days
- The EXCLUDED category includes any cow that calved in the year of analysis and had the opportunity to reach 305 days or be terminated in that year.



*Distribution of breeds.*

# National Herd Recording Statistics 2007-2008

Table 8: Production Averages by Breed, Age Group, Mating Type and Registration								
Breed	Age	Number of cows	Production Averages					
			Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
Holstein	2-year-old	73,997	6,128	3.80	233	3.28	201	329
	3-year-old	72,700	6,801	3.84	261	3.30	225	327
	Mature cow	245,884	7,375	3.89	287	3.27	241	324
	Total	392,581	7,034	3.87	272	3.28	230	325
	Artificially bred	293,871	7,187	3.85	277	3.27	235	327
	Naturally bred	98,710	6,578	3.91	257	3.28	216	320
	Pure bred	67,178	7,882	3.77	297	3.21	253	347
	Grade	325,403	6,858	3.89	267	3.29	226	321
Jersey	2-year-old	11,779	4,512	4.76	215	3.66	165	314
	3-year-old	11,466	4,900	4.83	237	3.73	183	311
	Mature cow	41,044	5,278	4.84	256	3.73	197	308
	Total	64,289	5,070	4.83	245	3.72	189	310
	Artificially bred	44,879	5,187	4.83	250	3.72	193	310
	Naturally bred	19,410	4,800	4.81	231	3.70	178	308
	Pure bred	15,377	5,523	4.89	270	3.73	206	323
	Grade	48,912	4,928	4.81	237	3.72	183	306
Holstein/Jersey Cross	2-year-old	4,357	5,232	4.35	228	3.49	183	314
	3-year-old	4,108	5,809	4.38	254	3.56	207	310
	Mature cow	16,417	6,315	4.39	278	3.53	223	307
	Total	24,882	6,042	4.38	265	3.53	213	309
	Artificially bred	13,081	6,259	4.37	273	3.53	221	309
	Naturally bred	11,801	5,800	4.40	255	3.51	204	308
	Pure bred	0	0	0	0	0	0	0
	Grade	24,882	6,042	4.38	265	3.53	213	309
Guernsey	2-year-old	287	4,293	4.37	187	3.45	148	324
	3-year-old	324	4,810	4.39	211	3.49	168	318
	Mature cow	1,001	5,610	4.23	237	3.38	190	331
	Total	1,612	5,215	4.28	223	3.42	178	327
	Artificially bred	875	5,478	4.26	233	3.39	186	332
	Naturally bred	737	4,901	4.30	211	3.44	169	320
	Pure bred	381	5,449	4.27	232	3.35	183	340
	Grade	1,231	5,142	4.29	220	3.43	177	323
Ayrshire	2-year-old	400	4,555	4.08	186	3.36	153	316
	3-year-old	498	5,012	4.08	204	3.36	168	315
	Mature cow	1,812	5,599	4.06	228	3.33	187	308
	Total	2,710	5,337	4.06	217	3.34	178	311
	Artificially bred	1,431	5,602	4.06	227	3.33	186	316
	Naturally bred	1,279	5,041	4.08	206	3.35	169	305
	Pure bred	700	5,708	4.05	231	3.29	188	332
	Grade	2,010	5,208	4.07	212	3.36	175	303

# National Herd Recording Statistics 2007-2008

Table 8: Production Averages by Breed, Age Group, Mating Type and Registration ... continued

Breed	Age group	Number of cows	Production Averages					
			Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
Illawarra	2-year-old	613	5,215	3.91	204	3.39	177	326
	3-year-old	1,173	5,240	4.01	210	3.43	180	317
	Mature cow	3,628	6,051	3.98	241	3.38	204	310
	Total	5,414	5,781	3.97	230	3.39	196	313
	Artificially bred	2,806	6,160	3.90	240	3.34	206	316
	Naturally bred	2,608	5,373	4.04	217	3.43	184	310
	Pure bred	2,179	6,027	3.89	234	3.34	201	313
	Grade	3,235	5,615	4.03	227	3.42	192	313
Unknown Breed	2-year-old	4,945	5,443	3.94	215	3.32	181	323
	3-year-old	8,139	5,793	4.05	235	3.41	197	320
	Mature cow	63,681	6,145	4.01	247	3.33	205	314
	Total	76,765	6,062	4.02	243	3.34	202	315
	Artificially bred	1,106	6,702	3.92	262	3.34	224	319
	Naturally bred	75,659	6,053	4.02	243	3.34	202	315
	Pure bred	0	0	0	0	0	0	0
	Grade	76,765	6,062	4.02	243	3.34	202	315
Aust. Red Breed	2-year-old	1,473	5,155	4.06	209	3.45	178	316
	3-year-old	1,295	5,475	4.12	225	3.51	192	318
	Mature cow	3,495	5,908	4.11	243	3.47	205	305
	Total	6,263	5,641	4.09	231	3.47	196	310
	Artificially bred	5,227	5,692	4.10	233	3.48	198	311
	Naturally bred	1,036	5,386	4.08	220	3.45	186	307
	Pure bred	793	7,227	3.86	279	3.55	256	341
	Grade	5,470	5,412	4.14	224	3.46	187	306
Brown Swiss	2-year-old	477	5,269	4.01	211	3.46	182	340
	3-year-old	603	5,631	4.06	229	3.47	195	330
	Mature cow	2,221	6,253	4.21	263	3.52	220	323
	Total	3,301	5,997	4.15	249	3.49	209	326
	Artificially bred	2,013	6,123	4.12	252	3.47	212	329
	Naturally bred	1,288	5,800	4.18	242	3.52	204	323
	Pure bred	950	6,463	4.05	262	3.45	223	341
	Grade	2,351	5,809	4.17	242	3.49	203	321
Other Breeds	2-year-old	82	4,002	4.03	161	3.38	135	320
	3-year-old	92	3,882	4.37	170	3.59	139	313
	Mature cow	272	4,955	3.88	192	3.32	165	299
	Total	446	4,559	4.20	184	3.45	155	306
	Artificially bred	183	5,422	3.78	205	3.30	179	315
	Naturally bred	263	3,958	4.19	166	3.46	137	299
	Pure bred	73	4,193	3.53	148	3.17	133	323
	Grade	373	4,630	4.10	190	3.42	158	302

# National Herd Recording Statistics 2007-2008

Table 9: Production averages by month of calving.

Month of calving	Number of cows	% of total	Production averages					
			Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
January	17,824	3.1	6,906	3.92	271	3.32	229	344
February	25,709	4.4	7,019	3.90	274	3.33	234	342
March	49,615	8.6	7,010	3.90	274	3.34	234	337
April	52,752	9.1	6,976	3.93	274	3.34	233	333
May	49,558	8.6	6,770	3.93	266	3.36	227	326
June	47,168	8.2	6,663	3.96	264	3.36	224	318
July	67,335	11.6	6,374	4.04	258	3.36	214	314
August	116,940	20.2	6,353	4.11	261	3.36	214	309
September	81,770	14.1	6,416	4.04	259	3.32	213	311
October	37,812	6.5	6,316	4.01	253	3.28	207	318
November	17,789	3.1	6,472	3.98	257	3.27	212	335
December	13,991	2.4	6,746	3.95	266	3.27	221	343
Australia	578,263	100	6,596	4.00	264	3.34	220	321

Table 10: Distribution of calvings by month and region.

State	Percentage of cows that calved each month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Victoria	1	2	8	9	9	9	14	24	15	6	2	1
New South Wales	8	9	11	9	8	7	9	11	9	7	6	6
Queensland	8	9	11	10	10	9	9	8	7	6	6	6
South Australia	6	9	11	9	7	6	8	12	13	9	6	5
Tasmania	1	1	5	7	3	2	7	36	26	9	2	1
Western Australia	7	10	13	10	8	7	6	9	9	7	6	5
Australia	3	4	9	9	9	8	12	20	14	7	3	2
Victorian regions												
Northern	1	2	10	10	6	3	6	28	22	9	2	1
Eastern	1	2	6	8	7	8	19	28	15	5	1	1
Western	1	3	7	10	17	19	16	12	8	4	1	1

Table 11: Production averages of stud cows.

Breed	Number of cows	Production averages					
		Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
Holstein	67,178	7,882	3.77	297	3.21	253	347
Jersey	15,377	5,523	4.89	270	3.73	206	323
Guernsey	381	5,449	4.27	232	3.35	183	340
Ayrshire	700	5,708	4.05	231	3.29	188	332
Illawarra	2,179	6,027	3.89	234	3.34	201	313
Aust Red Breed	793	7,227	3.86	279	3.55	256	341
Brown Swiss	950	6,463	4.05	262	3.45	223	341
Total	87,558	7,372	3.98	290	3.32	243	342

# National Herd Recording Statistics 2007-2008

Table 12: Production averages of artificially bred stud cows

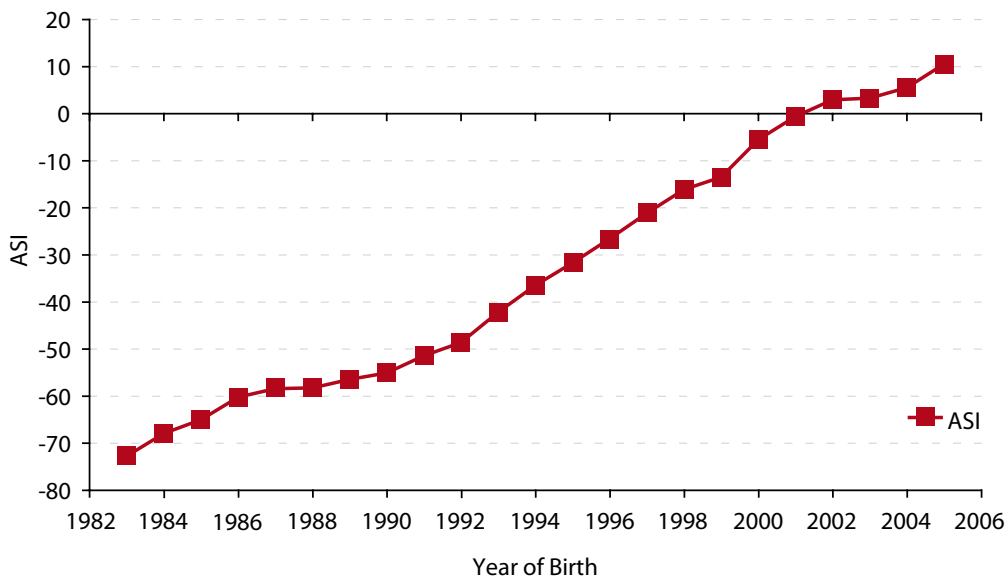
Breed	Number of cows	Production averages					
		Milk litres	Fat %	Fat kg	Protein %	Protein kg	Lactation length days
Holstein	53,608	7,963	3.77	301	3.22	256	348
Jersey	12,191	5,639	4.87	275	3.73	210	323
Guernsey	253	5,674	4.29	243	3.36	190	340
Ayrshire	403	6,028	4.01	242	3.28	198	336
Illawarra	1,189	6,417	3.81	244	3.29	211	314
Aust Red Breed	746	7,240	3.86	279	3.55	257	339
Brown Swiss	622	6,434	4.10	264	3.47	223	341
Total	69,012	7,485	3.98	294	3.31	246	343

Table 13: Victorian production averages, 1930/1931 – 2007/2008.

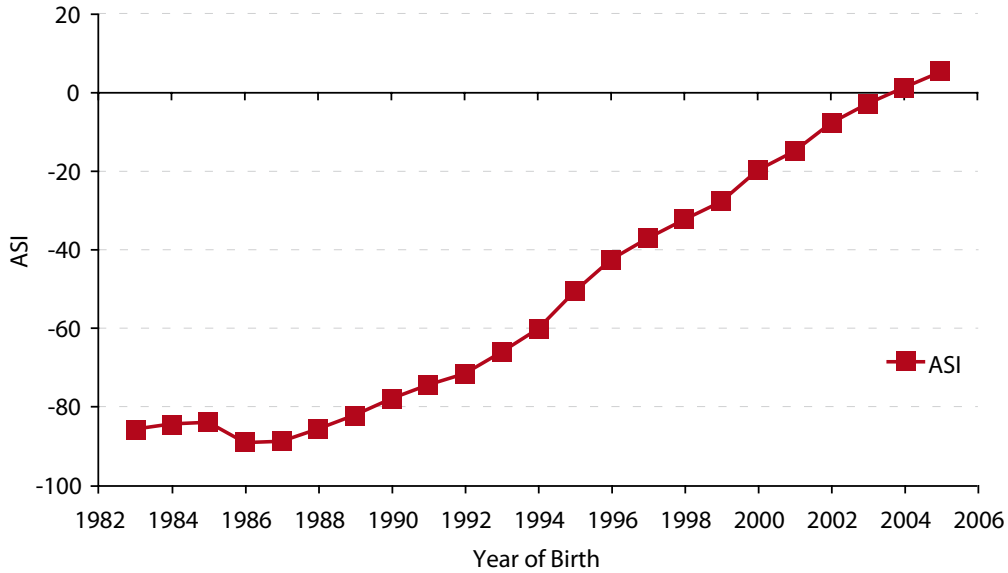
Year	Total herds	Total cows	Herd size	Production averages				
				Milk litres	Fat %	Fat kg	Protein %	Protein kg
1930/1935	2,984	91,328	31	2,295	4.7	107		
1935/1940	2,324	80,883	35	2,210	4.9	108		
1940/1945	1,082	39,368	36	2,154	4.9	105		
1945/1950	2,329	90,015	39	2,301	5.0	114		
1950/1955	3,192	141,387	44	2,284	5.0	114		
1955/1960	3,461	187,306	54	2,485	5.1	126		
1960/1965	4,003	248,791	62	2,643	5.0	132		
1965/1970	5,041	368,300	73	2,793	4.9	137		
1970/1975	4,314	382,925	89	2,942	4.7	139		
1975/1980	2,456	256,744	105	3,159	4.5	143		
1980/1985	3,913	423,120	108	3,471	4.5	155		
1985/1990	4,399	527,240	120	4,047	4.4	180	3.3	134
1990/1991	4,402	568,885	129	4,245	4.4	186	3.4	142
1991/1992	4,061	517,760	128	4,477	4.4	196	3.4	150
1992/1993	4,293	552,445	129	4,708	4.4	205	3.4	158
1993/1994	4,606	604,160	131	4,962	4.3	212	3.3	166
1994/1995	4,591	574,674	125	4,976	4.2	210	3.3	164
1995/1996	4,685	606,198	129	5,142	4.2	215	3.3	169
1996/1997	4,928	619,470	126	4,984	4.2	208	3.3	163
1997/1998	4,328	624,428	144	5,084	4.1	208	3.3	167
1998/1999	4,156	641,106	154	5,350	4.1	220	3.3	177
1999/2000	3,904	622,281	159	5,570	4.1	227	3.3	184
2000/2001	4,267	761,219	178	5,527	4.0	223	3.3	182
2001/2002	4,198	757,029	180	5,969	4.0	240	3.3	198
2002/2003	3,831	738,329	193	5,705	4.0	230	3.3	187
2003/2004	3,414	624,002	183	5,841	4.0	236	3.3	194
2004/2005	3,079	586,566	191	6,083	4.0	245	3.3	202
2005/2006	2,933	572,906	195	6,205	4.0	248	3.3	206
2006/2007	2,775	554,136	200	6,245	4.0	250	3.4	209
2007/2008	2,431	484,030	199	6,423	4.0	259	3.3	215

# 2008 Australian Breeding Values

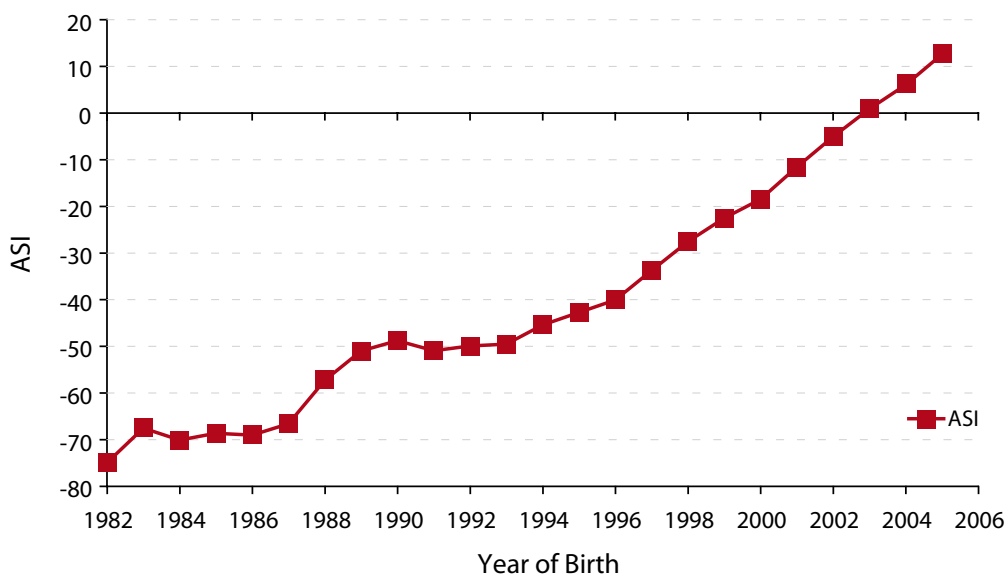
Genetic trend for  
artificially bred  
Holstein cows – ASI



Genetic trend for  
artificially bred  
Jersey cows – ASI



Genetic trend for  
artificially bred  
Red Breed cows – ASI



Data on other breeds  
available from ADHIS



## August 2008 ABVs – Active Publishable Holstein bulls – Top 50 APR™ – Proven in Australia

To be listed, a bull must be actively marketed and have a publishable production, workability and type ABV. Official ABVs for all top bulls can be found on the ADHS website.

Rank*	Bull ID	Bull Name	Profit indexes			Production Traits						Non-Production Traits										Source									
			APR \$	Rel \$	ASI \$	Prot %	L kg	Milk %	Fat %	Rel	No. Dtrs	No. Heads	RIP %	Surv	Rel Type Syst	Over Mam	Rel Spd	Milk Temp	Like Rel	Dtr Fert	CC		Rel	Lwt	Calving Ease	Rel					
1	GOLDSMITH	Topspeed H Potter	143	80	143	33	0.37	507	45	0.34	87	82	44	24	102	63	99	97	70	104	102	103	81	66	78	102	103	91	GAC		
2	DUNTROON	Wondorlee Donor Tycoon	134	75	115	29	0.30	471	32	0.17	84	72	27	20	103	56	100	100	63	99	103	104	78	159	74	107		94	ABS		
3	DONANTE	Hill Valley Don Andante ET	130	81	107	39	-0.09	1638	40	-0.43	89	102	35	9	105	64	112	112	74	104	101	102	80	112	82	102	95	94	GAC		
4	PONITIFF	Illawamba Donor Mystery	128	72	106	24	0.20	478	43	0.33	80	52	28	17	103	54	105	103	64	105	102	102	72	113	68	99		88	ABS		
5	JOCKO	Jocko Besn	124	95	96	40	-0.05	1599	22	-0.67	98	824	211	17	107	91	109	108	95	102	104	104	93	100	84	101	97	103	101	AGRI	
6	LANCELOT	Lancelot	122	92	105	30	0.15	829	33	-0.03	97	466	108	18	106	82	105	106	94	104	101	102	91	100	55	92	94	103	21st		
7	DONOR	Elite Mountain Donor Imp (E-T)	122	99	102	36	0.12	1089	21	-0.37	99	32438	2747	16	105	99	106	104	99	104	101	103	99	100	99	118	99	106	98	ABS	
8	ALFACOLIN	Barkly Donor Colin	120	85	117	29	0.26	578	37	0.18	93	219	76	42	103	68	110	105	79	103	101	100	83	97	84	104	100	85	21st		
9	PIERRE	Top Deck KO Pierre	120	90	103	22	0.33	173	29	0.32	96	294	59	15	104	77	105	106	89	105	103	104	88	100	64	62	95	96	BOS		
10	DALEK	Manna Farm Donor Dalem	119	82	85	27	0.11	775	23	-0.15	89	100	48	28	105	66	103	103	77	104	102	103	79	104	58	123	81	103	97	GAC	
11	LUCKYDIME	Haverdale Lucky Dime	118	80	110	26	0.19	602	43	0.25	87	82	34	29	101	72	103	97	84	104	103	103	75	110	64	99	97	103	89	ABS	
12	CAREY	Marion Dale Carey	113	99	87	30	0.04	1026	25	-0.27	99	3934	694	11	102	98	95	93	97	101	102	103	99	103	98	116	99	97	103	89	GAC
13	ALTBREAKOUT	JiseVleedt 135 Breakout	113	90	87	13	0.20	101	45	0.59	96	318	64	27	104	78	103	103	89	99	103	102	85	98	92	99	100	79	21st		
14	YUKON	Carenda Yukon	112	68	115	24	0.21	486	52	0.44	75	46	22	39	103	56	109	106	61	103	102	104	69	69	58	102				GAC	
15	INGMILLER	Glenmead Miller	112	75	75	15	0.26	32	24	0.32	82	41	16	34	103	61	99	100	78	103	101	100	64	135	78	97				LIC	
16	NINESCAPE	Glen Juristan Ninescape	111	78	74	20	0.05	653	32	0.06	84	86	40	23	104	68	109	108	75	105	102	103	82	121	71	94				GAC	
17	NINEFOLD	Keymer Nina WinLuke	108	99	82	24	0.06	780	30	-0.05	99	7198	1016	16	105	97	106	105	98	100	103	103	99	102	98	100	99	99	96	GAC	
18	INFORMER	Hill Valley Bascar Acme	107	95	89	23	0.10	631	37	0.14	99	4083	685	21	104	81	114	116	97	102	102	104	99	102	93	102	97	104	96	GAC	
19	VEE	Auldreekie Webster Vee	103	85	118	38	0.11	1180	35	-0.23	92	135	44	19	100	72	101	100	83	101	103	102	83	95	60	59	64	99	99	ABS	
20	HALLOWED	Hill Valley Amen	103	68	86	26	0.17	627	20	-0.09	73	39	19	10	102	59	101	103	69	105	103	104	71	92	60	100				GAC	
21	ABSTENNYSON	Burlane Tenyson	102	78	72	28	-0.13	1306	30	-0.37	85	52	20	15	104	68	105	106	82	102	102	102	71	129	70	102				ABS	
22	JUSTIFIER	Topspeed Justifier	101	83	72	22	0.14	538	16	-0.10	90	89	49	12	105	69	109	108	78	105	102	103	83	101	60	116	79	101	100	95	GAC
23	BULLBAR	Giomar Bullbar RB	100	77	71	18	0.22	221	17	0.11	86	71	39	15	104	59	110	106	68	102	102	103	73	130	76	101	103	95	96	GAC	
24	THRUSTERJET	Wondorlee Goldbullion Turbine	100	72	52	12	0.15	162	16	0.13	78	54	33	27	106	60	109	103	68	102	103	104	76	159	67	102				GAC	
25	IDEALAGS	Ideal AGS	99	98	78	19	0.16	377	27	0.16	99	4074	702	19	101	97	107	112	98	100	103	102	99	102	97	135	99	101	100	93	AGRI
26	VACUM	Auldreekie Addison Vacum	99	85	65	22	0.14	525	10	-0.18	91	140	44	23	105	70	103	100	81	103	105	104	83	101	61	110	85	99	101	62	ABS
27	GOBETWEEN	Hill Valley Don Goulburn	98	80	88	28	0.10	837	25	-0.16	89	122	45	39	101	62	103	100	73	103	100	101	76	143	79	104	98	82		GAC	
28	LORETO	Avalon Bullion Labyrinth	98	79	75	16	0.04	538	43	0.29	86	87	35	12	104	66	108	103	79	104	103	103	80	102	75	101				ABS	
29	ALTADCEPT	Elmar Decept	97	75	85	27	0.05	922	29	-0.15	84	61	31	8	101	57	100	102	66	101	102	103	66	113	75	102				21st	
30	GIBBON	Gibbon	94	98	68	26	0.11	761	5	-0.39	99	3023	544	17	102	97	101	98	97	100	103	102	98	101	97	148	99	103	98	88	AGRI
31	ALTAKOROIT	Graymar Donor Koroit	93	82	78	32	-0.01	1218	16	-0.52	90	116	40	24	103	66	100	98	73	102	100	102	78	101	63	116	83	104		21st	
32	ALTABINGO	De Crab Bingo	93	94	65	18	0.09	494	22	0.01	98	577	162	24	106	86	104	101	92	104	103	104	93	96	78	116	94	100	101	83	21st
33	GIBHECTOR	Select Gibbon Hector	92	78	79	26	0.12	722	18	-0.19	87	81	41	16	102	61	97	94	66	101	101	101	71	101	57	109	79	100		AGRI	
34	MYLUCK	Joax Myluck	91	74	96	21	0.07	663	42	0.20	86	100	45	25	106	64	117	115	72	103	102	103	80	55	70	103				GAC	
35	SCUPPER	Strathavon Shopre Donor	91	79	80	28	-0.07	1178	34	-0.23	87	81	48	13	102	60	104	105	66	102	101	102	79	120	79	107				GAC	
36	NULDMECHIOR	Melchior	89	96	74	14	0.29	-95	21	0.34	99	861	176	11	104	91	102	99	88	104	101	102	93	104	91	62	96	97	101	73	BOS
37	JUNCO	Purnim Gold Challenge	89	80	57	24	-0.01	915	10	-0.42	87	92	37	13	105	66	107	104	80	104	104	104	82	117	77	102				ABS	
38	QUIDDITCH	Strathraie Quidditch	88	78	87	21	0.07	663	42	0.20	86	100	45	25	106	64	117	115	72	103	102	103	80	55	70	103				GAC	
39	ALTAJUSTIFY	Dirigo Justify-ET	88	91	69	22	0.07	652	21	-0.10	96	322	109	17	102	84	100	100	87	104	102	102	87	96	76	98	90	92		21st	
40	PAVILION	Giomar Pavilion	87	80	66	16	-0.04	686	42	0.19	87	86	44	31	104	64	106	101	73	103	101	102	80	109	78	101	98				GAC
41	WINARGYLE	Country Road Winsome Argyle	86	72	82	21	0.21	354	22	0.10	78	48	29	25	101	60	107	107	73	102	100	102	71	89	65	98				GAC	
42	LIONHART	Marion Dale Lion Hart	86	75	60	28	-0.19	1384	25	-0.50	83	63	28	11	104	59	113	109	70	103	103	103	73	105	73	97	101	70		AGRI	
43	GOLDBULLION	Elite Gold Bullion Imp-ET	84	99	58	18	0.01	659	21	-0.10	99	17551	1794	16	106	99	110	107	99	102	103	102	67	131	59	96				WVWS	
44	BOYSDREAM	Florence Park Boys Dream	84	68	57	20	0.05	641	13	-0.21	75	49	21	26	103	61	102	104	60	102	100	103	67	131	59	96				GAC	
45	BLACKSTORM	Ieravale Blackstorm	84	77	51	22	0.03	778	4	-0.43	85	81	45	16	106	58	115	111	66	105	102	103	80	114	72	100				GAC	
46	PARTLUCK	Perfect Partners Lucky Puzzle	82	79	69	25	-0.07	1067	27	-0.26	84	81	34	11	104	70	116	116	78	103	101	103	83	120	70	105				GAC	
47	SOLINJOC	Solin Joc	82	72	56	25	0.03	862	3	-0.50	82	60	25	20	104	54	105	101	65	100	103	103	65	110	71	103				AGRI	
48	BILLIONAIRE	Strathraie Goldbullion Billionaire	81	82	69	19	0.07	562	28	0.06	89	108	42	13	103	66	113	111	78	105	104	104	84	78	79	104	100	75		GAC	
49	BELLTOWER	Hill Valley Don Allwyn	81	84	59	17	0.13	380	13	-0.05	91	137	56	31	103	68	106	105	77	103	103	102	85	101	63	103	84	100	102	84	GAC
50	EXCHANGE	Giomar Fatal Lance-ET	81	97	56	15	0.28	-8	-1	-0.01	99	1625	377	19	103	90	99	105	91	103	100	101	98	105	93	111	98	100	104		GAC

# 2008 Australian Breeding Values

## August 2008 Interbull ABV(i)s – Active Holstein bulls – Top 50 APR™ – Proven Overseas

To be listed, a bull must be actively marketed and have a publishable production ABV(i). Official ABVs for all top bulls can be found on the ADHS website.

Rank*	Bull ID	Bull Name	Genetic Codes	Profit Indexes			Production Traits						Non-Production Traits						Source				
				APR \$	Rel \$	ASI \$	Prot %	Milk L	Fat %	Rel %	1st Ctry	1st Dtrs	Surv	Rel	Over Type	Mam Syst	Rel	CC		Rel	Lwt	Calving Ease	Rel
1	7H6417	O-Bee Manfred Justice		158	76	101	30	0.11	875	34	-0.05	85	USA	25358	108	69	98	103	83	103	79	WWS	
2	BILSROW	Bilrow Jock	TVTL	140	59	110	33	0.08	1060	40	-0.07	70	GBR	88	104	48	105	100	61	132	65	21st	
3	NLDRAFAEL	Holim Rafael	CV	132	62	99	31	0.10	952	29	-0.16	72	NLD	5506	105	57	103	104	70	145	101	BOS	
4	DNKEATON	V Eaton		132	81	85	19	0.28	168	21	0.21	84	DFS	9102	107	73	108	109	76	104	99	BOS	
5	GGJARDIN	Jardin		131	55	121	37	0.22	941	29	-0.16	63	DEU	182	104	48	108	105	81	72	103	ABS	
6	NZGHOSANNA	Vaiden Hi Applause S2F		128	51	102	19	0.33	39	37	0.50	65	NZL	65	104	34	91	92	54	105	71	LIC	
7	NZGPASTURE	Lakeside S D Meadows		122	58	95	24	0.25	399	26	0.13	68	NZL	72	103	43	99	97	129	74	100	LIC	
8	29HOT0947	ABS Riviera		122	61	92	34	0.06	1114	20	-0.39	71	GBR	128	103	53	104	103	67	144	74	ABS	
9	NZGGLENMEAD	Glenmead KR Windmill		118	59	103	14	0.35	-176	48	0.80	69	NZL	81	103	46	97	94	59	106	75	LIC	
10	93FFW21	Wizzard		114	55	103	23	0.04	772	59	0.37	62	DEU	145	102	50	104	103	61	108	70	21st	
11	NZGEARLYTIME	Buchanans Earlytime S2F		113	57	94	28	0.24	566	16	-0.12	68	NZL	98	103	40	95	96	59	95	71	LIC	
12	NZGSQUALL	SRB Nellisens Stormline		113	57	90	17	0.21	227	39	0.42	67	NZL	63	103	42	95	93	56	107	72	LIC	
13	PATUR	Patur AD		113	61	79	30	0.04	1020	17	-0.38	74	FRA	259	103	50	98	108	61	142	78	LIC	
14	NZGKILMORY	SRC Bagworth Kilmory		112	59	96	19	0.17	383	45	0.41	69	NZL	91	101	44	97	94	59	102	77	LIC	
15	STOLJOC	Stol Jock	TV	112	60	88	34	0.02	1237	19	-0.48	71	FRA	94	106	48	111	104	58	116	70	AGRI	
16	NEWLOOK	Newlook		112*	73	81	23	0.19	477	19	-0.02	76	FRA	6988	102*	68	101	99	66	145*	83	AGRI	
17	OHGJOSE	Jose		110	55	81	27	-0.12	1221	42	-0.14	62	DEU	107	107	48	110	113	59	116	69	21st	
18	ROSEO	Roseo Jock		110	62	79	29	0.02	1027	20	-0.34	73	FRA	139	103	52	101	103	61	152	74	21st	
19	BOSFLAMBO	Maire Pierre Flamboyant		109	55	107	24	0.26	369	37	0.31	66	NZL	81	103	38	107	104	57	59	68	BOS	
20	NZGBULLION	Rojan HB Bullion		107	61	85	12	0.23	7	43	0.61	71	NZL	169	104	48	102	101	59	102	82	LIC	
21	GGWASCOL	Mascal	TV	105	56	72	22	0.08	679	23	-0.09	63	DEU	232	105	50	101	103	60	142	73	ABS	
22	NZGCLOUT	Reilley's Might S1F		105	56	70	12	0.18	102	31	0.38	68	NZL	81	104	41	94	94	57	96	76	LIC	
23	VANRAUL	Vanzetti Valentine Raul	TLTV	104	69	104	38	-0.01	1428	31	-0.44	82	ITA	6192	100	60	104	104	76	100	100	WWS	
24	GGJANCKER	Jancker		104	54	90	24	0.16	590	28	0.04	61	DEU	143	101	47	107	106	56	123	68	ABS	
25	NZGRENEGADE	Glenmead FR Renegade	CV	104	64	89	30	0.20	734	10	-0.30	75	NZL	9257	103	53	97	97	63	102	93	LIC	
26	7H8081	Ensenada Taboo Planet ET	TRTVTL	104	48	75	31	-0.12	1371	26	-0.47	56	USA	67	105	44	114	109	55	128	49	GAC	
27	NLDKANVAS	Delta Canvas	RC	102	60	104	38	-0.12	1645	44	-0.38	70	NLD	1149	102	53	102	103	66	75	85	BOS	
28	ALTACASSA	Holim Cassa		102	79	76	22	0.17	476	18	-0.02	83	NLD	1498	104	74	100	99	76	103	103	21st	
29	ALTADYNASTY	De Crob Dynasty	CV	101*	90	95*	30	0.17	762	22	-0.16	97	AUS*	463	99	74	102	103	77	105*	93	21st	
30	NZGROCKFEEST	SRC Glenmeade Rockfest		101	59	78	12	0.27	-98	33	0.54	69	NZL	88	103	44	97	95	59	104	78	LIC	
31	SUBURN	Suburn		99	51	100	34	0.01	1244	33	-0.29	62	DEU	99	105	45	114	110	60	80	68	107	GAC
32	SUBURN	Suburn		96	58	74	26	0.04	891	21	-0.25	69	FRA	70	105	47	113	107	57	118	68	109	AGRI
33	NZGDAUNTLESS	Macfarlanes Dauntless	TV	94	64	82	19	0.15	387	34	0.25	75	NZL	10820	100	52	95	95	63	107	93	LIC	
34	REDNA	Redna Ely		93	50	84	25	0.18	592	17	-0.12	61	DEU	134	103	41	111	109	56	96	69	99	ABS
35	REDNA	Redna Ely		93	61	64	21	0.05	666	18	-0.15	72	FRA	106	106	51	99	105	60	92	72	96	AGRI
36	REDNA	Redna Ely		92	56	71	32	-0.11	1397	19	-0.58	71	FRA	92	104	45	108	102	58	140	71	103	AGRI
37	NZGSUAVE	SRB Monowal Debonair	TVTL	92	51	68	11	0.27	-129	24	0.43	65	NZL	64	104	33	95	95	54	111	71	96	LIC
38	NACTIF	Nactif		91*	73	55	21	0.10	595	3	-0.32	77	FRA	17791	104*	67	103	103	66	100	100	55	AGRI
39	ROSBERTIL	Beekmanshoeve Bertil		90	54	78	22	0.18	458	19	-0.01	67	NLD	155	101	42	104	106	61	120	76	100	BOS
40	AMBSPICY	Canaan Halls Spicy		90	55	63	17	0.11	400	21	0.05	67	NZL	83	104	40	102	102	53	130	75	99	BOS
41	NLDADAPT	De Crob Adapt	TLTV	89	61	75	20	0.23	301	13	0.01	70	NLD	1354	101	55	101	102	68	125	85	103	BOS
42	NLDADAPT	Huddleston Spooky		89	55	68	22	0.07	675	18	-0.16	69	GBR	83	104	44	106	106	61	134	62	103	21st
43	NLDADAPT	Trelaze Do		88	54	77	28	0.03	999	19	-0.34	68	FRA	61	103	42	102	103	57	125	66	104	AGRI
44	NLDADAPT	Sizum Jock		87	56	67	22	0.02	784	21	-0.17	71	FRA	91	104	45	105	106	58	113	71	98	AGRI
45	NLD974794	Delta Paramount		85	66	68	32	-0.04	1278	8	-0.67	77	NLD	175	104	57	105	109	71	88	86	98	BOS
46	NZGWINNER	Bagworth Bells Prizewinner		83	68	91	22	0.10	621	41	0.21	74	NZL	791	103	53	105	100	64	74	90	105	LIC
47	NZGWINNER	Delta Roppa		82	53	91	21	0.05	671	15	-0.19	66	NLD	120	106	40	108	112	58	106	73	98	BOS
48	GDORPHIN	Orphin		82*	72	57	21	0.06	665	9	-0.28	79	FRA	11373	102*	64	101	96	67	133*	87	105	21st
49	SZRAY	Zial Addison Ray	TVTL	82	53	54	22	-0.01	846	11	-0.37	64	ITA	191	104	42	106	110	56	125	65	99	GAC

\* ABVs contain Australian data, all other traits are ABV(i)s.

## August 2008 ABVs – Active Publishable Jersey bulls – Top 20 APR™ – Proven in Australia

To be listed, a bull must be actively marketed and have a publishable production, workability and type ABV. Official ABVs for all top bulls can be found on the ADHIS website.

Rank*	Bull ID	Bull Name	Defect Codes	Profit Indexes		Production Traits													Lwt	Source										
				APR \$	Rel ASI	Prot kg	Milk L	Fat kg	%	Rel	No. Dtrs	No. Heads	% RIP	Surv	Rel Type	Mam Syst	Rel	Milk Spd			Temp	Like	Rel	Dtr Fert	CC	Rel				
1	VALERIAN	Kaarmona Valerian		151	78	125	31	0.28	539	37	0.14	87	88	42	11	105	59	109	105	68	103	104	104	79	97	78	103	GAC		
2	AMBMANHATTEN	Okura Manhatten-ET S3J		140	90	131	28	0.39	297	43	0.51	95	305	61	24	102	76	106	97	92	104	103	102	92	95	95	106	BOS		
3	NZGMINTREL	William Minstrel		132	86	131	18	0.63	-336	53	1.35	93	190	35	18	102	70	111	102	85	104	104	104	83	69	94	106	LIC		
4	BARTPOWER	Daraway Flowerpower Satira		104	81	73	22	0.04	609	19	-0.27	87	110	51	23	105	70	118	117	77	102	102	103	85	135	72	99	GAC		
5	TAILBOARD	Nowell Tairan		102	80	86	14	0.35	-63	33	0.69	88	110	49	40	101	62	110	103	68	103	102	100	80	99	55	122	79	100	GAC
6	FARMSTEAD	Bushlea Etta FY Hallmark		94	76	66	17	0.12	345	19	0.00	84	82	43	28	105	60	107	103	67	103	103	105	78	102	70	99	GAC		
7	NZGBANGA	Loxlea Acl Oswald		93	78	98	10	0.66	-606	35	1.28	85	59	18	18	99	63	94	97	78	103	102	100	75	92	80	102	LIC		
8	FLOWERPOWER	Claydon Park Flower Power		93	98	82	24	0.06	635	23	-0.21	99	5112	683	16	104	97	114	114	97	102	103	104	99	99	74	99	100	ABS	
9	FUTUREARM	Daraway Armada Futura		90	74	88	24	-0.12	873	42	-0.09	82	73	38	23	101	58	103	101	62	101	103	104	81	101	67	105	GAC		
10	OUTINFRONT	Lightwood Leda		88	96	83	26	0.03	714	22	-0.30	99	1448	279	17	104	88	115	106	95	92	101	102	98	97	90	118	96	103	GAC
11	TESTRUN	Livewire Lemvig Thor-ET		88	82	79	11	0.38	-210	32	0.81	90	112	54	17	102	64	108	101	68	102	101	102	82	99	60	100	83	101	GAC
12	PASSIVE	Bercar Passive		88	92	73	9	0.31	-156	35	0.82	97	504	140	22	105	78	107	103	89	101	101	101	94	101	74	98	91	102	GAC
13	CLEARCUT	Jardie Clearcut		87	83	65	14	0.20	144	20	0.23	90	116	48	20	104	67	107	105	77	103	105	104	83	104	61	78	82	102	GAC
14	BADGER	Beulah Taranak Badger		84	84	73	16	-0.02	499	40	0.25	92	147	68	29	105	68	117	109	73	100	102	102	83	97	64	111	85	107	GAC
15	MEDIATOR	Silhouette Mediator		83	82	80	5	0.73	-853	24	1.31	89	109	44	22	102	65	116	106	72	99	100	99	84	102	56	110	81	106	GAC
16	NZLEIORD	Van Der Fits Fjord GR		82	97	62	0	0.45	-614	37	1.32	99	810	128	14	103	92	104	103	91	102	102	102	95	102	91	106	98	102	LIC
17	LANDLINE	Echo Glen Alder		78	97	70	20	0.06	502	21	-0.10	99	1692	393	14	104	94	99	99	93	102	101	102	98	98	95	86	98	101	GAC
18	SSPRIDE	Eryln SS Pride GR		77	95	56	1	0.20	-232	44	1.08	98	930	167	13	106	86	99	100	91	103	102	103	96	100	87	97	96	102	LIC
19	RHUMONA	Kaarmona Rhumba		74	72	49	15	-0.02	458	17	-0.15	79	57	23	15	105	62	109	98	67	104	107	105	74	111	65	105	103	GAC	
20	NZGPERO	Arcachie Chad Pero		68	77	71	9	0.27	-104	36	0.78	84	51	16	15	99	62	92	94	77	103	102	100	71	98	79	103	103	LIC	

## August 2008 Interbull ABV(i)s – Active Jersey bulls – Top 16 APR™ – Proven Overseas

To be listed, a bull must be actively marketed and have a publishable production ABV(i). Official ABVs for all top bulls can be found on the ADHIS website.

Rank*	Bull ID	Bull Name	Profit Indexes			Production Traits													Lwt	Source										
			APR \$	Rel	ASI \$	Prot kg	Prot %	Milk L	Fat kg	Fat %	Rel	1st Ctry	1st Dtrs	Surv	Rel	Over Type	Mam Syst	Rel			CC	Rel								
1	35JUV24	Tawa Grove Maunga Et S3J	134	63	120	16	0.47	-156	56	1.22	75	2068	102	42	100	98	60	116	92	102	102	102	102	102	102	102	102	102	BOS	
2	NZGDODDY	Magheracanon Duddy GR	118	69	109	15	0.54	-291	42	1.09	76	10176	102	46	104	102	60	108	108	108	108	108	108	108	108	108	108	108	108	LIC
3	NZGNOONTIME	Shepherd's Noontime	117	58	97	15	0.39	-89	38	0.81	71	144	104	37	95	97	51	127	77	103	103	103	103	103	103	103	103	103	LIC	
4	NZGCAPSTAN	South Land Capstan S3J	114	56	109	9	0.69	-663	47	1.56	68	83	100	33	92	96	51	103	75	102	102	102	102	102	102	102	102	102	LIC	
5	NZGNEVY	Richies Jace Thone A364	113	53	93	19	0.17	323	42	0.46	66	156	107	52	123	113	58	119	55	108	108	108	108	108	108	108	108	108	AGRI	
6	NZGMBVY	Noakes Navy S2J	112	53	105	14	0.46	-202	46	1.07	70	163	100	29	95	96	49	118	75	99	99	99	99	99	99	99	99	LIC		
7	AMBKUNUI	Konui Glen Elmos Bowie	111	63	100	16	0.50	-219	33	0.85	75	1218	103	43	105	102	58	118	91	106	106	106	106	106	106	106	106	BOS		
8	NZGJAUNT	Hedglands Safari	107	54	101	10	0.60	-542	44	1.38	66	57	101	33	97	98	48	113	70	104	104	104	104	104	104	104	104	LIC		
9	AMBDEREK	Brookvale MBBS Derek-ET	97	66	85	26	0.22	451	11	-0.25	76	4411	105	45	105	103	61	75	93	104	104	104	104	104	104	104	104	BOS		
10	JELBLACKSTONE	Lencrest Blackstone	87	60	66	19	0.02	445	18	-0.10	74	CAN	84	107	45	118	110	56	96	61	104	104	104	104	104	104	104	SEM		
11	ALTAHLEM	Ahlem Lemvig ABE	84	61	78	19	0.02	537	35	0.11	72	USA	1293	104	53	106	99	63	98	67	102	102	102	102	102	102	102	21st	SEM	
12	BOSGANON	Oomsdale Ace Gratitude Gannon	82	52	59	20	-0.35	1078	37	-0.39	63	USA	66	111	106	49	153	48	111	107	107	107	107	107	107	107	107	BOS		
13	JEMILITA	Sunset Canyon RP Militia	81	49	83	14	0.29	17	34	0.62	58	USA	34	104	43	104	99	52	74	47	107	107	107	107	107	107	107	SEM		
14	DNKIMPULS	O Impuls	76	68	73	12	0.24	26	31	0.56	81	DFS	6142	101	55	103	99	76	114	88	104	104	104	104	104	104	104	BOS		
15	SCAPPARTION	Sunset Canyon Apparition	76	55	69	5	0.44	-455	31	1.05	65	USA	340	103	48	101	96	57	97	56	103	103	103	103	103	103	103	AGRI		
16	ALTAQUE	MS Quest 459E	72	53	61	12	0.04	289	34	0.35	65	USA	55	102	44	109	104	52	109	55	102	102	102	102	102	102	102	21st	SEM	

# 2008 Australian Breeding Values

## August 2008 ABVs – Active Publishable Red Breed bulls – Top 10 APR™ – Proven in Australia

To be listed, a bull must be actively marketed and have a publishable production ABV. Official ABVs for all top bulls can be found on the ADHS website.

Rank* Bull ID	Bull Name	Profit Indexes			Production Traits						Non-Production Traits						Source												
		APR \$	Rel \$	ASI \$	Prot kg	Prot %	Milk L	Fat kg	Fat %	Rel %	Fat %	No. Dtrs	No. Herds	RIP %	Surv	Rel		Over Type	Mam Syst	Rel	Milk Spd	Temp	Like	Rel	Dtr Fert	Rel	CC	Rel	Lwt
1	INZCHALLENGE	118	81	89	18	0.20	289	37	0.36	91	130	29	44	104	52	105	101	105	80	102	44	109	94	LIC					
2	PETERSLUND	116	86	75	17	0.17	292	28	0.23	93	185	39	19	109	74	103	98	102	81	105	54	130	87	ARG					
3	BOTANS3829	112	88	79	21	0.14	507	26	0.06	95	232	48	20	105	76	104	98	101	85	98	59	140	91	ARG					
4	TORP882	112	95	55	9	0.07	205	33	0.35	98	580	129	11	107	92	105	101	102	92	105	88	146	96	ARG					
5	REDVIKING	111	63	102	25	0.05	825	51	0.23	73	38	13	21	103	43	102	102	104	58	101	60	101	60	GAC					
6	ARBJIM	110	75	81	22	0.04	728	38	0.10	85	70	33	14	104	54	96	97	105	106	79	103	37	118	84	ARG				
7	ORRARDY1433	100	82	73	21	0.14	524	19	-0.05	89	106	19	40	105	60	105	103	60	107	102	104	77	103	30	112	62	102	GAC	
8	ARBBLAIR	100	72	67	16	0.14	297	25	0.18	79	59	20	5	108	80	106	101	104	85	104	68	116	89	ARG					
9	BJURIST1011	98	89	52	13	0.12	232	16	0.09	95	226	37	15	104	62	108	99	72	103	101	105	81	106	51	83	81	102	GAC	
10	ARBMAISON	93	81	74	18	0.04	599	37	0.16	89	109	47	11																

## August 2008 ABVs – Active Publishable Guernsey bulls – Top 5 APR™ – Proven in Australia

To be listed, a bull must be actively marketed and have a publishable production ABV. Official ABVs for all top bulls can be found on the ADHS website.

Rank* Bull ID	Bull Name	Defect Codes	Profit Indexes			Production Traits						Non-Production Traits						Source											
			APR \$	Rel \$	ASI \$	Prot kg	Prot %	Milk L	Fat kg	Fat %	Rel %	Fat %	No. Dtrs	No. Herds	RIP %	Surv	Rel		Over Type	Mam Syst	Rel	Milk Spd	Temp	Like	Rel	Dtr Fert	Rel	CC	Rel
1	GUJULIUS		111	63	108	24	-0.01	845	62	0.54	77	42	18	4	101	43	108	110	55	100	100	102	46	97	32	94	82	101	SEM
2	GU0119		71	76	71	18	0.13	436	24	0.10	87	54	25	5	101	62	104	102	67	103	100	102	46	97	32	94	82	101	SEM
3	AUSFAYSBOO		65	62	43	16	0.01	544	7	-0.41	79	50	20	8	107	37													WAS
4	GU0123		44	77	20	-4	0.25	-470	12	0.78	90	88	40	15	104	62	101	96	64	100	103	104	43	101	47	114	81	100	SEM
5	GOLDENJACK		36	69	56	9	0.17	46	29	0.62	82	56	29	19	96	44	89	94	45	98	100	100	61	103	31	71	71	100	GAC

## August 2008 ABVs – Active Publishable Brown Swiss bulls – Top 5 APR™ – Proven in Australia

To be listed, a bull must be actively marketed and have a publishable production ABV. Official ABVs for all top bulls can be found on the ADHS website.

Rank* Bull ID	Bull Name	Defect Codes	Profit Indexes			Production Traits						Non-Production Traits						Source											
			APR \$	Rel \$	ASI \$	Prot kg	Prot %	Milk L	Fat kg	Fat %	Rel %	Fat %	No. Dtrs	No. Herds	RIP %	Surv	Rel		Over Type	Mam Syst	Rel	Milk Spd	Temp	Like	Rel	Dtr Fert	Rel	CC	Rel
1	GGEVENT		64	59	46	11	0.18	194	13	0.09	76	42	16	16	134	64	105	101	103	63	134	64	ABS						
2	ALTAPAWNEE		35	41	30	10	-0.10	404	13	-0.14	56	16	12	12	135	50	95	36	101	99	101	80	105	52	153	84	GAC		
3	SWISSEGE		34	74	23	2	0.15	-75	13	0.38	92	188	55	21	101	41	101	101	101	57	101	43	145	73	21st	ABS			
4	ALITANGELO		34	67	13	6	0.01	192	-2	-0.25	84	66	23	13	101	25	103	95	99	75	100	37	140	76	ABS				
5	GGSIMVITEL		17	67	9	4	0.02	107	-1	-0.14	86	85	17	15															

## Look Up Charts

### Requirements for Official Publishable ABV status

Reliability is a measure of the amount of information contributing to the ABV. The more daughters, test-days and information about relatives that is included in a bull's ABV, the higher the reliability. To receive a publishable APR a bull must have publishable production ABVs.

Trait	Holstein/Jersey		Other Breeds	
	Reliability Minimum	Herds Minimum	Reliability Minimum	Herds Minimum
Production (APR)	63%	15 herds	40%	5 herds
Workability	57%	10 herds	40%	5 herds
Survival	25%	n/a	25%	n/a
Type	55%	10 herds	40%	5 herds
Liveweight	60%	10 herds	40%	5 herds
Cell Count	50%	15 herds	30%	5 herds
Calving Ease	60%	10 herds	n/a	n/a
Daughter Fertility	55%	10 herds	30%	5 herds

Australian Profit Ranking (APR)
+ 3.8 x Protein ABV
+ 0.9 x Fat ABV
-0.048 x Milk ABV
+3.276 x Survival ABV - 100
+1.090 x Milking Speed ABV - 100
+1.806 x Temperament ABV - 100
+0.340 x Cell Count ABV - 100
-1.248 x Liveweight ABV - 100
+1.671 x Daughter Fertility ABV - 100
<i>The APR is reported as dollars net profit per cow per year compared to the average.</i>

	Genetic Codes for Holstein bulls	
	Tested Positive	Tested Negative
Complex Vertebral Malformation (CVM)	CV	TV
BLAD	BL	TL
Citrullinaemia	CN	TC
DUMPS	DP	TD
Mulesfoot	MF	TM
Factor XI	XI	TX
Red Carrier	RC	TR

Source of bulls	
AGR	Agri-Gene
ABS	ABS Australia
ARG	AUSRED Genetics
BOS	BOS Trading
21st	21st Century Genetics
GAC	Genetics Australia
LIC	Livestock Improvement
SEM	Semex Australia
WAS	Woodlands Agricultural Services
WWS	World Wide Sires
TBA	To Be Advised

### Definition of Active Publishable Bull

Bull breeding companies acknowledge that the bulls listed are available and actively marketed in Australia. The bull must be either alive and well, producing viable semen in Australia or have at least:

- 1000 doses of semen in storage for Holstein
- 500 doses of semen in storage for other breeds

### \* Order of Bull Ranking

Bulls are sorted by APR followed by ASI and Protein kg.

Published by ADHIS Pty Ltd.

This ABV Summary is published for your information only. It is published with due care and attention to accuracy, but ADHIS accepts no liability if, for any reason, the information is inaccurate, incomplete or out of date whether negligent or otherwise.

Copyright ADHIS Pty Ltd 2008. All rights reserved.©

# 2008 Australian Breeding Values

National Herd ID	Owner Name	Address	Post-code	No. of Cows on File	No. of Current Cows	ASI ABV	Prot. ABV	Prot % ABV	Milk ABV	Fat ABV	Fat % ABV	ASI Rank
Top 2% Herd Average ABVs based on ASI in August – Holstein												
W00248F	KITCHEN J M SONS	BOYANUP	6237	1438	393	52	14	0.07	361	20	0.07	1
540624E	PERRETT RJ & HE	KONGWAK	3951	449	230	50	19	-0.01	744	14	-0.26	2
CF0597Q	COCHRANE W & K	ROCHESTER	3561	68	62	50	14	0.02	492	21	0.01	2
540597R	ANDERSON WR & BL	KONGWAK	3951	1015	247	46	15	0.01	518	16	-0.08	4
T63SWAA	Sehwag Pty Ltd G	WINNALEAH	7265	3028	209	43	13	0.01	455	17	-0.03	5
2B0043B	MCRAE SA & NM	NAMBROK	3847	514	263	40	11	0.04	332	15	0.01	6
C00155U	HOGG, A & J	BIGGARA	3707	725	162	40	9	0.07	199	16	0.10	6
N00544Q	PARRISH TJ & LR	BARRENGARRY	2577	1041	254	40	10	0.06	244	16	0.08	6
240025J	KENNEDY R & M	SALE	3850	1265	209	37	12	0.02	393	13	-0.06	9
4A1373N	FLEMMING GM & PE	TOCUMWAL	2714	983	272	37	11	0.02	385	14	-0.04	9
240108T	HENRY W M & T	TINAMBA	3859	1784	512	36	11	0.04	326	12	-0.03	11
240024G	JOHNSTON RSN & LJ	BUNDALAGUAH	3851	1453	554	35	10	0.02	335	13	-0.02	12
540564F	GLASGOW DC & EJ	BENA	3946	447	122	35	12	0.01	405	11	-0.08	12
650274B	J.W. & J.C. LAMBALK	TIMBOON	3268	979	390	35	10	0.06	234	10	0.00	12
840377M	COATES JD	ALLESTREE	3305	963	231	35	11	0.00	407	13	-0.06	12
C00276F	COOK, R.J. & J.P.	WANGARATTA	3678	1389	493	35	10	0.04	300	13	0.00	12
B20571E	WOODBINE HOLDINGS PTY LTD	LANCASTER	3620	1799	520	34	10	0.03	317	11	-0.04	17
840404W	WALDER RG & CA	HEATHMERE	3305	716	162	33	9	0.05	219	12	0.03	18
842120F	RYAN BJ & PM	GRASMERE	3281	1109	272	33	10	0.03	306	13	-0.01	18
540565I	GLASGOW PW	BENA	3946	786	184	32	10	0.02	319	11	-0.04	21
650421Q	WHITE, R.P. & L.J.	TIMBOON	3268	224	64	32	9	0.04	245	11	0.00	21
981306Q	COSTER B & M	RIPPLEBROOK	3818	1245	620	32	9	0.05	223	12	0.03	21
240641R	MILES WARREN & JUDY	CALIVIL	3573	2573	524	30	9	0.04	239	10	-0.01	24
840351P	BURNS KN & WA	GORAE WEST	3305	548	77	30	8	0.04	229	12	0.03	24
981317U	DEPELER EL & AM	YINNAR SOUTH	3869	316	71	30	7	0.02	229	14	0.06	24
C00412Q	HALL, R.O.	KATUNGA	3640	515	103	30	6	0.09	32	11	0.14	24
240851B	HEYWOOD, BO & LD	YARRAGON	3823	802	184	29	9	0.04	238	7	-0.04	28
540748V	MATTHIES DJ & HM	MARDAN	3953	570	150	29	9	0.02	292	9	-0.05	28
980944I	COSTER NJ & C	LONGWARRY	3816	2014	491	29	8	0.04	200	11	0.03	28
C00857B	AULT G.K. & J.M.	ROCHESTER	3561	543	162	29	8	-0.00	314	14	0.01	28
4A1330A	PRICE IH & SW	SANDY CREEK	3695	777	298	28	8	0.02	233	12	0.02	32
4A1469K	MCPHERSON RA & GM	KATAMATITE	3649	243	35	28	6	0.06	121	12	0.10	32
4A1656G	NAVE A	NATHALIA	3638	691	202	28	7	0.04	180	12	0.06	32
540139F	MACQUEEN AD & GL	YANAKIE	3960	1048	255	28	8	0.03	241	9	-0.01	32
540284V	COMBEN NR & EF	YANAKIE	3960	243	78	28	7	0.04	196	11	0.04	32
540605F	WHITE KL & DM & RL	LEONGATHA SOUTH	3953	974	365	28	8	0.02	247	12	0.02	32
C00691E	NICHOLLS RJ & HJ	STANHOPE	3623	644	150	28	7	0.03	206	11	0.03	32
N00606V	JERANG PTY LTD	BEGA	2550	1339	358	28	8	0.04	200	10	0.03	32
4A2101S	DOUGLAS JW & VL	LEITCHVILLE	3567	1604	583	27	8	0.03	250	9	-0.02	40
540300E	MOSCRIP JT ME CJ & JM	LEONGATHA SOUTH	3953	658	187	27	10	-0.03	439	11	-0.11	40
650188L	D.P. & J. GALE,	TIMBOON	3268	2480	674	27	9	0.02	281	8	-0.06	40
850989R	ROWANVALE PTY LTD	CAMPERDOWN	3260	982	244	27	8	0.01	286	10	-0.04	40
981155M	ROBERTS DI & PJ	YARRAGON	3823	971	178	27	10	-0.04	427	13	-0.07	40
N00593S	SCHUHKRAFT (M18) G & C	BEGA	2550	77	77	27	7	0.03	198	12	0.04	40
W00088D	HUTTON TF AND SONS	CAPEL	6271	1498	463	27	5	0.10	1	9	0.13	40
240928W	COUNIHAN, JM	BAIRNSDALE	3875	507	161	26	6	0.04	157	10	0.05	47
541139G	KENNY, J.M. & G.B. & SONS	COROROKE	3254	1138	247	26	8	0.03	241	9	-0.03	47
650360O	I.J. & A.E. LOCK.,	TIMBOON	3268	1755	386	26	7	0.01	246	12	0.03	47

# 2008 Australian Breeding Values

National Herd ID	Owner Name	Address	Post-code	No. of Cows on File	No. of Current Cows	ASI ABV	Prot. ABV	Prot % ABV	Milk ABV	Fat ABV	Fat % ABV	ASI Rank
740204P	TAYLOR, K. & M.J.	BARWON DOWNS	3243	169	52	26	6	0.03	141	13	0.09	47
841874T	MEADE JF & MB	CUDGEE	3265	661	175	26	9	-0.03	391	12	-0.06	47
850550V	PEKIN JF, A & JG	TERANG	3264	854	185	26	7	0.02	228	10	0.01	47
500047P	WILLCOCKS P & I	YANKALILLA	5203	735	195	26	9	-0.03	381	12	-0.06	47
500199G	STILLERE FARMING TRUST	BIRDWOOD	5234	555	103	26	7	0.03	202	11	0.03	47
4A1321C	WILD RA	MITTA MITTA	3701	862	122	25	7	0.02	213	12	0.04	55
4A1759S	WILLETTE FARMS	TOCUMWAL	2714	1454	460	25	7	0.02	208	10	0.02	55
850530T	WILSON NF	WEERITE	3260	396	86	25	9	0.01	297	8	-0.08	55
T34GFJM	Fielding R & D	SOUTH RIANA	7316	1171	318	25	6	0.05	106	10	0.08	55
T42MVBA	Hingston BW & MV	CHUDLEIGH	7304	554	111	25	5	0.05	86	12	0.12	55
240013C	ROGERSON DC & BH	COBAINS	3850	541	68	24	5	0.04	122	10	0.07	60
240198F	HANSFORD RA & FE	BAIRNSDALE	3875	149	33	24	7	0.01	253	10	-0.01	60
240214L	RURAL OPERATIONS GROUP	NEWBOROUGH	3825	1538	369	24	7	0.04	180	8	0.00	60
470579G	HOLLOWAY DW & MA	GUNDOWRING	3691	619	215	24	7	0.03	187	9	0.01	60
540451P	MABIN GF & ME	WONTHAGGI	3995	889	287	24	7	-0.00	266	11	0.00	60
540777V	OWEN GE & SD	BUDGEREE	3870	1579	301	24	7	0.02	221	9	-0.01	60
540825N	HIBBERD GW & LB	TIMBOON	3268	1792	337	24	9	-0.02	350	9	-0.08	60
5C0049C	WELLER W & J	LONGWARRY	3816	1080	759	24	6	0.03	158	10	0.05	60
650399V	LE'RIDGE PTY. LTD.,	COORIEMUNGLE	3268	757	74	24	7	0.04	184	7	-0.01	60
840391T	UEBERGANG IS & JA	GORAE WEST	3305	245	60	24	9	0.01	305	6	-0.11	60
C00897F	HAINES, GN, A, I & M	KOTTA	3564	1220	186	24	6	0.04	124	10	0.06	60
C01047A	GOVETT, W.F. & J	DINGEE	3571	132	58	24	8	-0.02	333	11	-0.05	60
500155N	BROOKS L R, H D & SON	MEADOWS	5201	385	145	24	8	-0.00	293	9	-0.05	60
T63SWBD	Wagner WF & PC	WINNALEAH	7265	1393	482	24	8	-0.01	335	9	-0.07	60
Top 2% Herd Average ABVs based on ASI in August – Jersey												
4A1307S	MILLBROOK ELLIS & CO	TALLANGATTA	3700	615	31	47	13	0.06	302	15	-0.03	1
240699A	HOEY DM & L	KATUNGA	3640	839	285	43	7	0.19	-37	15	0.33	2
850588C	GLENNEN & CO C	TERANG	3264	2090	499	42	5	0.22	-147	18	0.48	3
C00935T	MCMANUS B.T. & C.A.	BAMAWM	3561	570	108	34	5	0.18	-110	12	0.33	4
C00993T	WORBOYS R. & A.	KOTTA	3564	896	223	32	5	0.15	-58	12	0.28	5
4A1552O	NICHOLL R	NUMURKAH	3636	259	49	29	11	-0.14	524	12	-0.31	6
4A1466B	PINEGROVE PARK TRUST	KATAMATITE	3649	524	47	28	7	0.05	122	11	0.08	7
B07109K	Kakariki Farms Pty Ltd	SMITHTON	7330	142	31	27	3	0.05	23	17	0.29	8
C00927B	VANDENBOSCH, J.H. & C.A. CPD	LOCKINGTON	3563	330	51	25	3	0.15	-133	9	0.31	9
W00095S	BOLEY MESSRS PJ J	KARRIDALE	6288	285	49	25	7	-0.10	346	17	-0.03	9
4A3181E	FROST K & N	FINLEY	2713	349	34	24	3	0.08	-22	14	0.29	11
4H0077N	BUCHANAN FAMILY TRUST 2.	COBRAM	3644	49	48	24	4	0.11	-19	8	0.16	11
500167U	THORN G C & S J	WILLUNGA	5172	633	140	24	6	0.06	107	6	-0.00	11
Top 2% Herd Average ABVs based on ASI in August – Red Breed												
<b>Ayrshire</b>												
570065C	MAY KR & TA	YINNAR	3869	71	31	-13	-4	-0.02	-128	-3	0.04	1
<b>Illawarra</b>												
4A1868T	WILLIAMS G P & R C	MENINGIE	5264	853	280	4	2	-0.00	81	0	-0.05	1
Q01283M	BLUE RANGE PASTORAL CO	ALLORA	4362	152	70	4	3	-0.05	212	3	-0.08	1
<b>AussieRed</b>												
N00555U	GRAHAM RW & BC	NUMBAA	2540	677	304	46	12	0.08	279	17	0.08	1
Top 2% Herd Average ABVs based on ASI in August – Other Breeds												
N00021N	CLARK PARTNERSHIP	CANIABA	2480	801	133	9	2	0.00	75	5	0.03	1

