

Sustainability Series Seminar - “Sustainable Dairying in Canterbury”

Workshops

The 85 delegates who attended the seminar were divided into 6 discussion groups and presented with the following questions:

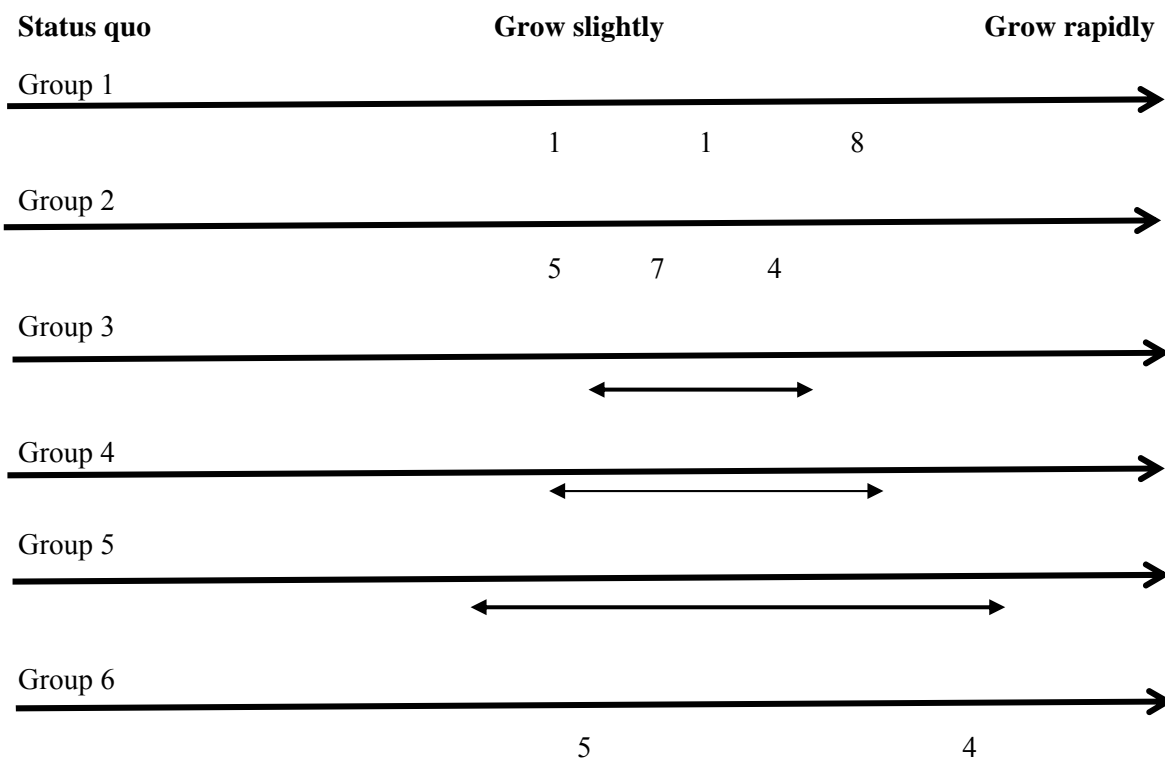
1. Will dairying continue to grow in Canterbury?
2. What factors influence that growth?
3. What is needed to ensure the sustainability of existing dairying in Canterbury?
4. What information are we lacking?

Group responses are listed in the following pages.

The main points identified at the end of the discussion related to:

- A comprehensive national approach to understanding and managing water availability, quantity, quality and value.
- Sensible and sustainable management of the water resource for all groups.
- Improved leadership and coordination around approaches to research.
- Further research and demonstration regarding water, nutrients and economics.
- Dissemination of robust and current information to dairy farmers.
- Dissemination of facts to the general public in terms of the actual impact of dairying on the environment.
- Recognition that all interested parties are seeking very similar outcomes.
- Ensuring close liaison with both the urban and rural communities.
- Dairying will grow slightly if the industry can overcome the issues of:
 - i] Knowledge of the impacts
 - ii] Barriers to entry and milk price/markets
 - iii] certainty of H₂O supply

Will dairying continue to grow in Canterbury?



What factors influence that growth?

Group No 1

- Payout
 - Relative profit to alternate land use
 - Availability of newly irrigated areas and management of this
 - Better farming practices
 - Staff availability
 - Automation update
 - Public perception
 - Urban growth
 - Sustainability
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Group No 2

- Availability of H₂O - storage
 - Export prices
 - Cost of entry - land, shares, capital costs
 - Cost of production and effect on profitability
 - Constraints from regulation (H₂O, NO₃, effluent, neighbours, zoning) → 5 years out from now
 - Return on investment
 - Comparative land use / returns / benefits - Trees – Carbon credits
 - Labour resource sustainability
 - Cost of Energy - availability – continuity - security of supply
 - Ecan - H₂O consents - New vs current - Levels – reviews
 - Viability of Proposed H₂O schemes
 - Interest Rates
 - Uptake of new technology - limiting factor
 - New information on H₂O use, returns
 - Social perception
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Group No 3

- We have a common goal
 - Water and Nutrients
 - Fonterra - Milk Price / Land Price
 - Economic analysis - includes price of energy
 - Labour - Environmental management
 - International market
 - Politics
 - China / Chile
 - Regulations - Impact
 - Finance - Next generation - Corporate
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Group No 4

- Growth
- Profitability
- Water availability
- Exchange rate
- Energy
- Demand for product vs demand for other products
- Profitability of competing land uses
- Environmental sustainability
- The labour market
- Climate change
- Urban expansion
- Share price

- Compliance cost
 - Local Government policy
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Group No 5

- Water
 - Labour
 - Profitability
 - Market - commodity / niche
 - Competing land uses - within agriculture / local body / legislation / urban
 - Energy Costs
 - Technology advances
 - Bio-security
 - Raised allowable level for DDT / DDE
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Group No 6

- Water- Quantity and sustainable Quality
 - Will lead to availability
 - Skilled people
 - Economic return
 - Regulation
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What is needed to ensure the sustainability of existing dairying in Canterbury?

Group No 1

- Recognition and implementation of best practice and technological advances.
 - Processes of uptake of best practices.
 - Significant water management infrastructure
 - national approach
 - utilisation of water storage
 - recognition of value of water
 - value of waterways / riparian rights
 - understanding of weather.
 - Raising of bar - on average environment management better.
 - Factual data on water availability / deterioration and impacts.
 - Impacts of farm systems - linked with pub.
 - Understanding of inter-relationships - water quality / quantity approached on a catchment basis.
 - Improved public understanding of value of dairying and water resources.
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Group No 2

- Profitable, social, environmental.
 - New cheaper feed sources.
 - Uptake of new technology - Inhibitors, soil moisture, NO₃ leakage.
 - Water harvesting increased WUE.
 - Maintaining soil quality.
 - H₂O availability – are current levels of water sustainable.
 - Continuing supply of labour.
 - Market for production - (international – Food miles).
 - Education of non-performers - (non compliant suppliers).
 - Value added products.
 - Societal education.
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Group No 3

- Good Science - Nitrogen / leaching Nutrient budget - first step.
- Robust local science - Pick on the most important
- People working together - common goals - Visible, environment, Timelines are necessary.
- Farming has to be profitable.
- Capacity - to extend information.
- Buy in – community buy in.
- Educate top 25% - drag 50% - 4x2 to the last 25%!

Group No 4

- Quadruple bottom line - \$ - Social - Cultural - Environment
- Education - of quadruple bottom line, of current status, of land use practices.
- Science to quantify the status of the “above” in financial terms. THEN what do you do with that?
- Improve land use practices - a lot are not clear on what are best land use practices.
- Extension and support.
- Peer pressure to support appropriate change.

Group No 5

- Farmer awareness.
- Community awareness.
- Good science to base practices on.
- Green house gas neutrality.
- Better technology.
- Water quality - maintain.
- Effluent treatment - biogas production for energy - manure use on land.
- Graziers to be trained / aware as well as dairy farmer - winter grazing, large impacts.
- Cow longevity ↑ - 7 – 8 lactations improve efficiency.
- Improvements in efficiency of system.
- Water management and trading for efficiency.

Group No 6

- Good delivery systems for knowledge.
- Uptake of BMP.
- Honesty of information → reporting → reality vs perception.
 - As it reflects to farmers and non-farmers.
- Agreement on what is definition / limits of sustainability – profit / production / social
 - and regionality, environment
- More science on the status of environment, what is impact and what is needed.
- Uptake of existing and new knowledge.

What information are we lacking?

Group No 1

- Balanced media reports.
 - Long term measurements - water, nutrients.
 - Transfer of known information to all.
 - Definitive knowledge of our groundwater and aquifer sources.
 - VALUATION MODEL 4 WATER.
 - Water quantity / quality / availability / value / and interaction between town and country.
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Group No 2

- Detailed knowledge of aquifers and their recharge – how they behave – rainfall, MT recharge, snow melt, lowland H_2O - Don't know, rates.
- Long term effects of N on ground H_2O , dry vs wet winters, pulse effects – lag effects.
- Modelling to change practice on farm w/time - Managing w/I seasonal changes.
- Accurate long term foreign exchange predictions and interest rates.
- Surface Activity → Ground H_2O links.

Dairying will grow slightly if overcome issues of:

- Knowledge of the impacts.
- Barriers to entry and milk price / markets.
- Certainty of H_2O supply.

Group No 3

- Water Allocation / resource - Best use on farm.
- Economic / allocation - hydro.
- Energy information lacking.
- Quantifying nutrient loss – N&P → finding mitigating tools.
- Wintering systems - improved → impact environment / welfare / \$
- Economic information = \$ - fitting Social Science.
- LUDF → Demonstration of Farm Systems.

Group No 4

- Practical science about what is sustainable.
- Economic benefits of compliance e.g. Overseer results.
- Knowing who non-compliance farmers are to influence or support.
- Evidence to show that the best production managers are also the best environmental managers.
- What is best practice for a particular situation?
- Improve land management practice BUT from whose view?
- Always move forward - guidelines - evolving.

Group No 5

- What has the impact been over last 10 years to project next 10 years on waterways?
- Impact of lifestyle farms.
- Impact of intensification.
- Cause to costs of production - ↑
- Land based industry working together - dairy, sheep, beef, crops etc.
- Science to be converted into dollars and cents plus sense.
- Science seems recent in Canterbury - lack of historical.
- Research on a regional scale to determine what can actually be achieved – land use, planning, water resource.
- Water harvesting on the West Coast transferred to the East Coast.
- Lack of leadership – fragmented.
- Fonterra have been very slow while getting own house in order.

Group No 6

- Simple tools to measure the effects we are having at a farm level.
- Measure, monitor, manage.
- Where are we going to get people, incl. On farm, near farm, education
- How to sustainably manage support land.
- Definite regional issues.
- Have we thought about maximising Canterbury resources and conditions.
- Information sharing between farmers.