

What Do South Island Dairy Farmers Want Out of the New Lincoln University Dairy Farm?

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Lincoln is relocating its current dairy farm from the existing 108 ha property on Springs Road to a property next to the University's cropping farm. The new location will be much more representative of South Island dairy farms, with a range of lighter soils than the present farm.

The total area is 184 ha and of this 169 ha will be irrigated. The farm consists of two main blocks to the north and south of the Ellesmere Junction Road which are linked by an underpass. Each block has a state-of-the-art centre pivot irrigator installed.

The farm will milk 510 cows in the first season, 600 cows in year two, and 650 from year three.

Dairy farm objectives

The key objectives for the dairy farm are:

- to demonstrate world-best-practice dairy farming systems
- to operate as a joint research centre with Dexcel Ltd, and other key organisations, where the practical application of new technologies and on-farm production systems can be tested and developed
- to use the latest environmental monitoring systems to achieve best management practices under irrigation, which ensure that the 4% productivity gain is achieved in a sustainable way, and that the wider environment is protected
- to assist Lincoln University to attract top quality domestic and international students into the New Zealand dairy industry
- to provide a commercial return for the University.

Survey

A survey was conducted during the SIDE 2001 event in order to assist Lincoln University with the development of its new dairy farm. Survey forms were distributed to each SIDE participant who was asked to rank a list of priorities by numbering them from 1 to 11 (1 = most important). Over 90 responses were received. The results of the survey identified the following priority ranking:

1. New insights on the integration of a range of supplementary feeds into a pasture system
2. Pasture management (Quality and Quantity)
3. Farm systems (Inputs/outputs)
4. Practical tips on environmentally sustainable farm practices
5. Animal management
6. Demonstrate principles for irrigation management
7. Timely and relevant benchmarking information for my farm
8. Soil and fertiliser management
9. Effective staff management
10. Robust financial monitoring and reporting
11. Milk harvesting, quality and composition

Workshop summary

The new farm is 165 ha and will commence with 530 cows calving from early August. All irrigated; two centre pivots, with K-line and long lateral systems over smaller sections. Several soil types ranging from light, free draining to a small area of heavy pugging prone. Split by two main roads makes the farm a very visible “Window on Dairying.” It is more applicable to South Island dairy development than the old Lincoln dairy farm which is on heavier soils, with a difficult/older irrigation system. This old farm will continue for at least this next season, but has subdivision potential!

Key objectives for the farm are to

1. Demonstrate world best practice dairy farm systems.
2. Operate as a joint research centre with Dexcel Ltd where the practical application of new technologies and on farm forage production systems can be tested and developed.
3. Use the latest environmental monitoring systems to achieve best management practices under irrigation that ensure the 4% productivity gain in a sustainable way.
4. Attract top quality domestic and international students into the New Zealand dairy industry
5. Provide a commercial return for the University.

Management and operation of the new farm will

- Be by the University, in collaboration with Dexcel and leading South Island dairy farmers.
- Include a business planning group responsible for policy and planning.

Discussion points from the workshop

- Canterbury interest in information on type of watering systems including set up, operation and maintenance costs.
- Clarification on the how the commercial drive could conflict with systems type research that tries to push the farm ahead of farmers. Comment that objective 4 is to get graduates familiar with how present farm systems operate - this would be very useful for the industry even if the farm physical performance only matched farmers. Demonstration of innovative farmer designed will be a goal of the farm.

- Environmental lobby - what is planned to overcome the “barren waste” image at present? Shelter plans outlined, soil lysimeters and wells measuring ground water.
- Farmer interest in on-farm cropping systems to maximise DM/ha/yr grown. Ensure it is relative for areas like West Coast. Conference Farmer survey ranked “...integration of a range of supplementary feeds...” as the highest priority for research. Perhaps drought induced?
- Need for immediate communication to the farming community as to what is happening. Plan was extensive year 1 report at SIDE 2002.

The distribution and ranking of the results are shown in the graph below.

