

NOVEMBER
DECEMBER
2016



The Australian

dairyfarmer

Safety first: recognising risk



**How robots are
changing dairy
businesses**

**Better waste
management
practices**

**The elephant
in the room:
dairy crisis**

The official voice of the Australian dairyfarmer
– free to all dairyfarmers



Australian
Dairy Farmers

You are invited to Australia's ...

International Dairy Week

15 to 19 January 2017, Tatura Park, Tatura, Victoria

A good place to do business
and a good place to socialise.



Proudly Supported By



www.internationaldairyweek.com.au
email info@internationaldairyweek.com.au
follow us on  and  #IDWaustralia



NEWS

Spring milk and earnings slump adds to MG worries	13
Communication the key to survival	15
Boutique is not a simple answer	16
Healthy future in farmers' hands	27

ATTRACTING AND DEVELOPING PEOPLE

Enhanced education for Tocal students	22
---------------------------------------	----

PROMOTING & PROTECTING DAIRY

Celebrity foodies back Aussie dairy	42
New network brings women together	44

FARM BUSINESS MANAGEMENT

Bringing the farm and investors together	24
Cashing in on China's demand for dairy	28
Wagyu fuels dairy shift to beef	31
Dairy crisis forces change in thinking	34
Improve the quality of corn silage	36

DAIRY EQUIPMENT UPDATE

Community energy powering people	49
Largest robotic dairy farm in the world	50
Sun helps slash dairy bills	51
Wisconsin robot dairy delivers	52
Investing for the longer term	54
Building a shed for the ages	56
The sun comes out for Dairy Expo	62

BETTER WASTE MANAGEMENT

Better effluent management	65
Effluent restricts grazing of heifers	66
Understanding compost's place	68
Looking to better manage effluent	70
New calculator for better effluent use	72
Effluent about more than just fertiliser	74
New Holland trials new biogas tractor	76



INCREASING FARM PROFITABILITY

Case study: Dehne and Sarah Vinnicombe	86
Forage Value Index on the way	89

COLUMNS

At my desk	5
Milk Matters	6
Dairy Australia Roundup	11
NHIA News Roundup	18
Update from the Gardiner Foundation	32
Dairy market report	41
What's On	78
ADHIS	80
Snippets and Titbits	81

OUR COVER

The safe use of effluents is about more than just applying urea and solids to pasture.

Picture by Jeanette Severs



Animate[®]

Anionic Mineral Supplement

The next generation in
lead feeding technology is here.



Palatable

Because of its palatability, *Animate*[®] is readily consumed without depressing dry matter intakes pre-calving, leading to higher dry matter intakes after calving and ultimately, increasing milk yield.

Concentrated

Animate[®] is one of the most concentrated, commercially manufactured anionic products on the market.

Complete

Animate[®] is uniquely formulated to provide effective levels of anions, chlorine and sulphur, plus other key nutrients such as magnesium and phosphorus, which are necessary for a proper negative DCAD diet formulation.



Phibro
ANIMAL HEALTH CORPORATION TM

For more information, contact your
Phibro Animal Health representative.
Ph: (02) 9896 4666 or Animate-Dairy.com

Who shares the risk?

AS the fallout continues from the late-season farmgate milk price cut by Murray Goulburn and Fonterra in May, the question of who bears the risk when things go sour has been much debated.

As I discussed in the last issue, dairyfarmers are in a weak position when trying to bargain for a better price because they run the risk that the highly perishable product they produce will not be collected.

Dairyfarmers have little recourse when a processor takes an action that affects them adversely.

The need for better sharing of the risk along the processing chain is vital because dairy farm businesses – the vast majority of which are owned by families – invest for the long term.

But that aspect of who bears or shares the risk also applies down the line to those employed in dairy farm businesses or operating as sharefarmers.

Sharefarming is strongly established in the dairy industry as a way for people to get a start and build their way to ownership – either of assets such as their herd or machinery right through to full farm ownership.

The milk price cut has hit sharefarmers hard. Most are starting out and don't have the same asset backing as farm owners, so are more stretched in being able to access finance to help them through the cut.

Many don't have the reserves more established farmers have – both physical (such as stored feed) and financial. And, most had to try to absorb the price cut as best they could as their agreements state they simply get a share of the milk cheque.

So it was interesting to read the story on page 24 of this edition about a different approach by a corporate farming group to their Tasmanian sharefarmers.

The Sustainable Agriculture Fund (SAF) is an unlisted investment fund. It owns and operates farms in the cropping, beef and dairy sectors in New South Wales, Victoria and Tasmania. The assets are owned and operated by AgCAP, as trustee for SAF.

This includes four dairy farms in Tasmania that have sharefarmers.

But AgCAP's sharefarming arrangements are different from the industry standard – the sharefarmers' incomes

'But AgCAP's sharefarming arrangements are different from the industry standard – the sharefarmers' incomes are set at a guaranteed price for milk solids irrespective of what the processor pays.'

are set at a guaranteed price for milk solids irrespective of what the processor pays. Fluctuations in milk price are absorbed by the investors, who can balance their returns across the range of commodities within the group.

This means that the sharefarmer's income is not affected by a change in milk price.

AgCAP's livestock manager Wolfie Wagner, who manages the Tasmanian farms, says when something like the May milk price cut occurs, sharefarmers "face the risk of going broke" because most have few assets.

The benefit for AgCAP is a stable workforce.

It's an interesting approach and one that goes to the core of the question around risk. 



Editor

Carlene Dowie



@DowieDairyEd



www.facebook.com/
AustralianDairyfarmer



The Australian Dairyfarmer is published on the 15th of every second month, in July, September, November, January, March and May, for the Australian Dairy Farmers, Level 2, Swan House, 22 William Street, Melbourne, Victoria, 3000.

EDITORIAL

Editors: CARLENE AND ALASTAIR DOWIE

PO Box 59, Carisbrook, Vic, 3464

Email: <carlene.dowie@fairfaxmedia.com.au>

Phone/fax: (03) 5464 1542

Mobile: 0418 553 282

ADVERTISING

Advertising manager: PETER ROACH

GPO Box 257, Melbourne, Vic, 3001

Email: <peter.roach@fairfaxmedia.com.au>

Telephone: (03) 8667 1127

Fax: (03) 8667 1141

Mobile: 0417 371 364

PRODUCTION

Fairfax Media Australian Community Media production hub

Circulation: The Australian Dairyfarmer is supplied free to all registered dairyfarmers in Australia.

For a change of address, contact ADF Reception

Telephone: (03) 8621 4200

Fax: (03) 8621 4280

Email: <reception@

australiandairyfarmers.com.au>

Copyright: All material in The Australian Dairyfarmer is copyright. Reproduction in whole or in part is not permitted without the written permission of the publisher.

Editorial contributions: Editorial contributions are welcome, but no responsibility can be taken for their loss. Copy is preferred by email. Deadline is two months before publication.

Printed by: Rural Press Printing.
Published by: Fairfax Agricultural Media (Agricultural Publishers Pty Ltd)
ABN 55 000 560 430.

ISSN: 0814-4494

CAB Audit Figure: 11,861 (Sep 2014)

Leading the way in global innovation

Key points

- ✓ The broader boom in innovation
- ✓ Greater efficiency challenges
- ✓ Improving in all aspects of farming

AUSTRALIA is a world leader in agricultural innovation.

Our farmers, supported by researchers, industry groups and other stakeholders, remain at the global forefront of the invention and adoption of technologies.

This enthusiasm for change and innovation has helped Australian dairy farming remain globally competitive.

Technological advances in the dairy sector are a part of the broader boom in innovation across the Australian economy.

New technologies will support farm businesses to tackle heightened competition, growing resource scarcity, and other productivity challenges.

The dairy industry must make the most of the innovation boom in order to support productivity growth and to maintain its competitiveness.

At the core of technological innovations are individual farm businesses that adopt new technologies.

While many of these changes will be a function of advances in computer technology, there have been great improvements in all facets of dairy farming from the machinery, smart phone apps, computer technology, gene technology, adaptable plant technologies and innovative options to increase milk production yield.

These technologies are different from those that have come before.

They perform ever more complex and varied tasks; they collect and share greater volumes of data; and will be more integrated across farms and along supply chains.

The use of robotics is a reality in Australia with the development of automatic milking systems.

This technology has huge potential to reduce the amount of time larger dairy farms spend on milking, freeing farm staff to concentrate on other farm and business management activities such as monitoring the performance of individual cows and the whole



At the core of technological innovations are individual farm businesses that adopt new technologies.

farm system. Australian dairy farms are already using the automatic milking system with great success.

Greater efficiency means dairy farmers are embracing smartphone technology to help them around the farm.

Free apps that monitor the health of each cow and the daily running of the dairy are powerful tools that can be used even when away from the farm.

This includes databases to monitor paddocks and fertiliser use, genetic improvements and to store detailed health, milk production and breeding information on each cow, work out how much to feed the cows and calculate how much it will cost.

This information is often fed directly into the milking process to increase the efficiency of the milking shed.

Productivity improvements are a direct result of money, particularly farmer levies, that has been used to fund research and development (R&D).

New genomic selection technology, plays an important role in dairy

breeding programs as it allows genetically superior animals to be identified at an earlier age.

Many breeders use genomic selection data when buying semen or deciding which cows and heifers merit investment in reproductive technologies. At the same time, companies are using genomic testing when determining which young bulls to purchase, marketing semen to dairy producers, and identifying elite females that can make positive genetic contributions to the next generation.

Another area of research is the gene editing of ryegrass, which could be key to a significant increase in sustainability and productivity on farm.

The focus is in the development of seed technology that can be practically applied to change the nutritive profiles to breed pastures with an increase in forage quality and quantity.

With greater sugar content, high energy ryegrass has the ability to add value to dairy farms by at least \$300/ha, through pastures with better feed quality, yield and persistence.

With an increase in value placed on systems of production, gene technology has been researched and developed to increase on-farm productivity.

The surge in biological sciences has given rise to animals with enhanced health attributes, novel aquaculture breeds and feeds, and designed plants with bio-industrial applications offering far-reaching agronomic, environmental, nutritional, human health and economic benefits.

One such technology already widely used, is a naturally occurring hormone that synchronises oestrus (or heat) in cattle.

This is an extremely useful tool that enables farmers to know when their cows are fertile and allows them to plan insemination to match calving with peak pasture growth.

Another technology, not currently available in Australia, is a synthetic growth hormone which is used in the USA to achieve better yields in milk production. Naturally occurring, this synthetic protein has been isolated

and synthesised for its ability to increase milk yield by up to 10 per cent.

By stimulating milk production farmers could potentially reduce the size of their herd, limit environmental impacts and reduce waste.

Governments in many countries are

recognising the importance of emerging technologies. Australian Dairy Farmers strongly supports the adoption of new technologies, including gene technologies particularly where they conform to Australia's strict regulatory environment.

Driven by a high-tech revolution, dairy farmers can expect increased productivity, greater sustainability and a streamlining of commercial practice that will offer the biggest business impact over the coming years. **D**



ADF supports the improvement of technology in the industry.

Where we stand on technology

DAIRY farming in Australia offers some exciting prospects for future growth.

However, technology in isolation would not be able to achieve the rate of growth expected for future years.

Rather, each technology would need to be progressed as part of a broader effort to innovate across value chains and commodities, and in collaboration with other enabling technologies.

For farmers to capitalise on potential productivity gains arising from these technologies, an enabling environment, including suitable infrastructure, systems, regulatory structure and market operating environment, must be in place.

New technology has the ability to

facilitate gains in productivity and production within the dairy industry.

By adopting new technologies, we can create a level of competitiveness for Australian dairy products.

A clear and transparent regulatory system is required to deliver confidence to all stakeholders – including farmers, researchers, and investors (local and global).

Australia's system is world-leading and ensures the continual safety of our dairy food.

The dairy industry supports the Office of the Gene Technology Regulator and the Act which underpins this system.

Australian Dairy Farmers (ADF) recognises the potential productivity benefits of new technologies and the

need to innovate to remain globally competitive.

ADF supports the rights of farmers to be able to choose what works best for them.

ADF also acknowledges and understands the need for the production of safe, healthy foods and to balance the adoption of new technologies against gains in productivity.

Australian dairy products are trusted by consumers around the world for their premium quality, safety and nutrition. This global reputation for quality is backed by stringent biosecurity and food safety systems and a transparent supply chain.

ADF and the Australian dairy industry works hard to ensure this practice continues. **D**

Genomic advances an industry benefit

Key points

- ✓ Developing and harnessing good bloodlines
- ✓ Investing in research key
- ✓ Improving overall herds

THE only thing that is constant in the world is change.

Just as we have enjoyed technological advances in areas like telecommunications and transport, scientists have been developing new tools and techniques to develop better options for farming.

Through scientific advancements, there have been improvements in understanding the biology of cows through DNA-based testing, for both favourable and unfavourable genes.

Terms such as genetic marker or marker-assisted selection are becoming more main-stream as our understanding of the bovine genome grows.

By researching genomics, we are able to understand large-scale studies of individual animals' DNA.

Conventional cross-breeding methods may have taken up to 20 years to select, breed and develop a stable herd with targeted traits.

Biotechnologies have significantly sped up the breeding process.

In the four years since genomic evaluation services became available, the number of dairy animals genotyped in Australia has risen significantly. In the early days, bull companies were the main users of genomics, testing very young bulls to help select their young teams.

By 2015/16 there were four times as many females genotyped as males, with dairy farmers using it as a herd improvement tool.

There are several key developments including improved reliability of genomic breeding values, lower testing costs, greater understanding of using genomic breeding values for



Genomic advancements is proving to be beneficial in improving farmers' profitability.

herd improvement and the expansion of the reference population, which improves reliability.

The Australian Dairy Herd Improvement Scheme has given farmers access to a sophisticated and globally-connected system for evaluating the genetic merit of cattle.

The genetic make-up of an animal can be determined from their DNA by testing for a broad range of genetic markers.

By understanding the genetic patterns of a herd, farmers are able to make better decisions about which animals should breed the next generation and to enhance particular traits.

The goal was to identify every variation that could affect the performance of dairy cattle under every Australian farming condition. Research has made this possible.

Traditionally, farmers were focused on improving the genetics of bulls – now it is possible to accurately assess

the merit of each cow and heifer in a herd.

This gives farmers more information for mating decisions, as elite cows are best placed to be mothers of the next generation of calves.

To produce locally-relevant information, researchers gathered genetic data from over 40,000 carefully selected cow records, and more than 5000 commercial bulls with records of their daughters' lifetime performance.

The impact of this work means that genomic selection is now routinely used in Australia's genetic evaluation service with the expectation that the majority of future purchases of cattle will be based entirely on genomic selection.

One of the main on-farm impacts is that farmers can confidently select bulls that are up to five years younger than before, making it possible to improve herds at double the current rate.

Other advantages include the speed of the test which takes five years off the current practice; farmers being able to select improved complex traits such as fertility; the ability of farmers to select the sex and individual qualities that best suit their farm.

Lastly, the selection also makes it possible to target desirable traits that cannot be routinely measured on dairy farms such as feed efficiency, reductions in methane emissions, improved immunity and heat tolerance.

By 2030, the dairy industry will have accumulated \$265 million in value from improving herds at double the current rate of gain, and a further \$185 million from new and improved traits.

It is a remarkable achievement to now be able to assess the merit of bulls that live all over the world for their genetic merit under Australian farming conditions. 

GM technology can drive growth

JUST as consumers have enjoyed technological advances in every area of their lives and health, plant scientists have been using new tools and techniques to develop better plants.

Plant breeding and improvement, like medical science, uses a whole suite of technologies including computers, high

power microscopy and molecular biology. Gene technology is one of these tools.

An established science, it allows researchers to understand the functions of different genes within a plant and to modify those functions to improve the plant's qualities.

New DNA-based tools for plant breed-

ers will reduce the time and cost of breeding new pasture grass varieties.

Different to GM crops, gene editing technologies allow plant breeding companies to use DNA information, screen thousands of plants for nutritive quality, and unlock the potential of hybrid vigour.

Developing new pasture plants usually

Strong history of innovation on-farm

Key points

- ✓ Continued investment in RD&E
- ✓ Enhancing competitiveness
- ✓ Pushing for greater profitability

DAIRY has remained one of Australia's premier primary industries over the last 30 years.

The early adoption of new technologies has boosted production and increased returns. These innovations have helped grow the value of the industry by about \$10 billion over the past three decades.

We have done this and will continue to maintain the highest standard in food safety and quality, animal health and welfare and environmental sustainability.

Australian farmers have been able to double milk production despite challenging financial and climatic conditions.

Research, development and extension (RD&E) has been a major contributor, particularly in pasture management, supplementary feeding and cow genetics.

In November 2010, Dairy Australia and the Department of Environment and Primary Industries Victoria (DE-PIV), with support from the Gardiner Foundation, conducted a high level evaluation of the impact of government and industry investment to measure the impact that RD&E had on dairy farms from 1980-2010.

The evaluation was conducted to provide guidance on how to improve future investment in RD&E to enhance the competitiveness, productivity and sustainability of the dairy industry.

Overall the results showed that dairy industry production would have declined were it not for industry driven (internal) improvements over the past three decades such as better pasture management, better animal husbandry and supplementary feed-



The dairy industry has continued to lead from the front in farm innovation.

ing systems. The research showed:

- Milk production in Victoria has more than doubled despite cow numbers remaining the same and a 35 per cent reduction in effective grazing area.

- Milk yield per cow has almost doubled due to the adoption of RD&E over the 30 years.

- Production per hectare has increased 192 per cent from an estimated 2,878 in litres per hectare in 1980 to 8,419 litres in 2010.

- Pasture production and utilisation and better supplementary feeding systems account for a large proportion of production gains.

- Genetics and feed conversion efficiency has lifted cow productivity.

- Over the past 30 years, \$2 billion in 2010 dollar terms has been spent on RD&E on-farm projects.

- RD&E accounts for almost half (46 per cent) of total production gains in Victoria's dairy industry.

- Benefit to cost ratio for government and industry investment in

RD&E is at least 3.3 to 1.

The industry driven changes such as better pasture production and utilisation, incremental improvements in animal genetics and breeding, attention to animal health and welfare issues such as mastitis, better cow nutrition through supplementary feeding and the adaptation of suitable technology and practices from the United States, Europe and New Zealand to Australian conditions all contributed to increased productivity.

Improving productivity has been important in promoting profitability, improving natural resource use and facilitating adaptation to business pressures.

The Australian dairy industry has achieved considerable improvements in farm productivity through the adoption of new technology and will continue to find new ways to be efficient and environmentally friendly while remaining profitable in the long-term. 

takes around 12 years to breed and test varieties in glasshouse and field trials. The research will help design new breeding programs that will reduce the time needed to develop and commercialise new pasture grasses. This technology effectively speeds up existing breeding.

The Australian dairy industry is a long-term investor in gene technology research, particularly work to develop new

pasture varieties. Current modelling suggests that one of these research projects, high energy ryegrass, could deliver a benefit of \$300 per hectare to Australian dairy farmers.

There are several benefits to be realised from R&D investment in dairy gene technology, and that of many other GM crops under development in Australia.

GM crops are over 18 years old and are

grown in 27 countries by over 18 million farmers across millions of hectares.

Farmers across the globe have chosen to adopt new GM varieties for their economic and environmental benefits.

Despite this strong global uptake, they are not currently being used in Australia, although they have received Federal regulatory approval for their environmental and human health safety.

Nutrimax
ESSENTIAL EVERYDAY COVERAGE

150

Invest in the health of your most fragile asset.

Give your herd the essential, everyday support they need with **Nutrimax 150 grain additive.**

Nutrimax 150 fills the nutrition gaps of a grain diet by providing a broad range of key minerals and vitamins for lactating dairy cows. Buffers in Nutrimax 150 also work to protect against Acidosis while added Rumensin promotes better feed conversion. Don't wait for the cracks to appear – boost their health and production, day in, day out, with Nutrimax 150.

For more information contact Rivalea on 02 6033 8000 or your local re-seller.

Rivalea
AUSTRALIA



Focusing on the road ahead



By Ian Halliday
Managing Director
Dairy Australia

Key points

- ✓ Producers should get involved
- ✓ Long term outlook remains positive
- ✓ Planning ahead remains paramount

As we come to the end of what has been one of the most challenging years our industry has experienced, the nation's dairy farmers are displaying the upmost resilience – which epitomises our great sector.

Most farmers and the wider industry are deep in a recovery phase and looking to the future after navigating the downturn in farmgate prices, the wet (and in some cases flood) conditions across most of Victoria, NSW, South Australia and Tasmania and oversupply issues in the west.

I believe the long term outlook for the dairy industry remains positive.

International dairy commodity prices have staged a significant recovery in recent months, as global supply and demand slowly return to a more balanced outlook.

While there is still a long road ahead, the over-supply issue that has maintained a downward pressure on commodity pricing for so long looks to be receding and our domestic market remains steady.

I would encourage farmers who are still working their way through varying pressures and haven't participated in the free Taking Stock sessions, to do so.

To date, more than 700 dairy farmers in Victoria, Tasmania, South Australia and southern NSW have registered for the one-to-one sessions



Farmers are encouraged to utilise Dairy Australia's Taking Stock program.

since the price downturn in April and more than 500 sessions have been delivered.

In excess of 90 per cent of surveyed farmers who have participated in Taking Stock feel confident to independ-

'I believe the long term outlook for the dairy industry remains positive.'

ently implement the action plan developed during the session.

We have had some great feedback from farmers who have benefitted from Taking Stock.

Taking Stock offers three to four hour, confidential sessions with an experienced consultant.

It is designed to assist farmers to budget and look at all their options.

Taking Stock is available to all farmers, including lease and share farmers, thanks to funding from the Gardiner Foundation.

Hopefully, as you read this, we are through the worst of the wet and conditions are drying up, so it is a good time to pause and think about your feed requirements for summer.

It is a good idea to plan for summer crops – what extra forage do you need? What paddocks need renovating? What preparations are needed and what do you need to purchase? With grain and fertiliser prices well down, farmers should review their cash flow and feed budgets as they plan ahead.

Dairy Australia has a number of feed and cash flow tools available, as well as a new feedbase guide for quality pasture silage.

These are all available at <http://tftt.dairyaustralia.com.au/>

We've also been working on developing a Forage Value Index (FVI), in partnership with Agriculture Victoria, Meat and Livestock Australia and the Australian Seed Federation.

The FVI is an independently-analysed, industry-endorsed economic index based on seasonal dry matter production and aims to provide farmers with another tool to help lift farm profitability.

We hope to have this ready to launch in the new year.

For more information see the story on page 89.

After about 18 months in operation, we now have 1000 farmers across Australia registered and using DairyBase.

This tool provides farmers with a consistent set of calculations which helps them better manage risk in their business.

We've also piloted several two-day training courses for DairyBase across Victoria, southern NSW and Queensland, which have received some really positive feedback.

The course teaches farmers about farm analysis, how to use DairyBase and its benefits.

It will be rolled out across all regions next year through your local Regional Development Program (RDP).

Don't forget there are a range of services available.

We encourage you to contact your local RDP, if you haven't already, and take advantage of the support available to help you through this challenging climate. 



The NEW Benchmark in Calf Milk Replacers



For more information
1800 MAXCARE (629 2273)
sales@maxumanimal.com
www.maxumanimal.com
f maxcareCMR



Big wet, earnings slump adds to MG woes

By Andrew Marshall

AN unusually wet spring added to low farmgate milk prices and a rush of suppliers quitting its ranks have hit Murray Goulburn's (MG) earnings and convinced it to temporarily axe its contentious payment "clawback" scheme.

MG, the business behind the Devondale brand, has confirmed its forecast net profit after tax of \$42 million for 2016-17 will be lower because of a likely 20 per cent slump in milk receivables.

The big dairy co-op has also cut its forecast seasonal farmgate milk price to farmers from \$4.88 a kilogram of milk solids to \$4.70kg.

The milk intake slide is attributed to a wave of farmer retirements and suppliers swapping to other processors in the wake of MG's massive late season price cut early this year and fallout relating to the decision.

On-farm production has also been hit by "very wet" conditions since August, which the co-op said was likely to result in a 10pc to 12pc fall in milk output from its remaining 2200 dairy farmer members.

While all supplier regions in Victoria, Tasmania and NSW have been impacted, the north and west of Victoria were hit hardest, particularly where widespread flooding has impacted dairy herds and pastures.

Northern Victorian volumes fell almost 17pc in August compared with the same time in 2015.

The co-op's total southern region milk intake is expected to be 2.7 billion litres this financial year.

The big wet follows a severe dry period in southern NSW and Victoria in 2015.



Murray Goulburn co-operative, the business behind the Devondale dairy brand, has warned its net profit after tax will fall below \$42 million for 2016-17 because of a likely 20 per cent slump in milk receivables.

MG's net milk losses because of retirements and suppliers transferring to other processors alone represented a 350m litre cut on 2015-16 production.

However, MG's farmers will now receive an extra 14 cents/kg (milk solids) as a result of the co-operative's decision to suspend its milk payment clawback program until next June.

The clawback has been drawing on farmers' current milk earnings to repay a \$183m milk pool debt created by above-market milk payments last season.

Its temporary removal will lift MG's average-weighted available milk price to \$4.60kg for the rest of the financial year.

Suspension of the Milk Supply Support Package (MSSP) applies from the start of October, while results of

a broader review of the program will be discussed at MG's annual general meeting next week.

Acting chief executive David Mallinson said until recently there was confidence that spring rainfall was setting the industry up for an excellent season but now all of south-east Australia was severely impacted by "extreme wet conditions", making lower farmgate milk pricing more painful.

He said milk supply across the board had fallen by 10pc, placing further pressure on the dairy industry supply chain.

This meant MG now faced a lower-than-expected closing milk price of \$4.70kg for the season – down from a predicted \$4.88kg.

However, a 35c/kg "additional growth incentive payment" for butterfat and 70c/kg protein has been announced as an option for assistance, from November 1.

"While a disappointing outcome, this revised forecast with no MSSP deduction still provides farmers with a higher net milk price than their current estimations," Mr Mallinson said.

He said the company appreciated the "severe financial strain" on its suppliers and thanked them for their ongoing support.

MG's cost efficiency drive to cut as much as \$60m from operating costs next year was progressing well and savings worth \$10m to \$15m would be achieved this financial year.

MG was also "proactively managing" its factories to target extra savings, scaling back production plans to cater for the lower milk intake.

"We will continue to review options to enable this cost base to remain competitive," Mr Mallinson said. **D**

PASTURE PROPHET



Rob Winter
Heritage Seeds

RYEGRASS FEED VALUES – WHAT REALLY MATTERS.

Feed value differences between cultivars under good pasture management are small.

Combining good cultivars with good pasture management allows for feed value and production to be maximised in farming systems. Yield and quality should be developed and managed hand in hand.

A thorough examination of a number of contemporary cultivars over three sites and a 12 month period, showed only a small range in feed quality attributes between varieties.

Importance of ME

ME is a key driver of animal performance in pasture-based systems. ME has a double effect, because as the ME value of feed increases so do animal intakes. Feeds with a low ME require extra time in the rumen to degrade. For example the rate of passage of a high fibre straw (ME = 7-8) is 45-55 hours where a good quality grass (ME = 11-12) is 18-24 hours. When a ruminant reaches a 'fullness' level it will stop eating, therefore feeds with a low ME value limit dry matter intake.

Advice given here is meant purely as a general guide and may not be suitable for all situations and locations.

Water soluble carbohydrates (WSC)

WSC are simple sugars present in plant cells and are an important energy source for animals. WSC content is highly correlated with ME. WSC is more highly influenced by time of day: from sunrise to sunset, ryegrass tends to increase in sugar content by about 0.5% per hour. This is why silage cut in the afternoon is often higher ME than that cut earlier in the day. Increased levels of WSC may at times have environmental benefits through reducing the amount of nitrogen lost in the urine; this is currently being researched.

Crude protein (CP)

CP is needed by animals to maintain body tissue and produce milk/meat. Ideal CP levels for dairy cow production are 18-25%. Most dairy ryegrass pastures are relatively high in CP content and it is generally not limiting to animal production whilst pastures are green. Pastures containing high concentrations of CP (26 -30% or more) usually lead to increased levels of nitrogen in the urine, a process that may come at a cost to animal production.

Importance of management

Good pasture management is the key to maximising pasture quality and achieving high ME levels. Tactics include:

Managing pastures through mid-late spring and summer (silage, topping, not over-grazing etc).

Grazing at the right time - when ryegrass has 2½ -3 new leaves per tiller.

Grazing to the correct pasture residuals: improve the feed quality at the next grazing.

A rest period between grazings to help develop root mass, thereby allowing it to access moisture deeper in the profile, keeping it greener going into summer (grazing at 3 leaf stage will be ideal, and not grazing for more than 2-3 days duration). Increasing pasture legume content. Developing and maintaining sufficient pasture fertility.

Feed quality is more greatly influenced through management and grazing timing than cultivar selection per se. Modern cultivars however, developed for improved yield generally, or to target key season demands, combined with close attention to grazing management, offer the best outcomes for animal performance. Choose varieties that offer yield at the key times you need it - management will then influence the actual feed quality.

Cultivar comparison

Cultivar	ME (MJ/kgDM)	WSC%	CP%
Aberdart WE	12.9 bc	26.5 ab	18.9 ac
Alto AR1	12.7 ce	25.5 ac	17.4 bc
Arrow AR1	12.6 ef	25.8 ab	17.2 c
Banquet II AR5 (t)	12.9 bc	26.7 ab	18.4 ac
Bealey NEA2 (t)	12.9 b	27.1 a	19.1 ab
Expo AR1	13.0 b	26.5 ab	17.4 bc
Extreme AR6	12.6 ef	24.5 bd	19.0 ac
Halo AR37 (t)	13.2 a	25.4 ac	18.3 ac
Impact2 NEA2 (Trojan NEA2)	12.6 df	25.8 ab	17.8 ac
Matrix HE	12.6 ef	23.3 ce	19.5 ab
One50 AR1	12.7 de	25.5 ac	17.6 bc
Revolution AR1	12.8 cd	25.7 ac	17.8 ac
Sterling AR1 (t)	12.6 ef	25.0 bc	19.9 a
Ultra AR1	12.6 df	25.3 ac	17.2 c
Average	12.8	25.6	18.3
Range +/-	+0.4 to -0.2	+1.5 to -2.3	+1.6 to -1.1

Data combined from three trial sites Canterbury NZ under good grazing management. Sampled over a year, minimum 21 samples per cultivar. Analysis by NIR. Significance lettering given for 5% LSD, cultivars with the same letter are not significantly different. (t) - tetraploid cultivar.

For more information visit www.heritageseeds.com.au
or call 1800 007 333

Heritageseeds

Communication the key to survival

Key points

- ✓ Work through the dairy crisis
- ✓ Negotiate payment plans
- ✓ Everyone is trying to make a profit
- ✓ Bright future ahead

By Jeanette Severs

GOOD communication is the key to happy relationships in the dairy industry – good communication between partners, dairy farm businesses and processors.

That was the message at this year's South Gippsland Dairy Expo, where the panel discussed the theme 'Some things are worth running for: How do I handle the elephant in the room?'

The elephant was the current state of Australia's dairy industry and the panel discussion was facilitated by Matt Harms, OnFarm Consulting.

Panel members were dairy farmers Les and Lyn Hornby and Lucas and Kylie Licciardello, dairy farmers and milk processors Burke and Bronwyn Brandon, stockfeed and merchandise suppliers Chris and Cameron Brown and Rabobank's Russell Mann.

The loss of control over management decisions – a fallout of the current dairy crisis – was discussed by many on the panel.

"We're running a business and we want to make money. I love dairyfarming but I milk cows to drive profit, expand the business and improve the farm," Lucas Licciardello said.

"I don't like doing it for nothing. On the day [Murray Goulburn announced the clawback], someone took our decision making and our skill set away from us and threw them in the bin.

"Industry took our decision making away from us. We want to move forward without losing what we've made for us."



The South Gippsland Dairy Expo panel: (Back) Chris and Cameron Brown, Brown's Stockfeeds; facilitator Matt Harms, OnFarm Consulting; (middle) Les Hornby, Outtrim and Stony Creek; Burke Brandon, Prom Country Cheese; Lucas Licciardello, Mirboo North; Russell Mann, Rabobank; (front) Lyn Hornby, Outtrim and Stony Creek; Bronwyn Brandon, Prom Country Cheese; and Kylie Licciardello, Mirboo North.

ward without losing what we've made for us."

Lucas and Kylie are continuing to support each other and ensure they talk regularly.

"The dairy crisis was soul destroying but the situation is improving," Ms Licciardello said.

"We can't cut the running costs that are about performance and production, but we have let our worker go and we sacrifice family time to work the extra hours.

"We've created wealth out of the dairy industry and will again; we just have to keep supporting each other."

The impact of the dairy crisis was being felt across communities.

"Dairy farmers are buying only critical supplies. Our agronomists and nutritionists are trying to help dairy farmers spend less on feed and supplements and focus more on growing grass," Chris Brown said.

Browns Stockfeeds is one of several merchandisers and other service providers to employ a person specifically to discuss supply and payment arrangements with dairy farmers.

"Ninety-five per cent of our business was dairy reliant and we employ many local people," Cameron Brown said.

"We've had to put practices in place to ensure cash flow. Communication is a really big thing; if a dairy

FLECKVIEH AUSTRIA

Fleckvieh crossbreeds - Dual Purpose for Countless Benefits!



HOLSTEIN x FLECKVIEH (S: DINOS)
3rd Lactation 10.144 kg milk 3.87%F and 3.37%P



50% Fleckvieh (S: DINOS), 44% HF, 6% MRV
2nd Lactation 8.185 kg milk 4.31%F and 3.63%P

Crossbreeding with Austrian Fleckvieh proven excellent milk quality, higher fertility, less mastitis and less vet treatments

Contact: Tim Williams
Mobile: 0448 272 357 | Ph/Fax: 02 6492 4557
Email: agrimilkconsulting@bigpond.com
Web: www.agrimilk.com.au
AgriGene Wangaratta:
PH: 03 57 222 666 | Fax: 03 57 222 777



DF113979

Be sure to prioritise the health of your herd



Every drop counts
come talk to us



(07) 4663 1315



(03) 5456 2709



(02) 6884 1190



(03) 5147 1177



(03) 5852 2244



(03) 6352 2996



(03) 6452 6333



1800 728 726



(03) 5482 3202



(03) 5561 2255



◀ farmer phones and negotiates payment terms, we appreciate it.

"We have corporations demanding we pay them and it's tough, as a merchandiser, to phone dairy farmers chasing payment from them. We're all running businesses.

"There's a bright future to come again; we'll learn what we can from this dairy crisis to cope with the next downturn."

He said the company had noted that beef farmers had become more affluent purchasers due to the buoyant cattle market.

That market was also proving an income stream for dairy farmers.

"We're raising calves now for income," Lyn Hornby said.

"The first thing that's paid out of the monthly milk cheque is the wages – then I negotiate to pay the other

bills. "I've found communication and negotiating payment terms is the best thing – most people are compassionate.

"Ignoring the debts risks the problem getting worse and beyond our control."

There were mitigating factors about the dairy crisis that were often ignored, according to Rabobank's Russell Mann.

"In isolation, the current crisis is bad but it came on the back of a poor season and two years of tough prices," Mr Mann said.

"People weren't offered opportunities to manage the situation.

"At this point, few people have gotten out of the industry and most are taking a long term view; just trying to work their way through the next 12 months."

How the dairy processors communicated came under fire.

"Daily and even more often emails telling us what they were doing and trying to combat what was being said in the media," Mr Licciardello said.

"We just had to block out the bulls**t and dialogue."

"Industry programs have helped us because it brought someone in to look at the business and help us to get a clear view and direction."

The couple also exited Murray Goulburn and became a supplier for Fonterra.

"It was something we'd been discussing since December last year and we switched in July," Mr Licciardello said.

"But leaving MG also meant we left behind the political stuff and endless emails." **D**

Boutique is not a simple answer

By Jeanette Severs

BURKE and Bronwyn Brandon operate a sheep dairy and manufacture specialist cheese. They recently added cow milk to their repertoire, supplied by a local dairy farmer.

"Investing in a milk carrier and processing facilities is not for the faint hearted," Mr Brandon said.

"As a manufacturer, there's many licensing, food and biosecurity conditions we have to comply with. "And, our product (sheep and goat cheese), is made up to 12 months in advance of sale, so that's a long time to wait for payment."

Diversifying was also important, but value adding for many dairy farmers was about doing what they do well.

"Tourism is a fickle industry and supplying a boutique, niche product – you have to sell a product the market is prepared to pay for," he said.

"Every corporate processor is producing cheese and doing it a lot cheaper than a small business can.

"But consumers want to buy honest, genuine farm products – real butter, milk, cheese – the dairy industry needs to remember that as it fights for its share globally."

Approached by several local dairy farmers, they agreed to take 1000 litres of

milk each fortnight from one who already had a niche farm business.

"They were already value-adding products and we manufacture cheese from their milk to add to their food range. I make sure I pay them after each milk delivery. It's not fair that they should wait – it's a perishable product," Ms Brandon said.

The couple had received many enquiries from dairy farmers, "mostly to use our processing facilities or about how to set up their own," Mr Brandon said.

"They're after quick and easy solutions. A processing facility is an expensive investment and takes a long time to set up."

DODD Dairy Effluent TRANSFER PTO PUMP



EASILY PUMPS HIGH SOLIDS SLURRIES

- ▶ Made with robust, long lasting hardened cast iron parts
- ▶ Primary chopper blade and secondary cutting impeller
- ▶ Flow rates up to 60L/s and heads to 120m

FREECALL 1800 813 677 BATHURST NSW 2795



IRRIGATION solutions

IRTEC Hard Hose Irrigators

Equipment available for crops, turf, pastures, & dairies



IRTEC

www.truflopumps.com.au



Semen handling in large programs

Key points

- ✓ Follow the program exactly as instructed
- ✓ For best results, never compromise on semen handling
- ✓ Ensure the technician feels safe and has time to do the job correctly

By Carol Millar

It is becoming increasingly common for dairy farmers to use synchronisation programs routinely in their AI breeding plans.

Because synchrony programs are becoming so commonly used, it is important to remind farmers of a number of basics which are important to get right if conception rates are to be maximised.

Follow the program

It is absolutely vital that the AI synchronisation program is followed to the letter.

Do not adjust dosages or dates without checking with your veterinarian or service provider. These programs are carefully constructed and cannot be changed mid-stream. If using auto-injectors, make sure the dosage is correct.

If using implants, make sure that manufacturer's instructions are followed.

Good cow ID

Good cow ID makes everything easier.

This is when all the effort with freeze-branding or the dollars invested in a good RFID drafting system gets rewarded.

Invest in some good marking paint in several different colours and don't be afraid to use it liberally.

Work out a simple system that everyone on farm can understand.

Book your AI tech early

If you normally do your own AI but know that you are going to need the assistance of a professional AI technician on certain days when you are likely to have large numbers of cows to AI, then make sure you book the AI technician as soon as possible.

Everybody gets really busy during the joining season and it is silly to start a costly synchronisation program and then not be able to book an AI technician because they are all busy elsewhere.

Don't compromise

Good semen handling is an important component of getting cows in calf.

But somehow, during some large synchrony programs, the sheer number of cows needing to be inseminated in a short time leads to some really dodgy short cuts in the area of semen handling. This is even worse if sexed semen is being used.

Thawing water should be between 32 and 38 degrees Celsius. Always – no exceptions.

All too often, the standards of semen handling are seriously compromised during large programs and this will have an impact on conception rates.

Time limit

Once it is removed from the AI tank, semen should be used (or inside the cow) within 15 minutes. Any longer than this and conception will be negatively affected.

Also, on cold days it takes approximately 30 seconds for thawed semen in a loaded gun to revert to the ambient temperature. This is called 'cold shock' and it can severely damage sperm cells.

Loaded AI guns should be kept warm and clean at all times – this should be a priority.

It is worth getting extra assistance if needed on these hectic days to increase the efficiency of the thawing and gun-loading processes.

Good facilities are gold

Expecting AI technicians to perform at their best when balanced on a plank of wood between two drums in a herringbone pit is unrealistic. No-one can do a good job if they feel unsafe.

Often, these large programs are done on a rotary platform during milking and what farmer doesn't love the concept of getting two jobs done at once – milking and lots of cows AI'd at the same time?

It is also unrealistic to expect AI technicians to work at normal rotary speeds – if you have less than 30 seconds to get into the cow, make sure you are through the cervix and press the plunger, sometimes you are going to be pushed for time.

If the farmer won't slow the rotary down to a realistic pace, chances are the AI technician might just have to let the semen go wherever it is convenient rather than where it should go.

Attention to detail

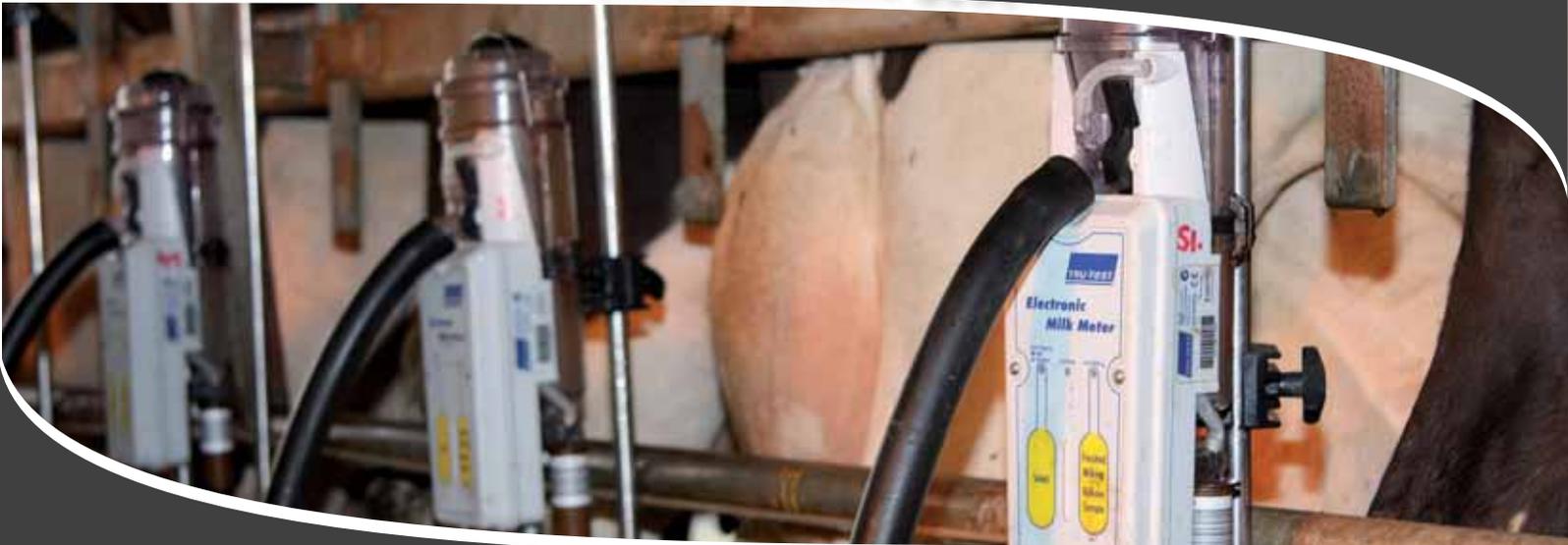
AI synchronisation programs can be an expensive mistake if you don't pay attention to detail.

It makes sense to work the odds in your favour by following the program exactly, and insisting that your AI technicians don't take any short cuts when it comes to semen handling, thawing and semen placement inside the cow. Give them the facilities to do a good job.

Herd Testing = Profitable Dairying

When performance is measured,
performance improves!

- More milk
- More fat & protein
- Less mastitis
- Better herd records
- Better decisions
- Cows worth more \$\$\$\$



You can't manage what you don't measure!

- Individual Cow Cell Counts (ICCC) result in better mastitis management.
- Your data counts towards calculation of Australian Breeding Values (ABVs) for bulls in Australian conditions.
- Production Index (PI) identifies which cows perform best in your herd.
- Access to Progeny Test programs and lower AI costs.
- Benchmark your performance against your district average.



www.nhia.org.au

Race in for Spring Selections



Flamer

Famear-TBR-BH Flamer

McCutchen x Planet x Oman



- No.2 BPI Genomic sire at 303 & 282 TWI
- 6.7% Calving Ease in USA with over 500 observations
- Ideal Robot bull & 110 Fertility



Cabriolet

CO-OP Robust Cabriolet-ET

Robust X Planet X Ramos



- Features in the Good Bulls Guide at #9 BPI +284 , #9 TWI +238 and #3 HWI +245.
- Solid production, positive daughter fertility, elite Productive Life and Calving Ease of 4.7%.
- Milking daughters continue to impress.



Minx

Stonyrun Aus Tbone Minx

Tbone x Vanahlem x Larfalot



- Breed leader; 287 BPI, 324 TWI
- 10B for Type & Udders
- Ideal production proof, 583 milk & positive components.



Bontino

Cairnbrae Bontino

Valentino x Tbone x Alf



- Creating some excitement with heifers hitting the ground.
- Top 10 BPI Genomic Sire with Ideal Production & type
- Leading TWI at 334, 280 BPI & A2/A2



Wyevalley

Wyevally Advent

VR Cigar x R Facet x R Ascona x R David



- The Total package: Health, Fertility Production & Type
- Outstanding milk over 1400 with positive components
- 2.0 DPR, 1.3 PL & amazing cow & heifer conception rates.

Agri-Gene Pty Ltd

123-125 Tone Road, Wangaratta Victoria 3677

Ph: 03 5722 2666 Fax: 03 5722 2777

Email: info@agrigene.com.au

www.agrigene.com.au



Emerging leaders hone skills in Tassie

Key points

- ✓ Building future industry leaders
- ✓ Active discussion helps growth
- ✓ Networking opportunity

THE first crop of emerging dairy leaders have hit their straps with a second residential workshop.

The 14 farmers from across Australia participating in the Emerging Dairy Leaders Program (EDLP) spent three days learning about the Tasmanian dairy industry with a focus on innovation and workplace health and safety.

As part of the year-long course, the group visits three dairy regions – South Australia, Tasmania and Gippsland.

The program also comprises self-paced study including online work, webinars and independent research that, once completed, will result in participants graduating with a Diploma of Agribusiness Management from the National Centre for Dairy Education/TAFESA.

The Tasmanian component included visits to five dairy farms during which the group was taken through each farm's operating systems, innovations and workplace health and safety rules and processes.

The host farmers were Grant Archer (three-time Tasmanian sharefarmer of the year), Paul Bennett at Ashgrove Cheese, Peter Jones, Jason Chillcott (who runs a robotic dairy) and participant Nikki Atkins.

The group also took part in several networking events and visited Seahorse World and a winery.

Safe Farming Tasmania senior workplace health and safety consultant Phillip John joined the group on the tour and gave a dinner presentation.

While all facets of workplace health and safety were covered and explored, quad bike safety and use was of particular interest to the group.

Six months into the program and 20-year-old Kieran Bourke, who is studying a Bachelor of Agribusiness at the University of Queensland and working on the family farm near Warwick, said the program was providing numerous networking opportunities which would otherwise not be available.



The group are taken through some important workplace health and safety lessons.

'I've found it really positive to have a number of people I can go to for advice or bounce ideas off who are like mentors to me.'

"For me, being one of the younger participants of the group, I've found it really positive to have a number of people I can go to for advice or bounce ideas off who are like mentors to me," he said.

"It's not only a great learning opportunity from the curriculum we are studying, but also being able to learn from each other and appreciate what is available across the different regions and understand how other regions operate is a great advantage."

Kieran's grandfather, father, two uncles, two brothers and sister are all involved on the farm which milks 500 cows.

He said one of the highlights of the Tasmanian trip was visiting Ash-

grove Cheese and learning how that business had developed and worked through the ups and downs of the industry.

"The information on workplace health and safety also put things into perspective; it's something we all need to focus on every day," he said.

Dairy Australia program leader people and capability Shane Hellwege said the EDLP was the dairy industry's tier-one leadership program.

"It is designed to introduce the participants to concepts about how they and others communicate and engage with the broader world and theories about leadership styles and practices," Mr Hellwege said.

"It focuses on the idea that leadership is a set of behaviours, not necessarily requiring someone to hold a position of leadership, and the industry hopes the program will support the participants to be better leaders at home, on-farm and in the community."

The EDLP, which was launched in May this year, is a joint Dairy Australia and Australian Dairy Farmers initiative and is being run by the NCDE's South Australian partner – TAFESA. **D**

Enhanced education for Tocal students

FIFTY-FIVE young students recently completed Tocal College's Dairy Industry Case Study (DCS).

Over one week, the hands-on experience provided students with enhanced dairy education to help build the capability and skills of the dairy industry workforce.

This is the second year that DCS has been incorporated in Tocal College's Certificate III of Agriculture curriculum.

As a National Centre for Dairy Education (NCDE), Tocal works closely with Dairy Australia to meet the needs of the dairy industry.

"DCS is one week in the student's Certificate studies that is dedicated just to dairy studies," Tocal College Traineeship Coordinator Matthew Brett said.

"Dairy Australia teamed up with us and after some meetings and brain-



Emma Cooper (left) and Elizabeth McRae a lot wiser about the dairy industry by completing the hands on Dairy Case Study though Tocal College.

storming, they said why don't we provide a modified version of the Countdown program Cups On Cups Off (COCO) to suit the student's expe-

rience level. It also includes a variety of farm field days and extension."

Tocal College has a commercial dairy with a 250-cow milking herd, which the students work at on a rotating roster. "It's very important the students are trained so they know how to perform properly in the dairy," Matthew said.

This year, the 55 students were split into two groups to optimise their learning experience. Each group was given an industry overview, visited dairies, learnt from vets, and studied mastitis prevention and rearing healthy calves.

"We split the students into two groups because if we put all 55 students through the program at once it would dilute the quality of learning," he said.

"We want to ensure we achieve as much as we can, at a high quality,



REGISTER BY
OCT 30 FOR
A CHANCE TO
WIN A GOPRO

gotafe

Dairy Australia
National Centre
for Dairy Education

IDW
Dairy Beef
Alliance

National Centre for Dairy Education

All Breeds Dairy Youth Camp IDW 2017

Register Now

This 5 day camp aims to support young people as they develop their leadership and teamwork skills, plus foster a passion for the dairy industry. If you're aged 16 to 20 apply today. No dairy experience necessary.

Call Lucy on 0488 144 999

www.gotafe.vic.edu.au/youthcamp

Location & Dates

Arrival

3 to 7 January 2017

Venue

Tatura Park
Home of International Dairy Week
Hastie Street, Tatura, Victoria

Students urge others to have a go

ELIZABETH and Emma's advice for young people thinking about a career in agriculture:

Elizabeth: "Get out there and ask someone if you can try working on a farm.

"If you see a neighbour putting up a fence, ask if you can help – if you want to learn, just do it! Don't hold back because it's worth it.

"Through study you can meet and work with a lot of people from different backgrounds – from the city, the bush, people who know about agriculture and people who don't – you can learn and work together and you can teach each other different things.

Emma: "It's not about your age, gender, where you come from, or how small you or strong your are – anyone can do it!"

"Give everything a go and try different things.

"Education is important because employers take education and experiences into consideration when you're applying for a job."

Z0841427

within the time frame – so it’s an enriched education program.

“Our course has 50/50 female and male students and their background isn’t necessarily in dairy, so it’s been interesting to see how much they’ve learnt and enjoyed it.”

Elizabeth McRae, 18, from the ACT, was one of the students. With no previous dairy industry experience, she believes DCS has enhanced her skills and opened her eyes to the variety of job opportunities in the industry.

“I didn’t think I would enjoy the course as much as I have, but I loved it,” Elizabeth said.

“It was a shock how much I could actually learn in such a small amount of time. I can’t believe that I’m taking away so much information.

“I’ve become so passionate about dairy that I now wake up at 3.30am on weekends and travel to Singleton to work with a dairy farmer.

“I get excited about milking, working with the cows and cropping – I love dairy because you can do a wide variety of jobs.”

Through DCS Elizabeth – whose family have property around NSW with sheep, cattle and cropping – learnt about the cycle of dairy farming, as well as the scientific-side of the industry.

“I didn’t know about the cycle of the cow through milking and I didn’t know that it had to dry off, so it was an eye opener to how the whole process works,” she said.

Fellow student, Emma Cooper, 17, from the NSW Central Coast, comes from a beef cattle background.

She said DCS exposed her to the different elements of the dairy industry.

“I’ve always loved agriculture and working with animals,” Emma said.

“I want to teach younger generations about our ways of farming and where our food comes from. I enjoyed visiting the farms. It’s good to see how a dairy works; the science is amazing.

“I didn’t know there was more than one way of milking, I thought that there was just the herringbone, so when the farmers spoke about rotary dairies I found it really interesting.”

Passionate about animal welfare, Emma found the vet sessions especially inspiring.

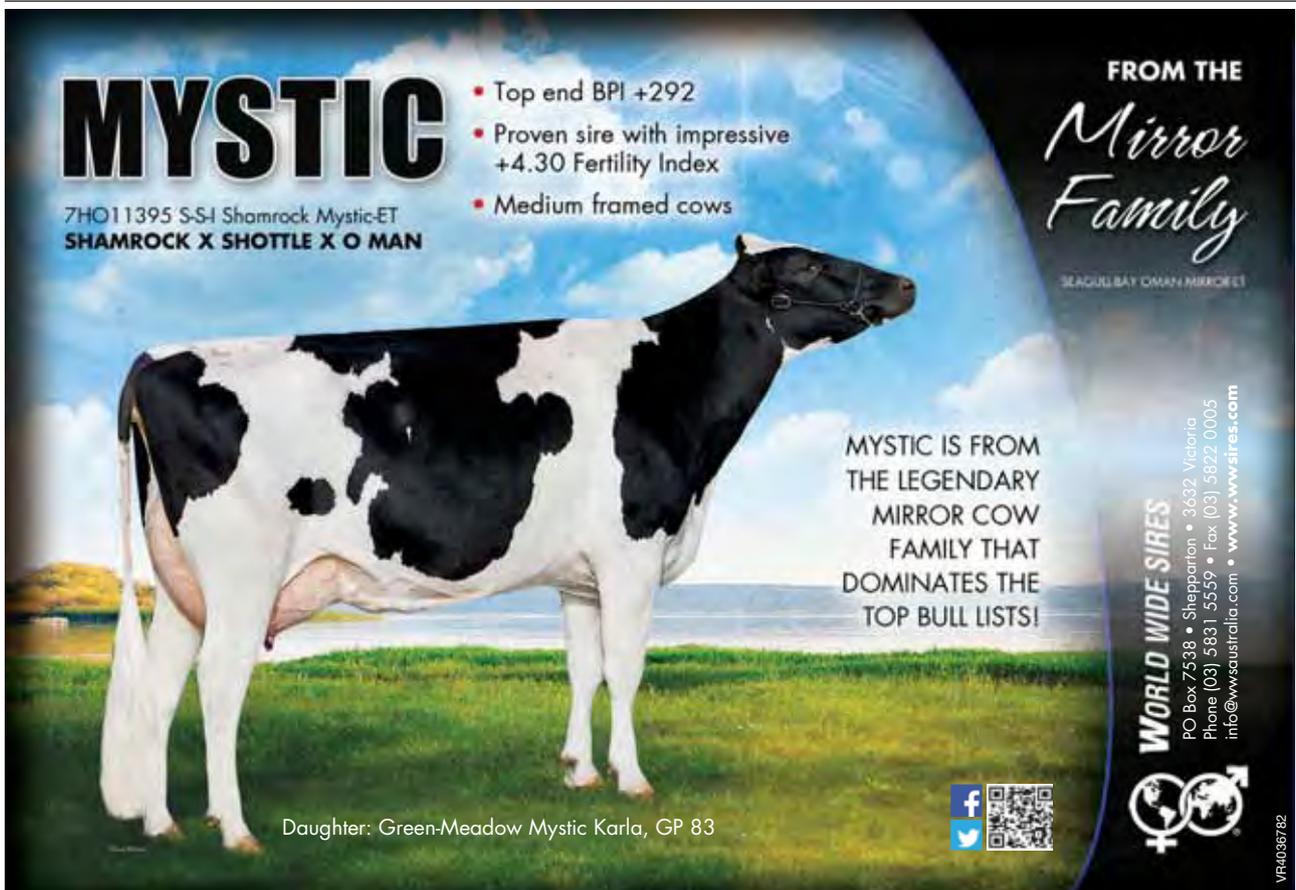
“I have become more aware, I know more about diseases and the things that we can do to help improve the dairy industry,” she said.

“I’ll definitely use what I’ve learnt throughout my career, I’d like to teach this information to others who are also interested in dairy.”

Dairy Australia Industry Capability Program manager Tracy Lloyd said the partnership will continue to build industry capability and education.

“Dairy Australia has an ongoing commitment to ensure industry-specific training is available to all people in the dairy industry at each stage of their career – and enhanced dairy education, such as Tocal’s DCS program, is embedded into the studies of agriculture students nationally via our NCDE partners,” Ms Lloyd said.

For more information contact Dairy Australia Industry Capability Program manager, Tracy Lloyd tlloyd@dairyaustralia.com.au



MYSTIC

7HO11395 S-SI Shamrock Mystic-ET
SHAMROCK X SHOTTLE X O MAN

- Top end BPI +292
- Proven sire with impressive +4.30 Fertility Index
- Medium framed cows

FROM THE *Mirror Family*

SEAGULL BAY OMAN MIRROR ET

MYSTIC IS FROM THE LEGENDARY MIRROR COW FAMILY THAT DOMINATES THE TOP BULL LISTS!

WORLD WIDE Sires
PO Box 7538 • Shepparton • 3632 Victoria
Phone (03) 5831 5559 • Fax (03) 5822 0005
info@www.sires.com • www.sires.com

Daughter: Green-Meadow Mystic Karla, GP 83

Facebook, Twitter, QR code, and World Wide Sires logo.



AgCAP livestock manager Wolfie Wagner with share farmer Mark Streets at Midlothian farm.



Ji Streets checks the farm planner in the dairy at Springvale farm.

Bringing the farm and investors together

Key points

- ✓ Alternative farming structure pays off
- ✓ Trust in business partners key
- ✓ Share farming success



By Richard Meredith

MANY will recall this extraordinary sequence of events: In July 2015 record frosts were followed by the biggest August snowfall in years and subsequently soils were colder and wetter for longer than usual in early spring.

Between September and the following January there was no rain.

At the end of January there was minor flooding and then for 50 days in autumn this year there was no rain. In late April the major milk companies unexpectedly cut the milk price by an average 15 per cent.

In June there were major floods.

This is an unusual sequence of events but that was the full gamut of extreme experiences for dairy farmers on Tasmania's North West coast, the major dairy region in the state, over a 12-month period.

In that July when this sequence of extremes began, Wolfie Wagner was two and a half years into his role as livestock manager for AgCAP, the Sustainable Agricultural Fund's four dairy farms along the North West coast and four beef farms on King Island.

As an experienced dairy farm manager who had spent some years out of the industry in commercial real estate and also working at the Gar-

Table 1: Cradle Coast Aggregation

Four dairy farms

- About 1145 hectares with 3000 megalitres of irrigation water
- 12 centre pivot irrigators plus travellers and lateral move sprinklers
- Milking about 2910 cows
- Other stock: 800 rising one-year-old heifers and 110 Jersey bulls
- Milk production target for 2016/17 season: 1,393,750 kilograms of milk solids

System

- Stocking rate of about three crossbred cows/hectare, all spring calving
- Grain feeding up to 1.8 tonnes per cow per annum
- Pasture consumption >13 tonnes dry matter/hectare on irrigation and >7 tonnes dry matter/hectare on dryland
- Per cow production target of >480 kilogram of milk solids

Challenge

- Create a sustainable system (people, animals, communities, environment) generating adequate margins to achieve sustainable return on assets to investors.

'Control is good but trust is better.'

diner Foundation, the Victorian dairy industry's melting pot for investments in a range of projects centred around emerging leadership and good practice, Mr Wagner had assembled a breadth and depth of skills and experience to complement his practical dairying experience.

When the major processors, Murray Goulburn and Fonterra, announced the price drop in April the AgCAP dairy operation, which had been happily contemplating a \$500,000 annual profit despite the tough season, was suddenly staring at a loss of \$400,000.

While many dairy farms dried off their cows immediately the AgCAP

group had to consider its share farmers' incomes.

Under the guaranteed milk payment arrangement they have with their team, the share farmers stood to make money milking through autumn.

A guaranteed milk price

Under AgCAP's payment system the share farmers' incomes are set at a guaranteed price for milk solids irrespective of what the processor pays.

Fluctuations in milk price are absorbed by the investors who have the benefit of balancing their returns across the range of commodities within the group which also include cropping, cotton and beef.

"Under traditional share farming arrangements the share farmer's share of the milk income is affected by a change in the milk price," Mr Wagner said.

“Because most share farmers have few assets or are building up their assets, when something like this happens they face the risk of going broke and may leave.

“This way both parties get a guarantee of stability. AgCAP gets a stable workforce and longevity and the share farmers get a guaranteed income based on a fixed price for milk solids.”

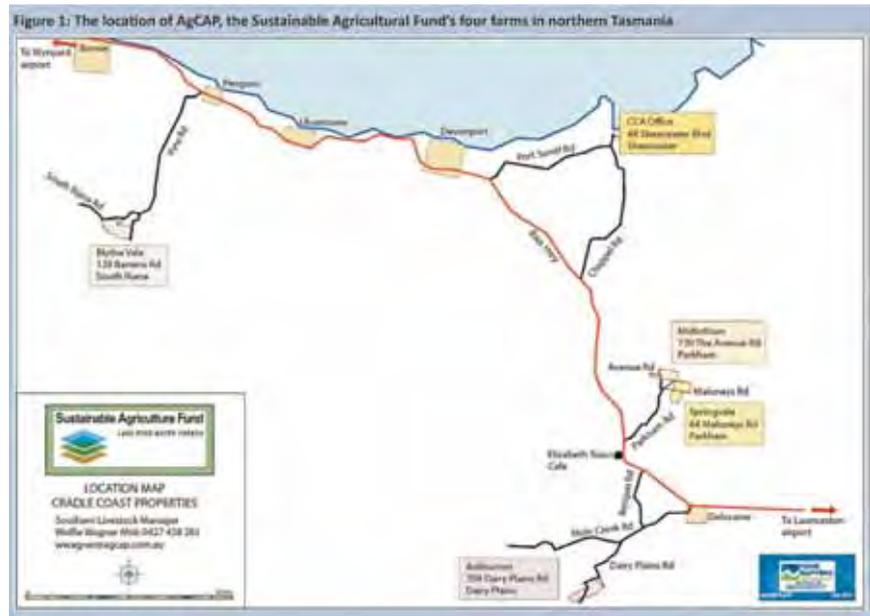
As luck would have it a week after announcing the price cut, their processor, Fonterra announced an offset payment, which took some of the pain out of their losses.

When he was considering taking the management job Mr Wagner visited Tasmania and met the share farmers. He decided, although it was not a requirement, that he would have to be based in Tasmania.

His office is now less than half an hour from three of the dairy farms and less than an hour from the fourth. He flies across to the beef aggregation on King Island regularly.

Trust is better

His approach to changing the relationship between operators and management under his leadership is summed



up in a simple aphorism: “Control is good but trust is better.”

“As much as anything I wanted them to have trust in and respect for each other as much as in me,” Mr Wagner said.

“From the early days I encouraged them to talk to one another. Now they

talk to each other more than they talk to me.”

From this the relationship between the farm staff and AgCAP management was re-built.

“Honesty and respect. You can write it but you have to do it,” he said.

On the four dairy farms there are ▶



The Alltech Protein Management program is designed to ensure you are getting the most out of your summer-pastures and PMR/TMR-diets by safely ‘drip feeding’ nitrogen into the rumen.

- Optimise rumen efficiency, providing more with less
- Enhance fibre digestion
- Support milk production



STOP THE DROP
Keep your production and profitability up when it is usually dropping



To find out more, call 1800 736 991 and make an appointment with your local On-Farm Support team member.

Email: alltechaustralia@alltech.com | Phone: 1800 736 991
alltech.com/australia AlltechAP alltechaustralia



◀ two share farmers each with 20 plus years experience.

On the others the share farmers have 10 or more years experience.

"We have to trust them with the farm asset," Mr Wagner said.

"We have to respect their knowledge and experience.

"They spend more than 50 hours a week working on their farms. Management spends less than an hour."

There are very few corporate policies and procedures; no rules sent from up high; no 'how to's' in the dairy shed.

"That is their business. We employ farm advisor, John Mulvany, to work with them. With his help they have all become very good managers of their farms and their own farming system.

"We delegate the management, training and employing of staff to the share farmers.

"That is a big difference between our share farming approach and corporate farms with managers and employees appointed by the corporation.

"It means our share farmers have direct responsibility for the staff who work alongside them.

"They can and do employ family members, where a corporate might consider that an undesirable practice.

"We think it is more in keeping with our Australian family farming tradition."

Share farmers in control

Share farmer, Mark Streets has more than 20 years share farming experience.

He describes the arrangement as "fair and equitable".

"It comes back to Wolfie. As a former share farmer himself he understands what we face," he said.

"He passes on any concerns we have to the next level and makes it all work.

"We've got three very experienced share farmers all going into their fourth season. That'd be hard to find among share farmers, I reckon.

"It would be very easy with big operations like Sustainable Ag for management to get out of touch."

Mr Streets operates Springvale farm milking 620 cows and was proud to see his eldest son Ji take over as share farmer at Midlothian in 2014.

Midlothian is another AgCAP dairy farm milking 540 cows, just along the road.

"Ji is doing a great job. I don't have to worry about him. It takes many years to get to this level but now he's



Ji Streets and AgCAP livestock manager Wolfie Wagner with a mob of young cross bred calves in the calf shed at Springvale farm.

running it well and getting very good figures," Mr Streets said.

While each of the farms operates differently according to the management style and methods of the share farmer, there are certain non-negotiables required by AgCAP, particularly around animal welfare.

There is no tail docking, induction is minimal and will be completely phased out by 2018; cow body condition must be maintained and vigilance in managing animal diseases and illnesses is mandatory.

"One of the benefits of running a larger farming system with external management support is when a crisis occurs," Mr Wagner said.

"Two years ago we had a sudden outbreak of mycoplasma bovis, a highly contagious disease that went through one of our farms.

"We were able to support the share farmer by researching and finding an expert at Sydney University who quickly set up protocols for the farm to follow," he said.

"We were able to manage the disease and minimise losses."

Rules, where they exist, are at a fairly high level.

Farming system

The favoured farming system involves a stocking rate of about three milking cows per effective grazing hectare.

All cows calve annually in August and September with production targets of approximately 480 kgMS/cow

and 1400 to 1600 kgMS/ha. Feeding is focused on maximizing home grown pasture intake (3 to 3.5t DM/cow).

Supplementary feeding per cow per annum includes approximately 1.62t DM grain (fed as pellets) and 0.6t DM fodder (fed as silage and hay).

Pasture consumption targets are >12t DM/ha on irrigated pasture and >7t DM/ha on dry land pasture.

"We run a three-way rotational cross breeding system combining Holstein, Jersey and Red breed sires," Mr Wagner said.

The system and the AI work is all planned by Leo Bydevaate in consultation with the share farmers.

He sets up the timetable and they implement it.

"Across the four dairy farms we have a greater than 80 per cent six-week in calf rate and 65 per cent of our herds calving within 14 days because our farm managers follow the schedules," he said.

"There is a significant amount of trust between the parties. They believe in it. They're enthusiastic."

There is also a bi-monthly teleconference covering Work Health and Safety issues.

"We do have procedures and policies for work health and safety which must be followed," Mr Wagner said.

"We want to be sure everyone returns home safely.

"We want to make sure there is no rush, we're well organised and have good plans in place for everything." 



Beau Vernon (centre front), Leongatha, with Nyora dairyfarmers Loretta and Stephen Saul and their sons, Elijah (13) and Xavier (11). The Saul family was inspired by Beau when he offered to keep in touch with Elijah, who is recovering from his own serious illness.



Dairyfarmers Bill Bodman and Philip Tracy fill out their self-assessment health score sheets before an individual consultation and tests with a registered nurse.

Healthy future in farmers' hands

By Jeanette Severs

HEALTH and wellbeing was on the agenda at the recent South Gippsland Dairy Expo, held at Korumburra, Victoria.

While numbers were down for exhibitors, additional activities such as gumboot throwing championships for children, men and women brought attendees out of Melbourne and northern Victoria.

"We saw the expo was on and decided to come along and support the dairy farmers," said Melbourne's Lucy Halliburton, one of a group of three young families on holiday at Inverloch.

The women's gumboot championship was won by her friend and fellow competitor, Rachel Jones, also of Melbourne. The men's championship was won by Simon Jones, who had to fight off a lot of competition from his friends and local dairy farmers.

Children's gumboot throwing champion was Raywood's Will Sinclair, on school holiday with his grandparents.

Reid's Stockfeeds offered children the opportunity to throw or kick a mini football through a cow's rumen.

"We decided to do something fun," said Nick Reid. Everyone who participated walked away with a prize.

At the expo breakfast, resilience was discussed by Beau Vernon, a young local man who became a quadriplegic after a football accident a few years ago.

He said the support of family and friends had helped him to cope with and challenge his limitations – this included being employed as coach



Marcus Dingle recommended dairy farmers spread their investment in grain across the season, as prices were expected to remain low.

of the successful Leongatha Parrots Football Club, marrying his longtime partner and starting a family.

He said golf and surfing were next on his list of activities to conquer – both sports requiring participation from his family and friends.

"I'm known as a bit of a prankster and when I first went back in the surf I was bobbing around and they thought I was having fun..."

"We need to take a step back and work out how I can achieve these things without drowning," Beau said.

The National Centre for Farmer Health partnered with Rural Bank at the field days to offer health checks to farmers.

"This is a program of farmer health and wellbeing assessments we have taken to field days across southern Victoria," said Tracey Hatherell, program coordinator with National Centre for Farmer Health.

"We employ local nurses, who are

also dairy farmers in the local region, so farmers come along and get assistance and advice from people they relate directly to.

"Partnering with Rural Bank, we've been able to make a difference to farmers lives."

Local Murray Goulburn board members Phil Tracy and Bill Bodman turned up for the health checks at the expo.

The South Gippsland Dairy Expo and Elmore Field Days were last on the list for this year. The farmer health checks were conducted at Sun-gold Field Days at Warrnam, Wimmera Field Days at Horsham, AgFest in Tasmania, Dowerin Field days in Western Australia and Sheepvention at Hamilton.

In other presentations at Korumburra, Reid Stockfeeds' Marcus Dingle said waterlogging would prevent some cereal crops in NSW and Victoria from being harvested but he expected yields would still be average to good.

"Expectation is for a good year even with more rain forecast," Mr Dingle said.

"We're looking at a carry over of two million tonnes from last year and a surplus of 2.3 million tonnes this year. But even with lower prices, we recommend dairy farmers spread their spending across the season."

While the global market was bearish, lower oil prices would also mean grain was cheaper to transport and that was expected to impact Australia's prices.

• See photos from the South Gippsland Dairy Expo on page 62-63.



Greenfields label milk owned by AustAsia.



AustAsia's managing director Edgar Collins and China general manager Yang Ku.

Cashing in on China's demand for dairy

Key points

- ✓ Capitalising on China's potential
- ✓ A top-10 Chinese dairy operation
- ✓ Continuing to expand



By **Shan Goodwin**

AN Australian-led visionary agribusiness outfit is showing the best way to capitalise on the enormous potential of consumer demand for fresh dairy in China is to pack your bags.

Headed by former Queenslander Edgar Collins, AustAsia has built five free-stall dairy farms in the temperate environment of the northern Chinese province of Shandong, plus another in Inner Mongolia, to milk 30,000 Holsteins in total.

A seventh farm in Inner Mongolia is due to come online next year, along with a processing factory next to Farm Four.

All farms are a similar size – around 100 hectares with 10 milking cow barns of 600 head per barn – and milk 5500 to 6000 cows four times a day on two 80-head fully automated rotary parlours. Each carry around 12,000 head in total and have cropping areas attached.

Cows are averaging 38 litres per day at 3.3 per cent protein and 3.8 to 4pc fat.

The majority of the milk is sold to the top four processors in China and goes to fresh yoghurt, the fastest growing dairy category in China.

However, AustAsia's factory, due to



The 80-head rotary parlour in action.

'We realised the potential was enormous, with a massive undersupply of dairy in a country with billions of people.'

be up and running by the end of 2017, is expected to take half the milk produced. It will produce mostly yoghurt.

The total investment per farm has been around the \$US80m mark, including the cost of importing around 35,000 heifers from Australia, mostly out of Victoria, with a smaller number coming from New Zealand.

Most have been shipped by West Australian company Wellards.

In partnership with Indonesian agribusiness Japfa and Cargill's Black River, AustAsia, as a wholly foreign-owned investment on Chinese ground, had received a warm welcome from the Chinese government, according to Mr Collins.

The AustAsia Investment Holdings managing director was born in New Guinea, moved to north Queensland where his family ran a dairy and was schooled in Sydney.

In 1991, Mr Collins started buying feed commodities in Indonesia under the business Collins and Leahy and went on to build AustAsia's dairy business in Indonesia, which is today that country's market leader in fresh milk, sold under the Greenfields brand.

A total of 8,000 cows are milked on one East Java farm with construction of a second underway.

A third of the Indonesian product is



Tankers loading AustAsia milk.

exported. AustAsia employs 1700 in Indonesia and 1200 in China.

The China move, Mr Collins says, was in reaction to the melamine scare.

"We realised the potential was enormous, with a massive undersupply of dairy in a country with billions of people," he said.

The Chinese Government was 'hugely supportive' of anyone looking to build businesses in China, he said.

AustAsia's farms are on land leased for a 40-year term, and the governments have assisted with roads,

power connection, irrigation infrastructure and helping to find the land – particularly what is needed for cropping.

"We deal with four tiers of government – shire council, county, city and provincial and all are very commercially-minded," Mr Collins said.

"They are about improving the economic position of their area, they want to drive industry.

"It's much easier to do business here than if you are a foreigner buying a farm in Australia.

"However, the Chinese Government's interest is in developing the Chinese dairy industry, not Australia's or New Zealand's – that's why you have to come to China."

AustAsia is now among the top 10 Chinese dairy operations size-wise.

While expansion will be ongoing, Mr Collins said the golden era of Australian heifers going to China was over.

"We are now producing around 1,200 excess heifers on our farms so Farm Seven will be supplied by us," he said. D

Cow comfort still paramount

FIRST-CLASS cow comfort is the focus at AustAsia's extensive dairy set-up in China.

"We're in the business of keeping cows happy – everything stems from that," managing director Edgar Collins said.

"The rotary parlour, first and foremost, is no-stress and easy on cows."

Each parlour milks around 5,100 head in five hours and runs for 20 hours a day.

Each cow takes eight minutes and 20 seconds to milk.

It takes just one stockman to bring the cows up from their barn stalls and they are moved onto the parlour via hydraulic gates.

Sand is used as bedding in the stalls and is cleaned when the cow goes out to milk. Water spray keeps cows cool.

Heifer calves are raised in huts for 70 days, then moved to weaner barns.

Calving is year-round but managers minimise summer calving as much as possible. Temperatures in Shandong range from minus 15 degrees Celsius to 40.

The lock-ups in stalls mean cows don't have to be put in a crush for pregnancy testing and other procedures but rather stay in their normal setting.

Cows have 24-hour access to open areas.

"The US is the benchmark globally for this type of dairying and we have used their knowledge as a base," Mr Collins said.

"We're proud of the productivity of our farms – the key is feed, management and genetics."

The operation's plantation manager Queenslander Troy Ziesemer said most feed for rations was bought locally but alfalfa hay was sourced from the United

States and oaten hay from South Australia. Corn and sorghum is produced by AustAsia on adjoining cropland.

Last year, 70 to 80,000 tonnes of corn was ensiled in September.

Corn-derived silage is the main component of rations.

The deregulation of China's corn industry last month is expected to bring AustAsia's cost down by as much as 10 per cent.

The farmgate milk price, currently at 3.8 Chinese renminbi or around 75 cents in Australian terms, has dropped from a peak of 5rmb but was still very profitable, Mr Collins said.

"The economy is suffering now but we believe in China in the long-term," he said.

"Consumers want fresh product and there are a lot of consumers. There is a big future here."



Quad bikes can take your breath away.

Quad bikes are the biggest cause of death on Australian farms. And over half those deaths are due to quad bikes rolling over, crushing or asphyxiating the rider. For information on the Quad Bike Safety Rebate, visit [worksafe.vic.gov.au/farmsafety](https://www.worksafe.vic.gov.au/farmsafety)

Quad bike deaths are preventable





Ten-day-old Wagyu Holstein calves in the rearing shed.

Wagyu fuels dairy shift to beef

Key points

- ✓ Change in operation
- ✓ Diversifying to maintain cash flow
- ✓ Ease of calving



By Shan Goodwin

A SWING to beef among dairy farmers hard hit by plummeting farmgate milk returns looks even more likely with solid price lifts for Wagyu cross calves.

Pioneers of Wagyu Holstein cross-breeding in Australia, Victorian company Beefcorp has just announced a forward contract of \$220 per head for both bull and heifer bobby calves at seven days.

The deal gets even better for farmers prepared to grow out calves with \$900 available for six to eight-month-old calves.

Third generation Colac milk producer Phil Harris, who has been supplying calves to the Wagyu-cross market for 20 years, said those prices would justify implementing a major artificial insemination (AI) program using Wagyu.

"A lot of dairy farmers down here are looking for a longer-term alternative – this latest price drop has been very hard and people have had enough," he said.



Wagyu Holstein steaks, marble score 9, produced by Beefcorp.

"Taking on Wagyus, rearing them and turning their farm into beef looks like a good option."

The Sher family-owned Beefcorp sends chilled beef, across more than 30 cuts, to high-end markets including Japan, Taiwan and China.

'At least this way they can get a far better return for surplus calves.'

Calves are contract reared, grown out on pasture to 350 to 400 kilograms liveweight then finished for 400 days in a feedlot.

They are processed at 750kg live-weight and the beef exported to 12 countries under the Sher Wagyu and Sher Black brand.

Demand for the Wagyu Holstein product across the board was growing, according to Beefcorp managing director Nick Sher.

There was increasing awareness of the quality of Australian product, greater brand recognition and more inquiry from high-end restaurants, he said.

"We understand what the dairy farmers are going through as we've dealt with some tough times over the years in the beef industry," Mr Sher said.

"We've been working with dairy farmers for two decades and with a growing world market for Wagyu beef, we can offer a very good return for dairy farmers who breed their Holstein cows and heifers to our Wagyu semen.

"At least this way they can get a far better return for surplus calves.

"The other benefit is Sher Wagyu semen is highly fertile and the Wagyu calves have a low birth weight giving calving ease on heifers."

With his son Alistair, Mr Harris milks 600 Holsteins under a pasture-

• Continued Page 34

Farmers embrace ImProving Herds project

- Key points**
- ✓ ImProving Herds is a Gardiner Dairy Foundation led and funded initiative.
 - ✓ The project aims to demonstrate that better herd improvement decisions can increase farm profits
 - ✓ 34 farms are participating
 - ✓ Genotyping heifers can be profitable

THIRTY-FOUR dairy farms have been selected to be Partner Farms with the ImProving Herds project. These Partner Farms are located all over Australia, but primarily in Victoria.

Terry and Janine Clark from Nerrena, Gippsland, Victoria, were happy to be selected to participate in ImProving Herds.

“We’re excited to be involved in the ImProving Herds initiative and see it as an opportunity to better understand the attributes of our herd and the traits most relevant to sustainable milk production,” Mr Clark said.

“We believe that improving herd fertility through genomics will increase profits.”

The Clarks milk about 225 cows producing 606kg milk solids/cow. They have more than 30 years of experience in breeding and bull selection.

They also took part in Dairy Futures CRC’s ‘10,000 Holstein Cow Genomes Project’, which established the genomic reference population.

Trevor Saunders and Anthea Day are also part of the Improving Herds project.

They have owned their 150 hectare dairy farm at Shady Creek, north-east of Warragul, Victoria, for 10 years.

They breed and milk 350 Jersey cows that average about 500kg of milk solids/cow and are in an expansion phase.

The couple has had a long-standing interest in genetics through their involvement with breeding organisation, Jersey Australia.

Trevor and Anthea currently use a Balanced Performance Index (BPI) to select sires for their herd.

As part of their involvement in ImProving Herds, they aim to be ranked in the top two per cent for genetic merit of Jersey herds in Australia.



Terry and Janine Clark from Nerrena, Gippsland, Victoria, are happy to be part of the ImProving Herds program.



Trevor Saunders and Anthea Day aim to be ranked in the top two per cent for genetic merit of Jersey herds in Australia.

“We recently travelled to South Africa to learn more about herd management in a country with similar weather and grazing country to Australia”, Mr Saunders said.

“They have produced prodigious cows.

“However, their lack of cohesion across the entire herd improvement chain made us much more appreciative of the overall program we have in Australia.”

How the project came to be

The ImProving Herds project was born out of a need to make more of Australia’s industry-wide systems.

A dairy industry analysis estimated that the genetic gain in cows across the industry to date was worth \$9.30/cow per annum.

Not bad.

The potential gain, however was estimated to be \$23/cow per annum,

meaning the industry could be missing out on \$25-40 million per annum.

Gardiner Dairy Foundation provided \$1.5m for a project that could capture more of this potential value.

The successful proposal, ImProving Herds, led by prominent scientists Professor Ben Hayes and Dr Jennie Pryce, involves a multi-skilled team of experienced scientists, leading farmers and extension experts from around Australia and the world.

Dairy Australia, the Department of Economic Development, Jobs, Transport and Resources, Australian Dairy Herd Improvement Scheme, Holstein Australia and the National Herd Improvement Association put forward a further combined \$1.8m in-kind and cash contribution to achieve this important goal.

The three-year project aims to improve rates of genetic gain by testing the value of a range of genetic and herd improvement tools and technologies to better understand which are the most profitable for an individual farm to use.

Organised into four work packages, the project will:

1. Test whether the highest 50 per cent Balanced Profit Index (BPI) cows on 27 partner farms are more profitable than the bottom 50pc. Profit will be assessed by a Dairy Farm Monitor style analysis, which is completely independent from the genetic analysis.

2. Find the break-even point for using genomic testing on heifers.

3. Test how increases in genetic merit for the Feed Saved breeding

‘They (South Africa) have produced prodigious cows. However, their lack of cohesion across the entire herd improvement chain made us much more appreciative of the overall program we have in Australia.’

value, which reflects feed efficiency, impacts feed costs and methane emissions.

4. Demonstrate the management and economic benefits of herd testing on seven partner farms.

Genotyping makes for better decisions

Genomic testing of heifer calves can be a profitable tool to use in commercial dairy herds.

Genotyping provides more confidence in future performance than other predictors, such as the average of parent breeding values, and using genomics helps to increase the prospect of milking the best heifers.

One genomic test gives Australian Breeding Values (ABVs) with the same reliability as a cow’s ABVs with eight lactations worth of information.

Having genomic ABVs makes it easier to identify higher merit heifers and that has a range of potential applications.

The information from genomic testing can be used to:

- Assist with making sound decisions about which heifers to keep and sell.
- Save rearing costs by selling surplus heifers earlier.
- Design mating programs.
- Decide when to use other technologies, like sexed semen.

To test the profitability of selecting replacement heifers using genomic breeding values, the ImProving Herds project has developed software which can be tailored for individual farmer’s production systems.

The models in the software demonstrate that genomic testing is profitable for most Australian farms at

VICTORIA

1. Brendan Martin, Allanby Pastoral Bamawm
2. Jared Ireland Lockington
3. Lisa Broad, L & L Broad Lockington
4. Nathan Shannon Kafungu
5. Marian Macdonald, M Macdonald Operations Jack River
6. Terry and Janine Clark Nerrens
7. Patrick Glass, Kiewa Valley Gundowring
8. Tim Missen Denison
9. Jelbart Farm
10. Toby Leppin, Lepton T & L J Bena
11. Trevor Saunders and Anthea Day, Araluen Park Jerseys Shady Creek
12. Sarah Chant, Warrion Jerseys Warrion
13. Lyn Parish, Bonnie View Ag Pty Ltd Winchelsea South
14. Andrew and Linda Whiting Simpson
15. Sam McCluggage Allansford
16. Paul Lenihan Crossley
17. Mark Billing and Samantha Simpson, Craiglands Larpent
18. Anthony Eccles, AT & WJ Eccles Purnim

TASMANIA

19. Garry & Bev Carpenter, Garerley Holsteins South Riana

SOUTH AUSTRALIA

20. Graeme Hamilton, Hamilton’s Run Mt Gambier East
21. Gary Zweck, Barossa Mid-North Dairy Co-operation Bivth



WESTERN AUSTRALIA

22. Ian and Ruth McGregor Chapman Hill

QUEENSLAND

23. Rodney Teese Veroesdale

NEW SOUTH WALES

24. Sam Tonge, Kupidabin Dobies Bight
25. Robyn Lucas, Sherringham Farm Central Tilba
26. David Owen Finley
29. Darren and Sharon Parrish Bodalla

The location of the ImProving Herds Genetics Partner Farms.

current pricing levels, if that farm produces surplus heifers.

Making the right decisions affects the bottom line. In one test farm, 36 heifer calves were genomically tested, costing \$1,800.

Based on the ABVs determined from the genomic test, the model predicts the production, reproductive performance and health of each heifer based on an extensive data set.

A rigorous economic framework put a value on these characteristics and estimated the return on the investment. The number of calves to be kept is set by the farm’s replacement strategy. There was a solid return on investment when 20 of the available female calves were kept.

The genomic test showed these animals had the highest genetic merit of the 36 available.

Over the lifetime of those heifer calves, the farm would expect a return of about \$1,500 on the investment in

genomic testing, on top of the confidence of knowing the best animals have been brought into the milking herd.

With sexed semen, more surplus heifer calves may be produced in some cases, which means the benefits of genomic testing can be greater.

The models developed by the ImProving Herds team include the possibility of using sexed semen, with adjusted fertility parameters.

An online selection tool is being developed as a result of the research, which can be used by farmers to test the profitability of scenarios applicable to their system.

In summary, herds that are likely to see a positive financial return from genomic testing heifers:

- Produce heifer calves surplus to requirements.
- Have low-moderate herd turn-over rates.
- Have a good reproduction rate. **D**

• From page 31

based system at “Writhgil”, Larpent, near Colac.

Two hundred heifers a year are joined, the pick put through an AI program using Holstein sexed semen.

“We then load the paddock with Wagyu bulls supplied by Beefcorp,” Mr Harris said.

The Wagyu-cross calves are sold back to Beefcorp at 10 days.

The Harris’ have been joining later-calving cows to Holstein bulls for the export market to China and to meet local demand.

That has been a strong market in recent years, with 12-month-old heifers making as much as \$1200.

However, with China having built up numbers significantly, and no current appetite for growth in Australia, the Wagyu-cross option is much more competitive.

“We might well swing into beef in a much bigger way,” Mr Harris said.

There were three big reasons “Writhgil” first became involved with



Phil and Alistair Harris have supplemented their dairy income with Wagyu calves.

Wagyu beef and stayed in the game so long, Mr Harris said.

“It is a guaranteed outlet for our surplus calves and Wagyu-crosses

are worth twice what Holstein calves are,” he said.

“Even at the moment with the nationwide cattle shortage, there is little demand for dairy bull calves. There is very limited interest in young veal.”

Possibly the greatest benefit, however, has been the ease of calving the Wagyu element brings.

“They are a very veal-like animal, dynamically shaped for calving, with low birth weights,” Mr Harris said.

“That means no calving problems with heifers and that is of enormous value.”

Finally, the Harris’ don’t have to breed or source bulls.

“Bulls are only nuisances to a dairy farmer,” Mr Harris said.

Wagyu were good to work with, he said.

“They are a bit different looking in your paddock but have a good temperament and very intelligent,” he said.

“The calves are small and active and easy to teach to feed.” 

Dairy crisis forces change in thinking

CASINO, NSW, dairy farmers Ben and Tennielle Gould are diversifying into beef in order to make ends meet.

Not that they are struggling under the burden of their drinking milk contract for the insatiable Queensland market.

Quite the opposite in fact. The price they receive from Parmalat, including bonuses for clean cell count, high protein and fat comes to nearly 60 cents a litre, which is almost unbelievable considering the deals brokered further south.

The self-sufficient pasture and cropping system combined with sensible cow genetics that espouse moderate milkers are the cornerstones of success at the Gould’s cluster of farms on the banks of the Richmond at Greenridge, east of Casino.

Ben’s father John is given full credit for developing this enterprise from scratch, created off the back of shrewd business decisions, clever timing and a bold approach to debt.

Why the need for beef? It has to do with succession.

“I think my dad always wanted me to make my own way, like he did,” Mr Gould said, whose father is now struggling with the swiftly tightening grip of dementia. The illness is hard to look at in a man who has been so successful in his primary production career.

Fortunately the elder Gould was good at passing on knowledge which has ena-



The Gould family, Charlee, Tennielle and Ben, from Greenridge are dairy farmers investing in beef to secure a future on the land.

bled the youngsters’ foray into beef to follow some of those proven pathways.

“Dad always said buy your cattle before you buy the farm,” said Mr Gould.

Last February the young couple took a punt and purchased 156 cross-bred weaner heifers on a carefully planned hunch that restocker demand would push prices higher than the 312 cents/kg average paid at Lismore and Casino sales.

Agistment was crucial and with help from dairy hand and cane farming neighbour Damian Murphy the Goulds found good country at Coraki, 10 minutes away.

If the current climate continues as it seems – spring grazing in Queensland looks promising – the Gould’s will offload in February and perhaps make enough return to place a deposit on their first block of independent land.



CLAAS
DISCO MOWER

FROM - \$13,190 incl GST

- ▶ Top chop quality with the MAX CUT cutterbar
- ▶ Clean, high-performing reliable mowing
- ▶ V-belt and double gearbox drive: smooth running and optimum lift
- ▶ Easy adjustable floatation system for outstanding ground following
- ▶ SAFETY LINK protects the drive train



CLAAS
VOLTO TEDDER

FROM - \$10,990 incl GST

- ▶ MAX SPREAD VOLTO spreading system
- ▶ PERMALINK system for continuous power transfer
- ▶ CLAAS power drawbar for comfort and stability
- ▶ Large tyres ensure minimal ground pressure
- ▶ Optimal adjustment to different crop conditions



CLAAS
LINER RAKE

FROM - \$26,690 incl GST

- ▶ PROFIX tine arm - tough & wear-resistant
- ▶ Continuously lubricated sealed swathing drive
- ▶ Optimal ground-contour following with new fully floating suspension
- ▶ High working speeds and output performance
- ▶ Individual rotor protection



CLAAS
VARIANT BALER

FROM - \$60,490 incl GST

- ▶ Variable bale size with forced bale start
- ▶ Dual tension arm system with density control
- ▶ Heavy duty larger diameter 4 tine rotor
- ▶ Continuous chain lubrication
- ▶ Fast wrapping and unloading

*Terms & Conditions apply. 0% pa requires a minimum 20% deposit, 12 monthly repayments in arrears over a 12 month term. Offer valid until 31/10/2016 or while stocks last.

claasharvestcentre.com

Colac	(03) 5231 6322	Lake Bolac	(03) 5350 2133
Dalby	(07) 4662 2278	Moree	(02) 6752 2044
Echuca	(03) 5480 1855	Narrabri	(02) 6792 1988
Esperance	(08) 9071 4080	South Gippsland	(03) 5662 2299
Geraldton	(08) 9921 4401	Tasmania	(03) 6426 1500
Gippsland	(03) 5623 4475	Wagga Wagga	(02) 6931 7933
Katanning	(08) 9821 8900	Warrnambool	(03) 5561 1733

A better business decision.

CLAAS Harvest Centre



Corn harvesting at the normal chop height.

Improving the quality of corn silage

Key points

- ✓ Trial shows promising results with home-grown forage
- ✓ High-chop corn could allow grain to be removed from diet
- ✓ Requires special harvesting for silage



Table 1: Average yield, starch and neutral detergent fibre (NDF) concentrations of three varieties of corn (PAC606, PAC607IT, PAC624) identified as feed silage varieties within the cattle feeding industry.

Seeding rate ('000 seeds/ha)	Yield (tonnes dry matter/hectare)	Starch (percentage dry matter)	NDF (percentage dry matter)
40	20.13	33.1	38.2
60	22.62	34.3	39.6
80	26.55	33.8	40.1
100	24.70	28.4	41.5

THE Queensland Government's C4Milk project team, in partnership with Dairy Australia and the University of Queensland, recently completed the High Milk from Forage Developmental Trial with extremely promising results.

The trial showed that with a total mixed ration (TMR) or partial mixed ration (PMR) diet, if the silages and pastures are high quality, cows could consume 90 per cent forage in a diet with little grain or protein meal with intakes recorded between 18-24 kilograms of dry matter per cow per day.

High-chop corn was a significant proportion of the diets in phase one of the developmental trial, both within the TMR and PMR rations.

The improved forage quality of high-chop corn relative to normal corn silage, which was seen as a reduction in fibre and an increase in starch content, gave each diet the ability for grain to be removed completely without compromising production.

High-chop corn requires the plant to be harvested slightly higher at 40

centimetres compared with the normal 10 centimetres above ground level, leaving behind more of the woody fibrous stem.

Cutting the corn higher reduced the yield by 1.5 tonnes DM/ha, but the starch increased by eight per cent (or three percentage units) compared with the same crop harvested as normal corn silage.

The Neutral Detergent Fibre (NDF) percentage was also lower, which means the cow could consume more feed, hence potentially produce more milk. See Table 2 for more details on the quality differences between high-chop and normal-chop corn silage.

The first step in producing high-chop corn is to reduce the seeding rate from 100,000 seeds/ha to 80,000 seeds/ha. Research conducted by Pacific Seeds and the Queensland Department of Agriculture and Fisheries on three common corn varieties demonstrated that the best yield with

higher starch levels were achieved at 80,000 seeds/ha.

The second step in achieving high-chop corn is to harvest at the right time, that is, when the starch line is half way down the corn kernel. This should result in the most effective processing of the corn kernel, ensure the best availability of starch and the ideal dry matter of 32-33 per cent for silage.

At the point of harvest farmers need to have the fortitude to direct the silage contractor to harvest at 40cm. The contractor will clearly want to harvest lower as the more they harvest per hectare the greater the benefit to them. However, the results in Table 2 clearly demonstrate the benefit of harvesting at 40cm.

The results demonstrates the following:

1. Yield was reduced by 1.5 tonnes DM/ha when corn is high-chopped.
2. The starch was three percentage

IMMUNITY+ GENOMAX OFFER



SANDY-VALLEY EMERO

0200H010038 NUMERO UNO x ROBUST x PLANET



BPI(g)	+233	Rel. 64%	GTPI	+2494
Overall Type	+105	Rel. 58%	PTAT	+2.28
Mamm. Sys.	+105	Rel. 58%	UDC	+1.47
ABV(g) August 2016			HAUSA-G/08-16	



MORNINGVIEW UPRIGHT

0200H010516 KINGBOY x NUMERO UNO x BAXTER



BPI(g)	+209	Rel. 57%	GTPI	+2577
Overall Type	+103	Rel. 47%	PTAT	+2.51
Mamm. Sys.	+106	Rel. 47%	UDC	+2.21
ABV(g) August 2016			HAUSA-G/08-16	



CROTEAU LESPERRON UNIX

0200H003913 NUMERO UNO x DOMAIN x GOLDWYN



BPI(g)	+149	Rel. 63%	GPA LPI	+3001
Overall Type	+107	Rel. 57%	Conf.	+16
Mamm. Sys.	+108	Rel. 57%	Mamm. Sys.	+16
ABV(g) August 2016			GPA 16* AUG	

IMMUNITY+ GENOMAX OFFER

Normal RRP \$35.00 per Dose Excl. GST

Order any volume with a combination of any two of the above Sires for only

\$28.00 per Dose Excl. GST

ALL PRICES QUOTED ARE EXCLUDING GST. Not available with any other offer. Offer valid to December 7th, 2016 or while stocks last.

PO Box 509, Melton Vic. 3337 | Office & Warehouse 10 - 12 Coburns Rd | Phone: 03 9743 0344 | Fax: 03 9743 0355 | Email: semex@semex.com.au

- units higher, meaning more energy for milk.

3. The NDF is five percentage units lower, meaning if corn is 30-50 per cent of the cow's daily intake, then it has a substantial effect on the cow's ability to consume a lot more feed in 24 hours.

4. No difference was seen in crude protein percentage.

5. The energy was higher in high-chop corn by 0.5 megajoules of metabolisable energy per kg DM, so if a cow is eating 10kg DM/ day (about 30kg as-fed) of high-chop corn, it would equate to an extra 1.0 litres of milk per cow per day.

The cost of high-chop corn is comparable with normal chop, but the real benefit of high-chop corn is hidden in the detail.

Table 3 shows that there is little difference in the cost of the silage or the starch within the two silages.

The cost of including starch from bought-in corn grain would be 53 cents/kg if the corn was bought at \$335/tonnes. Clearly either corn silage is an alternative to bought-in grain with a potential saving of up to 16 cents/kg starch.

However, high-chop corn has one important advantage over the normal chop corn silage — it is lower in NDF percentage, thus allowing a cow to eat more forage (it is widely known that a cow can consume one per cent of its body weight as NDF per day).

In the most basic terms, high-chop corn is superior silage as it allows the cow to consume greater amounts of feed(s), potentially leading to more milk production, which highlights the key message that forage quality is the key driver of profitable milk production (see Table 4).

The C4Milk project is investigating ways of increasing the amount of quality forage a cow can eat to reduce the reliance on bought-in concentrates.

The high-chop corn is an excellent example of how tweaking the sowing rate and the chop height could result in silage that costs the same as normal chop corn, but with more milk potential. Consider what impact this management strategy may have on the business and join other farmers who are going to make these changes to their normal regime this year.

In the next few months, the Department of Agriculture and Fisheries (DAF) will run a series of field days in the subtropical region. The first field days will be focused on forages that farmers can grow for silage or to graze this summer.

Normal vs High-Chopped corn harvesting height



High chop corn harvest height compared with normal chop harvest height.

	Normal chop	High-chop (40 cm)
Dry matter yield (tonnes dry matter/ha)	18.5	17
Dry matter (percentage)	40.4	41.4
Starch (per centage dry matter)	38.7	41.7
Starch harvested (tonnes/hectare)	7.16	7.09
Neutral detergent fibre (percentage dry matter)	37.2	32.2
Crude protein (percentage dry matter)	8.9	8.9
Energy (megajoules/kilogram dry matter)	10.8	11.3

	Normal chop	High-chop (40cm)
Cost \$/tonne wet in the pit	\$61	\$64
Cost \$/tonne dry matter	\$151	\$154
Cost cents/kilogram starch	39.0 cents	36.9 cents

	Normal chop	High-chop (40cm)
Dry matter intake (1 percentage neutral detergent fibre for 600kg cow)	16.13	18.63
Starch consumed if 1pc bodyweight	6.24	7.77
Potential milk yield modelled (litres/cow/day)	18.13	26.17

THE GOLD STANDARD FOR CALF MILK REPLACER

Australia's #1 Selling CMR

GOLD STANDARD
for
Calf Milk
Replacer

ProfelAC® GOLD

- ✓ Easy to Mix
- ✓ Bovatec® for Coccidiosis Control
- ✓ Formulation Based on Science
- ✓ Highest Quality Ingredients
- ✓ Vitamins & Organic Minerals
- ✓ Micro-encapsulated Host-specific Probiotic
- ✓ Experienced On-Farm Technical Support
- ✓ Programs for Every Calf Rearing System
- ✓ CMR of Choice Australia Wide

...and calves love it!



Worth Rearing. Worth ProfelAC.

Bovatec®, Built With Bovatec™ and ProfelAC® are trademarks of Alpharma (Luxembourg) S.a.r.l., Zoetis Australia Pty Ltd and Murray Doulburn Co-Operative Co Ltd respectively. Copyrighted, confidential and proprietary property of ProviCo Pty Ltd. Duplication, use or disclosure without express consent is prohibited.

www.provico.com.au | 1300 380 343

ProviCo

GET IT RIGHT,



RIGHT FROM THE START.

**Crude
Protein**
22%

The first 3 months are so important to your calves' future in the herd, so don't compromise, use Veनावите No1 Calf Pellets.

veanavite.com.au

Veनावите No1 Calf Pellets provide a high level of natural protein, energy, essential minerals and vitamins to support the requirements of your rapidly growing calves. Importantly, it also contains starches to promote the efficient development of a calf's rumen allowing for a successful transition to pasture at weaning. Thriving calves are the future of your herd. So get it right, right from the start.

veanavite
The foundation for a lifetime of performance.

Market continues to improve



By John Droppert
Industry Analyst
Dairy Australia

- Key points**
- ✓ Market recovery expected in 2017 but volatility ahead
 - ✓ Domestic market remains steady
 - ✓ Processing sector set to be searching for more milk to capitalise on export opportunities

INTERNATIONAL dairy commodity markets have staged a significant recovery in recent months, with prices increasing by over 20 per cent as global supply and demand slowly return to better balance.

Sentiment has raced ahead of the fundamentals, with price rises arriving earlier and more rapidly than expected. This is a good reason to be cautious, as reverses in sentiment are a serious risk until the fundamentals catch up.

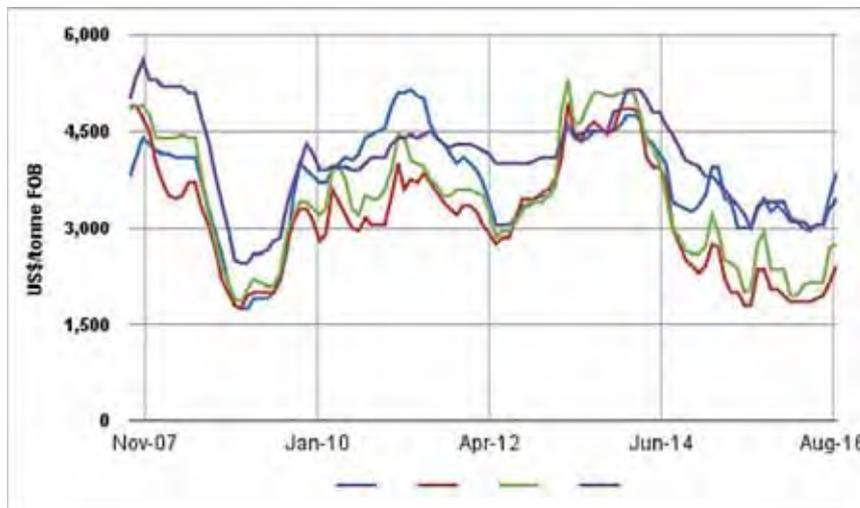
Nonetheless, the oversupply issue that has maintained downward pressure on commodity pricing for so long looks to be receding, with New Zealand, Australia, and (increasingly) Europe seeing milk production track below year-ago levels.

Despite only a modest slowdown in production, European supplies have tightened noticeably for several commodities, pushing prices higher. In particular, butter buyers have been caught short at times, with spot availability limited by forward sales, and cream production having taken precedence. This has been a trigger for buyers, and has led to a lift in commodity prices globally.

China has also been a factor. Exports to Greater China grew by nearly 20pc in volume terms over the 12 months to June 2016; with butter, liquid milk and infant formula among the biggest movers.

Outside China, demand is presenting a mixed picture.

Mexico is up, Southeast Asia has slowed slightly (down 1pc), Russia remains absent thanks to ongoing sanctions, and the Middle East continues



Global dairy commodity prices.

to struggle due to lower oil revenues.

Since prices began to rise, buyers have been more actively seeking product, but resistance to further increases is building.

Further recovery into 2017 is likely, but it will be overlaid with ongoing price volatility.

In southeastern Australia, better rainfall and falling input prices have helped offset some of the pain of lower farmgate returns, though the recent excessively wet conditions are impacting milk quality, fodder conservation, and causing direct damage via flooding.

Domestic-focused regions have experienced relative stability in margins and weather conditions, and milk production is steady or higher in Queensland and Western Australia.

Combined with the enormous variation that already exist in margins and farm business management strategies between regions, processors and individual farms, these factors are making an 'overall' view of the season difficult to define.

Having commenced with two months of significant year-on-year declines in national milk intakes (averaging nearly 10pc), 2016/17 is still expected to be better than the preceding season in terms of both costs and seasonal conditions.

Farmgate prices remain low however, keeping margins tight or negative for most farmers.

This, the ongoing impacts of the 2015/16 price step-down, and the cur-

rent flooding are likely to limit production through 2016/17.

The impact on milk volumes is expected to moderate as the season progresses and the benefits of higher rainfall and lower costs accrue.

The Australian domestic market remains characteristically steady, though there have been some notable changes within key categories.

Full cream milk sales have increased their share of the fresh white segment, up 7pc in terms of volume, and 9pc by value, reflecting an ongoing shift away from modified (reduced fat) milk varieties.

Full cream now accounts for 61pc of the fresh white milk category, up from 54pc only three years ago as consumer attitudes towards dairy fats evolve.

Branded milk has regained market share from supermarkets' private label in the fresh white milk category, with branded sales volumes increasing by 7pc, while private label fell by nearly 2pc.

Notwithstanding the stability of the domestic market, as the returns from international sales recover, the processing sector will again be seeking extra milk to capitalise on renewed export opportunities.

It won't all be smooth sailing though.

Rain and lower input prices are most welcome and the international market is in much better balance now, but the sobering realities of market risk and ongoing challenges behind the farmgate can't be ignored. **D**

Celebrity foodies back Aussie dairy

- Key points**
- ✓ Push for greater dairy consumption
 - ✓ Women over 50 are not getting their daily dairy intake

SOME of Australia's favourite food experts have thrown their support behind Australian dairy, donating recipes and inspirational tips as content for Dairy Australia's new *Fit, Fab & 50* cookbook, which was launched during Healthy Bones Action Week.

Inside the covers of the free book are household names including Maggie Beer, Lyndey Milan, Kate McGhie, Christine Manfield and Catherine Saxelby, sharing their cumulative culinary know-how and a host of motivating lifestyle advice.

It's an inspiring collection of mouth-watering recipes to help Australian women increase their consumption of calcium-rich dairy foods, coupled with personal insights and experiences from the contributors around healthy living and loving life.

Virtually no Australian women over 50 are eating the daily four serves from the dairy food group as recommended in the updated Australian Dietary Guidelines.

What's more this age group is most at risk of losing up to 10 per cent of their skeleton following menopause.

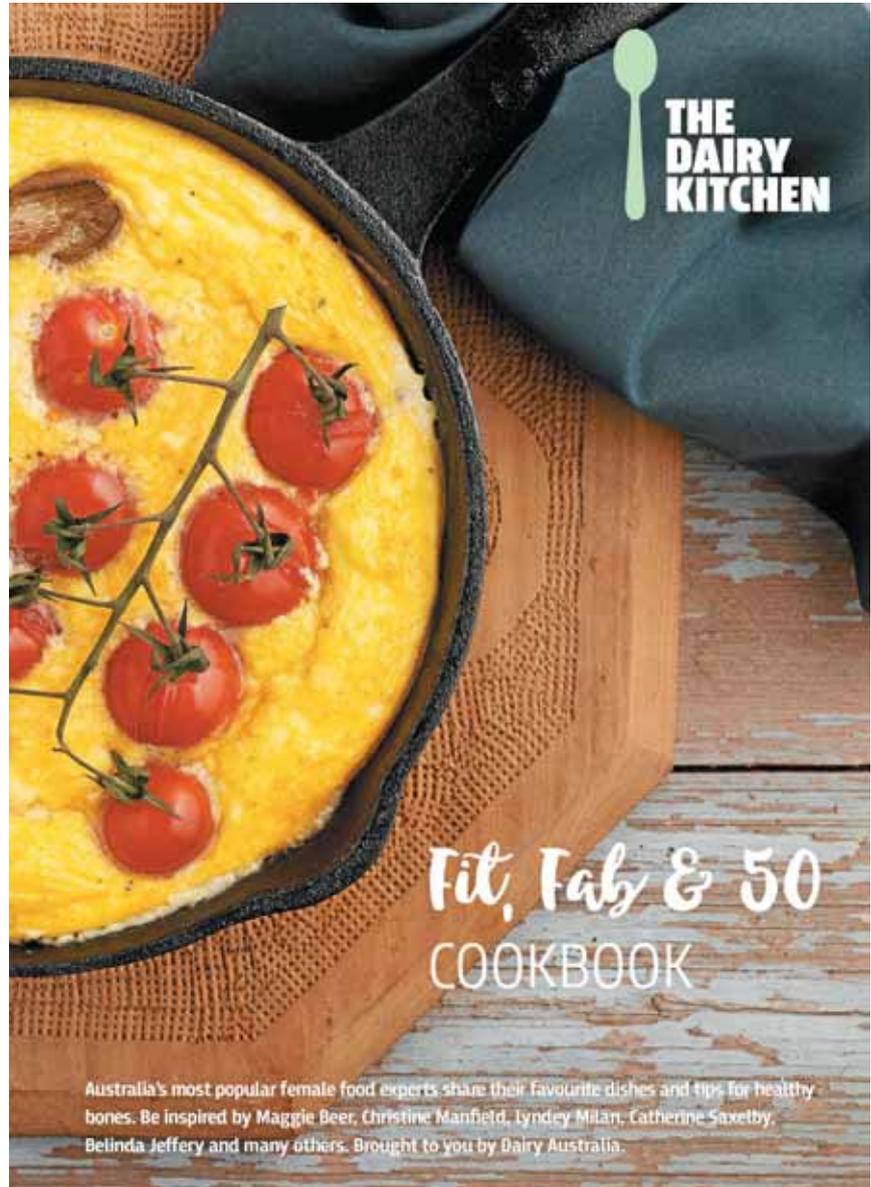
The *Fit, Fab & 50* cookbook was developed to help counteract this problem and inspire people to get creative when it comes to cooking and enjoying dairy foods as well as encouraging regular weight bearing exercise and safe sun exposure for vitamin D – the three ingredients for healthy bones.

"Getting four serves from the dairy food group a day may sound overwhelming," concedes Amanda Menegazzo from Dairy Australia's The Dairy Kitchen.

"But it can be quite straightforward.

"Take our *Spicy Carrot and Coriander Soup* with *Parmesan Toast* for example, one serve of this meal will provide you with a sumptuously tasty – and low cost – dinner, enriched with one of your four serves of dairy for the day.

"Or, take a tip from our Legendairy ambassador Karen Martini who



Australia's most popular female food experts share their favourite dishes and tips for healthy bones. Be inspired by Maggie Beer, Christine Manfield, Lyndey Milan, Catherine Saxelby, Belinda Jeffery and many others. Brought to you by Dairy Australia.

Dairy Australia launched its new *Fit, Fab & 50* cookbook which can be ordered at legandairy.com.au/fitfab50cookbook

shares her favourite snack idea of sprinkling a pot of Greek yoghurt with walnuts, floral honey and slices of fresh white peach.

"A heavenly way to glide your way through '3:30itis' and do your bones a favour too."

Leading food writer, chef and *Fit, Fab & 50* contributor Kate McGhie, who contributed her *Luxe Creme Carmel* to the project, is a big dairy fan.

Kate, grew up on a farm in Victoria's Western District and says dairy is in her DNA.

In her words: "Nothing beats tongue tingling yoghurt, the silkiness of cream, the tang of buttermilk and the choice of cheese."

Order your free hard copy of the *Fit, Fab & 50* cookbook from www.legandairy.com.au/fitfab50cookbook

MAXIMISE YOUR BOTTOM-LINE.



THE COMPLETE HAY, BALEAGE, PIT SILAGE & MAIZE FEEDER ALL IN ONE

WILL FEED:

- Bales (All types of Round & Square)
- Silage (Short & Long chop)
- Root crops, Food waste
- Grain or Magnesium



EXPLORE THE NEW COMBY RANGE ONLINE

EXPERIENCE THE NEXT LEVEL OF FEEDING OUT.

Feeding any type or shape of bale has never been easier, and you pocket the feed savings everyday.



Chainless X5000

BOOK A FREE DEMO TODAY

CHAIN FEEDERS HAVE NEVER BEEN MORE VERSATILE.

And with the all-new SL360X balefeeder, you'll never need to tug on a rope again.



SL360X

SEE HOW IT WORKS ONLINE

AUSTRALIA'S MOST INNOVATIVE SPRAYERS

Compare features, nothing else compares. Compare prices, Katipo is right on the money!



CREATE YOUR ULTIMATE SPRAYER ONLINE
WITH OUR NEW CONFIGURATOR



HUSTLER PRODUCTS QUALIFY FOR 100% TAX DEDUCTION! DO YOU?

For more information call 1800 750 428
or visit www.hustlerequipment.com



HUSTLER

Rethinking the Everyday

New network brings women together

In response to requests from women in dairy all around the country, Dairy Australia recently launched the online 'Australia's Legendairy Women's Network' (ALWN).

Powered by Legendairy, ALWN celebrates and acknowledges the spirit and determination of women in the dairy industry by connecting dairy women from across Australia.

In a little over a month 200 women have joined the network and word is spreading fast.

Dairy Australia farmer communications and engagement manager Suzi O'Dell, who was behind the concept, said the network provided women with a forum for discussion, and the opportunity to improve their skills, and add value to their dairy businesses and their communities.

"There are so many strong, amazing women involved in the dairy industry, who form the back bone of many busi-



nesses, boards, committees and organisations, and we need to support them and encourage their enthusiasm and commitment," Ms O'Dell said.

"They play an integral role in the success and long-term future of this great industry and there's a lot to be said about coming together to share the load. Women get a lot of value out of each other's company."

ALWN aims to work alongside, support and connect its members.

All women with an affiliation with dairy, whether they work in the industry, work or live on a dairy farm, are a dairy farmer, or are involved in dairy through agricultural studies, are encouraged to join.

Just fill in the registration page at ALWN.legendairy.com.au and follow the link to become a member of the ALWN Facebook group – a closed Facebook page.

The ALWN website will soon be under construction.

Suzi O'Dell can be contacted at: sodell@dairyaustralia.com.au



FREE CALL
1800 255 943
www.surefootmat.com.au



Prevent stressful moments like these.

- The unique diamond chain pattern provides secure footing and comfort to the animals, reducing slippage by as much as 89%.
- The soft floor properties of the Surefoot® mat reduce lameness and in turn increases profit and productivity.
- Flooring of choice by Australian Dairy Farmers.
- Creates beast contentment and reduces anxiety.
- Tested by MLA



Before



After

'Stick to Surefoot® so your cattle dont slip. The only SURE way they wont lose grip'



Deborah Parkes, with daughter Connie, has signed up to the ALWN facebook page.

China tightens rules on infant formula

- Key points**
- ✓ China changes the rules around infant formula
 - ✓ Registration needed before sale
 - ✓ Must be scientifically supported

CHINA is introducing new regulations for domestic and imported infant formula in a bid to further increase quality and food safety standards throughout the country.

The China Food and Drug Administration (CFDA) now requires registration of infant formula brands and product formulations before they can be sold in the China market.

CFDA began accepting applications to register brands on October 1. There will be a transition period until January 1, 2018, at which point it will be mandatory for all infant formula product brands to be CFDA registered.

Applications to register infant formula brands will need to include information about the ingredients and

'China wants to encourage manufacturers with a long-term interest in the market who know their customers ...'

composition of each product. The new rules will limit factories in China and offshore exporters to registering a maximum of three brands, with each brand having no more than three formulations.

The formulations must be unique and differences in formulations must be scientifically supported.

Dairy Australia manager international market access Stewart Davey said the new regulation was a move

to ensure the infant formula products available were of a high quality and extremely safe for this vulnerable consumer group.

"China wants to encourage manufacturers with a long-term interest in the market who know their customers and understand their needs and requirements," Mr Davey said.

"The Australian dairy industry supports this approach.

"It's important to establish a base of strong brands in the market so Chinese consumers, parents in particular, have a great belief and trust in the safety and nutritional quality of our branded products on offer.

"That way we can build loyalty and a strong market share."

Product in the China market prior to January 1, 2018, but not yet registered with the CFDA will be allowed to remain in the market for sale until the use-by date has expired. 



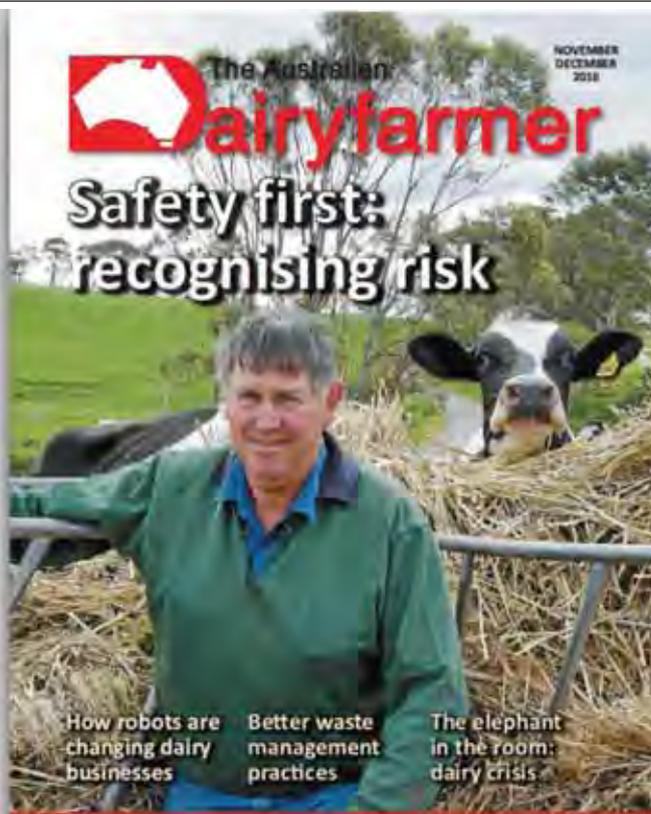
The Australian Dairyfarmer magazine is the official voice of the Australian dairy farmer.

"We've proven we're here for the long haul. We have a track record of supporting the Australian dairy industry for over 32 years."

For all your advertising inquiries contact:
Peter Roach
03 8667 1127 or 0417 371 364

Meeting the information needs of Australian dairy farmers since 1984

Published in Australia for Australian dairy farmers by Australian publishers



NOVEMBER DECEMBER 2016

The Australian Dairyfarmer

Safety first: recognising risk

How robots are changing dairy businesses | Better waste management practices | The elephant in the room: dairy crisis

The official voice of the Australian dairyfarmer – free to all dairyfarmers

 Australia's Dairy Farmers

REGISTER BY
JANUARY 27
FOR OUR
**EARLY BIRD
RATE!**

BEYOND THE FARM GATE

FEBRUARY 14 – 16, 2017



AUSTRALIAN DAIRY
CONFERENCE

**AUSTRALIAN
DAIRY CONFERENCE**
NATIONAL WINE CENTRE, ADELAIDE



For further details
contact **Bradley**
on **0412 461 392**
bradley@ccem.com.au

www.australiandairyconference.com.au

THE AUSTRALIAN DAIRY CONFERENCE 2017

PROGRAM AT A GLANCE:

Tuesday 14 February



Welcome Function, supported by Devondale Murray Goulburn at the National Wine Centre, Adelaide

Wednesday 15 February

Morning Session – Global Markets – Can you handle the truth?

Movements in the global market have a profound impact on Australia's farmgate dairy prices, but the picture of what's happening in dairy markets throughout the world is often not so clear. We've invited speakers from Europe, Asia and the Middle East to give their take on what's happening on the ground in their part of the world.

Facilitated by Rabobank's Tim Hunt, this will be an open and honest conversation.

Mr Tim Hunt – General Manager, Food & Agribusiness Research and Advisory, Rabobank Australia

Mr Piet Boer – Chair of Friesland Campina Dairy Cooperative U.A 2011 - 2016

Mr John O'Loughlen – General Manager, Business Development, Alibaba Tmall.

Mr Tom Trimble – Head of strategic development, Almarai

Afternoon Session - Outside the square; a peek through the looking glass

There is no magic bullet for success in farm business, but being open to new ideas can be beneficial. This session will look at some unique SA dairy businesses who each saw an opportunity to differentiate themselves from the crowd and have since taken their operations to another level.

Nick Hutchinson – Manager Fleurieu Milk and Yoghurt Company

Sheree Sullivan – Udder Delights Cheese

Kris Lloyd and Corey Jones – Woodside Cheese Wrights



Industry Dinner supported by Rabobank at the Adelaide Oval

Thursday 16 February

Morning Session: Profitable Production & Delving into the figures

This session will start with an outside perspective on the cost of dairy production and how farmers from other countries are tackling low milk prices, sustainability, profitability and having flexible farming systems

Helwi Tacoma – Dairy Consultant, Intelact, New Zealand

Rick Hoksbergen – Scientific Team for Analysis and Research (STAR), European Dairy Farmers

We continue into an interactive session with four dairy consultants and farmers presenting their differing farming systems and speaking about their business figures and how they have adapted to the 16/17 season. Neil Lane will showcase key strengths of each businesses and what strategies the farmers/consultants think have worked so far.

Neil Lane – Farm Business Capability Program Manager, Dairy Australia

Afternoon Session: Where can science and new technologies take us?

Dr David Henry – Research Leader – Digital Agriculture, CSIRO Agriculture

Richard Romano – Program Manager - Feedbase & Animal Nutrition - Farm Profit and Capability, Dairy Australia

Afternoon Session: It's all about attitude

Disruption is a part of everyday life. How we react to disruption is ultimately what defines us. How can we gain perspective, have gratitude, and the ability to face up to these challenges and look for the opportunity in adversity? This session will give us some insight on how can we learn to tolerate and even like disruption?

Andrew Cavill – Dairy Farmer, South Australia

Sam Bailey – Beef Cattle Farmer and Best Selling Author

Milking Robots they work for me.



*Jason Chilcott,
Tasmania, 450 Cows*

Since I converted about 150 cows to robots last year, I haven't got any better with computers, but to be fair I haven't had to. The cows get it, it works and I have more time to focus on managing the farm rather than milking. It's an approach that works for me, and there's no reason it wouldn't work for you. Visit DeLaval.com.au/robot to find out how my first year with DeLaval robots worked for me. Much more than milking robots.



delaval.com.au | 1800 817 199



Community energy powering people

Key points

- ✓ Community power gaining momentum
- ✓ Benefits on offer
- ✓ Potential \$8000 saving in energy bills



By Alex Druce

MORE farmers are powering up and hoping to fatten their wallets by hosting community-funded clean energy projects that can slash electricity bills and free up cash elsewhere on-farm.

Rural towns are reaping the rewards too, with regional clean-energy investors getting a return on solar, wind, and biofuel systems being fitted on farmers' land, while local contractors are getting the jobs to fit them.

Community power projects are not new but more are buying in to the concept.

Sydney-based co-founder of the social enterprise Community Power Agency (CPA) Nicky Ison said community energy was the ideal carrot for mid-scale businesses and producers to go green.

And, with a bit of government attention and an unravelling of the crowd-funding red tape, Ms Ison said the rewards can only get richer for regional Australia.

"It's still new, it's still hard, but the benefits are there – it just needs to be made easier for investors, the businesses, and the community groups pulling it all together," Ms Ison said.

Ms Ison and the CPA lobbies for and guides 70 Community Power Organisations (CPOs) across the country.

There are 31 CPOs in NSW, including 22 in regional areas.

Each CPO draws from its own pool of investors to fund sustainable energy projects on regional businesses, such as farms.

Businesses deemed suitable by the CPOs – usually enterprises with intensive year-round electricity use such as piggeries, dairies, or hotels – earn savings from producing their own energy while using the cash that would have gone to buying and installing the system for more pressing needs.

The initial cost of the systems is borne by the CPOs' investors, who currently get about a seven per cent return on their upfront outlay via the kilowatt hours produced, which, in some cases, has seen a break-



Nowra dairy farmer Keith Anderson said he is looking forward to a drop in his annual energy bill after getting a 30kW community-funded solar system installed.

Community energy working for farmers

- Community energy projects are solar, wind, or biofuel systems funded by local investors who are sourced by not-for-profit Community Power Organisations (CPOs).
- Farmers and regional businesses contact their preferred CPO, who assess the viability of the project and whether it creates mutual benefits.
- The community investment model allows farmers to focus their capital on more pressing needs.
- Farmers benefit from cleaner, cheaper power over the 10 to 15-year contract, while investors get about a seven per cent return on their outlay via the energy produced.
- Farmers keep the generator after the contract is up.

even scenario within four years of a project's 10 to 15-year contract.

Once the contract is finished, the business or producer keeps the generator for free. Solar community power projects have sprung up across the Central West and New England. Now, dairy farmers on the South Coast are getting a piece of the action.

Nowra dairy farmer Keith Anderson said he was looking forward to an \$8,000 drop in his annual energy bill after getting a community-funded 30kW roof-mounted solar photovoltaic (PV) system installed recently.

Mr Anderson, who runs Anderson Dairy Farm with his brother Paul at Numbaa, NSW, said the seed was planted when he met with Chris Coop-

er, president of not-for-profit CPO RePower Shoalhaven last year.

Mr Anderson's robotic dairy operates 24 hours a day, making it the ideal candidate for a community-funded energy project.

"We've got 240 cows who basically milk themselves – mostly during the day too," Mr Anderson said.

"Our bill would probably be \$7000 to \$8000 a quarter."

Mr Anderson said a 10-year contract for their solar system would give them power at a reduced rate.

"We're hoping for \$8000 off our bill. And we can use the money we would have used on the panels for other things."

Mr Cooper said the Anderson's dairy was one of four projects it had organised from its \$140,000 community investment pool, including a 100kW solar PV on the Shoalhaven Heads Bowling Club, a local bakery, and a signwriting business.

For projects to comply with current ASIC's small scale offering rules, the number of investors is limited to 20 in any 12-month period, meaning a substantial clean energy project is out of reach of anyone but the most wealthy.

Ms Ison is hopeful of convincing the federal government to back the CPA's Smart Energy Communities Campaign and hand over \$150 million funding in forward estimates, plus \$460 million over 10 years, to create a series of 'community powerhouses'.

She said these powerhouses would provide technical and legal know-how as well as start-up funding to kick-start DIY clean energy projects across the country.



Largest robotic dairy farm in the world

A CHILEAN dairy farm is to become the largest robotic farm in the world.

Fundo El Risquillo, a large farm in Chile with 6,500 dairy cows, has signed an agreement to install 64 DeLaval VMS milking robots making it the world's largest robotic milking farm.

The farm, owned by Agrícola Ancali and part of the Bethia Group, already has 16 DeLaval VMS installed and has seen the results.

The farm has an average yield of 45.2 litres for the 920 cows going through the robotic milking system. That is a 10 per cent increase in milk production from before as well as a reduction in labour costs.

Agrícola Ancali chief executive Pedro Heller said it was all about doing more with less

"The benefits have been remarkable," Mr Heller said. "More production, better animal welfare conditions and less stress for the cows."

He said the project included two stages.



Fundo El Risquillo staff are eagerly awaiting the installation of 64 DeLaval VMS milking robots, making it the world's largest robotic milking farm.

"Firstly, we compared the benefits of using DeLaval VMS systems with the rotary milking system.

"We started using robots for 500 cows and saw the economic benefits. When we realized it was possible to improve production per cow by 10 per cent and reduce stress on the cow we decided to further explore.

"During the second stage we decided to modify the farm, changing our

conventional milking system for an automatic milking system.

"The plan is to have our best 4,500 cows milked by DeLaval VMS. We believe we have a perfect set up should we decide to grow more in the future."

The barn has a range of other cow comfort solutions from DeLaval including ventilation systems, cow cooling, rubber flooring, swinging cow brushes, water troughs and illumination.

When the new installation is complete, 4,500 cows will be milked robotically while one rotary will remain for fresh and special needs cows. There are currently four rotaries operating.

While many farmers see DeLaval VMS as a robot for smaller operations, Mr Heller calculated after the first installation that there was a clear return on investment together with the other cow comfort solutions.

The El Fundo Risquillo farm is 500km south of Santiago and is part of a larger operation including a beef farming operation and a stud farm. **D**

FEEDMASTER®

ATTRITION DISC MILL



by Northern Feed Systems

"FeedMaster" DISC MILL

Built in Australia for Australian Farmers

RESULTS SPEAK FOR THEMSELVES !! A recent installation to replace the old roller mill brings immediate results, able to reduced feed rate as well as a lift in production of 1.5lts per cow per day.

- Unique processing action releases more protein from each grain.
- Process all size grains. Including pinched grains. Blending multi grains.
- Granulation size to suit all livestock Dairy/Beef/Pigs/Sheep/Poultry.
- Simple operation. Manual or fully automated. All at the turn of a dial.
- Smooth quite operation with low power consumption.
- Extremely low maintenance. Lowest cost consumables of all mills.
- Unique design no close moving parts eliminates costly accident's.
- For more information or to find your local dealer call :-

Northern Feed Systems

Phone 1800 058 028

Over 35 Years Designing and Manufacturing

Stock Feed Processing Equipment

www.feedmasternfs.com.au

3 x Drives

Electric

PTO

Petrol



3 x Sizes

ADM360

ADM500

ADM600

Sun helps slash dairy bills

WHEN the sun shines on Katandra West – and it often does – Gayle and Laurie Clark kick their machinery into gear.

The Legendairy farmers from near Shepparton in Victoria’s Goulburn Valley have installed a 30 kilowatt solar system on their dairy shed roof that allows them to run power hungry appliances free of charge.

“We only get an eight cent tariff for feeding back into the grid, which is a poor return, so we try to use as much sunshine power as we can,” Ms Clark said.

“During the day when it’s sunny, I operate the roller mill and in the summertime we use the power from the system to operate the recycled water pump.”

Using solar energy to run irrigation pumps closes the loop on a system that uses water and energy extremely efficiently.

Paddocks are flood irrigated, with run-off feeding into recycled water dams.

That water is then pumped – using solar energy where possible – back onto paddocks, rather than re-entering the local river system.

Effluent from the dairy is used in a similar fashion, with the nutrient-rich liquid pumped back onto paddocks to grow more grass for the cows.

“We use everything that we can,” Ms Clark said.

The solar electricity system has slashed power bills by a third, from \$6000 a quarter to \$4000 every three months.

While it was expensive to install, it has been paid-off in just three years, rather than the six to seven years the Clarks had initially estimated.

With a lifespan of 25-30 years for the 117 panel system, the initial outlay is looking like an increasingly good investment.

“We could see the price rises coming, so when an interest free offer came along we took it. It took three years to pay off and I’d certainly do it again,” Ms Clark said.

For farmers like the Clarks, being responsible custodians of the land goes hand-in-hand with running a good farm business.

Ms Clark said almost every farm in the region now has recycled water systems in place, ensuring that a valuable commodity is kept on farm and



Gayle Clark with some of the 117 solar panels that have been installed at her Katandra West dairy farm.

no waste is sent back into local waterways.

“I’m not sure our city counterparts realise how connected and how appreciative we are of our environment,” she said.

“We are trying our very, very best to look after our environment.”

For Ms Clark, installing solar pan-

els to help power the farm is part of a philosophy of making the most of technology and innovation.

Australia’s Legendairy farmers are committed to ensuring a sustainable future for current and future generations: www.sustainableairyoz.com.au

For more Legendairy stories, head to legendairy.com.au

BAMAWM PUMPS & ENGINEERING

570 Bamawm Road, Bamawm, Vic, 3561. Phone/Fax: (03) 5486 5496
www.rollermills.com.au





BAMAWM
ROLLER MILLS

Patent no. 327572

FEED SYSTEMS & POLY HOPPERS
TOTAL FEEDING SYSTEM

Hoppers Design Patent No. 1407780 Applic. No. 1491200

Our roller mills are the most efficient way to process grain, due to low maintenance, high flow rate and tonnage to kilowatts. We can convert most systems from blanket feed to individual feed.

We also make irrigation pumps in 6”and 8” for all of your recycling needs and EFFLUENT POND USE.

DON'T SETTLE FOR SECOND BEST!!!

VR2203742



The ID tag on the calf's collar activates the feeding robot which mixes a controlled amount of powdered formula.

Wisconsin robot dairy delivers

Key points

- ✓ Robots helped with work-life balance
- ✓ Unskilled, unexperienced labour versus robotic assistance
- ✓ Pellet amounts are determined by milk production



By Mark Phelps

SOME 16 years ago Wisconsin dairy farmer Peter Knigge was faced with a tough decision.

He could either employ labour on his 240-hectare farm, or he could help pioneer the use of robotics in the US dairy industry.

Despite being in the infancy of development, Mr Knigge chose to make a million-dollar investment in robotics and associated infrastructure.

"We faced the challenge of having no experience with hired labour and, at that time, labour for dairy farms was very scarce," Mr Knigge said.

Mr Knigge, his wife Theo and their son Charlie milk 110 Holstein cows at Omro, about 300km north of Chicago.

The cows are housed in a sand-stall barn and are free to enter the robotic milking machine at any time. Some cows choose to be milked four and five times a day.

He said what really crystallised his



The udder is automatically washed and the claw attached by the robot. Each cup drops off independently as milk flow decreases.

'You eventually pay off a robot, you never stop paying off labour.'

decision to make the leap to the new technology being developed by the Dutch company Lely was the economic reality of robots.

"You eventually pay off a robot," Mr Knigge said. "You never stop paying off labour."

"We could also see there was a lot less stress on the cows. The cows are milked when they want to be milked, as often as they want to be milked."

"Equally importantly the robots freed us up from the dairy. Now there is time not just to better manage the farm but enjoy a better lifestyle."

Knigge Farm was one of several farms visited by a group of Australian and New Zealand farmers

The Knigges have two second generation Lely Astronaut robotic milking machines in their purpose-built sand-



A Lely robot is used to keep the feed ration up to the cows.



Wisconsin dairy farmers Pete and Theo Knigge and their son Charlie pioneered the use of robotics in the US dairy industry.

stall barn. The milking herd is split into two groups of 55 cows fitted with electronic ID tags that communicate with the robot.

The cows literally milk themselves by entering the robotic milking machine, attracted by the high energy pellets dispensed by the feeder at the front of the milking unit.

“The purpose formulated high energy pellets are what attract each cow into the robot. Cows in milk crave energy.” The number of pellets each cow receives is determined by its level of milk production.

Cows that have received their allocated ration are immediately present-

ed with an open exit gate, allowing the next cow to enter the unit.

Likewise, an alert is triggered if a young cow has not been milked within a set number of hours.

Charlie Knigge said educating the cows to the robotic system was an important task.

“Educating young cows to the robot can be a challenge but as soon as they realise the high energy pellets are in front of them, they generally settle in very quickly,” he said.

The calves are fed in a separate barn using another Lely robot system.

A sensor reads the ID tag of the hungry calf when it seeks to drink from

the artificial teat in the pen. If the calf is scheduled to be fed the robot delivers controlled amounts of instantly mixed milk.

Alltech dairy consultant Tom Lorenzen said there had been significant growth in robotic dairy technology, particularly in smaller, family operations.

“Farmers are increasingly seeing that milking robots are a way of freeing up time and overcoming labour issues,” Mr Lorenzen said. “There are plenty of advantages in managing the performance and health of the herd.”

***Mark Phelps travelled to Wisconsin as a guest of Alltech.**

The Industry leaders in automatic feeding knowledge and innovation - working to save you time and money!



Update your old system into an ID SYSTEM



Experience • Knowledge • Innovation

Turn you existing feed system into an ID capable system with Advantage ID the latest product in Feedomatic's range. Advantage ID replaces your old feed motors with quality worm drive dc motors on each hopper to quickly and easily transform your old system into an ID system. Advantage ID can be installed between milkings so there is no disruption to your production.

Give us a call today!

VR2005957

For more information Phone: 0428 106 132 • www.feedomatic.com.au

Investing for the longer term

Key points

- ✓ Grant assistance for infrastructure
- ✓ \$10,000 up for gRrabs from Lion Landcare Grants
- ✓ Huge power savings



INVESTMENT in new technology has reduced energy use at one Mooroopna North dairy by up to 40 per cent.

The reduction came from installation of a variable speed drive (VSD) connected to the farm's vacuum pumps and a heat recovery unit.

Using a \$10,000 Lion Landcare Grant, the Pivacs family, who have a 300-hectare farm, was able to replace aging machinery in the dairy shed that was a continuous drain on energy consumption.

The VSD has also reduced the noise experienced in the cowshed and allowed the family to milk the herd more quickly.

It has also meant more milk can be extracted from each cow.

"The dairy shed is quieter and less stressful for the cows, which is better for them and us," Mr Pivac said.

Mr Pivac said the family wanted the operation to be sustainable with a reduced impact on the environment.

The Pivacs have a 650-cow herd, which is milked split calving and produces about 340,000 kg/ms in a 46-bale rotary dairy.

Due to the large herd size the vacuum pumps were running at full speed, for more than 12 hours a day.

The VSD pump, on the farm's existing Twin Westfalia Vacuum Pumps, ensures energy is only used when the vacuum is require.

A Heat Recovery Unit was also in-



The heat recovery units being fitted to the vat chiller.

'Now we draw hot water out of the vat, dissolve the nitrogen and apply it.'

stalled, to heat water into an 1800-litre vat, before it was pumped into hot water cylinders.

Power savings for hot water were expected to be considerable, with the first 40 degrees of water heating being done for free.

The chillers were more efficient, as

extra heat was removed before reaching condensers.

Given the large nature of the operation, the new pumps had an almost immediate impact on the family's operational costs.

Operations manager Murray Pivac said an added benefit of the HRU was its use in the application of urea throughout winter.

As plants take up nitrogen more efficiently when it's dissolved, the Pivac's switched to a spray application.

From their experience, the urea did not easily dissolve in cold water, particularly in winter, so the water heated by the HRU ensured urea spraying

New from Bale Up Hayfeeders



Our modular feed pad model, the next level in feed pads, comes in 4 metre units. Buy 2 "bookend" units and add as many open ended centre units as you need. No more feed on the ground and extremely low waste, and like all our feeders comes with our rolled corrugated floor. **\$2420 inc gst per unit.**

SJ1341124

Phone 0458 590 766 | www.baleupfeeders.com



Standard cow feeder **\$2200 inc gst**



Calf feeder **\$1980 inc gst**



The chiller unit with stainless steel vat holding water from the heat recovery unit.

could be conducted year round. “Now we draw hot water out of the vat, dissolve the nitrogen and apply it,” Mr Pivac said.

The Pivac dairy was one of 11 farms awarded a share in \$100 000 in 2015 as part of the Lion Landcare Grants program, which aims to boost sustainability in the production and supply of milk.

Lion’s Agricultural Procurement head Murray Jeffrey said the grants program helped make dairy farms more sustainable in the long term.

“The grants program helps Aussie dairy farmers to achieve sustainability while reducing costs, which is great for the environment and for their business. Lion is really proud to support such a fantastic program,” Mr Jeffrey said.

Landcare Australia chief executive Tessa Jakszewicz said the dairy program showed that economic and environmental aims could be complementary.

“The range of projects that have been funded through this partnership demonstrate innovative ways of optimising results for the dairy industry, our land, water and sustainable farming for the future,” Ms Jakszewicz said.

The Lion Landcare Grants program was set up in 2014.

Each year, selected farmers are tasked with reducing energy consumption, enhancing biodiversity or

improving on-farm nutrient management. To date, improvements have been made in areas as diverse as recycling effluent nutrients to reduce

fertiliser use, preventing dairy farm run-off from entering waterways and recycling composted organic nutrients on pastures. 

Property maps

Benefit from using a range of custom designed maps made by us while visiting you, using your knowledge and our special computer software

Combine aerial photos with GPS data and other information

Accurate maps for communication, planning, measuring and redesign

Benefit from our 20 years of experience mapping a wide range of operations






Ring Harry 0417 521 002 or 03 6452 1002

www.farmmappingservices.com

harry@farmmappingservices.com

VR4048649

Building a shed for the ages

Key points

- ✓ Push to grow the operation
- ✓ Family business since 1942
- ✓ Already building for a fourth generation



TWO dairy farmers are expanding their operation on the back of long-term industry confidence.

The Glowrey family farm, based just outside Swan Hill along the Murray Valley Highway in Victoria, is run by brothers Michael and Matt Glowrey.

The major feature of this enterprise is the 100-unit and 50-unit rotary dairies about two kilometres apart and the 1900 cows to be milked this season.

The two dairies ensure flexibility – the 50-unit dairy milks freshly calved cows and “hospital” cows, the 100-unit milks the sound cows.

This allows 600 cows an hour to be milked in the bigger unit, as there is no interruption with fresh or sick cows holding up the process.

The change that Matt and Michael are overseeing is all about increased production, modernisation and the use of technology.

The optimistic outlook is for 2000 cows to be milked in the 100-unit dairy by next spring.

When asked about the final limit, Matt said “at the moment we envisage none, we expect to just keep increasing milking numbers until we decide at some point, that’s it”.

Nine hundred cows are being milked in the big shed at present with that number increasing every day.

The herd is basically calved in three sessions – March, June and August.

Six hundred calves are being reared annually, which represents 100 plus cows’ milk.

The farm operates on 550 hectares with laneways that are three times wider than average – they resemble paddocks on average-sized farms.

The “sacrifice paddocks”, on a limestone rise where there are a total of 600 metres of feed troughs for milkers and dry stock, are on opposite sides of the lane. These paddocks and the 100-unit rotary dairy with the 32,000-litre vat are all very impressive on size alone.

The shed is 42 X 36 metres and the platform rotates every eight to 10 minutes.

Matt said the site for the shed came



The optimistic outlook is for 2000 cows to be milked in the 100-unit dairy by next spring.

‘It’s not where you start but where you finish. I don’t pretend to have all the answers, but enjoy the journey.’

naturally as it (the site) lent itself to good access from all areas of the farm.

The side benefit from this site is that it is on a high limestone rise, which Matt admitted was not actually a consideration.

It has enabled the feed pad (or sacrifice paddocks) to be right near the shed on the same limestone rise.

The dairy has cup removers, retention bars, automatic teat spraying and a drafting system for separating cows.

The only manned spots are two cups-on operators with a third roving the premises checking cows.

Supplying ear tags to the Glowreys would be like supplying cucumbers to McDonalds.

The dairy is Yarroweah Engineering built, with an underpass beneath the platform to access both cups-on and cups-off stations as well as the sunken centre section for maintenance, herd testing and visitors. Matt said that is where busloads of visitors watch the milking.

nance, herd testing and visitors. Matt said that is where busloads of visitors watch the milking.

A special feature of this dairy is the room around the platform and the skirting under the platform.

Both of these allow good house-keeping and prevent manure soiling on the walls of the building and under the platform and create an atmosphere of cleanliness and spaciousness.

There are many windows and plenty of open space and the whole structure has a pleasing aspect.

The enterprise employs eight to nine employees including backpackers based at Swan Hill.

At the time of visiting, there were three women – English, Welsh and German – milking.

The 550 ha farm has a 1600ml water entitlement. Carry over last year was 200ml.

A lot of bought-in feed is used and fed via a mixer wagon working 10 hours a day at peak.

The decision was made last year to buy hay and grain instead of temporary water.

The cows are fed an average of eight to 10 kg grain per day, depending on the time of the season and available feed. This is split between in the dairy

MooMonitor+

ELECTRONIC HEAT DETECTION & ANIMAL HEALTH MONITORING

Because Accuracy Matters...

CUT COSTS, IMPROVE EFFICIENCY AND PROFITABILITY with MooMonitor+



THOUSANDS IN USE ACROSS AUSTRALIA

PROVEN RESULTS

What is MooMonitor+

The MooMonitor+ is a collar around the cow's neck, which detects individual cow heats and health events with ease through advanced data analysis. It monitors cows on a daily basis and identifies specific types of behaviour such as feeding, rumination, resting time and different types of activity intensity. These features can aid in detecting heats, monitoring feeding and rumination patterns, monitoring cow welfare and managing the health status of the herd.

With MooMonitor+ you can achieve:

- ✓ Increased profits - One missed heat costs up to \$200
- ✓ More compact calving
- ✓ Increased milk yield
- ✓ More free time
- ✓ Reduced workload

DISTRIBUTED BY
DAVIESWAY Est. 1911
IDEAS TO FARM. EVERYDAY.

📍 Daviesway Pty Ltd
✉ info@daviesway.com.au
🌐 www.daviesway.com.au

📞 Julian Bentley
☎ 0408 105 823
✉ jrbentley@dairyking.com.au



🏠 Milking 🍽 Feeding ☀ Cooling 🚰 Manure Scrapers
by Dairyking

📶 Health & Fertility Monitoring
by Dairymaster

DAIRY EQUIPMENT UPDATE



The dairy is Yarroweyah Engineering built, with an underpass beneath the platform to access both cups-on and cups-off stations as well as the sunken centre part for maintenance, herd testing and visitors.

◀ and in the feed mix. Last season two truck loads of grain per week and a truckload of hay per day were fed out.

It must be stated though, last season was different and very dry while at the moment the mixer wagon is not in use with an estimated 40,000 kg of grass being used each day.

Near the 50-unit dairy, 600 calves are being reared. Increases in the herd over the past few years have been completely from home-grown replacements.

Matt highlighted the growth of the enterprise.

The farm is a family business which his grandfather started with 12 cows in 1942. The milk was sold to local cafes and eventually to processors.

Matt described the growth story via vat upgrades.

Initially they started with a 2000-litre vat and then cherry barrels to hold the extra.

Then a second 2000-litre vat was bought. This was replaced by an 11,000-litre vat which was needed when the 50-unit rotary was built. A 26,000-litre vat was filled with twice-a-day pick up for 100 days that season.

The decision to build the 100-unit shed was made with the formation of a family company after Michael and Matt's father passed away in 2009.

Matt and Michael worked with a succession planning facilitator to put the process in place.



The farm is a family business with his grandfather starting with 12 cows in 1942.

Matt said the decision was made "because we love milking cows and enjoyed the challenge within the dairy industry.

"Expansion was the logical step for us – at the time we were milking 1000 cows and the plan was to double that."

This planning allowed them to buy the farm next door, install 30ha of spray irrigation and 5km of pipe and riser irrigation. The bottleneck then became milking time.

More than 11 hours a day were spent milking 1350 cows and another

50 to 60-unit rotary would only have lasted five years.

Thus the 20-year plan for the 100-unit rotary.

Michael is in his early 50s while Matt is 10 years younger.

This will be the third season in the big shed.

Matt foreshadows no issues with milking time for a number of years now. When asked about filling this vat and twice-a-day pick up, he chuckles with anticipation.

The yard wash is via two holding flood tanks and the shed with yard ▶

CHRISTOPHER DAIRY BAILS



- *Improve Cowflow, cows enter the dairy of their own accord*
- *Reduce crowding and pushing on milking platform*
- *Eliminate competition for feed during milking, cows receive their individual feed ration*
- *Lower BMCC*
- *Improve labour productivity during milking*
- *Low maintance*
- *Water powered exit and drafting gates for new and existing sheds*
- *Water powered rams for lifting or pushing purposes (up to 400kg)*
- *Designed and made in Australia*



Contact:
Steve & Alison Christopher

Christopher Dairy Bails Pty Ltd
345 McLennan St,
Mooroopna VIC 3629
Ph/Fax (03) 5825 2354
Mob:0419 899 078

VR2041967

DAIRY EQUIPMENT UPDATE



There are cup removers, retention bars, automatic teat spraying and a drafting system for separating cows.

◀ blasters. Effluent disposal is via a two-pond system with the “coloured” end water dispersed via irrigation through the pipe and riser.

The secret, Matt said, is to regulate the two flows, with a relatively small pipeline feeding the effluent water into the irrigation water, thus ensuring good dilution.

Cows are all fed a flat ration with fresh cows some extra protein. It's a simple system.

Use of drones has been discussed and all communication with the workers is electronic when no face-to-face is possible.

Matt is now a businessman overseeing a multimillion dollar enterprise. The expertise is dairying and workforce management.

Matt's son, Dallas is enthusiastic and tech savvy, but still at secondary school.

He is being taught people skills and helps Matt with some of the IT technical stuff.

Matt tells a story about Dallas going to disc some out-paddocks. He set up the GPS, phone and Spotify on the new tractor unaided to help with the task and finished an hour earlier than planned.

The growth of the business was



The decision to build the 100-unit shed was made with the formation of a family company after Michael and Matt's father passed away in 2009.

simply a challenge, according to Matt. Not necessarily a requirement.

There will be challenges in the future as we might all imagine with such cow numbers.

“It's not where you start but where you finish. I don't pretend to have all the answers, but enjoy the journey,” Matt said.

The challenge will be to oversee a growing workforce as cow numbers

increase, calf feeding is upgraded and feed procurement continues year-in year-out.

Matt was reluctant to talk about costing and return on invested capital. Mainly so because, as he said, of the financial situation of the industry at present.

He definitely did not want to speak negatively about this industry so close to his heart. 

... partnering dairy farmers
for more than 50 years

wilson Dairy Solar Hot Water Systems

Evacuated Tube technology coupled with one Wilson tank to suit your dairy farm hot water requirements.

Understanding energy costs increase year on year and dairy hot water heaters contribute a large portion to the cost of energy in the dairy shed. Wilson Hot Water have designed an integrated solar hot water system specifically for the dairy industry using high performance evacuated tube technology.



Contact Roger at Wilson Hot Water on 03 9720 2888

roger@wilsonhotwater.com.au wilsonhotwater.com.au

DAIRY EQUIPMENT UPDATE



Jenni and Rob Marshall, Lardner dairyfarmers, were shopping for information about rollover protection for their farm equipment.



Peter Lucas, Farm Implements, Dandenong, had a range of rotary hoes and power harrows on display.

The sun comes out for Dairy Expo

WHILE the crowds and exhibitors numbers were down on recent years, there was still a lot of activities, machinery and other displays of interest to farmers at this year's South Gippsland Dairy Expo, at Korumburra, Victoria.

Jeanette Severs was there again for *The Australian Dairyfarmer*.



Graham Wood, Graham Wood Machinery, Grantville, with the Australian manufactured 3-metre wide fixed 4-in-1 pasture seeder.



Proving the long-fibre complete calf mix is as good as it smells were Phil and Skye (10) Munro, of Leongatha, with Brown's Stockfeeds' Chris Lawton and Cameron Brown.

Dairy-Tech Refrigeration

Registered Packo Dealer Australia

The dedicated milk cooling specialist

- A Packo milk tank and system to suit all herd sizes, pick up schedules, and entry temperatures
- Simple one button operation to activate either cooling or wash modes
- Packo's Patented fully automatic Rotojet cleaning system, ensures every square inch of the inside vessel is clean and hygienic.
- The choice is yours- Direct expansion or a glycol chilling tank
- Pre, instant cooling systems available

New & Secondhand systems / Wash system upgrades for any make-model tank

Call Dairy-Tech Refrigeration today for a no hassle quotation

PHONE 03 56623277 **EMAIL** pgoiris@dairytechrefrig.com.au **WEB** www.dairytechrefrig.com.au



ADF



Graeme and Vanessa Hill, Hill Earthworks, Poowong, brought some of their heavy machinery to the dairy expo. "We do a lot of dams, tracks, irrigation trenching and shed sites," Graeme said.



Philip Thompson, of RP Rural Engineering, Narooma, with the hoof works cattle crush. "Its primary purpose is for hoof trimming," Philip said.



Jade Killoran, agronomist with AGF Seeds, Smeaton, received a fair bit of interest from dairy farmers in the Global Sunn legume. "It fixed 60kg/ha of nitrogen and grows biomass two metres tall with a high protein content," Jade said.

GreenCon

Concrete & Construction

www.greencon.com.au

<ul style="list-style-type: none"> • Feed Pads & Freestalls • Steel Construction <p>Ph: (03) 5595 1078 Fax: (03) 5595 1644</p>	<ul style="list-style-type: none"> • Dairies & Farm Sheds • Effluent Systems <p>1 Station Street, Cobden West Crt, Warrnambool</p>
--	--




*All Types of
Rural,
Industrial,
Domestic and
Commercial
Construction*

Cobden Floodwash

formerly Shepparton Fibreglass Tanks



The fastest and most efficient way to clean your yard. Our tanks are specifically designed to withstand the high volume of water and flow rates to successfully clean your yard. They can be opened by a manual valve or a pneumatic valve which can be controlled in the dairy.

Cobden Floodwash
1 Station Street,
Cobden, VIC. 3266

ph 0408 529 009
www.cobdenfloodwash.com.au

LIQUIFY MANURE PONDS & ELIMINATE ODOURS...

...without toxic chemicals or machinery!



Green2Go™ Livestock Manure Pond Treatments liquefy and reduce manure pond volume and eliminate pond odours, making pump-out for pasture spreading easier, less offensive, more efficient and more economical.

These treatments contain high concentrations of natural, vegetative bacteria, that reduce the biological oxygen demand in the pond, destroying the bad, odourous bacteria, to produce a manageable, odourless slurry, without chemical or mechanical treatment.

Livestock Manure Pond Crust Busta 1000X

Liquid formula, kick starts ponds with a heavy manure load or surface crust. Available in 5L.

Livestock Manure Pond Treatment

Water soluble sachets, for ongoing pond maintenance. Available in 3kg pails.

Green2Go™ Livestock Manure Pond Treatments contain no harmful or toxic chemicals, just safe, beneficial cultures of bacillus bacteria, making it safe for you and safe for the environment.

Available from your local rural store.

IMADGINATION 17152_ADF



Also available:

Green2Go™ BioBacterial • Septic Tank Maintenance • Septic Tank Emergency Care • Drain & Trap Treatment.



Green2go™ is a registered Trade Mark.



DASCO Est. 1960

HYGIENE • HEALTH • NUTRITION

Dasco Pty Ltd T: 1800 155 369

info@dasco.com.au www.dasco.com.au

Better effluent management

THE management of dairy effluent provides many opportunities for dairy businesses.

The Holman family has met the challenge of effluent application on a steeper property by expanding the application area through the installation of a mainline. This was done in 2014 and they are starting to see the benefits of improved pasture growth.

Andrew Holman's property is at Loch in the Strzelecki Ranges, Victoria. There are steep slopes across part of the farm which makes the pumping of effluent particularly challenging.

The dairy operation milks about 400 spring calving cows.

Manure from the yards is collected into a solids trap and a 50,000 litre sump. The sump is pumped daily to pasture using an effluent pump via a 1300-metre long mainline and a gun irrigator.

Expanding the effluent application area has enabled better use of the nutrients in the effluent, particularly potassium and nitrogen.

The gun irrigator is moved around every couple of days.

"I'm able to apply nutrients to areas of the farm that were difficult to drive over and apply fertiliser to," Mr Holman said.

"We are really able to see a response."

Tests revealed that one megalitre (1,000,000 litres) of effluent contained 232kg of potassium, 95kg of phosphorus, 22kg of sulphur and 200kg of nitrogen. This is equivalent to about 0.46 tonnes of potash, 0.43 tonnes of urea and one tonne of single super-phosphate with an approximate value of \$1,015 per megalitre (prices are a guide to illustrate the value of effluent).

Each year about 7.4 megalitres is generated on the property with a fertiliser equivalent value of around \$7,511.

Reducing the on-going maintenance cost of the effluent system is important to gaining the most value from the nutrients in the effluent.

Management challenges for the Holman's system include being able to generate enough pressure at the irrigator and managing solids so they don't create blockages in the pipes.

Mr Holman used a plumber to size the mainline to ensure it had the right pressure rating for the steeper prop-



Andrew Holman on his property near Loch in the Strzelecki Ranges, Victoria.

'At the end of each milking the effluent is gone; it's not another job that I have to do. There are no excavators, tankers or weeds on dams to deal with later.'

erty to ensure pumping efficiency and reduce the risk of splitting pipes.

Solid material from the effluent is removed by a trap but some solid material does enter the sump which gets agitated and applied daily to pasture.

Mr Holman said having the ability to flush the mainline was important to removing solid material if it did get pumped through.

Placing hydrants at 50m intervals for the first 200m of the mainline, then 100m after that is something Mr Holman would do differently next time to enable ease of flushing.

He also removed the foot valve on the effluent pump (which is immersed on a pontoon) to allow effluent in the line to drain back to the sump when turned off to flush the pipe.

The mainline has been buried to protect it from stock trampling and

to help reduce blockages by keeping the pipe cool over summer and thus reducing the baking of manure inside.

Two posts and horizontal rails have been placed around the hydrants to protect them from stock and machinery.

Mr Holman prefers managing the effluent on a daily basis.

"At the end of each milking the effluent is gone; it's not another job that I have to do. There are no excavators, tankers or weeds on dams to deal with later," he said.

These are the benefits of a direct application system; however it can be difficult to manage these systems when conditions are wetter.

It is therefore essential to have some back-up storage capacity for these conditions.

The Holmans have a back-up storage dam where effluent can go if conditions become too wet.

The Melbourne Water Rural Land program has supported the installation of the effluent mainline through a 50 per cent co-contribution financial incentive. 

For more information about the program and eligibility please go to: www.melbournewater.com.au and search 'Rural Land Program'.

For more information contact Benita Kelsall, DEDJTR Ellinbank.

Effluent restricts grazing of heifers

Key points

- ✓ Young cattle should not graze where effluent has been applied
- ✓ It is important to pump out ponds over winter



By Jeanette Severs

DAIRY farmers are encouraged to use effluent on pastures as a re-use and value-add product, and to grow grass as the cheapest source of food for livestock.

GippsDairy regional extension officer Donna Gibson said there was a lot of nitrogen and potassium sitting in effluent.

“Why not use it to give you good grass and reduce your fertiliser bill,” she asked.

But there are restrictions on grazing cattle on pasture where effluent has been applied.

Cattle younger than 12 months should not graze pasture where effluent has been applied, as part of the Bovine Johne’s Disease (BJD) control program.

Donna Gibson: Effluent can be used to wash down the dairy yard and feed pad.

“And you shouldn’t graze young stock where older cattle also graze,” Ms Gibson said.

Older cattle should also be kept off

pasture for 21 days after effluent is applied.

“Most food safety programs relevant to dairy farmers encourage them to use as much effluent as possible, but that 21 days is important,” she said.

Failing to comply with the exclusion can raise the risk of transference of pathogens to cows and, in some circumstances, to milk.

“Most of these pathogens, if you do the right thing and withhold your pasture for 21 days, are not a problem,” she said.

Liquid is utilised through irrigation and the solids are spread by a tanker.

Dairy farmers in irrigation districts are normally aware they have to ‘shandy’ their liquid effluent, Ms Gibson said. Effluent could also be used as a wash-down on feed pads and in the dairy yard.

SOLID-LIQUID SEPARATION SYSTEMS

Agricultural and Industrial



Australian Waste Engineering
www.austwaste.com.au

DISTRIBUTORS OF

- Submersible pumps
- Slurry mixers
- PTO Slurry pumps
- Bedding recovery units
- Bio-Gas equipment



Australian Distributor for FAN

Phone: (08) 87382021
Email: edan-awe@bigpond.com

DESIGNING SEPARATION SYSTEMS FOR OVER 20 YEARS

‘An effluent management plan is a very good idea – most dairy farmers might include it in their management regime, but most of the plans are probably written in their heads.’



Applying effluent to grass is a cheap fertiliser but cows must be excluded from grazing until 21 days post application.

“Food safety standards say it is OK to use effluent to wash this infrastructure but not in the dairy itself,” she said.

Dairy farmers also need to ensure the pond does not flow over.

It is recommended they pump out the pond over winter to reduce the chances of overflow.

“Dairy farmers need to be aware of legislation about protecting the environment, to ensure effluent doesn’t get into waterways,” Ms Gibson said.

Irrigators are encouraged to use a re-use dam. Increasing the number

or size of the effluent ponds might require discussion with local council and state agricultural departments.

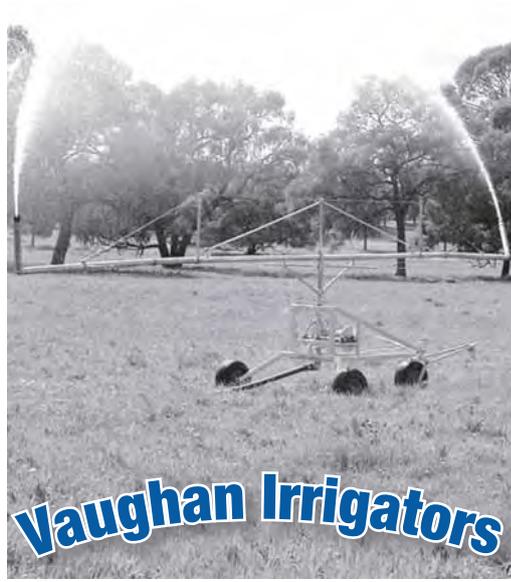
“All states and territories have minimum standards that dairy farmers must comply with,” she said.

“An effluent management plan is an excellent idea – most dairy farmers probably include them in their overall management regime, but most of the plans are most likely written in their heads.”



Donna Gibson encourages dairy farmers to use effluent to fertilise their pastures, but be mindful of the environmental conditions and the legislation surrounding effluent use.

Low Pressure Travelling Irrigator



VR4039264

- 14 mt Boom
- 2" Riser and arms
- Solid Reinforced Frame Galvanised "Entirely Hot Dipped"
- Front Steer System
- Swept Back Axel For More Stability
- 300mt Cable Run
- Up to 13,000 gal/hr
- 2" or 2 1/2" Hard or Soft Hose
- Quality Heavy Duty Components
- Covers up to 50mt (1.5 Hectares per pass)
- Ideal for both Water & Effluent
- Services over 20 Hectares (50 Acres)

Vaughan Irrigators

Phone Walk West Pty Ltd
on 1800 241 534



Understanding compost's place

Key points

- ✓ Ask for a laboratory report before purchasing compost
- ✓ Recognise the health risks early



COMPOST does have a place in dairy farm systems in south-west Victoria, but it is important to understand what it can and can't do for our soils and pastures.

This was one of the key take-home messages from Bill Grant, a compost industry consultant at two "Effective use of compost and organic fertilisers on-farm" field days earlier this year.

The days, organised jointly by Agriculture Victoria and WestVic Dairy, focused on the potential benefits of using these materials on-farm, managing potential risks and the results of some south-west trials.

There are many types and qualities of compost and compost-type products on the market.

They range from cheap, lower quality, and immature products that are likely to use soil nitrogen in the short-term and could harm plant growth, through to stable, high quality mature compost with a good nutrient and humus content.

Mr Grant strongly recommends that farmers purchasing compost ask for a recent laboratory report on the quality of the compost being delivered.

There are a range of analyses available from commercial laboratories. These range from straightforward total nutrient content, through to comprehensive tests required by horticultural users.

According to Mr Grant, the best production responses to compost have been found on poorer, more marginal soil types.

These include poorly structured, low carbon content soils, soils in low rainfall areas and on alkaline sands.

In some of these situations yield responses of 10 to 30 per cent have been recorded.

However, we are less likely to get the same level of benefits on high carbon, well developed pasture soils in high rainfall areas.

He further explained that most composts aren't fertilisers, and shouldn't be used as a total replacement for all conventional inorganic fertilisers.

They can however provide some

It's important to understand what compost can and can't do.

'There are many types and qualities of compost and compost-type products on the market.'

nutritional benefits and improve soil fertility at high rates.

Composts are mainly soil conditioners that supply organic matter and humus in slower, plant-available forms, which can improve the cation exchange capacity (CEC) and the nutrient holding capacity of the soil.

Depending on the type of compost, the application rate and how it is applied, compost can improve the structure and water holding capacity of some low carbon soils.

At low application rates compost is unlikely to radically alter soil biology over an extended period.

Another part of Mr Grant's presentation was managing the risks potentially associated with using compost.

These included contamination, biosecurity implications, partial pasteurisation and fire and nutrient draw-down in products.

Following Mr Grant's presentation Agriculture Victoria district veterinary officer John Gibney discussed some of the potential animal health

biosecurity implications in bringing products onto farm.

One of his key messages when considering composting mortalities was to determine why the animal died.

He also said effective composting killed most pathogens apart from bacterial spores and prions.

Mr Grant's recommendations included:

- Know your product and what it will and won't do.
- Ask to see the laboratory analysis results and ask how to use them.
- Target underperforming areas or soils on the farm.
- Be aware of and manage risks.
- Consider using compost blended products, such as with lime, gypsum or fertiliser.
- Try test strips of a quality compost.

Compost products range from those made by commercial compost producers to products made on-farm from manures and farm wastes.

These can benefit your farm, but it is important to know when and where to use them and how to incorporate them into your whole farm nutrient budget.

For further information contact Graeme Ward at WestVic Dairy on (03) 5557 1000 or Rachael Campbell at Agriculture Victoria on (03) 5336 6868.

KEY DOLLAR SEPARATORS



Want to recycle your Dairy's effluent?

**Want to irrigate with your Dairy's effluent
without blocking sprinklers?**

THINK KEY DOLLAR SEPARATORS



- Multiple screen sizes down to 0.076mm
- Considerable lower running costs than other separators



- Around half the price of most Screw Press Separators
- Self cleaning

Trading as Key Dollar Australia Pty Ltd
ABN 90 904 018 010

Address: 23 Croydon Road, Keswick, SA
Australia 5035

Phone: (08) 8120 0259

**KEYDOLLAR**
AUSTRALIA

VR4048640

Looking to better manage effluent

WE all know the dairy milk price drop has caused a great deal of angst among dairy farmers, particularly those new to the industry who may not have been through a period like this before.

Any information or support that can be provided to assist with better use of resources on dairy farms is particularly valuable now and will be beneficial in the longer term. Part of the

support being provided is the offer of free dairy effluent sampling, analysis for nutrient content and the development of an Effluent Use Plan.

This service is being provided by Agriculture Victoria dairy staff from the Department of Economic Development, Jobs, Transport and Resources across Victoria.

It has been known for a long time that dairy effluent can be a useful nu-

trient source for pastures, providing it can be managed in a way that will not be costly to apply and will not overload the soil with nutrients.

The free offer of effluent sampling and testing provides valuable information from which a use plan can be produced.

One farmer wanting to improve the use of his dairy effluent is Brad McIntosh, of Loch in Victoria. Mr McIntosh sharefarms for his father Rod on a 175ha farm, milking 210 cows in a 20-unit swingover herringbone dairy.

Currently effluent from the yards and dairy is held in one pond which can only effectively hold 0.3ML of effluent generated over a one-month period. The pond size cannot be increased due to solid rock in the base.

This has made it necessary for Mr McIntosh to syphon effluent out of the pond at least once a week to two or three hectares of pasture using two-inch poly pipe and a sprinkler.

Some 20 hectares of pasture close to the dairy had effluent applied to it over the year. He has had to be careful about where to apply the effluent, particularly during winter when soils can be very wet, to ensure the effluent does not run off into gullies.

For this reason he is looking at extending the syphoning area through the use of a three-inch poly pipe. The current pipe diameter does not allow syphoning alone to get the effluent onto the other areas.

The pond effluent was sampled and analysed for nutrient levels at an accredited laboratory to enable the correct application rate for the effluent to be determined.

The results (Table 1) indicate high levels of potassium and nitrogen. Salt levels are not very high and the pH of the effluent is neutral. So when looking to apply this to pasture the limiting factor will be the maximum allowable potassium level which is no more than 60 kg K/ha in one application.

Using the pond nutrient analysis, the amount and value of the nutrients contained in every megalitre was able to be established.

The nutrient applied showed that the equivalent of nearly a tonne of urea, one third of a tonne of superphosphate and 1.6 tonne of muriate of potash is in every megalitre.

Putting a dollar value on this (Table 2) it works out to a value of \$1,625 for

Manure Spreaders



SPREADER SIZES: 6-40 TONNES

- 5 YEAR WARRANTY
- HEAVY DUTY DESIGN & CONSTRUCTION
- IDEAL FOR ALL TYPES OF MANURE & COMPOST
- WILL ALSO SPREAD LIME & GYPSUM
- EMPTY LESS THAN 4 MINS
- AN EVEN SPREAD WIDTH UP TO 24 METRES



Mobile 0428 637 717
Phone (02) 9974 2704

www.axonmachinery.com.au

VR2125652

BETTER WASTE MANAGEMENT

Table 1: Pond Effluent analysis

Description	Units	Effluent test results (single pond)	Gippsland Ranges
pH		7.32	6.8 – 8.2
Conductivity (EC)	µS/cm	5340	1500 – 9300
Phosphorus	mg/l	33	13 – 1400
Total Nitrogen		452	
Ammonia Nitrogen (an indication of readily plant available Nitrogen)	mg/l	–	43 – 2100
Potassium	mg/l	800	67 – 3900
Sulphur	mg/l	85	5 – 1300
SAR		2.82	0.7 – 9.1

Table 2: Fertiliser value of nutrients in effluent

Value of Nutrients in the single effluent pond			
Fertiliser	Fertiliser equivalent in kg per 1ML of effluent	Approx prices/tonne (from 27/7/16)	Value (\$/ML)
Urea	452 kg of N in sample ÷ 0.46 = 983 kg/ML	\$500	\$492
Single Super	33 kg of P in sample ÷ 0.088 = 375 kg/ML	\$460	\$173
Muriate of Potash	800 kg of K in sample ÷ 0.50 = 1600 kg/ML	\$600	\$960
\$ Total (per ML)			\$1,625
\$ Value in 2.9 ML			\$4,712

**All prices including GST, excluding delivery and spreading*

Table 3. Nutrient application rates and basic nutrient budget for application area

Nutrient	When applying 1ML over 12.5ha or to depth of 8mm	Application of 2.9ML over current app area (20.2ha)	Application of 2.9ML over future app area (35.1ha)
Nitrogen (kg/ha)	34 kg/ha	61 kg/ha	35 kg/ha
Phosphorus (kg/ha)	2 kg/ha	4 kg/ha	2 kg/ha
Potassium (kg/ha)	60 kg/ha	108 kg/ha	62 kg/ha
Sulphur (kg/ha)	6 kg/ha	11 kg/ha	6 kg/ha

every megalitre or \$4,712 per year for the 2.9 megalitres of effluent generated over the year.

Knowing that Mr McIntosh was applying effluent to pasture at around 12.5mm per hectare, the correct rate of application could now be recommended to avoid animal health issues and excessive nutrient build up. The rate recommended for application is 8mm of effluent over 12.5ha for every megalitre of effluent (Table 3).

For Mr McIntosh this will mean putting out his 0.3 ML over an area of around 4ha each time he empties the pond. It will also show that when he is able to increase the application area to around 35ha in total, this will bring the total nutrients applied back to a more reasonable level over the year. It will also allow greater choice of drier areas to apply the effluent to when soils are more likely to be wet.

To ensure no more than 60 kg/ha of potassium or 80 kg/ha of nitrogen is applied per application, every ML of the effluent should be applied over 12.5ha, or to a depth of 8mm. Effluent is not a complete fertiliser and has a higher proportion of potassium and nitrogen compared to other nutrients.

The effluent use plan will give Mr McIntosh greater confidence in applying the effluent to his pastures knowing what nutrients he is putting on and reducing the need for other fertilizer to be applied. This represents a saving in dollars at a time when every dollar counts. 

Victorians wanting to register their interest in getting a free Effluent Use Plan can contact Agriculture Victoria dairy staff: Gippsland David Shambrook, 0427 350928 Email david.shambrook@ecodev.vic.gov.au, North Sarah Brown, 0417 316345 Email sarah.brown@ecodev.vic.gov.au, South-West Rachael Campbell, 0447 347162 Email rachael.campbell@ecodev.vic.gov.au



Manure Management Solutions for Dairy and Livestock Farming

Build your own unique, individualized solution thanks to our wide selection of high-performance products.

GEA offers a complete line of manure management equipment for today's modern dairy farms and pig facilities. The GEA product line includes industry-leading manure spreaders, innovative separation technology, and time-tested and proven manure pumps, agitators, and scraper systems.

The design and quality of this equipment, combined with the industry expertise of our manure management specialists, allow us to bring unique, individualized solutions and high-performance products to farm operations of all sizes.

For more information - phone: 03 9335 9533
email: sales.au@gea.com

GEA engineering for a better world

gea.com

50 YEARS OF FARM PROVEN RELIABILITY

- LOW MAINTENANCE
- HIGH PERFORMANCE
- BEST VALUE

Vee belt drive design provides maximum flexibility to match pumping requirements

Comes with swing-up feet for easy mounting on a pit or pontoon.

No damage when pump runs dry for long periods.

No bearings or seals in 'Wet End' guarantees longer pump life and low maintenance costs.

Non-clog Impeller chops up semi-solids, straw and grass while passing sand, gravel and pig effluent.



GOT A POND SYSTEM?

Ask about our floating Pontoons.



PUMPS & IRRIGATORS

B R REEVE ENGINEERING

Tel: (03) 9699 7355

Fax: (03) 9696 2956

pumps@reevegroup.com.au

www.reevegroup.com.au



ADF1331051

9163 RPI

DAIRY WASTE MANAGEMENT



Early autumn is typically a time of maintenance around effluent ponds in southern dairy regions.

New calculator for better effluent use

DAIRY Australia has released a new calculator that aims to help farmers make better use of the nutrients contained in dairy effluent and sludge and save money in the process.

The 'Nutrients from Effluent and Sludge Calculator' assists dairy farmers to determine a suitable application rate for effluent as well as the value of the nitrogen, phosphorus and potassium that is applied during reuse.

Users can also calculate a value for their effluent or sludge based on equivalent fertiliser prices.

Dairy Australia Land Water and Carbon consultant Scott Birchall said farmers are often told to sample their effluent and to then get a lab to analyse the amount of N, P and K it contains.

"The calculator was developed to answer the usual question that followed about working out how much to put on," he said.

"The question is critical if it is pond sludge that is being spread as the contractor's cost is partly dependant on the application rate, and more importantly, the distance to the paddock that you've chosen for reuse.

"The temptation to apply heavy rates of sludge in paddocks close to the pond is understandable but if you can match the amount of nutrient available to what the soil or crop needs and then substitute for purchased fertiliser, desludging becomes a cost effective part of the fertility program rather than just another cost."

Kerang-based agronomist Matt Page has been using the calculator while preparing Fert\$mart nutrient management plans for his clients.

"Knowing how much nutrient is in the effluent or sludge is an important part of fertiliser planning," Mr Page said.

"The calculator helps me to target the areas of the farm that need the nutrients and to understand when too much effluent on a paddock may be detrimental."

Early autumn is typically a time of maintenance around effluent ponds in southern dairy regions.

Drawing down the effluent storage pond to its minimum level going into the autumn break and removing sludge that has accumulated in the primary pond are key maintenance requirements to support a functional effluent pond system.

The Nutrients from Effluent and Sludge Calculator is available for free download from Dairy Australia's Dairying for Tomorrow website www.dairyingfortomorrow.com.au

1 COMPANY, MULTIPLE BRANDS, 120 AUTHORIZED DEALERS... ALL YOU NEED FOR EFFLUENT MANAGEMENT

The best fertilizer on the market has to be the 1 your cows are already producing.



PASTURE



EFFLUENT FROM COWSHED
AND/OR FEED PAD

IRRIGATION

Williams Irrigation has 35 years experience and development in their range of travelling irrigators. Systems are time proven, user friendly and cost effective.

- Proven, robust design
- Multiple options
- Suitable for most terrain
- Range of accessories



YARD WASH

The Yardblaster cleans new & existing yards of any size, slopes or surfaces

The Yard Blaster can hose down a yard that holds 460 cows in just 6 minutes



WEEPING WALLS

PVC Weeping Walls for dairy and feed pad effluent separation feature

- High strength PVC
- Won't rust, warp, swell or rot
- Self cleaning



PUMPS, STIRRERS & SEPARATORS

Yardmaster® Pumps have been successfully pumping liquid/solid slurries for over 50 years.

- Yardmaster Pumps, including the original Effluent pump, new Self Priming Multi-stage, Extender, High Volume, Trough and PTO.
- Yardmaster Stirrers, for tanks and ponds, shore mounted and floating based solutions.
- Yardmaster Separators, Press, Rotary Drum and Static Screen options.
- Yardmaster Accessories including Floating Frames, Automation & more.



Effluent about more than just fertiliser

Key points

- ✓ Put safety first
- ✓ Create an access point for a pond
- ✓ Know the steepness and depth of your effluent pond



By Jeanette Severs

THE safe use of effluent is about a lot more than applying urea and solids to pasture.

At the very least, dairy farmers need to be aware of legislative requirements about effluent's use.

At the other end of the scale, ensuring workers' and contractors' safety around the effluent pond is a simple matter of construction.

One person who has been tragically affected by unsafe effluent ponds is South Gippsland, Victoria, contractor and dairy farmer Kelvin Jackson.

Mr Jackson's son, Andrew, died 13 years ago.

Andrew drowned in an effluent pond that he and Kelvin were pumping out and spreading for another dairy farmer.



Kelvin Jackson beside an effluent dam on his dairy farm, where you can see the sloping side of the dam and the apron for machinery to sit on.

It was a business that Kelvin established about 16 years ago. At the time, Andrew had logged

2500 hours of contracting work outside the Jackson dairy farm.

"It's all really sad," Mr Jackson said. "We had already pumped 1.5 metres out of the effluent dam and Andrew returned to the pond and noted the farmer's tractor – that was agitating the pond – had moved.

"He jumped in to rectify the situation, but we didn't know the tractor's 4WD mechanism was broken.

"If we'd known it was damaged, we would never have used the tractor.

"The tractor had moved to the edge of the water line, on the soft edge of the pond, and it slipped into the effluent.

"Andrew drowned in that effluent pond because of the way it was built."

Mr Jackson believes the machinery used to build effluent ponds is part of the problem.

"Most ponds today are built by excavator, with very steep sides," he

WASTE DISPOSAL

EVEN IN TOUGH TIMES, WE STILL PUSH S#@T UP HILL!

Dumac Distributors P/L is a 100% Australian owned family company.
Our own products are 100% manufactured in Australia

YOU NEED A PUMP?



STANDARD RUFFY® 2" PUMP

50-70FT HEAD. Up to 280 GPM. 3-5 1/2hp*. All RUFFY pumps use a cast steel impeller and can handle difficult solids, stones, glass, sand, wood chips etc. They do not have bearings or seals below liquid level.

Ruffy Pumps available 2'6" up to 6' reach.



ADF1331282



TECO Electric Motor.





EBARA - Stainless Steel Pressure System and Washdown Pumps

DUMAC DISTRIBUTORS P/L
(ACN 004 450 300)

PO Box 262, Bayswater Vic. 3153
F66/13 Gatwick Rd, Bayswater Nth. Vic. 3153

Phone (03) 9761 5115

Fax (03) 9761 5114



Agitators used in effluent ponds.

'We had already pumped 1.5 metres out of the effluent dam and Andrew returned to the pond and noted the farmer's tractor – that was agitating the pond – had moved.'

said. That increased the risk of slipping in by stock as well as people.

Instead, Mr Jackson advises an apron and a graduation of 3:1 on the pond bank.

"It enables animals to walk out if they slip in," he said.

"And – although we don't want it happening again – a person who slips in could get out or be helped out.

"Machinery won't slip in.

"It does take up more room."

Part of Mr Jackson's safety checklist is to query who dug the pond, the steepness of the sides and the depth of the pond.



Kelvin Jackson with his tractor and solids spreader.

"But people don't often know," Mr Jackson said. "It's dangerous work."

Another of the other safety considerations now practised by Mr Jackson is that his staff cannot use anyone else's machinery – only his own.

"There needs to be more responsibility applied to designing effluent

ponds," Mr Jackson said. "An apron is very important. Sadly, ponds get built and there's not a lot of thought given to accessing the pond.

"Too often they are inaccessible by excavators.

"We can't cut corners because it's about people's health and safety." **D**

BETTER CLEANER FASTER



Our durable Spreader fills fast, and its manoeuvrability means you can drop nutrients where they're needed, laying the foundation for the next stage of growth, so you can **make every minute count.**



Call 1800 127030 to find your local dealer. Or visit our website, www.giltrap.com.au



VR2005892

New Holland trials new biogas tractor

By Tom McKenny

A NEW Holland prototype tractor that runs on bio-methane produced by waste from dairy cows has been tested by British farmers.

According to New Holland, the tractor has the potential to reduce polluting emissions by 80 per cent and offers farmers savings in fuel costs.

Wyke Farms, one of the United Kingdom's biggest cheddar producers, and Worthy Farm, home to the Glastonbury Festival, are testing the tractor.

Able to run entirely on biomethane derived from waste and produced by on-farm biogas (anaerobic digester) plants it could reduce emissions and offer fuel cost savings of between 25 and 40pc.

The natural gas (methane) powered tractor has been developed by New Holland as a 100pc sustainable solution to the increasing cost of fuel.



New Holland is testing the bio-methane tractor on farm in Somerset.

Not only that, but as the number of on-farm biogas plants in the UK increases, there could be an ample supply of fuel on the doorstep.

The methane tractor borrows from commercial vehicle technology already used by sister brand Iveco.

The use of compressed natural gas in vans, trucks and buses is well de-

veloped and limited only by storage capacity on the vehicle.

The company has squeezed 300 litres (52kg) of compressed methane into nine tanks on the tractor, which is enough for about six hours of work depending on the type of activity. Refuelling is quick, taking about the same time as diesel.



MANURE SPREADERS AND NOW MIXER WAGONS
Muckrunner has your feed and muck machinery sorted

NOW supplying Tatoma mixer wagons along with our quality galvanised Pichon manure spreaders



Horizontal and vertical trailed, twin or triple auger, SELF PROPELLED



Liquid and solid effluent spreaders, lagoon mixers



Tom 0419 851 543
muckrunnerptyltd@hotmail.com

www.pichonindustries.com
www.grupotatoma.com

Wyke Farms' farm director Roger Clothier, who is testing the prototype tractor, said it looked and felt like a normal tractor.

"It easily managed to tow a full slurry tanker up and down the hills with a combined tractor and tanker weight of 27 tonnes," he said.

"We need fuel efficient vehicles with a good power to weight ratio to pull heavy tanks around the farm. The tractor has the power to do it and if we're able to compress our gas on-site it looks like it could save us money.

"In the future, sharing gas power between local farms could be a possibility, particularly where you have a big plant like ours.

"Providing a local filling point for neighbouring farms makes economic sense and the associated savings from methane-powered tractors could help dairy farmers reduce costs, which can only be a good thing."

Adapting existing engine technology, fitting a small three-way catalytic converter and housing it within a standard tractor chassis and cab means that the methane tractor looks and drives just like a diesel-powered tractor, and the cost of buying one should be about the same. 

Saving money while saving the planet

DAIRY farming has long been accused of being a major environmental problem because of the methane emitted by cows either through belching or, to a lesser extent, flatulence, but that same gas can be captured and used to slash energy bills.

Overall it is estimated that 14 per cent of the world's greenhouse gases are caused by agriculture and methane is rated as being 23 times more harmful than CO₂.

A Brisbane innovator could have come up with the solution for the smaller dairy farm with an environmentally friendly, modular, small scale system of turning farm waste such as cow manure into free energy that can be used for heating, electricity or as an engine fuel.

Ron Lakin has developed the BioBowser, a small scale, affordable and practical bio digester that produces methane gas and, after the gas is extracted, the leftover material can be used as a nutrient-rich fertilizer.

The principal of converting waste to methane has been known for centuries. Large intensive dairy farms in Australia as well as piggeries, feed lots and abattoirs

have long been harvesting methane to use as an energy source.

But these require large one-off systems that can cost millions to build even though they pay back the capital outlay in energy savings in a few short years.

"All we need to know is the quantity of waste available on a regular basis and the energy requirements, and we can tailor the BioBowser system to suit the individual need," Mr Lakin said.

"If the amount of waste increases or more gas is needed we can put in more units because the system is modular.

"A dairy farm milking three to 400 cows is likely to have five tonne of manure waste a day which can produce 80 M3 of biogas, the equivalent of 60kg of heat value of LPG.

"This amount of gas is likely to be sufficient to meet the usual energy needs, such as milk chilling, water heating and even heating the dairy on those cold winter mornings."

"Each BioBowser has to be tailored to suit the circumstances, such as the production of electricity or the use of gas as fuel for farm machinery as well as being plumbed into the farm site."

BUILT TOUGHER FOR AUSTRALIA

WIDE WHEEL TRACK WITH HI-LOW AXLE SETTINGS

Suitable for WATER and EFFLUENT Spraying

- DAIRIES • PIGGERIES • ABATTOIRS
- CROPS • PARKLANDS • GOLF COURSES
- Rugged Engineered Design - All galvanised steel frame
Grease nipples on all moving wear parts - Ensures greater reliability
- Select Hi-Low Axle setting for various pasture conditions
- Heavy Wall 'Y' Form Boom resists breakage and blockages, high profile clears animals, fences and gate posts. Large bore design for high flow rates and low pressure losses
- Multi-Speed Travel Settings with 'Tool Free' adjustment
- Spray Dairy and Piggery Effluent as FREE Fertiliser - Saves \$\$\$

 **REEVE**
PUMPS & IRRIGATORS

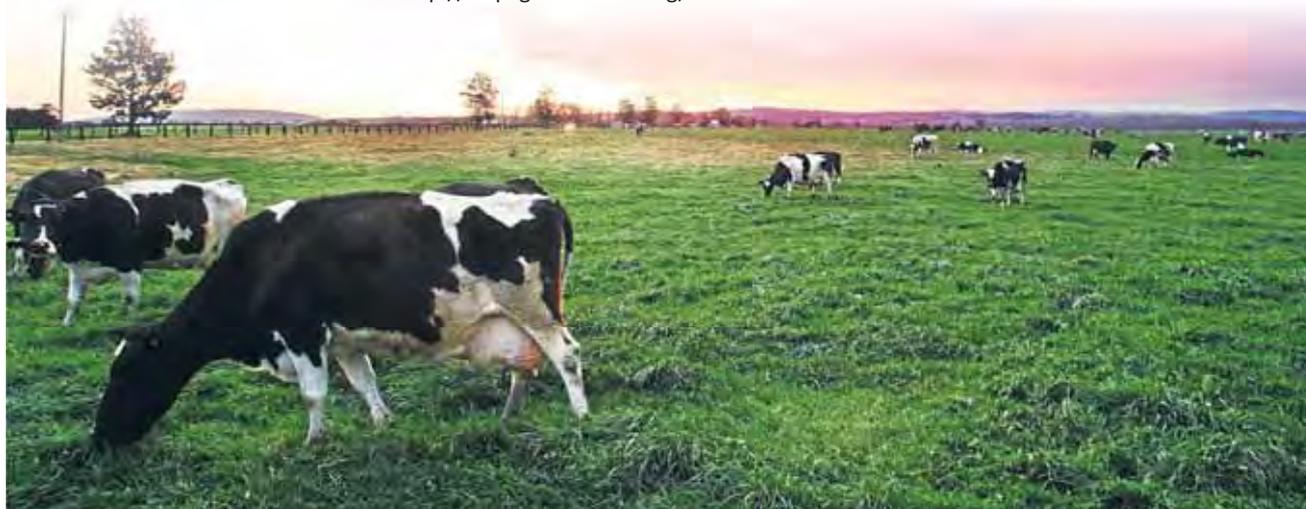
B R REEVE ENGINEERING
Tel: (03) 9699 7355
Fax: (03) 9696 2956
pumps@reevegroup.com.au
www.reevegroup.com.au

PROUDLY OWNED AND BUILT IN AUSTRALIA

ADFI330526

9163 RPI

- November 8-9**
South-East Qld
November 9
Traralgon, Vic
November 10
Smithton, Tas
November 16-18
Sydney, NSW
November 23-24
Tocal, NSW
November 25
Melbourne, Vic
November 25-26
Devonport, Tas
December 3
Circular Head, Tas
December 7
Elliott, Tas
January 3-7
Tatura, Vic
January 15-19
Tatura, Vic
February 8-10
Allansford, Vic
February 14-16
Adelaide, SA
February 26-2
Paris, France
September 6-9
Munich, Germany
November 20-22
Brisbane, Qld
- Dairy Farmers Milk Co-operative National Convention**
Phone: (02) 8120 4431 Email: <info@dfmc.org.au> Website: <www.dfmc.org.au>
- Stepping Back: Planning for Succession & Retirement Pilot (Facilitated by John Mulvany)**
Contact: GippsDairy Phone: (03) 5624 3900 Website: <gippsdairy.com.au/>
- DairyTAS annual general meeting**
Contact: DairyTas Phone: (03) 6432 2233 Email: <m.smith@dairytas.net.au>
Website: <http://www.dairytas.com.au/>
- Australasian Dairy Science Symposium 2016**
Contact: ADSS 2016 Managers Phone: (02) 9265 0700 Email: <adss2016@arinex.com.au>
Website: <www.adssymposium.com.au>
- Feeding Pastures for Profit - Hunter (NSW)**
Contact: Col Freeman Phone: 0404 434 297 Website: <www.dairynsw.com.au/>
- Dairy Australia's 2016 annual general meeting**
Contact: Dairy Australia Phone: (03) 9694 3777 Email: Website: <www.dairyaustralia.com.au>
- Devonport Show**
Phone: (03) 6424 2253 Email: <info@devonportshowsociety.org.au>
Website: <www.devonportshowsociety.org.au/show>
- Circular Head Agriculture Show**
Phone: 0456 003 609 Email: <chagsociety@gmail.com>
Website: <http://www.circularheadshow.com.au/>
- Tasmanian Institute of Agriculture Tasmanian Dairy Research Farm Open Day**
Contact: TIA Phone: (03) 6430 4953
Website: <http://www.utas.edu.au/tia/centres/dairy-centre/tdrf/tasmanian-dairy-research-facility>
- NCDE All Breeds Youth Camp IDW - 2017**
Contact: Lucy Galt Phone: 0488 144 999 Website: <www.gotafe.vic.edu.au/youthcamp>
- International Dairy Week**
Contact: Robyn Barber Email: <info@internationaldairyweek.com.au>
Website: <www.internationaldairyweek.com.au>
- Sungold Field Days**
Phone: (03) 5565 3142 Email: <sungoldfielddays@wcb.com.au>
Website: <www.sungoldfielddays.com.au>
- Australian Dairy Conference**
Website: <http://www.australiandairyconference.com.au/>
- SIMA and Simagena 2017**
Website: <http://en.simaonline.com/>
- International Conference on Lameness in Ruminants 2017**
Website: <http://lamenessinruminants2017.com/>
- TropAg2017**
Phone: (07) 3848 2100 Email: <tropag2017@expertevents.com.au>
Website: <http://tropagconference.org/>



To have dates for a major event included in the diary, send information to Carlene and Alastair Dowie.
Phone (03) 5464 1542, email <carlene.dowie@fairfaxmedia.com.au>

SEE IT FOR YOURSELF, WE HAVE **PROOF!**



Research-proven results from 50 peer-reviewed dairy studies show Zinpro Performance Minerals® are the only trace minerals that can consistently deliver performance benefits.

And we can prove it! Our PROOF (Product Risk: Opportunity Or Failure) programme lets you evaluate the economic value of adding Availa®4 to your herds diets based on the results obtained in scientific trials.

INCLUDING: • 0.9 litres more of milk • Incalf 13 days earlier • 35% fewer overall claw lesions • 14.9% SCC reduction.



But you don't have to take our word for it – see it for yourself, scan this code on your phone.

For your free PROOF evaluation, contact 1800 946 776.

zinpro.com



RETURN • RESPONSE • REPEATABILITY • RESEARCH • REASSURANCE

Genetic gain on any budget

Key points

- ✓ Splitting the herd makes sense
- ✓ BPI rank improving
- ✓ Important to make informed decisions

RUSS McMillan has cut 30 per cent from his breeding budget this season but is confident it won't have any impact on the rate of genetic gain in his herd; in fact, his efforts to accelerate genetic gain in recent years have reduced semen costs at the same time.

"We started using young genomic bulls to speed up the rate of genetic gain and we've been delighted with the improvements we've achieved with the bonus of saving considerably on the AI bill."

Russ and his wife, Rebecca milk about 190 cows near Echuca in Northern Victoria with 60 per cent of the herd calving in autumn and the rest in spring.

With the herd registered under the Bronte Park prefix, their breeding goal is to continuously improve the herd's ranking for Balanced Performance Index (BPI), which they track through their Genetic Progress Report, produced by ADHIS.

Currently the herd's average BPI is 68, ranking it at 71 in Australian Holstein herds, up from the mid-200s six years ago.

"We are really pleased with the progress we've made; we see the results every day in the vat; in the quality of each drop of calves and in our classification scores," Mr McMillan said.

He said using young genomic bulls over the past five years has significantly fast tracked genetic gain.

"We started using young genomic bulls fairly soon after they became available and we've been very happy with the performance of their daughters in our herd. We are always careful to use a team to spread the risk, but we have had very few disappointments," he said.

He said there were always plenty of high BPI young genomic bulls, priced at less than \$20 a straw, and as a herd recorder, he bought plenty of straws from top quality bulls for as little as \$12.



Russ McMillan has cut 30 per cent from his breeding budget this season but he is confident it won't have any impact on the rate of genetic gain in his herd.

This has cut the semen costs considerably over the years. In good seasons, he puts the savings towards limited quantities of sexed semen and flushing one or two elite cows, although that is a low priority this season.

For breeding purposes, Mr McMillan breaks the herd into three groups, based on BPI. Most of the younger females have a BPI based on genomics and the mature cows from herd test results.

The three groups are:

- 1: Elite cows (30-40 per cent of the herd).
- 2: Super-elite cows for flushing (two to four cows or yearling heifers).
- 3: Rest of herd.

The elite cows are usually joined with sexed semen, with the aim of breeding replacements from the top end of the herd. He uses a mix of young genomic and proven bulls over these cows.

"Basically, the elite cows get the pick of the sires in the semen tank. I choose on the basis of BPI and priority traits, not on the cost of the straw."

Depending on seasonal conditions, he selects one or two cows for flushing and the highest genomic tested heifers.

These are usually joined to a young genomic bull, with either conventional or sexed semen.

The rest of the herd is inseminated with whatever is left over in the tank.

Over the past couple of years, Mr McMillan has increased the number of straws from young genomic bulls which he estimates is now up to about 90 per cent.

"For the very young genomic bulls, I usually buy a smaller quantity of straws initially.

"The following year, if I like the look of his calves on the ground I'll order him in bigger quantities.

"This means that by the time a bull is proven we are already milking at least two crops of his daughters," he said.

Although his main breeding criteria is BPI, he said he has plenty of choice of reasonably priced sires. Of his cows born in 2013, 98 per cent were bred from the Good Bulls Guide or progeny test.

"I like a balanced bull but ultimately he needs to pay his way so I generally buy sires that are above 250 for BPI. Within that group I look at their breeding values for protein, type and daughter fertility."

Budget trimmers

Mr McMillan has identified several ways to further trim herd improvement costs this season.

The flushing program is on hold for now and if it does go ahead it will be on a smaller scale than usual.

He has also made a temporary switch from monthly herd testing to bi-monthly.

"We need that information to make important decisions," he said.

"I'm very conscious that I'll be living with the consequences of this season's breeding decisions for many years, so it's important they are informed decisions."

He will be conservative with the number of straws he orders, using left-over straws from the previous joining and placing top-up orders as needed.

Mr McMillan has cut the elite herd back from 40 per cent to 25 per cent and ordered fewer straws from

Dairy cow photo, ugly business



By Sherri Jacques*

Key points

- ✓ Can heal over five to seven days
- ✓ Liver can be damaged
- ✓ Burn from the inside to the outside

ESENTIALLY a cow with Photosensitisation (Photo) is having her skin burnt from the inside layer to the outside layer.

Photoreactive compounds that absorb energy from the sun through the skin, react and then re-emit that energy, causing tissue damage and burns.

Primary photosensitivity is caused directly by a photoreactive compound that has been eaten or injected? Yes, some drugs are photoreactive.

Avoiding the cause and avoiding sunlight will limit the damage. Causes of this type of photo include St Johns wort, parsley grass and buckwheat.

There is a very rare inherited form (Bovine Erythropoetic Porphyria) due to a defect in the metabolism of red blood cells which causes primary photo. This shows other signs not seen with the normal photo diseases including anaemia, pink or red teeth and red or brown urine.

Secondary photo is caused because of liver damage.

Normally the gut absorbs chlorophyll from the gut and breaks it down into a compound called phyloerythrin.

Phyloerythrin is photoreactive and is normally absorbed from the gut by the liver preventing it from circulating

in the blood stream.

When the liver is damaged various amounts of phyloerythrin are left to circulate and react with the sun.

The extent of the damage will depend on how much chlorophyll (green plants) is being eaten, how damaged the liver is, how white the cow is and how much access to sunlight she has.

Causes of this type of photo include the Pithomyces chartarum toxin, sporidesmin (a fungus that is in its highest concentrations closer to the ground and likes warm and moist weather patterns), blue green algae and Pattersons Curse.

Non-pigmented skin, particularly in areas with less hair, allows more sunlight through. Coloured skin is protected and is only occasionally involved – it is generally the white areas of the cow that are affected.

Like all burns the skin becomes red and swollen before becoming oozy, scabby and then dying and stripping off (necrosis).

Photo is itchy at the start when the skin is just reddened and then very painful as it starts to react and swell.

It remains painful until the skin is dead (i.e. the early stages are more painful than the later healing stages).

The thick, dry, dead, affected skin peels off and looks very ugly, although this stage is generally not as painful and it always amazes me how well, these sometimes large areas, heal.

They generally heal over five to seven days.

Treatment is aimed at:

- Relieving pain – antihistamines and/or anti-inflammatories.
- Liver failure can be harder to treat especially if the cause of the liver problem is not identified and removed. Your vet may need to take some samples to confirm the extent of liver damage.
- Treating any secondary skin infec-

tions either topically with disinfectants or systemically with antibiotics.

- Watching for flystrike and mastitis (affected udders are sore to milk).

- Removing access to suspect plants or sporidesmin – different pasture and longer pastures.

- Less green feed (feed hay) to decrease the amount of chlorophyll the body has to process.

- Limiting the ability of the sun to continue to cause the burn by:

- Keeping inside with grazing only at night.

- Providing access to shade – although protected windbreak paddocks often seem to have higher sporidesmin counts.

- Using sun-block especially on damaged udders – monitor udder-affected cows for mastitis closely

- Lightweight rugs can cover very white cows but tend not to cover the face and udder. Be careful not to over-heat cows with this method.

Remember that it is worth a vet check to determine whether liver damage is involved particularly if several cows are affected.

Check with your vet before giving any injections or treatments to a photo cow as there are many treatments that should be avoided as they are photoreactive as well, usually only mildly but no need to add fuel to the fire, or due to the need for liver metabolism to clear the compound from the cow.

Until next time, good milking! **D**

*Sherri Jacques is a practising veterinarian and reproduction adviser in the West Gippsland region of Victoria.

All comments and information discussed in this article are intended to be of a general nature only.

Please consult your veterinarian for herd health advice, protocols and/or treatments that are tailored to your herd's particular needs.

◀ proven bulls and more from young genomic bulls.

He is still weighing up the costs and benefits of sexed semen in the current conditions. Although sexed semen straws are more expensive he's confident in the returns.

For more information, contact Michelle Axford, ADHIS Extension and Education Manager, ph 0427 573 330 email maxford@adhis.com.au or www.adhis.com.au

ADHIS tips for controlling costs

- Use bulls from the Good Bulls Guide. The top 100 bulls range in price from \$10 to \$85 so there are Good Bulls for every budget. Look for packages containing Good Bulls.
- Keep using AI. Herd bulls are not a cheaper option and daughters produce 52kg less fat and protein per year on average.

- Keep herd recording. It's the tool to help you make better decisions.
- Use enough semen. Allow about six straws of conventional semen for every replacement needed in three years' time.

For details, refer to ADHIS fact sheet: Controlling herd improvement and AI costs, available on www.adhis.com.au



Discussion groups proving valuable

Key points

- ✓ Groups drive the direction of the discussion
- ✓ Helping farmers better understand their business
- ✓ Sorting out the 'battle plan'

DAIRY discussion groups are proving to be important forums in which farmers can talk about on-farm issues, network with other farmers and keep up with local news.

In the Murray Dairy region the Central Dairy Business Network group has been operating for three years.

Led by dairy consultant Tom Farran the group meets once a month with a focus on farm business management.

Group members drive the discussion and pay to be a part of it, while Murray Dairy Discussion Group Support and Tactics for Tight Times funding contributes to the group's operations. In addition, members seek financial support from sponsors.

Currently the group focus is on farmers knowing the cost of production, the strengths and weaknesses of individual businesses and forward planning.

Group chair Scott Fitzgerald said the biggest benefit of being involved was learning from other farmers and implementing aspects of other businesses to improve profitability.

"When we benchmark our businesses against each other at the end of each financial year, it helps us understand our businesses and budgets better rather than just having an 'idea'," Mr Fitzgerald said.

"It has opened our eyes to the fact that we are better off spending time in the office or with the group and getting an employee to take care of the daily jobs. That way you can sort out a 'battle plan' for the months ahead."

What activities have helped to prepare for current challenges?

Mr Fitzgerald said when the first milk price crash occurred the group used one farm's budget as a case study and looked at different scenarios to determine the most profitable option/setup for the year, such as running more or fewer cows.

'Going into this season it gave us confidence that we might only have to tweak a few areas...'

An annual analysis/benchmarking of all the farmers' businesses occurred in August, with numbers entered into DairyBase.

"This helped us learn what our break-even price for the last three years had been," he said.

"Going into this season it gave us confidence that we might only have to tweak a few areas a bit harder than normal."

Mr Farran also ran a session covering the seasonal outlook, including inflows for Eildon and milk price trends.

The group has used Tactics for Tight Times resources and the importance of keeping in touch with friends outside the dairy industry to give farmers a break has been reinforced by Mr Farran.

How the group operates

Meetings are hosted on-farm by group members and focus on an issue facing the farm or several group members and run for about four hours. The group includes service providers including a vet, water trader, accountant, banking professional and feed nutritionist.

What happens at a meeting

Mr Fitzgerald said farmers talk through issues to help them make better decisions on-farm.

For example, earlier this year the group wanted to address the best way of securing water for what was potentially another dry year.

"The options were to take a three-year lease or borrow money and buy water to carry it over for the next year," he said.

"The worry about leasing the water was you wear the entitlement risk.

"If you lease water for \$180 plus charges and then only get 80 per cent

allocation (for example), it is expensive per mega litre – we saw it go up to the \$250/ML mark last season.

"We had our sponsors/service providers on hand to dissect the situation. This helped the group understand what it would cost per mega litre at 80 per cent allocation if leasing water, compared with borrowing money at low interest rates, which would not lock you in for three years.

"I went in that day not knowing what we would do.

"The next day I implemented a plan to borrow money for carry-over water.

"As the season unfolds the settings have changed again, which the group will discuss and take into account.

"At the moment we're working through a very wet spring which has caused challenges in the paddocks and with hay and silage, but has put water in the catchments and driven the price for temporary water down."

What tools/resources does the group use?

Group members share information and benchmark against themselves. Mr Farran enters the data into DairyBase on behalf of the farmers.

Mr Fitzgerald said it was useful to use Dairy Base so they could compare with each other off the same platform.

Why is this discussion group successful?

Mr Fitzgerald said a strong foundation of trust has evolved over time, and group members call on each other to discuss issues at times.

"We also have a fairly young group so there's an element of competitiveness.

"You build off everyone's enthusiasm and you find the day after a meeting you go home and adopt those 'one percenters' others use."

Dairy Australia support

Funding support for existing and new discussion groups is available from Dairy Australia. 

For information contact your Regional Development Program – contact details are on page 90.

GENERATION NEXT LOVES PROFIT.

2013 AUSTRALIAN DAIRY FARMER OF THE YEAR ROB FRAMPTON USES LIC BECAUSE HE WANTS AN ANIMAL THAT WILL WORK FOR HIM.

THAT'S NEXT
GENERATION
THINKING.



NEXT GENERATION
THINKING



A shed load of helpful tools online

AS we approach summer, how's planning tracking on your farm for the warmer months ahead?

While supplementary feed and fertiliser costs are relatively low, cash flow could be tighter as we move out of the spring flush, so you need to maximise the benefits of the feed you grow.

To help you navigate through the summer season, don't forget the Tactics for Tight Times website – tftt.dairyaustralia.com.au

Plenty of resources, check lists, videos and practical advice are available, whether it is planning for feed requirements, budgeting or maximising production.

Tools and tips of particular focus at this time of year include:

- VIDEO: The University of Mel-



bourne's Professor Richard Eckard (Agriculture and Food Systems) four-part video series on maximising the benefits of nitrogen fertiliser application.

- TOOLS: The Dairy Cash Management Planner can assist planning and monitoring of cashflow in your busi-

ness. There is also the Dairy Australia feed-budgeting tool.

- FACT SHEETS: There are several factsheets to help you maximise value from home-grown and purchased feed including 'Managing the Spring Surplus' and 'Planning Your Feeding Program'.

- VIDEO: Dairy farmers Jarrod Meade and Mick Myers discussing the benefits of Taking Stock.

Download or view these resources and information at tftt.dairyaustralia.com.au. Your Regional Development Program (RDP) may also have hard copies of factsheets and resources available.

RDP contact details can be found inside the back cover of this edition of *The Australian Dairyfarmer*.

Dairy farmers enthusiastic about Taking Stock sessions

DAIRY farmers have been lining up to take advantage of Dairy Australia's offer of free one-on-one Taking Stock sessions with experienced dairy advisors.

To date more than 700 dairy farmers in Victoria, Tasmania, South Australia and southern NSW have registered for the three-to-four hour sessions during which a farming family and an advisor analyse the business, look for options and create an action plan over the kitchen table.

Tasmanian dairy farmer Wayne Hansen undertook the program in August after finishing his budgets for the coming financial year.

He said he decided to do the program to get independent advice about his budget decisions.

"For me it was about having someone other than myself look at our budgets and plans for the year to make sure our decisions were the right ones," he said.

A preliminary survey of a sample of participating farmers has indicated high levels of satisfaction with Taking Stock and the delivery of the program through Dairy Australia's Regional Development Programs (RDPs).

Mr Hansen said the visit by a consultant and the resultant action plan gave him peace of mind that he was heading

'The strength of Taking Stock is that it is based on a one-to-one conversation with a trusted, skilled advisor.'

in the right direction during a particularly turbulent time for the dairy industry.

Mr Hansen said he would encourage other farmers to undertake the program.

Dairy Australia's Farm Productivity, People and Capability group manager Chris Murphy said the offer of free one-on-one assistance through the Taking Stock program was in response to farmer requests.

"The strength of Taking Stock is that it is based on a one-to-one conversation with a trusted, skilled advisor," Mr Murphy said.

"It gives the opportunity to take time out from the business for three or four hours and have a meaningful discussion about the current situation and plan for the future."

The type of analysis that Taking Stock offers includes:

- Understanding and managing your budget;
- Identifying cost-saving options;
- Calculating pasture consumption;
- Managing debt and your balance sheet;
- Working with the people in your business;
- Understanding additional support services that can be accessed, including counselling and health services;
- Creating an action plan.

Taking Stock is available at no cost to all dairy farmers in the Gipps Dairy, Murray Dairy, WestVic Dairy, DairySA, DairyTas and Dairy NSW regions.

It is delivered as part of Dairy Australia's 'Tactics' campaign and is proudly supported by the Gardiner Foundation, the Australian Government, the South Australian Government, the Tasmanian Government and major dairy processors.

If you are interested in more information or taking up the offer of assistance through the Taking Stock program call your local Regional Development Program to discuss.

Contact details can be found at: www.tftt.dairyaustralia.com.au and inside the back cover of this edition of *The Australian Dairyfarmer*.



Life, made easier

Life. It's health. It's reproduction. Calving, farrowing, laying, hatching.
It's milk. It's growth. It's animals feeding the hands that feed them.
Jefo is a circle of life.



Jefo

www.jefo.com



Case study: Dehne and Sarah Vinnicombe

What is your feed production system?

Our feedbase is made up of annuals, whole crop silage, quality vetch and lucerne hay.

We direct graze lucerne and annuals which makes up about 45 per cent of feed needs. The rest is cut and carried and fed out on our feed pad.

We have a relatively low stocking rate of 1.7 cows/ha.

The pad is a gravel base with concrete troughs and is usually in operation March to August and from November to February.

The cows are on it part of the day, depending on available pasture, and other factors such as heat stress.

We aim for a high level of self-sufficiency. We spread risk and increase water use efficiency by growing a variety of forage types. We grow our own wheat and barley and have a disc mill and grain storage to support this.

We use water strategically, depending on climate and price conditions.

For example we might pre-water winter crops and finish them as needed, as well as keep our summer crops, lucerne and annuals going.

We aim for best practice across what we do, including focusing on correct grazing management and applying nitrogen to optimise growth.

Last year we grew 1.7 tonnes of dry matter per ML of irrigation water applied and we used 1.7 ML/ha. This is a little lower than usual due to last season's high water price which meant we irrigated less. The year before we grew 2.2 tDM/ML of irrigation water applied and applied 2.2 ML/ha. This is an average across all our forage types over the year. We aim to achieve that again this year.

We do a lot of our own forage conservation and own 90 per cent of our hay gear. We do our own seeding and lasering and get contractors in for silage and grain harvest.

Economies of scale is really important to make this work and we weigh up each investment in gear against how much it would cost us to contract against the total value of what we are making.



Dehne and Sarah Vinnicombe are aiming for a high level of self-sufficiency and spread of risk.

What are you doing differently this year to optimise your system?

One of our key priorities to manage feed is to conserve as much surplus as possible, carry over hay, grain, silage and even water from season to season so we can draw back down on it when times are tight.

We have silage bunkers to allow us to do this. They hold 1,200 dry tonne of silage.

We have fed out more than expected over the wet winter but we had it on hand. This is important as we don't want to be forced into the market at the same time as everyone else. Sometimes we forward-buy feed if it's good quality and a good price, and we put that in the feed bank.

But most of the feed we carry forward is what we've grown, as it's our cheapest source.

Our average home grown feed costs are usually around \$107/t. This is spread across a mix of high value summer crops and lucerne as well as winter cereals and our grazed annuals to make sure we get return on investment for our water, and so we have a well-balanced diet to sustain high milk production.

The costs went up to \$176/t last year, but it was still cost effective.

This year we focused on preserving our paddocks as much as we could over winter to make sure we could minimise damage and optimise spring

Farm Details

Dairy region	Mitiamo, Murray Dairy region
Milking area	253 hectares
Herd numbers	440 cows – dry & lactating
Milk production (kg milk solids)	253,200
Milk production (kg milk solids/cow)	633
Home grown feed (tonnes/dry matter/milking ha)	1.7-2.2
Purchased feed (t DM/cow)	Concentrate Hay/silage

growth. Our feedpad got a good work out and mostly handled the conditions. We have been lucky that we've had some other hard dry areas.

Overall we've lost some opportunity in grazing management but preserved paddocks and soils so we can drive it in spring. This means we are reducing our need to go out to the feed market later on.

We try to maintain that so we preserve our productive capacity.

Where possible we look to cut back on things that don't have as much long term impact, so we weigh up each cost with this in mind.

Who else have you involved in helping formulate/implement your feedbase plan for this year?

We use a spray agronomist and do a lot of soil testing with Bridgewater Farm Supply.

We have a nutrient program which we adjust if soil tests and conditions suggest otherwise.

We have used a lot of trial and error, and we try to get information from the best person we can find for the particular topic or issue we are looking at.

We look for something new and people who challenge us. This leads to a whole range of people from different backgrounds and with different ideas from whom to get advice. 

Are you getting your FREE official dairy industry magazine?

All dairyfarmers, sharefarmers and dairy farm managers are eligible to receive a free copy of the Australian dairy industry's official dairy magazine – **The Australian Dairyfarmer**. Each issue the magazine covers all aspects of dairy farm management including pastures, genetics, nutrition, milk harvesting, computer technology, waste management, calf rearing, and herd health. On-farm stories, featuring dairyfarmers, are used extensively to convey the messages.

These case studies are backed up by research and development, industry, extension and product information.

The Australian Dairyfarmer is the only publication that meets the information needs of all of today's dairyfarmers. If you – or a dairyfarmer or sharefarmer you know – are not receiving the magazine or if you have changed your address, fill in this form and return it to AUSTRALIAN DAIRY FARMERS:



Please add my name to **The Australian Dairyfarmer** mailing list

- I am a: Dairyfarmer
 Sharefarmer
 Farm manager

Name:

Address:

Town: Postcode:

Phone number:

All details are strictly confidential and will not be made available to any third party and will only be used to magazine distribution purposes

SUBMIT SUBSCRIPTION TO:

Australian Dairy Farmers
 Level 2, Swann House
 22 William Street Melbourne
 Victoria 3000

ABN 76 060 549 653

Phone: +61 3 8621 4200

Fax: +61 3 8621 4280

Email:
 ea@australiandairyfarmers.com.au



New feedbase resources now available

SPRING grazing management and silage are currently top of mind for dairy farmers and Dairy Australia has released two new resources to help in the decision-making process.

The resources – *Ryegrass – spring grazing management paddock guide* and *Quality pasture silage, five easy steps* – offer simple and straight-forward guidance to assist farmers in making profitable daily and seasonal decisions.

Dairy Australia program development manager Cath Lescun said at this time of year optimising the amount of pasture grown, eaten and conserved is key.

“With the milk price challenges farm businesses are facing at the moment, understanding the principles of grazing management are very important and impact on annual dry matter production and pasture quality,” Ms Lescun said.

“Spring grazing management decisions also have a crucial impact on the amount and quality of pasture grown later in the season.

“The guide covers ryegrass identification, identifying growth stage based on leaf appearance, pre and post grazing measures and tools to assist in using this information and getting a good balance between pasture and animal performance.”

Ms Lescun said the silage guide complemented the spring grazing management resource.

“We know pasture silage is an important source of supplementary feed and the better the silage quality the better the cow performance.”

Western Victorian dairy farmer Harper Kilpartick said the guides were



These handy resources are now available.

easy-to-read and contained important information for all farm staff to review at the start of the season.

Tasmanian-based dairy farm manager Wolfie Wagner said the guides were great for staff to have on the dashboard in the ute or in the dairy to refer to.

“When it comes to spring grazing management we always need to go back to basics and review the principles,” Mr Wagner said.

“We have people coming in and out of the industry so it’s great to have things like this as a reminder and a recap.”

The silage guide gives more detailed information about how to make high quality silage including:

- Cut pastures early;

- Wilt quickly and harvest as soon as possible;
- Compact forage as densely as possible;
- Seal quickly and well to exclude air;
- Repair holes immediately using specific silage tape.

The Gardiner Dairy Foundation has funded the production of both booklets as part of its response to the difficult seasonal and market conditions.

Download electronic versions of the guides at <http://tfft.dairyaustralia.com.au/tips%20tools%20and%20resources/tools%20and%20resources> or contact your Regional Development Program for spiral-bound versions.

Insect survey – guiding future efforts to develop solutions

INSECT pests are increasingly costing Australian dairy farmers time and money, but new research is underway to shed greater light on the problem.

To date, the challenge has been the variable nature of infestation across farms, regions, seasons, years and even the types of insect pests changing from

year to year. This has made it difficult for farmers to determine the best approach, making control a costly exercise.

The new research, supported by Dairy Australia, aims to pinpoint the insects damaging dairy pastures and lead to more accurate methods to combat the specific pests. To ensure the research is

as detailed as possible in a bid to find the most appropriate cost-saving and efficient measures, dairy farmers across Australia are encouraged to complete a short, online survey.

The survey can be found at <https://www.surveymonkey.com/r/AUInsects>



West Gippsland dairy farmer Aubrey Pellet has been involved in trialling the new Forage Value Index.

Forage Value Index on the way

AUSTRALIAN dairy farmers will soon be able to make more informed, profitable decisions when choosing the perennial ryegrass to best suit their farming system and forage needs.

Dairy Australia, in partnership with Agriculture Victoria, Meat and Livestock Australia and the Australian Seed Federation, is developing a Forage Value Index (FVI) for farmers.

The FVI is an independently-analysed, industry-endorsed economic index based on seasonal dry matter production and aims to provide farmers with another tool to increase farm profitability.

It is expected to be available early next year.

Dairy Australia program manager feedbase and animal nutrition Richard Romano said there was currently no independent method available to assess the agronomic performance



of the 60-plus cultivars of perennial ryegrass commercially available in Australia.

“With little independent information on the traits and capabilities of these existing cultivars, farmers tend to stick with what they know and have used, which can result in lost production opportunity and reduced incentive to invest in new pasture cultivars,” Mr Romano said.

“The Forage Value Index scores are calculated by multiplying the seasonal yields of each cultivar (as determined by experimental trial data) with the economic value (as determined by case study farms in different dairying regions).”

Economic values are the change in

operating profit for every kilogram of dry matter increase.

The economic value varies with the season, for example, pasture grown on farm is worth more in winter than spring.

The economic values for the increased dry matter yields ranged from \$0.15 - \$0.37 per kilogram of extra dry matter.

To be included in the Forage Value Index, each cultivar must have seasonal yield data from at least three, three-year trials using strict experimental protocols.

All trial data is analysed by an accredited statistician and reviewed by a Technical Advisory Committee.

The Australian FVI will closely resemble the appearance and functionality of the New Zealand FVI. 

For more information contact Richard Romano at rromano@dairyaustralia.com.au

What's happening in your region?

Contact your Regional Development Program



Dairy NSW
Ph: 02 9351 1737
dairynsw.com.au



Murray Dairy
Ph: 03 5833 5312
murraydairy.com.au



DairySA
Ph: 08 8766 0127
dairysa.com.au



Subtropical Dairy
Ph: 0431 197 479
dairyinfo.biz



DairyTas
Ph: 03 6432 2233
dairytas.com.au



Western Dairy
Ph: 0418 931 938
westerndairy.com.au



Gipps Dairy
Ph: 03 5624 3900
gippsdairy.com.au



WestVic Dairy
Ph: 03 55571000
westvicdairy.com.au



To find out more about Dairy Australia visit dairyaustralia.com.au

Products Including

Rotary Platforms



Solid Backing Gates



Australian Dairy Builders

Specializing in All Larsen Dairy Products

Stall Gates



Hydraulic or Pneumatic

Rapid Exits



Greg Kinross 0437 357 912 or Brad Doak 0407 819 483

GEEMCEE

Man-O-Man x Shottle x Goldbullion

A bull designed for Australian farming conditions



BRAD CHILLEN



No.1 BPI +336
Protein 32kgs +0.34%
Fat 59kgs +0.52%
Milk 530 litres
Calving Ease 102
Dtr Fertility 106

 **SEMEN Fertility**
+1.32

*August 2016 ABV's

BPI 336 /69% **HWI 227 /64%** **TWI 281 /70%**

GEEMCEE is Australia's No.1 Holstein sire, offering tremendous production with positive components combined with ideal Calving Ease and Fertility