

COMMITTEE FOR
**GREATER
SHEPPARTON**

Murray
DAIRY

Dairy
Australia

Your Levy at Work



Dairy Summit

10 May 2017

LATROBE UNIVERSITY, SHEPPARTON

EXECUTIVE SUMMARY

The Dairy Summit – Murray Region brought together stakeholders and information from across the industry supply chain, highlighting the importance of the industry and the need for a targeted vision and action to take the industry forward.

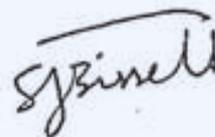
Key themes were drawn out throughout the presentations and panel discussions which included:

- Murray Regional dairy production provides an enormous contribution to both regional and national economies
- Murray Regional infrastructure investment continues to be significant in milk processing and complementary industries such as transport and agricultural engineering.
- Volatility relating to climate, water and markets has impacted the consistency of milk supply
- Success for our industry will be driven by people's ability to identify and manage risk and their adaptive capacity for change
- Sub regional landscape features are distinct and need to be realised for farm scale landuse to be optimised
- Farm systems are evolving, driven by consideration of a broad scope of resources available to them, of which water is only one component
- All forms of planning is critical for business success – strategic, succession, risk and resources
- The service sector must rapidly adapt to support the industry as it changes
- Succession planning for the service sector is critical
- Innovation and technology must address the key challenges and issues, rather than being seen as a solution in itself, in order to be effective
- A team approach, which includes service sector specialists working together in a complex environment, is a key to farm businesses success

The Dairy Summit was an initiative driven by Murray Dairy in partnership with the Committee for Greater Shepparton and is a precursor to the development of a regionally specific dairy industry plan aimed at aligning the industry towards a sustainable future.



Jenny Wilson
CEO & Regional Manager
Murray Dairy



Sam Birrell
CEO
Committee for Greater Shepparton

BACKGROUND

The Dairy Summit was a joint initiative of the Committee for Greater Shepparton and Murray Dairy that aimed to –

- Provide an opportunity to discuss the future of the dairy industry in northern Victoria;
- Understand the contribution it makes to the regional economy;
- Hear about how the dairy industry has and is adapting to the changing operating environment; and
- Identify/discuss the opportunities for the industry to grow through domestic and export demand.

Over 70 people attended from across the dairy industry and region representing farmers, processors, industry bodies, local and state government, education, finance and the broader service sector (see appendix 2). The Summit agenda included a mix of presentations, panel interviews and insights from the audience (see appendix 1). Following on from the Summit, it is envisaged that a regional strategic plan can be created to align the industry towards a sustainable future.

This report provides an overview of the key points made by each of the speakers/panellists, the insights from the audience as well as copies of the presentations.

WELCOME

Sam Birrell, CEO Committee for Greater Shepparton

Following acknowledging the Traditional Owners of the land (Yorta Yorta) where the Summit was being held, Sam welcomed everyone to the Summit.

Key points –

- The dairy industry is fundamental to the economy of the northern Victorian region so many businesses – retail, service industries, manufacturing – rely on it.
- The whole community, therefore, has a role to play in helping navigate the industry through a changing landscape.
- Hoping things will return to the operating environment of the 1990s is not an option; we will win if we can adapt our industry to change current and future conditions.
- The opportunities to grow our industry are there, we are one of the few national flags that appears on labels in Chinese supermarkets - the Australian brand that means quality and safety to the Chinese market.
- The Committee for Greater Shepparton stands with the dairy industry in helping lead and facilitate this adaptation.

Rick Cross, Chair Murray Dairy

- It would be nice to say we live in nirvana, but we have had challenges. Water, rationalisation of factories, climate. We can accept this and be proactive.
- Success from today will come from communication and interaction from the audience. But we won't stop, the hard work will be done when the doors close today.

Video - Damian Drum, Member for Murray

Key points –

- The summit is a great opportunity to develop a regionally based dairy strategy, that all levels of government can get involved with. We need to acknowledge that it is a key industry to the region, and that there are challenges faced by the sector as the landscape changes.
- It is important that there is investment made in the industry, particularly transport infrastructure, to enable better movement from the processors to the market. There also needs to be investment in education.
- People have their heart and soul and whole life invested in this industry – we need to make sure there is a clear path forward.

THE DAIRY INDUSTRY IN THE MURRAY REGION

The purpose of the session was to provide an overview of the dairy industry – where it is now, how it has got here and what does the future hold.

Jenny Wilson, CEO Murray Dairy

Jenny provided a presentation (see appendix 3) that made the following key points–

- Murray region 1450 farms that in 2015/16 produced 24% of the national milk produced (2.3 billion litres) and 28% of Australia's milk exports.
- Murray is geographically distinct with 3 defined sub regions-
 - North East region (contributes 12%) - rainfed pasture based systems,
 - Sth Riverina (contributes a further 10%) - variable irrigated feedbase
 - Majority of milk production (78%) being produced GMID – variable irrigated feedbase
- 2016 farm gate value of milk produced was \$930 million
- The region has all the major processors as well as smaller and niche processing operations
- Rationalisation has had significant impacts on local communities however the sector has had considerable investment - \$400m over the past 5 years.
- 8000 employed in farm, processing or service sector – these are not seasonal positions
- Industry has experienced significant change - starting late 90s with de-regulation; 2000 – 2009 millennium drought; 2006 significant – low water allocation, high temp water price, government buy backs, unbundling of water, opening up of water trade; 2007 GFC; 2012 significant flooding; dry conditions over the 2015-16 year; low milk prices continuing throughout the 16-17 season.
- All combined this has meant that milk production is down by 18%.
- However, there has been \$2 billion dollars invested in irrigation infrastructure through the Connections project.
- Farm transition is occurring in the region, it is dynamic, farm operations are continuing to expand, interest in new investments and developments are still occurring at a rapid rate.
- Transition is also happening in the processing and services sectors.
- We know that our future will be characterised by continued volatility in water availability and price.
- So how do we stop variability in milk supply happening?
- How do we break the link between water availability and milk production?
- Everyone in the industry and the whole supply chain will have a role in addressing these challenges.

John Droppert, Senior Industry Analyst, Dairy Australia

Key Points -

- Importance of this region at both national and global scale. Murray Region is bigger than any other dairy area outside Victoria.
- All the major processes have invested in this region.
- The region is important strategically, located between Melbourne and Sydney. Its proximity and diversity of systems means that international supply chain visitors come to the north to understand and learn about our industry.
- The types of products generated here are diverse. All major value added products can be made here e.g. cream cheese, milk powder, shredded cheese.
- It is a region where people are used to learning and trying new things on farm, has a culture of learning and innovation.
- Consumer acknowledgement of our products. Brand Australia is a gold standard brand overseas and the products from this region contribute and take advantage of that reputation.

Frank Malcolm, Regional Economic Development Officer, Moira Shire

Key Points –

General comment about economic contribution across major Local Government Areas

- Dairying is a big business for Moira Shire with 22% of the 2.2 billion litres of milk produced by the Murray region coming from farmers in Moira. Adjoining Campaspe Shire farmers producing 30% of Murray region's milk and City of Greater Shepparton 15% are also major dairy industry players. Across the region dairying is a major employer with 7,738 people working in the industry and in 2015/16, 24% of Australia's milk and 29% of Dairy exports came from the Murray region.

Specific to Moira

- Moira Shire has a large dairy component that despite drought, flood, water policy and international markets continues to innovate and become more productive as all business must do to survive. Our farmers have learned to feed and breed cows better, to maximise their water use efficiency and expand their businesses into export heifers, dairy beef, herd improvement and off farm investment whilst the manufacturing sector has continued to rationalise and invest in new plant, products and markets to meet the demands of a global economy.

Specific examples of businesses associated with dairy in Moira – eg MG Cobram plant and recent investment and upgrades, feed companies?

- Murray Goulburn, despite experiencing a major challenge, has recently invested over \$100 million dollars in its Cobram plant. Booth's Transport has just opened a major depot employing 70 people at Strathmerton with more efficient servicing of the local dairy industry an important component of that business. McColls Transport are also building a similar facility at Strathmerton to better support their dairy customers. Local service industries such as NDS and BMC Welding are also undertaking significant expansion on the basis of servicing the dairy industry. Our Economic Development department has also had significant enquiry both locally and internationally for dairy farms and potential manufacturing assets. All business has to face many challenges, whether it be high energy prices, market access, changes in technology or other issues, but the dairy industry in this region has been at the forefront of adapting to change and will continue to be a major economic driver for the region.

Carl Walters, Manager Sustainable Irrigation Program, GBCMA

Carl provided a presentation that made the following key points (See appendix 4) -

- Goulburn Broken CMA has looked at land use change in the GMID and tracked changes to the number of functioning dairies and associated properties. In 2000-04, dairy properties covered 235,584 ha and comprised of 2,721 properties. In 2015-16, dairy properties covered 235,518 ha and comprised of 2,666 properties – however only 1,142 properties had operational dairies. This reflects a trend of increasing scale of dairy businesses, and the rise of activities to support dairy businesses, such as fodder production.
- The project also examined water use and entitlement change across the GMID. There has been a large drop in entitlement ownership and use from 2001/02.
- The dairy industry is now consistently using more water than is owned in HRWS. 60% of water used by the dairy industry is not owned. In 2001/02 before unbundling, total dairy water use was 70% HRWS.
- Ownership of HRWS is also not evenly distributed within the industry. 49.4% of irrigators own less than 201 ML of HRWS, and 7.8% own no HRWS. Only 30.5% own more than 500 ML of HRWS.
- It is now not just a question around water ownership and price, but also availability. In a dry year, water use across the region will have to halve because of availability in the system. Even if a business owns water or can afford to buy traded water at high prices, it won't necessarily be physically available. If additional water is taken out of the GMID, in a dry year there is a possibility there will not be enough water in the system to allow it to function.
- 73.5% of dairy farmers interviewed indicated that they didn't have enough water to irrigate their system.

Reflections

The audience were asked to reflect on the previous session and record their top three factors or key messages that came out of the presentations, and that the Steering Committee developing the region's strategic plan needs to consider. The full list of responses is included in appendix 7.

Key points from audience reflections:

1. Water availability and impact on profitability & production
2. Magnitude of contribution of the dairy industry to the region's economy
3. Importance of risk management to navigate volatility

EMERGING DAIRY FARMS – THE ADAPTATION JOURNEY SO FAR AND THOUGHTS AHEAD

The purpose of the session was to illustrate how dairy farmers have been adapting to the changes and shocks that it has experienced and what challenges lie ahead. The session interviewed a panel of three farmers that represent the spread of farms from the west to the north east of the region.

Dehne Vinnecombe – West

- Manages with his wife and 4 children a 1,000ha farm, 80% is irrigated with 440 cows.
- Grows crops such as wheat and barley and all their hay and silage.
- Farm consists of several properties spread across about 15 km.
- Located 70 km from Bendigo/Echuca and Kerang.

Key points –

- We have had a gradual expansion to increase self-sufficiency for feed.
- We use water strategically. We grow large volumes of silage when water is cheap to carry feed over to cover bad years, and we also carry over water. We aim to keep out of the fodder and water markets when everyone else is driven to them. We like to have enough feed or water security for 3 years.
- Risk management is very important. We look ahead. Our strategy is to own a lot of water, so we have it to use when the market is tight. But we use it to maximise return on water applied e.g. to finish off cereals. We want large quantities of quality feed that can be stored, for minimal water applied. This is why we've invested in large amounts of dryland for opportunistic cropping, that can also be irrigated strategically when conditions and price are right.
- It is really important to challenge your thinking and keep an open mind. We bought a mixer wagon when we said we never would because we had to. We are not afraid to change.
- We are buying farms but we are not increasing cows at the same rate, because we are investing to secure our feedbase, and to create stores of feed.
- In the next 10 years we will be looking at technology to drive efficiencies, both in production and labour. We are looking at automation, barns and robots.
- We are setting our future up to deal with decreased water availability. This is why we are investing in growing crops, storing feed and looking at barns so we have complete control and can grow and source good quality and reliable feed inputs for our cows.
- If we don't move forward, we will move backwards.

Jeff Odgers - Central

- Jeff farms 350ha across 2 farms with 600-700 cows.
- Grows a mix of forages using both flood and centre-pivot irrigation.
- Jeff has held range of regional and national roles within the industry.

Key points –

- We have smaller farms and a lot less opportunity for expansion than farms in the West.
- Irrigation is an asset, and it's all about water and what we do with it.
- We have changed our feedbase system in response to changing water availability in the region. We have bought a second property, and are diversifying our feedbase by growing corn and cereals under ½ of a 58 ha pivot. Under the rest we are growing perennial pasture and lucerne.
- In dry years when we pull back on irrigation, the pivot grows 40% of our feed needs, off only 10-20% of our land. It is part of the answer in conjunction with a flexible feedbase.
- We are trying to achieve a large perennial base, some of it will be ryegrass but as we are looking for persistence and flexibility so we are also growing lucerne and fescue pastures. They are deep rooted and can handle periods of dry better, and have more options in terms of watering them through vs drying them off and restarting them again.
- Change is not instant, it takes time. We are developing skills and learning along the way how to manage this system most effectively which is making the transition easier.
- Into the future we are looking at how we navigate through this perfect storm of climate variability and policy changes at a state and federal level.
- The key aim of the system we are setting up is to manage the variability and it's about continuous adjustment, not being static.

Karen Moroney – North East

- Karen manages three businesses – tourism business, Red Oak Homestay, importing and improving of dairy genetics, – AusRed XB, as well as the dairy farm where they are expanding their 200-head dairy herd.
- Karen is heavily involved in her local community and the dairy industry and sits on several committees and boards.

Key points –

- The Alpine Valleys of the NE currently support around 180 dairy farms with an average herd size of 210 cows and is characterised by high levels of home grown feed, low cost resilient farming systems, and high equity levels.
- Production systems vary significantly due to varying geography, soil types, access to irrigation and run off country and rainfall variability within and between valleys.
- Water is not the key issue – average rainfall of 800mm annually.
- A high proportion (30%) of dairy farmers will be retiring over the next 5-10 years but with many farms transitioning to beef makes it difficult for new entrants and expansion.
- We need to look at the other opportunities available for farm land to transition and remain in dairy farming.
- Strategic planning has been a key part of our business and really helped us focus in difficult times.
- We are exploring our own options for succession planning, this has been made more difficult due to recent challenges with floods and price volatility.

Reflections

The audience were asked to reflect on the previous session and record their top three factors or key messages that came out of the presentations and that the Steering Committee developing the regions strategic plan needs to consider. The full list of responses is included in appendix 7.

Key points from audience reflections:

1. Succession planning is a critical issue facing dairy businesses
2. Risk management is a key focus area for successful businesses
3. Managing volatility is critical in new operating context
4. Transformation is occurring in dairy feedbases to increase flexibility and resilience

Key messages

1. Emerging Dairy Farms – The adaptation journey so far and thoughts ahead Success for our industry will be driven by people's ability to identify and manage risk and their adaptive capacity for change.
2. Sub regional landscape features are distinct and need to be realised for farm scale landuse to be optimised.
3. Farm systems are evolving driven by consideration of a broad scope of resources available to them, of which water is only one component.
4. All forms of planning is critical for business success – strategic, succession, risk and resources

Megan Hodge- Branch Manager, RaboBank

- Megan is the Branch Manager Rabobank in Shepparton with a role in Agribusiness Finance
- Her background is in agriculture, grew up on a beef farm and then has worked close to 15 years in agribusiness across a diverse range of industries.

Key points –

- The debt landscape has changed. Debt per cow and farm has increased exponentially over time. Farmer expectations have also changed.
- From a finance sector perspective, there is more flexibility in products, e.g. payment terms, interest rates, to align businesses to a changing operating environment.

The finance sector looks for the three Cs:

- Character-business skill and relationships.
 - Cashflow
 - Collateral-equity, cows, water, land.
- Planning is critical-ability to adapt, change, strategise, get advice, will determine success.
 - Succession planning is an issue. Farmers need to build something that works for them, plan and say it out aloud.
 - There is a need to develop more robust relationships with the service sector-a bank is a partner in a farm business-plan with them and communicate!

Peter Moller – General Manager, Farm Connect, Rubicon

- Peter is the General Manager of Farm Connect-Rubicon (on farm end of Rubicon technology)
- Has extensive experience in understanding farmers' (cotton, horticulture, irrigation) needs and successfully developing technology to meet those needs, growing businesses both in Australia and internationally.
- Peter recently received a Food Source Victoria scholarship that included study with Stanford University on Innovation and Entrepreneurship and travel to the US to understand how to grow the connection between the smart technology companies in Silicon Valley with potential markets in agriculture.

Key points-

- There is a growing population, demands on food security and changing demographics that is driving changes to food production.
- Technology can guide efficiencies, increase production and return on investment by guiding better management.
- When looking at technology adoption, the people element is critical. E.g. how do I influence the behaviour of an irrigator?
- Service providers are shifting from a model of selling crates of chemicals to selling value added information on farm. Data collection, analysis, solutions to meet needs.
- Farmers need to be willing to pay for this attribute in their service provider.
- The agriculture industry will move away from buying technology, to buying a service. E.g. cotton industry buys hours per year on machinery, not whole tractors.
- In the future, there will be huge investment in Agtech and it will become very crowded and confusing.
- We need to get tech developers up to northern Victoria to get their hands dirty and understand our needs.
- Something reiterating that technology is a tool for better management, not the end of goal itself.

Chris Thomas – Chris Thomas Consulting

- Chris is a senior consultant in the dairy industry, after serving many years in the Farm Services and Milk Supply Management area of the processing sector.
- Chris also leads a cohort of Processor Milk Supply Managers and Senior Dairy Consultants, which commenced in the mid 2000's in the depths of the drought and still meet on a seasonal basis.
- He is a current Board member of Murray Dairy, as well as being a founding Director of AgBiz Assist and Rural Financial Counselling Services for North East Victoria.

Chris provided a presentation that covered the following key points (see appendix 6) -

- Dairy Processors' biggest challenge is to adapt and respond to the best returning markets and to secure a steady supply of milk to meet those demands.
- The biggest risks to that milk supply for all companies are security of water for irrigation, a reliable feedbase, and ongoing dairy farm enterprises.
- Water is a crucial ingredient for cleaning, washing, rinsing, desalination. Processing takes up a large amount of water usage, up to 3ML of water a day in the typical site in the region.
- Environment processors are seeking innovation and efficiencies in recycling and re-use of waste water.
- Milk on Wheels – the region is strategically placed to access key large markets and needs reliable transport, transfer stations and roads to connect with these.
- Escalating power costs - solar, wind, and renewable energy sources are all being considered, but there is much collaborative work to be done, with government and energy providers for a reliable resourceful means of electricity supply.
- There are huge market opportunities in export and domestic markets but the volatility and variety of market demand and competitive forces are great challenges.
- Variability and volatility in milk supply is an issue, as continuity is very important in highly competitive markets, and there is significant investment that goes into product innovation.
- Attracting the highly skilled to the region is becoming more difficult as the advances on technology increase.
- Unity and a collaborative approach is critical for success in the region.

Reflections

The audience were asked to reflect on the previous session and record their top three factors or key messages that come out of the presentations and that the Steering Committee developing the regions strategic plan needs to consider. The full list of responses is included in appendix 7.

Key points from audience reflections:

1. A need to change and adapt to suit the operating context is a driver for the service sector as well as farm businesses.
2. The service sector through a 'team approach' is critical to assisting businesses to manage increasing complexity on farm.
3. Opportunities for increased efficiencies driven by technology are there but must be focused at addressing a key need or challenge on farm in order for new practices to be widely adopted.

Key Messages

1. Service Sector Where to? – Dairy Service Sector needs The service sector must rapidly adapt to support the industry as it changes.
2. Succession planning for the service sector is critical.
3. Innovation and technology must address the key challenges and issues in order for it to be adopted.
4. A team approach which includes service sector specialists working together in a complex environment is key to farm businesses success.

APPENDIX: 1 WORKSHOP AGENDA

Dairy Summit - Agenda

Date: Wednesday 10 May 2017

Venue: La Trobe University, 210 Fryers Street, Shepparton - Learning Space 3
- Enter via North Street

Purpose:

The Summit will provide an opportunity to discuss the future of the dairy industry in northern Victoria; the contribution it makes to the regional economy, how dairy adapts to the changing operating environment and opportunities for the industry to grow through domestic and export demand. Following on from the summit, it is envisaged a regional strategic plan can be created to align the industry towards these goals.

- 9:30am** **Arrive Tea & Coffee**
- 10:00am** **Welcome**
Sam Birrell, Committee for Greater Shepparton
Rick Cross – Chair Murray Dairy
Acknowledgment of Political Support
Purpose of the summit and program outline – Fiona Johnson
- 10:15am** **The Dairy Industry in the Murray Region** – Jenny Wilson, CEO Murray Dairy
John Droppert – Senior Industry Analyst, Dairy Australia
Jane O'Brien – Regional Economic Development Officer, Moria Shire
Carl Walters – Manager Sustainable Irrigation Program, GBMCA
- 10:45am** **Emerging dairy farms** – The adaptation journey so far and thoughts ahead
Dehne Vinnecombe – Mitiamo
Jeff Odgers – Ardmona
Karen Moroney – North East
- 11:30pm** **Agriculture forward thinking for our region** – Regional agriculture challenges & opportunities going forward
David McKenzie – Chair Regional Partnerships
Service Sector where to – Dairy service sector needs
Mike Stevens – Director and Senior Farm Business Advisor, Meridian Agriculture
Megan Hodge – Rabobank, Branch Manager
Peter Moller – Farm Connect -Rubicon – General Manager
Chris Thomas – Chris Thomas Consulting
- 12:30pm** **Important messages** – What are they?
- 12:55pm** Wrap up and thank you – Sam Birrell
- 1:00pm** **Lunch**
- 1:45pm** "Social sustainability in dairying communities impacted by the Murray-Darling Basin Plan" - Monash University/Geoffrey Gardiner Foundation
- 3:45pm** **Close**

APPENDIX: 2 ATTENDEES

Margaret	Alston	Melbourne University
Greg	Ault	Murray Dairy Board
Lachlan	Barnes	Murray Dairy
Claire	Baumber	NAB
Ross	Bawden	Dairy Australia
Harriet	Bawden	Murray Dairy
Sam	Birrell	Committee 4 Greater Shepparton
Wendy	Brown	ACM
Merrill	Boyd	Murray-Darling Basin
Liz	Byrne	Murray Dairy
Shane	Byrne	Murray Goulburn
Allan	Cameron	Gippsdairy
Ian	Carkeek	GoTAFE
Kim	Chadband	RDV
Patricia	Chick	RDV
Josephine	Clarke	Monash University
Warren	Climo	Bega Cheese
Geoff	Coburn	Goulburn-Murray Water
Peter	Costello	UDV
Michele	Cranefield	NAB
Rick	Cross	Murray Dairy Board - Chair
Stuart	Crosthwaite	Alpine Valleys Pathways Project
Brendan	Cullen	Melbourne University
Brett	Davidson	DEDJTR
Dave	Davies	NAB
John	Droppert	Dairy Australia
Amy	Fay	Murray Dairy
Margie	Fixter	GoTafe
Will	Ford	CBA
John	Furphy	Murray Goulburn
Aaron	Gosling	Gardiner Foundation
Peter	Gray	Hume RD Australia Committee
Ian	Halliday	Dairy Australia
Graeme	Hannan	Goulburn-Murray Water
Megan	Hodge	Rabobank
Chris	Howard	RFCS & AgBiz assist
Lyndal	Humphris	REEC
Peter	Irwin	NAB
Fiona	Johnson	Consultant
Susanna	Keele	NAB
Kevin	Kelly	DEDJTR

APPENDIX: 2 ATTENDEES CONTINUED

Neil	Lane	Dairy Australia
Pat	Lennon	Goulburn Murray Water
Frank	Malcolm	Moira Shire Council
Andrew	Mann	Murray Dairy Board
Tony	McCarthy	Murray Dairy Board
Charles	McElhone	Dairy Australia
David	McKenzie	Goulburn Regional Partnership
Lisa	Menhenett	Murray Dairy
Peter	Moller	Rubicon
Karen	Moroney	Murray Dairy Board
Chris	Murphy	Dairy Australia
Chris	Norman	GBCMA
Jane	O'Brien	Moira Shire Council
Jeff	Odgers	DA and Bega Board member
Elizabeth	Parkin	Dairy Australia
Russell	Pell	Member of Basin Communities Committee
Chris	Potts	Fonterra
Luke	Prime	GoTAFE
Dougal	Purcell	Agriculture Services
Ross	Read	Murray Dairy
Gary	Rodda	Murray Local Land Services
Jason	Russell	CEO Campaspe Shire
Rohan	Sali	Greater Shepparton City Council
Carmel	Shellie	DHS
Julie	Simons	AgVic
Mike	Stevens	Meridian Agriculture - Director
Chris	Thomas	Murray Dairy Board
Joanne	Turner	RDV
Melva	Tyson	Murray Dairy
Dehne	Vinnecombe	Farmer
Carl	Walters	GBCMA
Kerri	Whittenbury	Melbourne University
Jenny	Wilson	Murray Dairy - CEO

APPENDIX: 3 JENNY WILSON'S PRESENTATION



The Dairy Industry in the Murray Region Where we are now?

Jenny Wilson, Murray Dairy



A Geographically Diverse Region



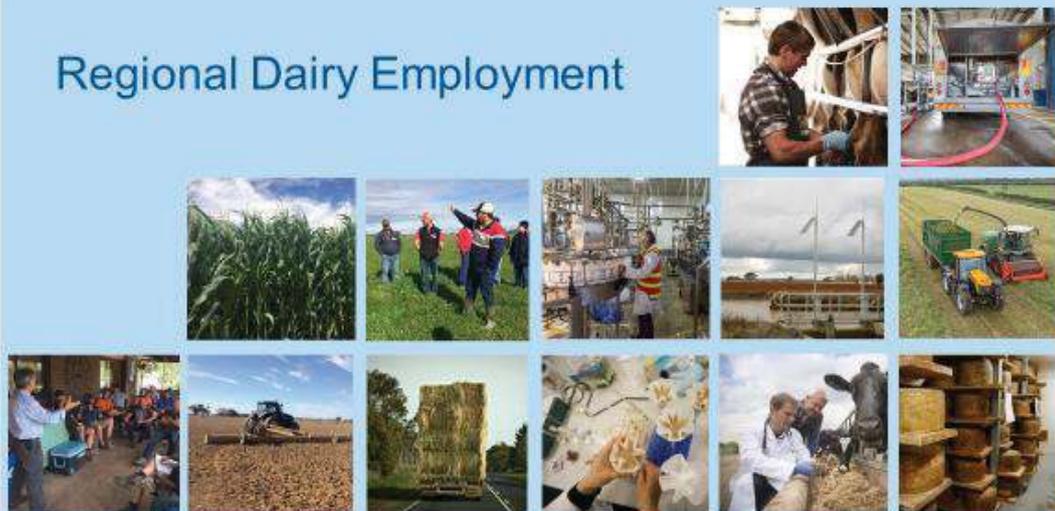
Dairy drives regional prosperity



Murray Dairy region at a glance

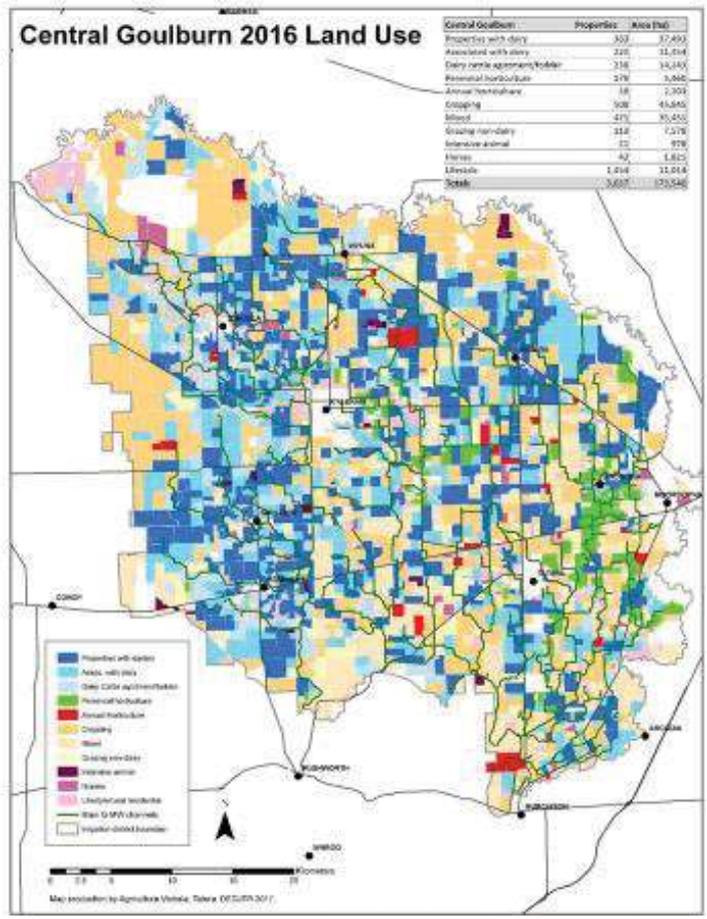
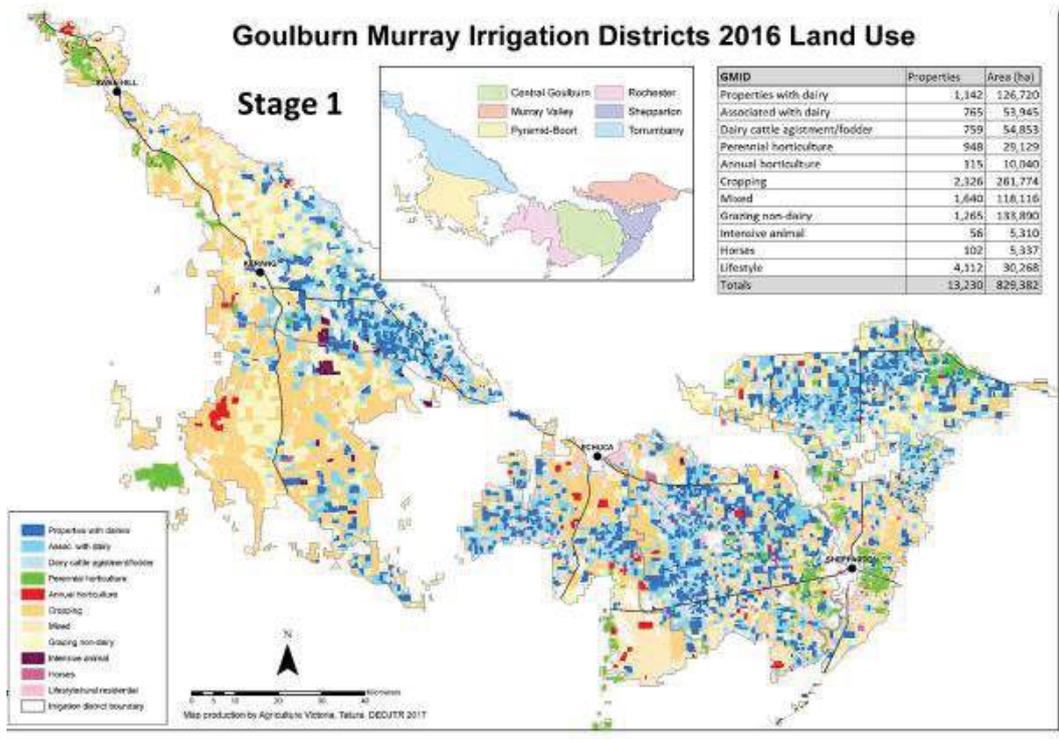
- 1490 dairy farms
- 2268 million litres of milk in 2016 (24% of national total)
- \$930 million Farmgate value of milk in 2016
- \$744 million farmgate returns spent in local economy
- More than 8000 people employed on dairy farms, in milk factories and local dairy service industries
- 16 dairy processing factories
- Made in Murray Dairy: fresh milk, cheese, ice cream, milk powders, infant formula and butter
- Murray Dairy produces approximately 28% of Australia's dairy exports

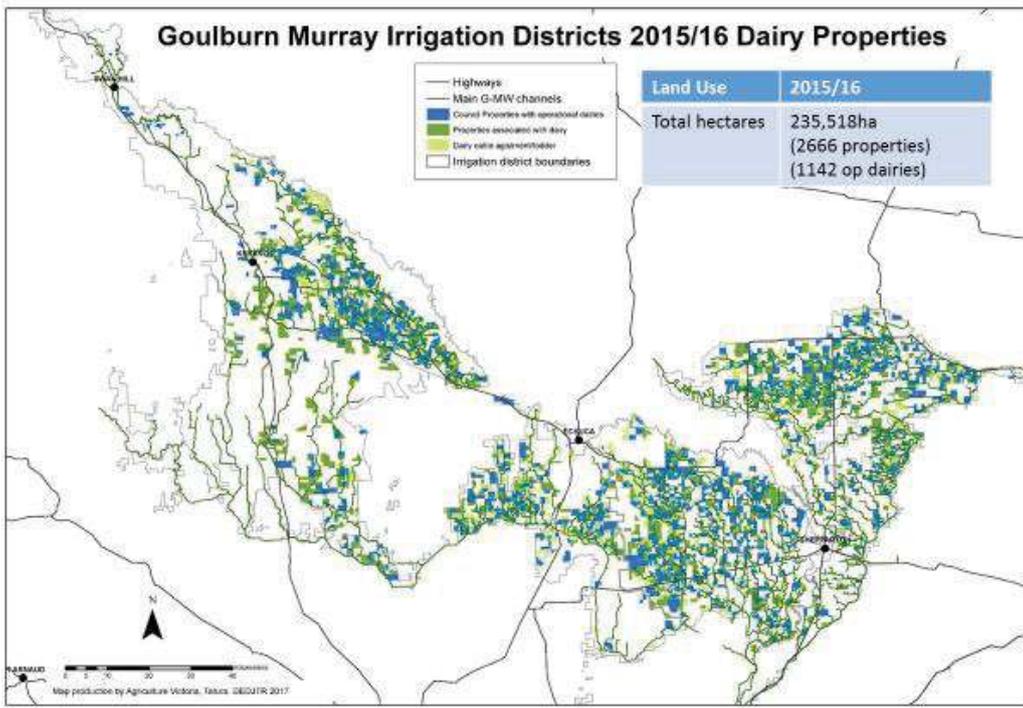
Regional Dairy Employment





APPENDIX: 4 CARL WALTER'S PRESENTATION





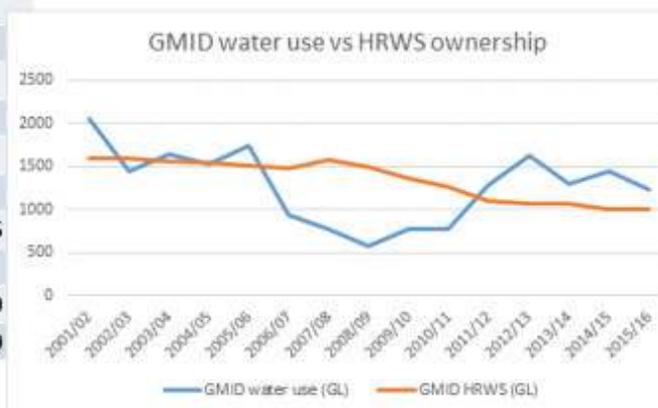
Changes in ownership & use in the GMID



Year	GMID HRWS (GL)	GMID water use (GL)	Dairy HRWS (GL)	Dairy water use
2001/02	1597	2053	819	1065
2002/03	1598	1450		
2003/04	1567	1652	709	922
2004/05	1543	1534		
2005/06	1517	1739		
2006/07	1480	945		
2007/08	1585	769		
2008/09	1490	574		
2009/10	1365	774		
2010/11	1273	772		
2011/12	1103	1286		
2012/13	1068	1622	470	746
2013/14	1068	1295		
2014/15	1000	1456	465	740
2015/16	1000	1230	465	600

Reduction in entitlement and use between 2001/02 - 2015/16 for GMID and dairy industry

An increased reliance on the allocation (temporary) trade market generally in GMID, with an increased gap in HRWS ownership pre and post-drought years



Water Ownership -

Irrigator Feedback

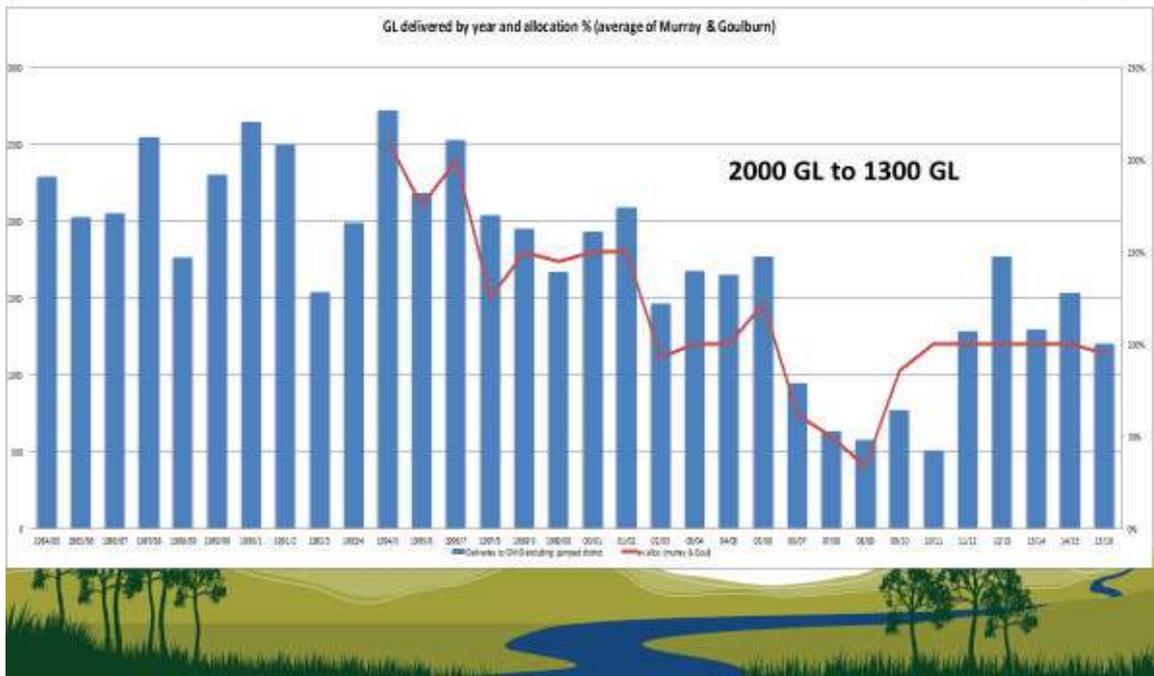


Water ownership

49.4% of irrigators own less than 201 ML HRWS including 7.8% owning no HRWS

HRWS ¹	Dairy (n=117)	Cropping (n=113)	Orchard (n=17)	Mixed farming (n=55)	Livestock production (n=54)	All irrigators ² (n=356)
No water share	4.1	10.6	5.9	12.6	5.6	7.8
1-50 ML	11.1	24.8	23.4	25.5	22.2	19.9
51-100 ML	5.1	15.9	11.8	10.9	3.7	9.6
101-200 ML	10.3	10.6	11.8	18.2	13.0	12.1
201-500 ML	36.8	22.1	35.3	16.4	35.2	28.7
501-1000 ML	22.2	8.0	5.9	10.9	16.6	14.3
More than 1000 ML	10.3	8.0	5.9	5.5	3.7	7.6

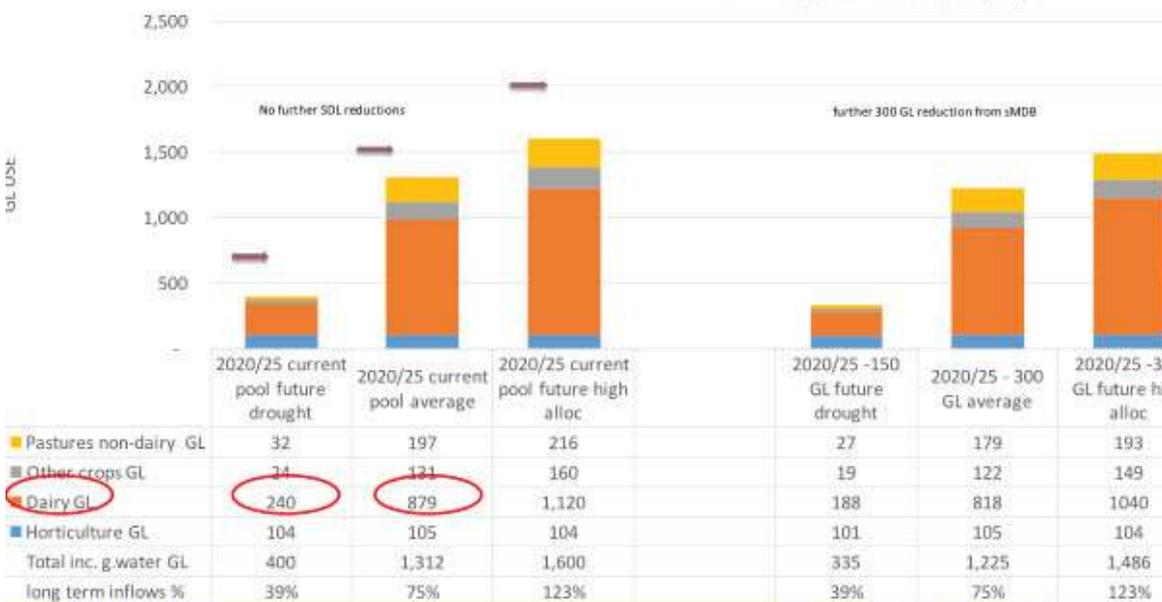
Water for Agriculture changing



GMID future GL



GMID GL/y future use by crop type



APPENDIX: 6 CHRIS THOMAS'S PRESENTATION



Dairy Summit 2017
“Adapting and Changing in the Milk Processor Sector”
Murray Dairy – Tatura
Chris Thomas, CTConsulting - 10th May 2017



Opportunities/ Challenges of the Dairy Sector

Understanding the adapting and changing needs of milk processing companies into the future, in the Murray Dairy Region comprising of;

- 1450 dairy farmers, producing 2.3 billion litres of milk
- to 19 Milk Companies for a milk farm gate value of \$930 million
- the industry directly employs nearly 8,000 people



PRE-FARM GATE/ WATER, WATER

- Security of Milk Supply for the Processors, is directly related to the Security of Water Supply, and is the largest priority.
- From the agribusiness end, there is much to do, in relation to water availability, water utilisation and efficiencies.
- A lot of good work has been ongoing through milk companies, Dairy Australia, Murray Dairy and the exciting “**Accelerating Change**” Project.



One of the Observant Moisture Probes that have been installed on the Stewart Partner Farm at Yarrowalla

Murray
DAIRY

Dairy
Australia

Your Levy at Work

OPPORTUNITIES /CHALLENGES FOR THE PROCESSER SECTOR

Gaining benefits, efficiencies and savings, through greater R&D, and Investment, between the Paddock and the Plate;

- Water; on Farm and Factory
- Environment; Waste Water Management
- Transport; Roads
- Power; Electricity and Energy
- Product Innovation
- Labour; attracting the highly skilled

Murray
DAIRY

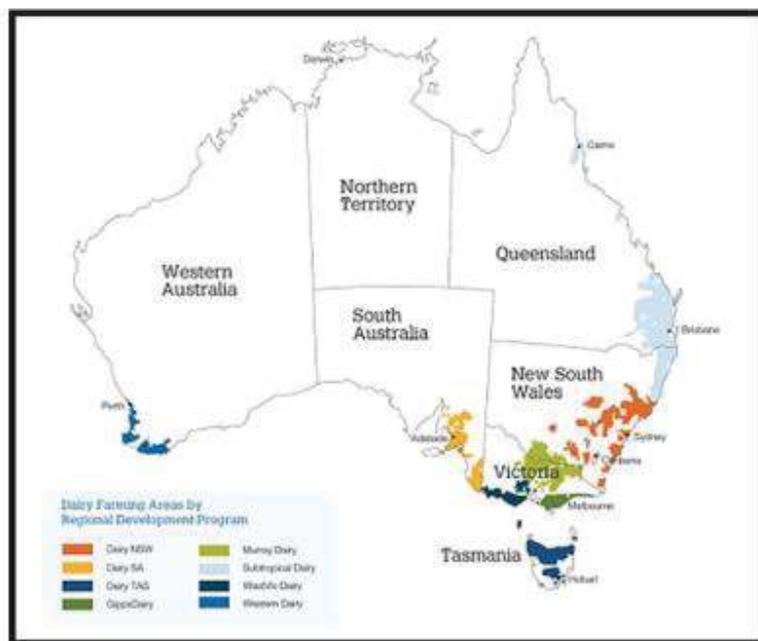
Dairy
Australia

Environment - Waste Water Management

- There are large potentials for recycle benefits and re-usage from the Waste Water from processing sites, but large investments required



Milk Pools around Australia



NEXT INVESTMENT RESEARCH DEVELOPMENT for better roads?



PRODUCT INNOVATION



RMIT Food Research and Innovation Centre,
Bundoora, Vic
Partners: Bega/TMI, Lion Co, Murray Goulburn.



Food Innovation Centre, Monash University,
Melb., Vic.
Partners: Lion Co, Chobani.



Bulla Innovation Centre
Colac, Vic.



Fonterra Research Development Centre,
Palmerston North, NZ

MEETING MARKETS with PRODUCT INNOVATION



Markets can change at any time



OPPORTUNITIES /CHALLENGES FOR THE PROCESSER SECTOR

Gaining benefits, efficiencies and savings, through greater R&D, and Investment, between the Paddock and the Plate;

- Water; on Farm and Factory
- Environment; Waste Water Management
- Transport; Roads
- Power; Electricity and Energy
- Product Innovation
- Labour; attracting the highly skilled

APPENDIX: 7 REFLECTIONS

Session 1: The Dairy Industry in the Murray Region

- Operating environment increasingly complex-can dairy (farmers, manufacturing, service providers) adapt rapidly enough
- Link and depending on water availability-can link be broken/reduced to give more stability and certainty for planning and confidence
- Will all negative influences, still one of the biggest producer regions in Australia
- Vulnerability from a number of factors
- Land use mapping-so what? How do we use this?
- Government keen to support but how? They are not really sure
- National strategic importance of region
- Innovative industry, with a range of farm types
- Being resilient when impacted by key drivers, especially water
- 8000 people work in the industry
- Need to promote industry to schools
- Visas to bring in skilled overseas people
- Need to look at new technology subsurface drip etc.
- Vulnerability of the dairy industry to variability in water availability
- Difficulty in trying to manage a business in a hugely variability external environment
- Massive importance of dairy industry to the region
- Farming systems need to be adaptable to variable water availability
- Supporting systems changes require the whole service sector to work tether
- Water security of supply is critical
- Managing fluctuations in supply at farm level is complex and requires a greater level of skills never seen before
- Dairy farm numbers reduced dramatically which could only disrupt communities
- Critical for Australia-exports and economy
- Critical for jobs and economy
- Water issue in GMID/land and people issue in NE
- Major Player regionally/nationally
- Need to embrace change
- Needs to make sector and region sexier community
- Succession planning threat to both the owner, family and many stakeholders
- Complexity of farm operations-coupled with significant threats, water, climate, debt, land availability.
- How do we maintain investment/optimism when industry recognises significant challenges behind farm gate? Are we really united?
- Reduction in dairy farms 200-2010 but no change since
- How to manage volatility
- How to encourage the next generation
- Water
- Key components-farmers/capital
- Change is constant
- Productivity impact from land no longer dairy
- Awareness of all (many) factors that influence dairy sustainability
- High percentage of dairy with lack of reliable water
- Change of land use-decline of dairy farms. Very concerning
- Reliance on continuous employment
- Complexity in managing dairy farm business year to year proposition
- Water is the key
- International reputation for dairy products
- Challenge climate and market environment
- Reliance on water and associated risks
- Influence on local economy and investment
- Farms in transition coping with change, climate, water availability, market price
- Average farm 1 million production generates 6 employees
- Water drives production. Also drives variability
- Open to learn/change systems
- \$400 million investment by processors.
- Risk associated with water-risk management on farm
- How do we attract people to farming?
- Government policy to support risk management growth
- We still don't sell the value add from the dairy industry to our regional economy and communities well
- Need to really understand the resources we have at our use, and update this regularly to have the best information available for the best decisions
- Key industry for employment income and export revenues
- Always challenges over last 20 years
- Important to adapt
- Is reliant on water at present
- Need to change is becoming more urgent
- \$1million farm gate = 6 jobs
- 49% farmers own less than 201 ML HRWS
- Water availability will change farming systems
- 1450 farms -24% (trends? Less farms but larger)
- Water impacts on industry and relation to usage=barrier
- HWR-water allocation market-availability and price
- The importance of the region to overall size of the Australian dairy industry
- The importance of the availability of water now and into the future
- His complexity of the industry/environment
- \$400 m investment over last 5 years (there is new investment coming into the region)
- Water availability and affordability need to be efficient utilisation and management of water and risk management
- Resilience required by farmers to deal with volatility (water \$, milk \$, climate volatility), important farm business management skills
- Very productive region
- Importance of water
- Managing risk, businesses communities, people services
- Changing industry, we need to manage the change collaboratively and collectively
- Link between water and production, volatility.
- Under massive pressure
- Currently linked to water availability
- Managing fluctuations in supply at farm level is complex and requires a greater level of skill than seen before
- Dairy farm numbers reduced dramatically which could only disrupt communities

Session 2: The Dairy Industry in the Murray Region

- Farm systems adaption to change e.g. New tech
- Awareness of dairy industry and community careers and investment opportunities
- Water security/policy/risk, recycled water infrastructure, access, long term
- Need to adapt to regional circumstances
- Need to continually adjust to specific farm factors
- Water (central and west) and land (north east) are in high demand. Dairy systems need to find a way to remain competitive and attractive to new entrants given volatility
- Importance of managing risk-feed, growing feed/crops, -water, climate change/volatility
- Importance of efficiency-technology, water
- It's all about the water-rainfall, irrigation, volatility
- Not all negative
- Managing volatility is key-water and price
- Flexibility-are we agile enough as an industry?
- It's all about water
- Success through innovation and trial
- Different issues or the north east that could impact that sector
- Succession planning
- Promoting agriculture
- New technology /automation
- Water use efficiency
- Variety of farming across the different areas-particularly difference of NE
- Age of farmers in dairy farms and the future of dairy in the regions as they exit
- Value of strategic planning to mitigate against and even out rollercoaster external events.
- MD has a wide range of production environments
- Individual farmers explore changes to their production systems
- Succession planning and promotion of the industry is important
- Managing volatility (in all markets) is critical
- I.e. Milk price, water price, seasonal volatility
- Adaptable, pragmatic, practical, positive all on a journey
- Some are adapting, growing crops
- Farms growing, trying to manage risk
- Support younger farmers better
- Scale (for feed security)
- Labour efficiency
- Bring all the people in the business with you
- 30% 30 % 30\$ to 50% 50%
- Common issues water
- Succession planning
- Good operators changing adaptable flexible strategic
- Water=priority
- Efficiency i.e. Water/land/feed
- Feed and herd management change
- Succession planning
- Capital/labour, skills development
- Need for more land for feed cropping to protect from bad year markets
- Challenging traditional beliefs in farm practices (learnings and skills development)
- How to mitigate volatility=must be profitable to attract people and on farm diversifying (farm stay, feed, etc.)
- Transition of young farmers to utilise land alpine region
- Water efficiency=access to infrastructure=cost
- Forage development-best water use
- Water is the key
- Be flexible-adapt to change
- Human resource-future generation
- Range of systems define success
- Water availability and efficient use critical
- Loss of farms and farmers from dairying in next 5-10 years and land locked up
- Securing the feedbase for a number of years
- Adjustment journey water efficiency drives
- Volatility is not attractive
- We need to learn from the best operators managing risk, resilience
- Managing transitions between generations
- Attract people highly skilled to the industry agriculture dairy
- How do we get the positive stories from the industry out there to talk about their risk management and managing the changing goal posts on their own football field
- The sector needs to support and facilitate the enormous variation in operations across northern Victoria as a region, but also across individual businesses.
- Innovation is occurring
- Need to plan and set up for predictable outcomes over 3-5 years
- Flexible feedbase-what's best use of resources, future flexibility, avoid being in the market in a bad year
- It's all about how we use the water best match technology to allow flexibility
- Forward planning is crucial-climate, water
- NE very different water user, less dependent. Strategic planning. Just starting to change in NE.
- Risk management is critical
- Managing volatility
- Grow large amount of feed to store for poor seasons
- Move to barns-more intensive forage production
- Grazing still cheapest-pasture/perennials
- Aging farmers-transition to new farmers or next gen issue
- Reliance on water
- Diversity of the regions
- Importance of cropping/managing risks etc.
- Access availability knowledge on new forages (i.e. away from perennial ryegrass)
- Support for industry in Murray region needs to cater for varying farming systems/climate across a large geographical spread
- Risk management tools and programs to support is important support required to help farmers with transition management, succession planning and importance of having a plan
- Water a limiting resource
- Adapt and change, volatility water, climate policy and milk price
- Consistent flat milk price required to invest in technology and infrastructure
- Price volatility is like water volatility
- Skill base is critical. Can the industry afford to engage 'the right people'?

Session 3: Service Sector Where to?

- Whole of industry promotion
- Access to valid current data and information
- A framework that supports the use and interpretation of data
- Dairying is complex need to recognise this and not ignore
- Skills and product need to be kept current and constantly innovate, the supply chain members need to work together to maximise outcomes for themselves and also for each other
- Change will accelerate and competition will increase, need clear plans, shared and communicated, integrated
- Importance of farmers to make use of service sector support-can't be an expert in everything
- Change-service agencies need to be able to adopt quickly to support farmers
- Relationships/build and work on them-partnerships
- Climate change-balance between irrigation?? And cost
- Fickle consumers-cost of processing??/innovation
- Waste water/salinity post farm gate investment
- Region is very important to processors
- Ongoing adoption of emerging technologies
- Being flow unit-cost producers
- Having professional people to support dairy-agronomists, accountants, nutritionists, paying for services
- Working together across processing, farming??
- Region is seen as having the most potential for growth
- Value of strategic planning-responding to change is valued by the finance sector
- Innovation opportunity, but at great cost i.e. It's difficult for processors too
- Emerging technologies can assist but need to be addressing farmer needs
- Service sector needs to recognise the changing environment
- Technology: what's the problem/issue that needs fixing?
- Volatility (again). Service sector needs to understand and adapt, prepare for it as well
- Work together better
- Get agreed position for strategic plan
- Support farmers and their sustainability not just service sector profitability
- Organised labour flexible financial products
- Using technology to interact with customers
- United planning and communication
- Where is the new technology to mitigate risk
- Challenges for processors to meet and maintain market share
- How to make communities more resilient
- Relevant technology
- Adapting to change/challenges
- Industry upskilling, centres of excellence (dookie)
- Change is constant
- A lot of competition
- Insight=what banks need=strategic farm plans
- Mike=drawing/cups=complex business for farmers
- Milk processors =huge volatility -market and consumer
- Technology is important
- Consultant is needed to support the business
- Change to fit the future plan
- Being flexible to help dairying adapt to change
- Using technology as a tool to fill farm needs
- Access to capital for innovation and development
- 50% have ability to change vs anxiety paralysis
- Lot of investment in innovation and capital needed to use technology
- Skilled labour
- Connecting with community
- Acknowledge complexity-surround yourself with good people.
- 30:30:30 moved to 50:50 need data to verify this assumption as it is important (referring to farmer segments and ability to change)
- Government modelling-already modelled change coming
- Tatura climate change centre for excellent
- Dairy is part of the overall picture and need to stay in the regional planning
- Capital investment is crucial
- Climate key threat
- Massive increase in production required
- Flexibility and technology adoption
- Percentage of farms without capacity or ability to change/diversity/expand at 50%
- Don't underestimate the knowledgeability of a dairy farmer as they are multi skilled but time poor becomes an issue
- Strategy development and planning -options in management/direction
- Need to respond to the changes happening at farm level
- To be flexible, efficient and meet end users' needs
- They also have their own challenges
- Farm plans need to consider the service sector
- Defining the role of government-what help and support does the industry want from government?
- Importance of maintaining a strong dairy industry for communities in the region (against the backdrop of fewer, larger farms)
- Define the question to be answered before rushing into new technologies and how do new technologies help with decision making
- Complexity of farm businesses, need to be sustainable and profitable
- Team approach to move forward
- Changing, adapting, innovating and recognising and the ability to do this
- Service sector is under massive cash flow pressure
- As an industry we need to help educate farmers and service providers about how to appropriate engage when cash flow is tight, yelling at each other isn't working!
- This is a complex industry all moving parts need to be engaged to achieve a 'common good'.

Concluding session: Top 3 Reflections

- Farm systems adaption to change e.g. New tech
- Awareness of dairy industry and community careers and investment opportunities
- Water security/policy/risk, recycled water infrastructure, access, long term
- Location within australia-our region is strategically located
- Need to work together
- Each supply chain member to act for themselves bur also for each other
- Dairy needs to find a way to either break the fragility of dependence on water, or add more value to product to be able to out- compete other water uses.
- Its all about the water
- Need to acknowledge the challenges and sell the benefits
- The importance of water and working with it's variability
- Continuous adoption of innovation
- Developing resilience as change occurs
- Preventing water leaving the region
- Promoting the industry to schools getting young people into dairying, processing, technology etc.
- Technology in assisting productivity
- Change change change! Volatility is the only constant!
- There has been significant, overwhelming challenges, but also good stories which don't get talked about
- Keep the regional strategy, short simple and salient
- Water of critical importance to dairy, but dairy industry has less scope to pay market price for water.
- Need water policy that will help dairying in gmid instead of destroy it
- All work together to get better outcomes
- Need master plan and everyone on board will achieve outcomes
- Water policy to advantage agriculture in GMID-need to all work together to get better government policy to keep water in this region. It can be done-need to think outside the square. Key is said today-must work together. 457 visas-fed governments talk about reducing red tape and advantages agriculture, the new visas available -create more paperwork and disadvantage agriculture-things can improve.
- Community needs to understand dairy's importance of irrigation
- The need to be cooperative and collaborative
- Ability to manage change
- Processors face same challenges as farmers
- Water is the key driver
- Simple strategy plan
- All stakeholder working in union
- Gm best region to develop and grow dairy industry and manufacturing.
- Water is the key driver
- Adapt to changes
- Plan ahead and work together
- Dairying needs to adapt and change climate technology markets
- Water availability will be key flexibility losses from pool for dairying
- Investment needed on many fronts, succession, development, innovation, growth
- Collective approach to build a strategy
- Dairying to stop shooting itself in the foot by continually perpetuating a 'poor me' and negative future-need to sell itself as an adaptive industry underpinned by innovation and flexible business.
- Be proud to speak out about what is good
- Attracting talent into the region
- What are the real drivers inhibiting the dairy industry to flourish in this region (it is not about holding things back e.g. Stop the water markets, stop the international investment) that we need to focus on
- Improve and simplify land use planning processes to allow flexibility in the land base
- Understand the water market and opportunities it provides for risk management and flexibility
- We must attract investment and innovation here through being on the front food attacking not defending our historical position.
- Risk management
- Water drives milk production
- Increase in food production required
- Water-dairy need it to survive
- Cost effective farming -viable
- Future capacity of individual farms to be successful
- Importance of the industry in the region-to both the region and the national landscape
- Having a plan for each farm businesses and improved farm business management skills (to deal with volatility in climate and water availability)
- Working together (government, industry, service sector) as a region to ensure a sustainable industry in the murray region and the region has a future (as illustrated by the \$400 m investments over the past 5 years)
- Change/volatility will continue to increase
- Need for integration supply chain services
- Markets sacrosanct-unquestioned deference to markets
- Ensure a sustainable pathway for agriculture
- Strategic planning vital for businesses, industry and community success into the future
- Working together
- Acknowledging and understanding the depth of challenges farmers have experienced and lived and breathed during the past 10 years and the impacts as these plans for the future for the region moving forward

