

Dairying Research in Canterbury

Derek Wilson

Sustainable Dairying in Canterbury
Lincoln University
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A Few Years Ago.....

- Little dairying research in Canterbury
- Most production research was focussed on pasture systems, mainly in the North Island
- Much technology was readily transferable from North to South
- But not all.....

Dairying Expansion in Canterbury Created the Need for New Technology

- **Feed supply and utilisation**
 - Less pasture growth
 - Drier in the summer
 - Colder in the winter
- **Farming systems**
 - More use of dairy support land
- **Water requirements**
 - Drier climate
 - More need for irrigation
- **Minimising environmental impacts**
 - Sustaining the soil
 - Keeping waterways clean

Feed Supply and Utilisation

- **Producing more feed:**
 - Forage crops to supplement pasture
 - Higher productivity and complementary timing
- **Feeding cows during winter:**
 - Grazing management
 - Feed conservation, cut and carry systems
- **Utilising supplementary feeds efficiently:**
 - Grazing management
 - Feed conservation, cut and carry systems
- **New projects on brassicas, cereals, maize**
 - MAF Sustainable Farming Fund, Dairy InSight, Meat & Wool NZ, PGG Wrightson
 - Crop & Food Research, Lincoln University, AgResearch

Farming Systems

- **Fitting supplementary feeds into pastoral systems:**
 - Are they complementary?
 - Are they economic?
- **Dairy support land:**
 - Mainly for winter feeding
 - Is it economic?
 - Is it sustainable?
- **Sustainable productive support land for SI dairying:**
 - MAF Sustainable Farming Fund, SIDE, Dairy InSight
 - SIDDC, Lincoln University, Crop & Food Research
- **Culverden FeedMAX:**
 - MAF Sustainable Farming Fund
 - Culverden dairy farmers
 - Crop & Food Research

Water Requirements

- **Water:**
 - Using water efficiently
 - Maximum yield per mm of water used
- **Irrigation scheduling for pasture:**
 - Minimise over-watering and risk of losses
 - New decision support system
 - Dairy InSight
 - AgResearch, Crop & Food Research

Minimising Environmental Impacts

- **Changing land use:**
 - Land Use Change and Intensification (LUCI)
 - Major long-term, multi-Institute research programme
 - Main focus on minimising N losses
- **Sustaining the soil:**
 - Sustainable Land Use Research Initiative (SLURI)
 - Major long-term, multi-Institute research programme
 - Main focus on maintaining soil quality
- **Minimising groundwater impacts:**
 - Integrated Research for Aquifer Protection (IRAP)
 - Major long-term, multi-programme collaboration
 - Main focus on protecting groundwater quality

Summary

- Dairying research is expanding to meet the unique needs of the industry in Canterbury
- Focus is on production and environmental issues particular to the region
- Increasing support from funding agencies
- Excellent collaboration among research organisations, mainly through SIDDC