

# Focus Day

LINCOLN UNIVERSITY DAIRY FARM

## Information Handout

6<sup>th</sup> July 2006

For further information visit: [www.siddc.org.nz](http://www.siddc.org.nz)

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**S I D D C – Partners networking to advance South Island Dairying**



Lincoln  
University  
*To Whare Wānaka o Aoraki*



**Lincoln University Dairy Farm**

**Result for 2005/06**

2004/05 season

|  |   | RESULT           |                            |                                   | ORIGINAL BUDGET                                    |                |                                   | 2004/05 season |
|--|---|------------------|----------------------------|-----------------------------------|--|----------------|-----------------------------------|----------------|
| 651 cows                                       |   |                  | kgMS                       |                                   |  |                |                                   |                |
| year ending 30 June 2006                       |   |                  | 286,115                    | 282,625                           | 3,490  | 1.2%           | 277,634                           |                |
|  |   |                  | 4.04                       | \$3.85                            |  |                | \$4.56                            |                |
|  |   | \$               | c/kgMS                     | \$                                | Variance   | % change       | \$                                |                |
| <b>Income</b>                                  |   |                  |                            |                                   |  |                |                                   |                |
| Milk Income                                    | 92%   | 1,154,760        | 4.036                      | 1,088,106                         | 66,654   | 6.1%           | 1,266,011                         |                |
| Stock Sales                                    | 7%  | 92,433           | 0.32                       | 64,837                            | 27,596   | 42.6%          | 91,345                            |                |
| Other Income                                   |   | 8,840            | 0.03                       | 8840                              | -  | 0.0%           |                                   |                |
| <b>Total Income</b>                            |   | <b>1,256,033</b> | <b>4.39</b>                | <b>1,161,783</b>                  | <b>94,250</b>                                      | <b>8.1%</b>    | <b>1,357,356</b>                  |                |
| <b>Stock Purchases</b>                         |   | <b>27,050</b>    |                            | <b>42,750</b>                     | <b>-15,700</b>                                     | <b>-36.7%</b>  | <b>61,550</b>                     |                |
| <b>Income Less Stock Purchases</b>             |   | <b>1,228,983</b> |                            | <b>1,119,033</b>                  | <b>109,950</b>                                     | <b>9.8%</b>    | <b>1,295,806</b>                  |                |
| <b>Expenses</b>                                |   |                  |                            |                                   |  |                |                                   |                |
|  |   | \$               | \$/cow                     | \$/kgMS                           | \$   | % change       | \$                                |                |
| Administration                                 |   | 31,095           | 48                         | 0.11                              | 29,950   | 1,145          | 4%                                |                |
| Animal Health                                  |   | 37,230           | 57                         | 0.13                              | 44,639   | -7,409         | -17%                              |                |
| Breeding Expenses                              |   | 36,347           | 56                         | 0.13                              | 41,660   | -5,313         | -13%                              |                |
| Electricity                                    |   | 15,544           | 24                         | 0.05                              | 9,096  | 6,448          | 71%                               |                |
| Employment                                     |   | 201,971          | 310                        | 0.71                              | 194,813  | 7,158          | 4%                                |                |
| Feed & Grazing, & Runoff                       |   | 225,162          | 346                        | 0.79                              | 190,301  | 34,861         | 18%                               |                |
| Fertiliser & Lime                              |   | 71,173           | 109                        | 0.25                              | 78,325   | -7,152         | -9%                               |                |
| Freight & Cartage                              |   | 4,972            | 8                          | 0.02                              | 6,646  | -1,674         | -25%                              |                |
| Irrigation Costs                               |   | 54,119           | 83                         | 0.19                              | 50,813   | 3,306          | 7%                                |                |
| Rates & Insurance                              |   | 13,564           | 21                         | 0.05                              | 11,414   | 2,151          | 19%                               |                |
| Regrassing                                     |   | 5,823            | 9                          | 0.02                              | 9,102  | -3,279         | -36%                              |                |
| Maintenance and Repairs                        |   | 35,115           | 54                         | 0.12                              | 42,500   | -7,385         | -17%                              |                |
| Runoff Net Cost (reported in "Feed" above)     |   | 17,811           | 27                         | 0.06                              | 18,922   | -1,111         | -6%                               |                |
| Shed Expenses                                  |   | 10,961           | 17                         | 0.04                              | 10,500   | 461            | 4%                                |                |
| Vehicle Expenses                               |   | 22,356           | 34                         | 0.08                              | 21,700   | 656            | 3%                                |                |
| Weed & Pest                                    |   | 68               | 0                          | 0.00                              | 1,938  | -1,870         | -96%                              |                |
| <b>Farm Working Expenses</b>                   |   | <b>765,499</b>   | <b>1096</b>                | <b>2.68</b>                       | <b>743,896</b>                                     | <b>21,603</b>  | <b>3%</b>                         |                |
|  | \$ per kg MS  | <b>2.68</b>      |                            |                                   | <b>2.63</b>  |                | <b>2.64</b>                       |                |
| Loan Interest                                  |   | -                |                            |                                   |  |                |                                   |                |
| Overdraft int                                  |   | -                |                            |                                   |  |                |                                   |                |
| Depreciation est                               |   | 91,416           |                            |                                   | 116,531  |                |                                   |                |
| <b>Income Result before tax &amp; Capital</b>  |   | <b>372,068</b>   | (ie = EBIT)                |                                   | <b>258,606</b>                                     |                | <b>446964</b>                     |                |
| <b>Capital Changes</b>                         |   |                  |                            |                                   |  |                |                                   |                |
| Shares paid in July following each season      |   | 50,399           |                            |                                   | 50,399   |                |                                   |                |
| Capital Improvements & Purchases               |   | 106,530          |                            |                                   | 36,346   |                |                                   |                |
| Principal                                      |   | -                |                            |                                   |  |                |                                   |                |
| Vehicles                                       |   | 23,000           |                            |                                   | 10,000   |                |                                   |                |
| <b>Total Capital changes</b>                   |   | <b>179,929</b>   |                            |                                   | <b>96,745</b>                                      |                |                                   |                |
| <b>End of year Result including dep.</b>       |   | <b>192,139</b>   |                            |                                   | <b>161,861</b>                                     |                |                                   |                |
|  |   |                  |                            |                                   | <i>after capital &amp; depreciation added back</i> |                |                                   |                |
| <b>End of year result (Cash)</b>               |   | <b>463,484</b>   |                            |                                   | <b>375,137</b>                                     |                |                                   |                |
| <b>Total Budgeted MS</b>                       |   | <b>286,115</b>   |                            |                                   | <b>282,625</b>                                     |                | <b>277,634</b>                    |                |
| <b>Capital (at start of period, June 2005)</b> |   |                  |                            |                                   |  |                |                                   |                |
|  |   |                  | change (\$)                | % change                          | % of total gain                                    |                | Previous season's value (2004/05) |                |
| Land   |   | 4,049,613        | 90,844                     | 2.3%                              | 24%  |                | 3,958,769                         |                |
|  | \$33,000/ha for 1250/ha plus additional shares (75759 kgMS) for production over 1250/ha |                  |                            |                                   |  |                |                                   |                |
| Fonterra Shares                                | \$  | 6.34             | 1,760,200                  | 239,837                           | 15.8%  | 64%            | 1,520,363                         |                |
| Cows   |   | 656,399          | 10,956                     | 1.7%                              | 3%   |                | 645,443                           |                |
| R2   |   | 151,800          | 10,050                     | 7.1%                              | 3%   |                | 141,750                           |                |
| R1   |   | 129,000          | 20,250                     | 18.6%                             | 5%   |                | 108,750                           |                |
| Plant/Mach                                     |   | 125,000          | -                          | 0.0%                              | 0%   |                | 125,000                           |                |
| Total debt inc. Current A/c on June 1          |   | -                |                            |                                   |  |                |                                   |                |
| <b>Total Capital</b>                           |   | <b>6,872,011</b> | <b>371,936</b>             | <b>5.7%</b>                       |  |                | <b>6,500,074</b>                  |                |
| <i>change in capital for the 12 months</i>     |   | <b>371,936</b>   | <i>increase in capital</i> |                                   |  |                |                                   |                |
|  |   | <b>2005/06</b>   |                            | <i>2005/06 at various payouts</i> |  |                | <b>2004/05</b>                    |                |
| <b>Analysis</b>                                |   | <b>4.04</b>      |                            | <b>\$4.00</b>                     | <b>\$4.25</b>                                      | <b>\$4.50</b>  | <b>Last Season</b>                |                |
| Return on Assets B4 Tax & Int                  |   | <b>5.4%</b>      |                            | <b>5.3%</b>                       | <b>6.3%</b>  | <b>7.3%</b>    | <b>6.9%</b>                       |                |
| Expenses%GFI                                   |   | <b>62%</b>       |                            | <b>63%</b>                        | <b>59%</b>   | <b>56%</b>     | <b>58%</b>                        |                |
| EBIT/ha  | \$  | <b>2,304</b>     |                            | <b>\$2,240</b>                    | <b>\$2,683</b>                                     | <b>\$3,126</b> | <b>\$ 2,768</b>                   |                |
| cost per kg MS                                 |   | <b>2.68</b>      |                            | <b>2.68</b>                       | <b>\$2.68</b>                                      | <b>2.68</b>    | <b>\$2.64</b>                     |                |

Expense Summary - Lincoln University Dairy Farm 2005/06 season

| 2005/06 season 12 months ACTUALS |     | all figures are GST exclusive |               |               |      | YOUR FIGURES    |                | YOUR FIGURES |        |        |
|----------------------------------|-----|-------------------------------|---------------|---------------|------|-----------------|----------------|--------------|--------|--------|
| 286115 kgMS                      |     | YTD                           | Annual        | Variance      | %    | \$/cow          | c/kgMS         | Total \$     | \$/cow | c/kgMS |
| Expenditure                      | 651 |                               |               |               |      |                 |                |              |        |        |
| Animal health                    |     | 2584                          | 2907          | 323           | 89%  | 3.97            | 1              |              |        |        |
|                                  |     | 1092                          | 2000          | 908           | 55%  | 1.68            | 0              |              |        |        |
|                                  |     | 3613                          | 4500          | 887           | 60%  | 5.55            | 1              |              |        |        |
|                                  |     | 6000                          | 8048          | 2048          | 75%  | 9.22            | 2              |              |        |        |
|                                  |     | 7091                          | 8910          | 1819          | 80%  | 10.89           | 2              |              |        |        |
|                                  |     | 8853                          | 7106          | -1747         | 125% | 13.60           | 3              |              |        |        |
|                                  |     | 3720                          | 5168          | 1448          | 72%  | 5.71            | 1              |              |        |        |
|                                  |     | 4276                          | 6000          | 1724          | 71%  | 6.57            | 1              |              |        |        |
|                                  |     | 37230                         | 44639         | 7409          | 83%  | \$ 57.19        | \$ 0.13        |              |        |        |
| Breeding expenses                |     | 3339                          | 5168          | 1829          | 65%  | 5.13            | 1              |              |        |        |
|                                  |     | 21499                         | 24282         | 2783          | 89%  | 33.03           | 8              |              |        |        |
|                                  |     | 3749                          | 2971          | -778          | 126% | 5.76            | 1              |              |        |        |
|                                  |     | 7760                          | 9239          | 1479          | 84%  | 11.92           | 3              |              |        |        |
|                                  |     | 36347                         | 41660         | 5313          | 87%  | \$ 55.83        | \$ 0.13        |              |        |        |
| Electricity                      |     |                               |               |               |      |                 |                |              |        |        |
|                                  |     | 15544                         | 9096          | -6448         | 171% | 23.88           | 5              |              |        |        |
|                                  |     | 44955                         | 40800         | -4155         | 110% | 69.06           | 16             |              |        |        |
|                                  |     | 60499                         | 49896         | -10603        | 121% | \$ 92.93        | \$ 0.21        |              |        |        |
| Shed expenses                    |     | 2386                          | 4250          | 1864          | 56%  | 3.67            | 1              |              |        |        |
|                                  |     | 5293                          | 3750          | -1543         | 141% | 8.13            | 2              |              |        |        |
|                                  |     | 3282                          | 2500          | -782          | 131% | 5.04            | 1              |              |        |        |
|                                  |     | 10961                         | 10500         | -461          | 104% | \$ 16.84        | \$ 0.04        |              |        |        |
| Feed & Grazing                   |     | 6055                          | 29760         | 23705         | 20%  | 9.30            | 2              |              |        |        |
|                                  |     | 48275                         | 14535         | -33740        | 332% | 74.16           | 17             |              |        |        |
|                                  |     | 1450                          | 2326          | 876           | 62%  | 2.23            | 1              |              |        |        |
|                                  |     | 3298                          | 3784          | 486           | 87%  | 5.07            | 1              |              |        |        |
|                                  |     | 71609                         | 53820         | -17789        | 133% | 110.00          | 25             |              |        |        |
|                                  |     | 75664                         | 67154         | -8510         | 113% | 116.23          | 26             |              |        |        |
|                                  |     | 1000                          |               | -1000         |      |                 |                |              |        |        |
|                                  |     | 17811                         | 18922         |               |      |                 | 6              |              |        |        |
|                                  |     | 225162                        | 190301        | -34861        | 118% | \$ 345.87       | \$ 0.79        |              |        |        |
| Fertiliser                       |     | 16396                         | 15653         | -743          | 105% | 25.19           | 6              |              |        |        |
|                                  |     | 32667                         | 38955         | 6288          | 84%  | 50.18           | 11             |              |        |        |
|                                  |     | 10775                         | 15262         | 4487          |      |                 |                |              |        |        |
|                                  |     | 11334                         | 8456          | -2878         |      |                 | 4              |              |        |        |
|                                  |     | 71173                         | 78326         | 7153          | 91%  | \$ 109.33       | \$ 0.25        |              |        |        |
| Freight                          |     | 4162                          | 6000          | 1839          | 69%  | 6.39            | 1              |              |        |        |
|                                  |     | 810                           | 646           | -164          | 125% | 1.24            | 0              |              |        |        |
|                                  |     | 4972                          | 6646          | 1674          | 75%  | \$ 7.64         | \$ 0.02        |              |        |        |
| Regrassing                       |     | 2550                          | 3435          | 885           |      | 3.92            | 1              |              |        |        |
|                                  |     | 2416                          | 4063          | 1647          | 59%  | 3.71            | 1              |              |        |        |
|                                  |     | 856                           | 1604          | 748           |      | 1.32            | 0              |              |        |        |
|                                  |     | 5823                          | 9102          | 3279          | 64%  | \$ 8.94         | \$ 0.02        |              |        |        |
| Maintenance and Repairs          |     | 2626                          | 4500          | 1874          | 58%  | 4.03            | 1              |              |        |        |
|                                  |     | 773                           | 1000          | 227           | 77%  | 1.19            | 0              |              |        |        |
|                                  |     | 9164                          | 10013         | 849           | 92%  | 14.08           | 3              |              |        |        |
|                                  |     | 1308                          | 1000          | -308          | 131% | 2.01            | 0              |              |        |        |
|                                  |     | 2338                          | 500           | -1838         | 468% | 3.59            | 1              |              |        |        |
|                                  |     | 4449                          | 9000          | 4551          | 49%  | 6.83            | 2              |              |        |        |
|                                  |     | 253                           | 2000          | 1747          | 13%  | 0.39            | 0              |              |        |        |
|                                  |     | 6245                          | 8000          | 1755          | 78%  | 9.59            | 2              |              |        |        |
|                                  |     | 4485                          | 2500          | -1985         | 179% | 6.89            | 2              |              |        |        |
|                                  |     | 8748                          | 2000          | -6748         | 437% | 13.44           | 3              |              |        |        |
|                                  |     | 3891                          | 7000          | 3109          | 56%  | 5.98            | 1              |              |        |        |
|                                  |     | 44279                         | 52513         | 8234          | 84%  | \$ 68.02        | \$ 0.15        |              |        |        |
| Vehicle expenditure              |     | 9020                          | 6000          | -3020         | 150% | 13.86           | 3              |              |        |        |
|                                  |     | 2647                          | 4000          | 1353          | 66%  | 4.07            | 1              |              |        |        |
|                                  |     | 633                           | 2500          | 1867          | 25%  | 0.97            | 0              |              |        |        |
|                                  |     | 1015                          | 400           | -615          | 254% | 1.56            | 0              |              |        |        |
|                                  |     | 177                           | 300           | 123           | 59%  | 0.27            | 0              |              |        |        |
|                                  |     | 4337                          | 4000          | -337          | 108% | 6.66            | 2              |              |        |        |
|                                  |     | 4527                          | 4500          | -27           | 101% | 6.95            | 2              |              |        |        |
|                                  |     | 22356                         | 21700         | -656          | 103% | \$ 34.34        | \$ 0.08        |              |        |        |
| Runoff Costs                     |     | 6111                          | 5824          | -287          |      |                 |                |              |        |        |
|                                  |     |                               | 898           | 898           |      |                 |                |              |        |        |
|                                  |     |                               | 500           | 500           |      |                 |                |              |        |        |
|                                  |     | 11700                         | 11700         |               |      |                 |                |              |        |        |
|                                  |     | 17811                         | 18922         | 1111          | 94%  | \$ 27.36        | \$ 0.06        |              |        |        |
| Administration                   |     | 1300                          | 2500          | 1200          | 52%  | 2.00            | 0              |              |        |        |
|                                  |     | 698                           | 850           | 152           | 82%  | 1.07            | 0              |              |        |        |
|                                  |     | 4454                          | 3500          | -954          | 127% | 6.84            | 2              |              |        |        |
|                                  |     |                               | 1000          | 1000          |      |                 |                |              |        |        |
|                                  |     | 876                           | 500           | -376          | 175% | 1.35            | 0              |              |        |        |
|                                  |     | 138                           | 1000          | 862           | 14%  | 0.21            | 0              |              |        |        |
|                                  |     | 22805                         | 19100         | -3705         | 119% | 35.03           | 8              |              |        |        |
|                                  |     | 824                           | 1500          | 676           | 55%  | 1.27            | 0              |              |        |        |
|                                  |     | 31095                         | 29950         | -1145         | 104% | \$ 47.76        | \$ 0.11        |              |        |        |
| Rates and Insurance              |     | 6047                          | 3500          | -2547         | 173% | 9.29            | 2              |              |        |        |
|                                  |     | 7517                          | 7914          | 397           | 95%  | 11.55           | 3              |              |        |        |
|                                  |     | 13564                         | 11414         | -2150         | 119% | \$ 20.84        | \$ 0.05        |              |        |        |
| Employment costs                 |     | 144837                        | 153167        | 8330          | 95%  | 222.48          | 51             |              |        |        |
|                                  |     | 4000                          | 0             | -4000         |      | 6.14            | 1              |              |        |        |
|                                  |     | 25447                         | 12000         | -13447        | 212% | 39.09           | 9              |              |        |        |
|                                  |     | 16094                         | 18517         | 2423          | 87%  | 24.72           | 6              |              |        |        |
|                                  |     | 1250                          | 500           | -750          | 250% | 1.92            | 0              |              |        |        |
|                                  |     | 4714                          | 5000          | 286           | 94%  | 7.24            | 2              |              |        |        |
|                                  |     | 5629                          | 5629          |               | 100% | 8.65            | 2              |              |        |        |
|                                  |     | 201971                        | 194813        | -7158         | 104% | \$ 310.25       | \$ 0.71        |              |        |        |
| Weed & Pest                      |     | 68                            | 1938          | 1870          | 4%   | \$ 0.10         | \$ 0.00        |              |        |        |
| <b>TOTALS</b>                    |     | <b>765499</b>                 | <b>743398</b> | <b>-22101</b> |      | <b>\$ 1,176</b> | <b>\$ 2.68</b> |              |        |        |



**Lincoln University Dairy Farm**

**Proposed Budget for 2006/07**

|   | \$                  | 4.05             | 298,775           | 286,115 kg        | 12,660    |                         |                        |
|---|---------------------|------------------|-------------------|-------------------|-----------|-------------------------|------------------------|
| year ending 30 June 2007                      | 2007                |                  | 2006/07           | 2005/06           |           |                         |                        |
|   | \$                  |                  | c/kgMS            | c/kgMS            |           |                         |                        |
| <b>Income</b>                                 |                     |                  |                   |                   |           |                         |                        |
| Milk Income                                   | 95%                 | 1,210,039        | 4.05              | 4.036             | 1,154,760 |                         |                        |
| Stock Sales                                   | 5%                  | 66,149           | 0.22              | 0.32              | 92,433    |                         |                        |
| Other Income                                  |                     | 8,840            | 0.03              | 0.03              | 8840      |                         |                        |
| <b>Total Income</b>                           |                     | <b>1,276,187</b> | <b>4.30</b>       | <b>4.39</b>       | 1,256,033 |                         |                        |
| <b>Stock Purchases</b>                        |                     | <b>11,250</b>    |                   |                   | 27,050    |                         |                        |
| <b>Income Less Stock Purchases</b>            |                     | <b>1,264,937</b> |                   |                   | 1,228,983 |                         |                        |
| <b>Expenses</b>                               |                     |                  |                   |                   |           |                         |                        |
|   | \$                  | \$/cow           | 2006/07<br>c/kgMS | 2005/06<br>c/kgMS | \$        | \$ change in<br>expense | % change in<br>expense |
| Administration                                | 27,700              | 41               | 0.09              | 0.11              | 31,095    | - 3,395                 | -11%                   |
| Animal Health                                 | 39,168              | 58               | 0.13              | 0.13              | 37,230    | 1,938                   | 5%                     |
| Breeding Expenses                             | 39,698              | 58               | 0.13              | 0.13              | 36,347    | 3,351                   | 9%                     |
| Electricity                                   | 13,464              | 20               | 0.05              | 0.05              | 15,544    | - 2,080                 | -13%                   |
| Employment                                    | 197,736             | 291              | 0.66              | 0.71              | 201,971   | - 4,235                 | -2%                    |
| Feed & Grazing, & Runoff                      | 237,672             | 350              | 0.80              | 0.79              | 225,162   | 12,510                  | 6%                     |
| Fertiliser & Lime                             | 71,214              | 105              | 0.24              | 0.25              | 71,173    | 41                      | 0%                     |
| Freight & Cartage                             | 6,500               | 10               | 0.02              | 0.02              | 4,972     | 1,528                   | 31%                    |
| Irrigation Costs                              | 64,013              | 94               | 0.21              | 0.19              | 54,119    | 9,894                   | 18%                    |
| Rates & Insurance                             | 13,914              | 20               | 0.05              | 0.05              | 13,564    | 350                     | 3%                     |
| Regrassing                                    | 7,258               | 11               | 0.02              | 0.02              | 5,823     | 1,435                   | 25%                    |
| Maintenance and Repairs                       | 43,550              | 64               | 0.15              | 0.12              | 35,115    | 8,435                   | 24%                    |
| Runoff Net Cost (reported in "Feed" above)    | 18,265              | 27               | 0.06              | 0.06              | 17,811    | 454                     | 3%                     |
| Shed Expenses                                 | 11,100              | 16               | 0.04              | 0.04              | 10,961    | 139                     | 1%                     |
| Vehicle Expenses                              | 22,200              | 33               | 0.07              | 0.08              | 22,356    | - 156                   | -1%                    |
| Weed & Pest                                   | 1,938               | 3                | 0.01              | 0.00              | 68        | 1,870                   |                        |
|   |                     |                  | -                 |                   |           | -                       |                        |
| <b>Farm Working Expenses</b>                  | <b>797,126</b>      | 1047             | <b>2.67</b>       | <b>2.68</b>       | 765,499   | 31,627                  | 4.1%                   |
|   | <b>\$ per kg MS</b> | <b>2.67</b>      |                   |                   |           |                         |                        |
| Loan Interest                                 | -                   |                  |                   |                   |           |                         |                        |
| Overdraft int                                 | -                   |                  |                   |                   |           |                         |                        |
| Depreciation est                              | 94,666              |                  |                   |                   | 91,416    |                         |                        |
| <b>Income Result before tax &amp; Capital</b> | <b>373,146</b>      | (ie = EBIT)      |                   |                   | 372,068   |                         |                        |
| <b>Capital Changes</b>                        |                     |                  |                   |                   |           |                         |                        |
| Shares paid in July following each season     | 54,448              |                  |                   |                   | 50,399    |                         |                        |
| Capital Improvements & Purchases              | 125,294             |                  |                   |                   | 106,530   |                         |                        |
| Principal                                     | -                   |                  |                   |                   |           |                         |                        |
| Vehicles                                      | -                   |                  |                   |                   | 23,000    |                         |                        |
| <b>Total Capital changes</b>                  | <b>179,742</b>      |                  |                   |                   | 179,929   |                         |                        |
| <b>End of year Result including dep.</b>      | <b>193,404</b>      |                  |                   |                   | 192,139   |                         |                        |
|   |                     |                  |                   |                   |           |                         |                        |
|   |                     |                  |                   |                   |           |                         |                        |
| <b>End of year result (Cash)</b>              | <b>467,812</b>      |                  |                   |                   | 463,484   |                         |                        |
|   |                     |                  |                   |                   |           |                         |                        |
|   |                     |                  |                   |                   |           |                         |                        |
| <b>Total MS</b>                               | 298,775             |                  |                   |                   | 286,115   |                         | Last season<br>286,115 |
| <b>S quo \$/kgms</b>                          | \$ 4.05             |                  |                   |                   | 4.036     |                         | \$4.04                 |


| Capital (at start of period, June 2006)   | change (\$)      | % change                             | % of total gain | Previous season's value |                    |           |
|---|------------------|--------------------------------------|-----------------|-------------------------|--------------------|-----------|
| Land  | 4,134,400        | 84,788                               | 2.1%            | 26%                     | 4,049,613          |           |
| \$34,000/ha for 1250/ha plus additional shares (84240 kgMS) for production over 1250/ha |                  |                                      |                 |                         |                    |           |
| Fonterra Shares   | \$ 6.72          | 1,922,693                            | 162,493         | 9.2%                    | 51%                | 1,760,200 |
| Cows  |                  | 665,600                              | 9,201           | 1.4%                    | 3%                 | 656,399   |
| R2  |                  | 213,400                              | 61,600          | 40.6%                   | 19%                | 151,800   |
| R1  |                  | 132,000                              | 3,000           | 2.3%                    | 1%                 | 129,000   |
| Plant/Mach  |                  | 125,000                              | -               | 0.0%                    | 0%                 | 125,000   |
| Total debt Inc. Current A/c on June1  |                  | -                                    |                 |                         |                    |           |
| <b>Total Capital</b>  | <b>7,193,093</b> | <b>321,082</b>                       | <b>4.7%</b>     |                         | <b>6,872,011</b>   |           |
| change in capital for the 12 months   | <b>321,082</b>   | increase in capital                  |                 |                         | <b>2005/06</b>     |           |
|   |                  |                                      |                 |                         | <b>Last Season</b> |           |
| <b>Analysis</b>   | <b>2006/07</b>   | <b>2006/07 at a range of payouts</b> |                 |                         |                    |           |
|   | <b>4.05</b>      | <b>\$4.00</b>                        | <b>\$4.25</b>   | <b>\$4.50</b>           |                    |           |
| Return on Assets B4 Tax & Int   | <b>5.2%</b>      | 5.1%                                 | 5.9%            | 6.7%                    | 5.4%               |           |
| Expenses%GFI  | <b>63%</b>       | 65%                                  | 61%             | 57%                     | 62%                |           |
| EBIT/ha   | <b>\$ 2,311</b>  | \$2,151                              | \$2,500         | \$2,850                 | \$ 2,304           |           |
| cost per kg MS  | <b>2.67</b>      | 2.67                                 | \$2.67          | 2.67                    | \$2.68             |           |

## Lincoln University Dairy Farm [LUDF]

Focus Day July 06

Adrian van Bysterveldt, Peter Gaul,  
Peter Hancox  
(LUDF Farm Management Team members)

[www.siddc.org.nz](http://www.siddc.org.nz)




## Lincoln University Dairy Farm [LUDF]

Focus Day July 06

Adrian van Bysterveldt, Peter Gaul,  
Peter Hancox  
(LUDF Farm Management Team members)

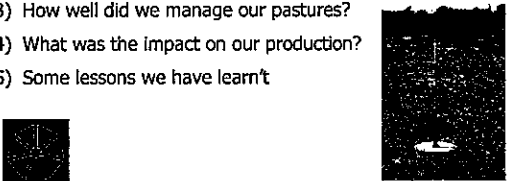
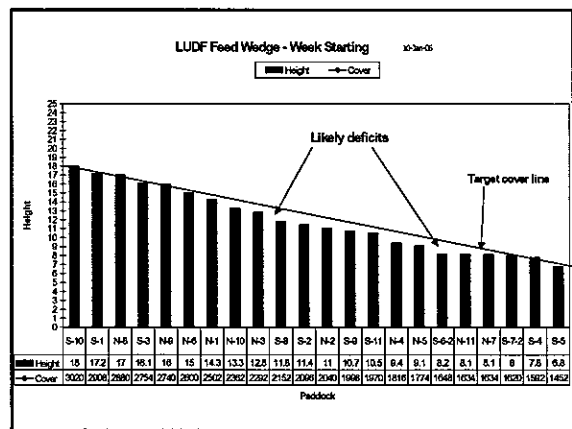
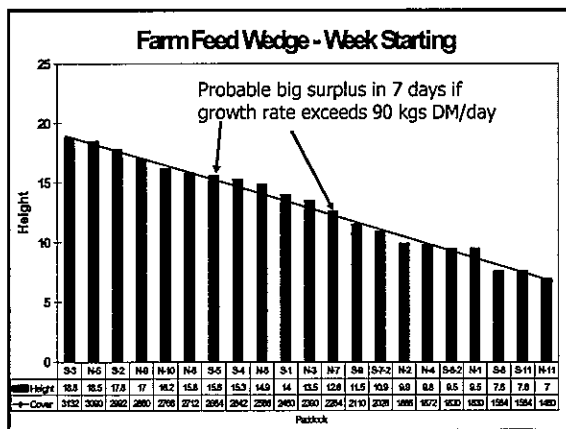
[www.siddc.org.nz](http://www.siddc.org.nz)



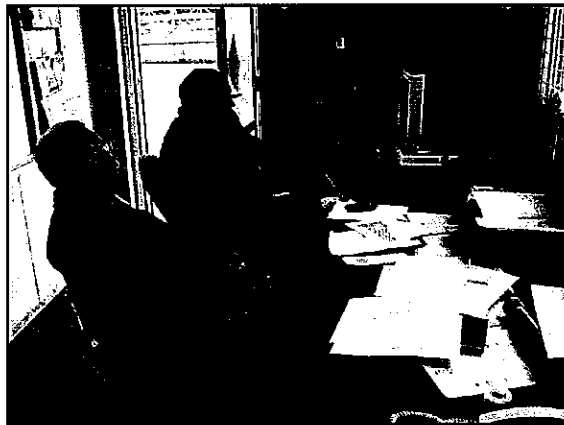
### Presentation Content

Detail information on [www.siddc.org.nz](http://www.siddc.org.nz) and in the handout.

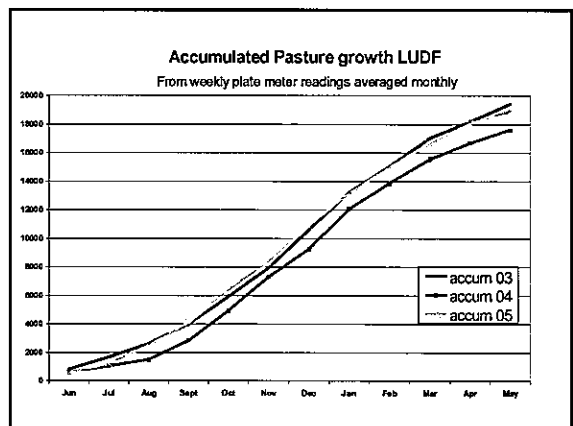
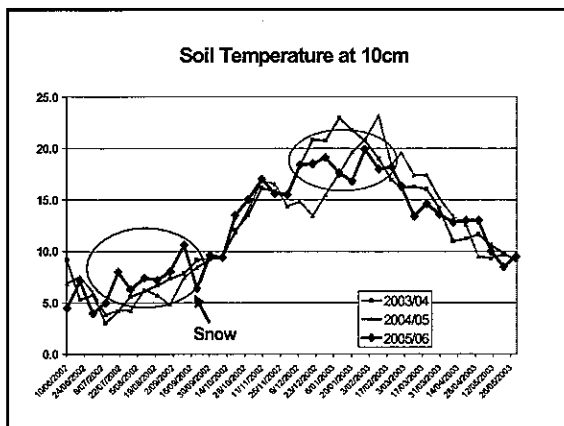
- 1) Key activities for successful grass management.
- 2) What did we have to play with?
- 3) How well did we manage our pastures?
- 4) What was the impact on our production?
- 5) Some lessons we have learnt

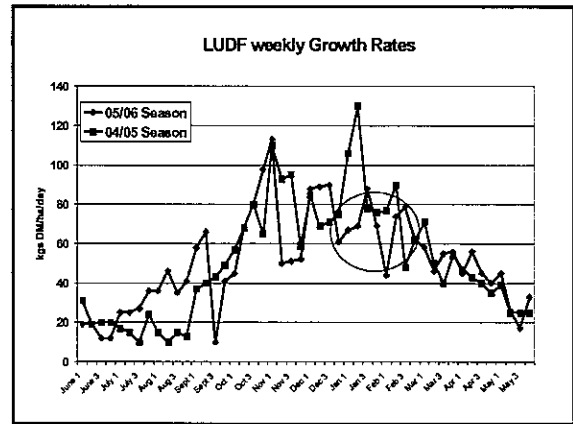
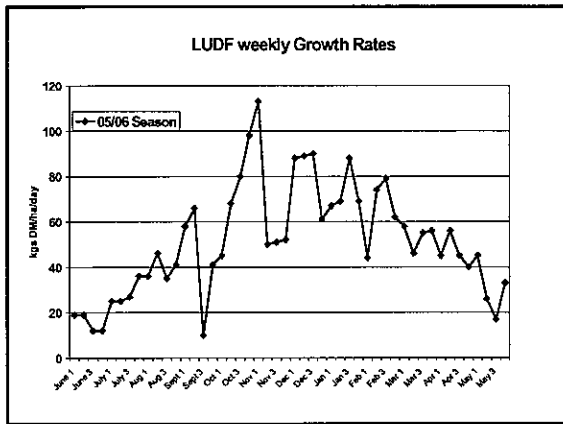



| Weekly Period       |      | 25-May-06 |   |        | Week Finish Date |      | Grazing Details |              |                |             |              |
|---------------------|------|-----------|---|--------|------------------|------|-----------------|--------------|----------------|-------------|--------------|
| Total area 161.6 ha |      | 9         |   |        |                  |      | Date of Grazing | Post Grazing | No. Days       | Growth Rate | Total Growth |
| Area (ha)           | No.  | Cover     | g | Growth |                  |      |                 |              |                |             |              |
| 8.46                | NL   | 1928      |   | 25     |                  |      |                 | 25           |                | 211         |              |
| 7.31                | NE   | 2572      |   | 10     |                  |      |                 | 16           |                | 242         |              |
| 7.29                | NE   | 1760      |   | 9      |                  |      |                 | 8            |                | 65          |              |
| 6.02                | NA   | 1620      | g | 6ad    | 18/5/06          | 1450 | 7               | 24           |                | 146         |              |
| 9.19                | NE   | 1480      | g | 6ad    | 21/5/06          | 1450 | 4               | 8            |                | 69          |              |
| 7.71                | NE   | 1816      |   | 9      |                  |      |                 | 9            |                | 72          |              |
| 7.95                | N7   | 1340      | g | 6ad    | 23/5/06          | 1400 | 2               | -30          |                | -227        |              |
| 7.21                | NE   | 2040      |   | -91    | 23/5/06          | 2000 | 2               | 20           |                | 144         |              |
| 6.97                | NP   | 1662      |   | 14     |                  |      |                 | 14           |                | 98          |              |
| 7.07                | N10  | 1676      |   | 22     |                  |      |                 | 22           |                | 154         |              |
| 6.96                | N11  | 2302      |   | 16     |                  |      |                 | 16           |                | 102         |              |
| 8.48                | S1   | 2040      |   | -59    | 23/5/06          | 2000 | 2               | 20           |                | 170         |              |
| 9.22                | S2   | 1788      |   | 31     |                  |      |                 | 31           |                | 287         |              |
| 7.61                | S3   | 2180      |   | 22     |                  |      |                 | 22           |                | 166         |              |
| 7.68                | S4   | 2908      |   | 34     |                  |      |                 | 34           |                | 253         |              |
| 8.61                | S5   | 1830      |   | 19     |                  |      |                 | 19           |                | 161         |              |
| 4.44                | S6-2 | 1956      |   | 22     |                  |      |                 | 22           |                | 97          |              |
| 4.85                | S7-2 | 2404      |   | 17     |                  |      |                 | 17           |                | 83          |              |
| 7.89                | S8   | 1970      |   | 23     |                  |      |                 | 23           |                | 184         |              |
| 6.09                | S9   | 2040      |   | 31     |                  |      |                 | 31           |                | 189         |              |
| 9.66                | S10  | 2880      |   | 12     |                  |      |                 | 12           |                | 120         |              |
| 5.71                | S11  | 1950      |   | 8      |                  |      |                 | 8            |                | 44          |              |
| Average Cover       |      | 1991      |   |        |                  |      |                 |              |                |             |              |
| Average Growth      |      |           |   | 13     |                  |      |                 |              |                | 17          |              |
| No. Grazed Paddock  |      |           | 4 |        |                  |      |                 |              | Average Growth | 18          |              |
| No. Paddock         |      | 22        |   |        |                  |      |                 |              |                |             |              |
| Cover change/day    |      | -2.8      |   |        |                  |      |                 |              |                |             |              |



| Date (totals at end of period)                    | 7-May-06 | 14-May-06 | 21-May-06 | 28-May-06 | 31-May-06 |
|---|----------|-----------|-----------|-----------|-----------|
| Farm grazing ha (available to milkers)            | 161.5    | 161.5     | 161.5     | 161.5     | 161.5     |
| Dry Cows on farm / East blk / other               | 0/0/224  | 0/0/224   | 0/0/475   | 38/0/704  | 4/0/704   |
| Culls (includes culls put down & emptied)         | 46       | 0         | 2         | 18        | 35        |
| Culls total to date                               | 101      | 101       | 103       | 116       | 151       |
| Deaths (includes cows put down)                   | 0        | 0         | 0         | 0         | 0         |
| Deaths total to date                              | 6        | 6         | 6         | 6         | 6         |
| Calved Cows available (Peak Number 058)           | 563      | 563       | 561       | 543       | 508       |
| Treatment or Sick mob total                       | 5        | 4         | 1         | 0         | 0         |
| kenn, mastitis, other, calostrum                  | 10,22,0  | 9,22,0    | 7,1,0,0   | 0,0,0,0   | 0,0,0,0   |
| Milking twice a day into vat                      | 540      | 519       | 281       | 0         | 0         |
| Milking once a day into vat                       | 25       | 9         | 251       | 281       | 0         |
| Total Cows Milked into vat                        | 565      | 528       | 532       | 281       | 0         |
| Days in Milk (actual cow days/Peak Cows)          | 256      | 260       | 265       | 266       | 266       |
| MS/cow/day (total kg / Cows into vat only)        | 1.28     | 1.27      | 1.18      | 1.14      | 0.0       |
| MS/cow to date (total kg / Peak Cow 055)          | 425      | 433       | 439       | 440       | 440       |
| MS/ha/day (total kg / Total ha used - eg 161.5ha) | 4.5      | 4.2       | 3.04      | 2.0       | 0.0       |
| MS/ha to date (total kg / Total ha used)          | 1715     | 1744      | 1766      | 1772      | 1772      |



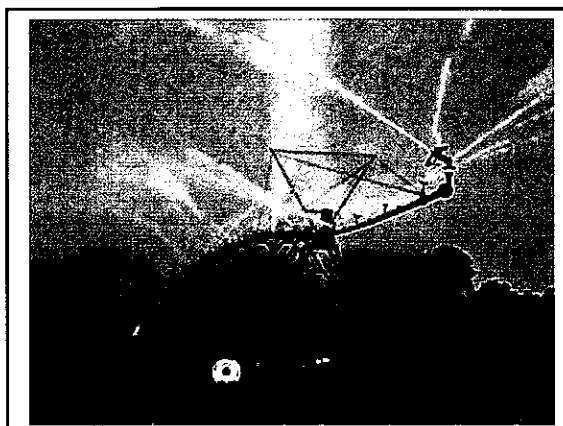


**LUDF South Block**

|     | 04/05 yield | 05/06 yield | diff | comment     |
|-----|-------------|-------------|------|-------------|
| S1  | 16.5        | 18.9        | 2.4  | Re-grassed  |
| S2  | 20.1        | 21.0        | 0.9  |             |
| S3  | 18.4        | 20          | 1.6  |             |
| S4  | 22.2        | 22.2        | 0    |             |
| S5  | 22.7        | 20.6        | -2.1 | Oldest Tabu |
| S6  | 17.9        | 20.2        | 2.3  |             |
| S7  | 17.6        | 20.4        | 2.8  |             |
| S8  | 17.0        | 21.9        | 4.9  |             |
| S9  | 17.8        | 19.3        | 1.5  |             |
| S10 | 14.3        | 21.9        | 7.6  | Re-grassed  |
| S11 | 18.6        | 18.4        | -0.2 | drainage    |

**LUDF North Block**

|     | 04/05 yield | 05/06 yield | diff |
|-----|-------------|-------------|------|
| N1  | 20.3        | 18.6        | -1.7 |
| N2  | 17.9        | 18.3        | 0.4  |
| N3  | 20.7        | 19.0        | -1.7 |
| N4  | 17.4        | 18.7        | 1.3  |
| N5  | 23          | 19.7        | -3.3 |
| N6  | 21.8        | 18.4        | -3.4 |
| N7  | 18.8        | 16.3        | -2.5 |
| N8  | 19          | 20          | 1.0  |
| N9  | 22.5        | 22.8        | 0.3  |
| N10 | 21.4        | 21.0        | -0.4 |
| N11 | 21          | 22          | 1.0  |



**LUDF's current farming philosophy**

**Pasture is our Crop**

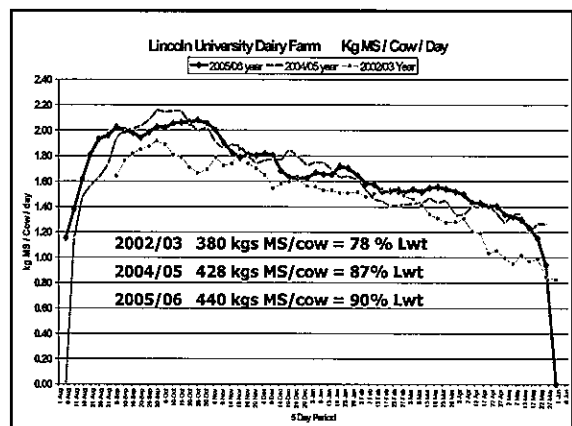
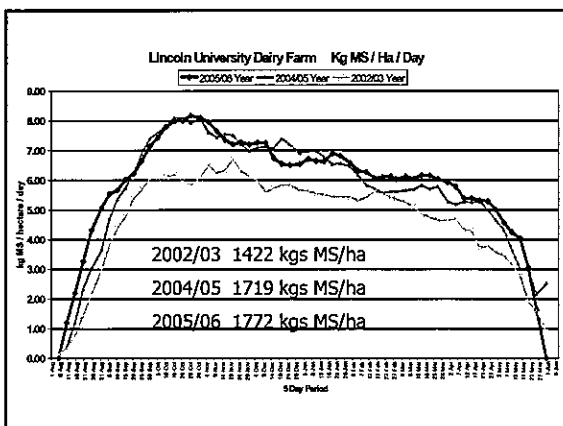
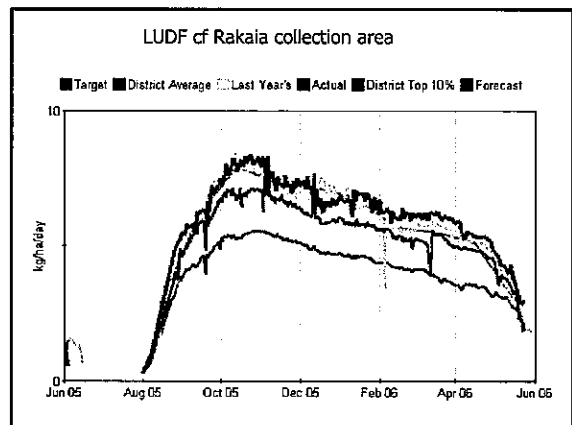
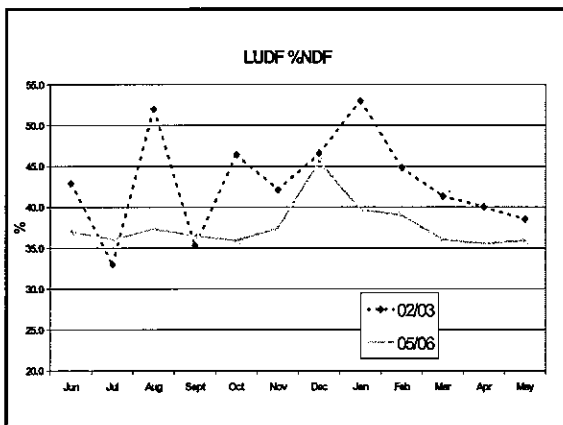
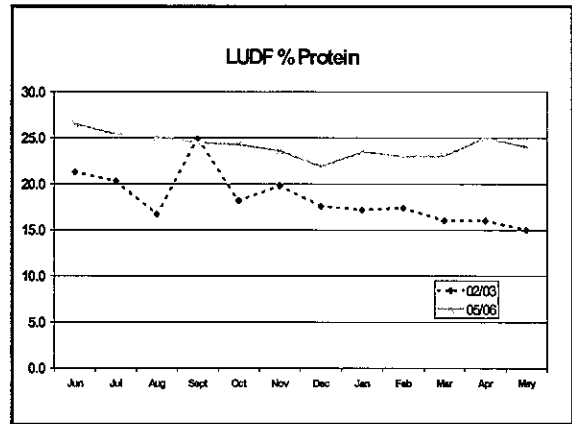
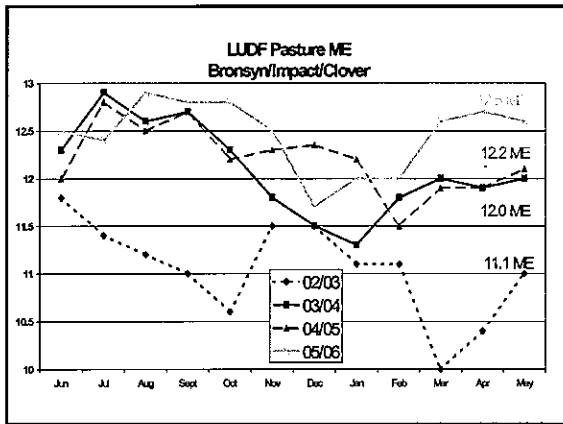
**The Cows are our Clients**

**Pasture Crop KPI's**

|               |  |
|---------------|--|
| Amount        | 18 plus Kgs DM/cow at peak<br>(200 ME for as long as possible) |
| Energy Level  | 12 MJ ME plus  |
| Protein       | Between 20 and 28%   |
| Fibre (% NDF) | Between 35 and 40%   |
| Dry Matter    | Above 15%  |

Reference "Is Pasture Enough?" W Kuperus (SIDE 2002)





|              | 2005/06        | 2004/05        | 2003/04        | 2002/03        |
|--------------|----------------|----------------|----------------|----------------|
| June         | 626.8          | <b>3206.2</b>  | 0              | 0              |
| July         | 0              | 0              | 0              | 0              |
| August       | <b>14276</b>   | 9116           | 8267           | 6738           |
| September    | 30083          | 30021          | <b>32563</b>   | 24275          |
| October      | <b>39649</b>   | 39496          | 39364          | 30265          |
| November     | <b>36053</b>   | 35205          | 35710          | 30868          |
| December     | 34055          | <b>35456</b>   | 33592          | 28880          |
| January      | 33589          | <b>33657</b>   | 30795          | 26652          |
| February     | <b>26878</b>   | 25604          | 26066          | 24667          |
| March        | <b>31376</b>   | 27405          | 28288          | 25280          |
| April        | <b>25994</b>   | 24838          | 20470          | 19672          |
| May          | 14162          | <b>15507</b>   | 13651          | 11124          |
| <b>Total</b> | <b>286,742</b> | <b>279,511</b> | <b>268,765</b> | <b>228,420</b> |

| Lactation days     |       |       |       |
|--------------------|-------|-------|-------|
|                    | 03/04 | 04/05 | 05/06 |
| /cow               | 261   | 261   | 266   |
| Avg kgs MS/cow/day | 1.62  | 1.64  | 1.65  |
| /ha                | 1044  | 1044  | 1064  |

| Other Details                            |         |         |         |         |
|--|---------|---------|---------|---------|
|  | 2002/03 | 2003/04 | 2004/05 | 2005/06 |
| Cows Wintered                            | 631     | 671     | 675     | 672     |
| Max. cows milked                         | 604     | 644     | 650     | 651     |
| Kg N/ha                                  | 200     | 200     | 200     | 187     |
| Cows Wintered (on farm)                  | 0       | 0.8 /ha | 1.08/ha | 1.06/ha |
| Supplements fed til 30 Nov (Kgs DM/cow)  | 150     | 39      | 4       | 174     |
| Purchased feed for milkers (Kgs DM/cow)  | 550     | 287     | 300     | 310     |
| Silage made on milking area (Kgs DM/cow) | 0       | 98      | 220     | 371     |
| Area re-grassed                          | 8 ha    | 18 ha   | 10 ha   | 8.47 ha |

| Energy harvested from Pasture |            |            |            |            |
|-------------------------------|------------|------------|------------|------------|
|                               | 02/03      | 03/04      | 04/05      | 05/06      |
| Kg DM eaten/ha                | 14.3t      | 15.3t      | 16.1t *    | 15.3t *    |
| Ave Pasture ME                | 11.0       | 12.0       | 12.2       | 12.5       |
| ME eaten/ha                   | 157 GJ ME  | 187 GJ ME  | 192 GJ ME  | 191 GJ ME  |
| Kg DM eaten/cow               | 3.82t      | 3.84t      | 3.98t      | 3.83t      |
| ME eaten/cow                  | 42.2 GJ ME | 47.8 GJ ME | 48.5 GJ ME | 47.8 GJ ME |

Why less pasture eaten?

- 1) All the cows off farm for nearly half of June.
- 2) Herd dried off mid May because of the wet conditions and taken off farm.
- 3) Pasture was of higher quality, therefore less required

But

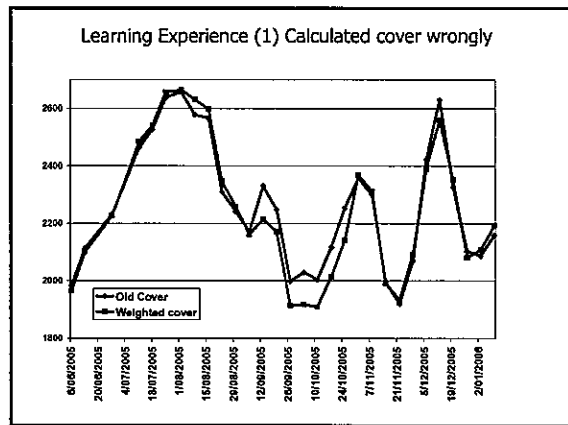
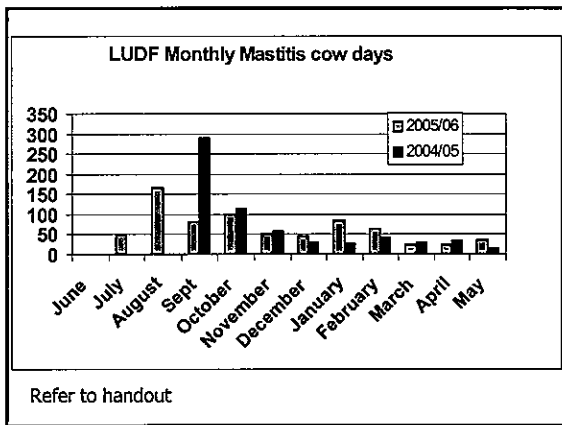
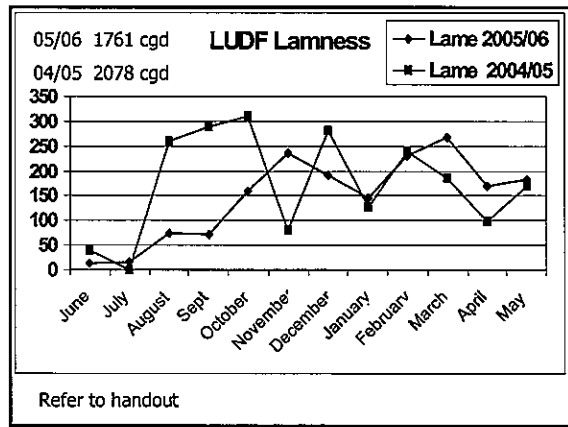
- 1) Measured nearly 2t more growth on farm and
- 2) Made over 1.4t DM/ha in silage
- 3) More cover on the farm at end then at start

Also possible

Large losses of Dry Matter when making silage rather than converting it directly into milk with cows.

| LUDF Productivity Measures      |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|
|                                 | Season 02/03 | Season 03/04 | Season 04/05 | Season 05/06 |
| Feed Conversion Kgs MS/ t DM    | 79.4         | 93.6         | 91.0         | 88.5*        |
| Nitrogen use Kgs MS/kg bagged N | 7.1          | 8.4          | 8.6          | 9.5          |
| Phosphate use Kgs MS /kg P      | 31.4         | 37.4         | 37.4         | 38.5         |
| kgs MS/ F.T.E.                  | 56,793       | 67,781       | 69,190       | 71,463       |

| Herd Reproductive Performance |                   |          |          |           |
|-------------------------------|-------------------|----------|----------|-----------|
| Sustainable Farming Fund      | Progress at last! |          |          |           |
|                               | 03/04             | 04/05    | 05/06    | 06/07 est |
| Days to mid point             | 22                | 23       | 12       |           |
| 4 wk calving rate             | 63%               | 61%      | 69%      | 72%       |
| % calved < 30 days PSM        | 17%               | 12%      | 12.6%    | 1%        |
| Conception Rate               | Low 40's          | Low 40's | Low 50's |           |
| % MT after 12 wks             | 17%               | 20.4%    | 16%      |           |



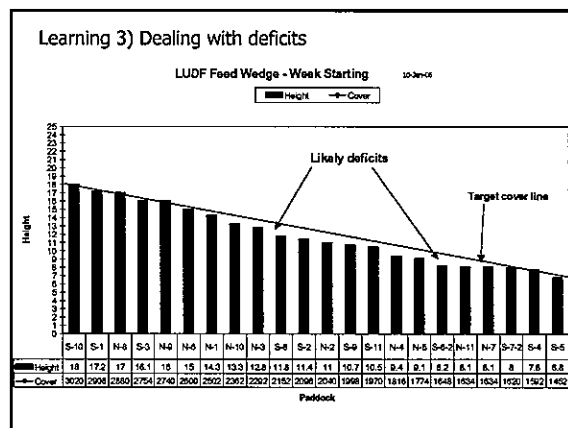
Learning Experience (2) Wrong cover at Balance Date

**Average Farm Cover required at Balance Date**

- All cows calved at balance date
- Cows graze down to 1500 kgs DM/ha
- Rotation length 22 4.5

| Cow Intake (kg DM/day) | Stocking rate (cows/ha) |      |      |      |      |      |      |      |      |
|------------------------|-------------------------|------|------|------|------|------|------|------|------|
|                        | 2.50                    | 2.75 | 3.00 | 3.25 | 3.50 | 3.75 | 4.00 | 4.25 | 4.50 |
| 13                     | 1858                    | 1893 | 1929 | 1965 | 2001 | 2036 | 2072 | 2108 | 2144 |
| 14                     | 1885                    | 1924 | 1962 | 2001 | 2039 | 2078 | 2116 | 2155 | 2193 |
| 15                     | 1913                    | 1954 | 1995 | 2036 | 2078 | 2119 | 2160 | 2201 | 2243 |
| 16                     | 1940                    | 1984 | 2028 | 2072 | 2116 | 2160 | 2204 | 2248 | 2292 |
| 17                     | 1968                    | 2014 | 2061 | 2108 | 2155 | 2201 | 2248 | 2295 | 2342 |
| 18                     | 1995                    | 2045 | 2094 | 2144 | 2193 | 2243 | 2292 | 2342 | 2391 |
| 19                     | 2023                    | 2075 | 2127 | 2179 | 2232 | 2284 | 2336 | 2388 | 2441 |
| 20                     | 2050                    | 2105 | 2160 | 2215 | 2270 | 2325 | 2380 | 2435 | 2490 |

Note: cow intake at Balance date will still be 2 kgs DM below peak  
 Note: in wet conditions allocate about 2 kgs/cow/day extra because of lower utilization and use on/off grazing





## BREAKDOWN OF LAME COWS:

|                                    |           |                   |
|------------------------------------|-----------|-------------------|
| Number of Cows Treated to date:    | 110       |                   |
| Number of Heifers Treated to date: | <u>13</u> | (Front 4, Hind 9) |
| TOTAL LAME COWS TREATED            | 123       |                   |

Herd Lameness: 19%                      Heifer Lameness: 7.5%

## Breakdown of Lameness cases:

| Category             | Number | Percentage | South Island Average |
|----------------------|--------|------------|----------------------|
| 0 - Other            | 8      | 6.5%       | 8%                   |
| 1 - White Line       | 86     | 58%        | 58%                  |
| 2 - Bruising         | 11     | 8%         | 8%                   |
| 3 - Ulcer            | 10     | 8%         | 3%                   |
| 4 - Sole penetration | 19     | 12%        | 9%                   |
| 5 - Cracked wall     | 3      | 2.5%       | 4%                   |
| 6 - Foot rot         | 7      | 5%         | 9%                   |
| 7 - Above foot       | 0      | 0%         | 2%                   |

## Breakdown of Feet treated:

| Left Front | Right Front | Left Hind | Right Hind |
|------------|-------------|-----------|------------|
| 6%         | 8%          | 40%       | 46%        |

- o Whiteline predominantly caused by pushing cows or damage in yards.
- o Sole penetration is caused by races and sharp stones.

## Areas where risk of lameness is high at LUDF include:

- o Concrete exit race to south block where cows turn 90°
- o Yards –
  - Movement of cows in yards incl. riding during mating.
  - Circular yard placing pressure on cows.
  - Use of backing gates.
  - Change of staff, relief staff unfamiliar with backing gates.
- o Cow – Feet wear out over season on concrete and hard tracks leading to cracks on white line.
- o South race starting to break down.
- o Bringing cows to cowshed, pushing stock.
- o Heifers early in season finding place in herd and learning to move with backing gate.
- o Cows at back of herd more likely to be or get lame, tend to be pushed.

BREAKDOWN OF MASTITIS COWS:

Number of cows treated to date: 93  
Mastitis rate: 14%

Cows retreated (2 or 3 cases): 12

Heifers treated at start of season: 32 (28 sub-clinical, 4 clinical)  
Mastitis rate of heifers: 19%

Breakdown of Quarters Treated:

| Left Front | Right Front | Left Rear | Right Rear |
|------------|-------------|-----------|------------|
| 14%        | 18%         | 37%       | 31%        |

Breakdown of mastitis type:

| Type       | Sub-clinical | Clinical |
|------------|--------------|----------|
| Number     | 54           | 50       |
| Percentage | 52%          | 48%      |