

# NATIONAL DAIRY MODEL

The national dairy budget depicted below has been constructed via a weighted average of the MAF dairy farm monitoring models. The weighting is based on the number of dairy cows in each region from the 2009 Livestock Improvement Corporation survey. The weightings, on the model basis, are as follows:

|              |       |                         |       |
|--------------|-------|-------------------------|-------|
| › Northland  | 8.0%  | › Waikato/Bay of Plenty | 41.5% |
| › Taranaki   | 12.3% | › Lower North Island    | 10.8% |
| › Canterbury | 17.4% | › Southland             | 10.0% |

## KEY POINTS

### 2009/10

- › 2009/10 was a difficult year climatically, especially with the upper North Island and some parts of the South Island affected by a late-summer/autumn drought.
- › Milksolids production in the North Island was down 2 percent, compared with 2008/09, while it was up 13 percent in the South Island, and up 3 percent nationally.
- › A low (\$4.55 per kilogram of milksolids) initial Fonterra payout forecast caused some angst in the industry. The payout improved markedly throughout the season to \$6.10 per kilogram of milksolids plus a dividend of up to 30 cents per share.
- › As a result of the lift in payout, net cash income for the national model increased 24 percent compared with 2008/09.
- › Farm working expenses decreased 7 percent compared with 2008/09, largely due to farmers keeping a very tight rein on expenditure, spurred on by the initial low payout announcement. On a per kilogram of milksolids basis, farm working expenses dropped from \$3.86 in 2008/09 to \$3.50 per kilogram of milksolids in 2009/10.
- › The profitability of the model improved markedly compared with 2008/09, particularly given that 2008/09 was a very poor year financially. Farm profit before tax increased 3300 percent, to \$202 800 in 2009/10, from a loss of \$6300 in 2008/09; the cash surplus increased to \$89 800, up 254 percent from a deficit of \$58 500; and the farm surplus for reinvestment increased to \$134 900, up 368 percent from a deficit of \$50 400.
- › The general economic downturn has made farmers very aware of debt issues, and repayment of debt is a top priority for surplus funds on many farms.

### 2010/11

- › Relatively mild early winter conditions saw North Island pastures recover from the drought earlier than anticipated, although many farms will go into calving with pasture covers and cow condition below target levels. In the South Island, pasture cover and cow condition are much more on target.
- › Farmers were buoyed by the initial forecast of a Fonterra milk price payout of \$6.60 per kilogram of milksolids, plus a dividend of up to 30 cents per share. This along with an expectation of a 3 percent increase in production sees the budgeted net cash income for the national model increase almost 6 percent to \$984 300.
- › Farm working expenses are budgeted to increase 8 percent, to the equivalent of \$3.66 per kilogram of milksolids. This is based around an expectation of price increases, and the need to increase expenditure on inputs such as fertiliser and repairs and maintenance.
- › While farm profit before tax is predicted to be up 3 percent over 2009/10, farm profit after tax is down 10 percent, due to farmers budgeting for much higher tax payments flowing through as a result of the lift in profitability in 2009/10.
- › Budgeted principal debt repayments have increased 62 percent over 2009/10, up from \$36 700 to \$60 900, as farmers continue to focus on debt repayments. Overall, the model is budgeted to finish the year with a cash surplus of \$30 000 and a farm surplus for reinvestment of \$120 800.
- › While optimism within the industry has improved in line with the increased payout forecast and Fonterra's capital restructuring, farmers are still cautious given recent fluctuations in payout.



»» TABLE 1: NATIONAL DAIRY MODEL BUDGET

|  | 2009/10          |               |                           | 2010/11 BUDGET   |               |                           |
|--|------------------|---------------|---------------------------|------------------|---------------|---------------------------|
|  | WHOLE FARM (\$)  | PER COW (\$)  | PER KG OF MILKSOLIDS (\$) | WHOLE FARM (\$)  | PER COW (\$)  | PER KG OF MILKSOLIDS (\$) |
| <b>REVENUE</b>                                   |                  |               |                           |                  |               |                           |
| Milksolids                                       | 872 599          | 2 160         | 6.20                      | 903 518          | 2 215         | 6.22                      |
| Dividend on wet shares                           | 16 251           | 40            | 0.12                      | 35 187           | 86            | 0.24                      |
| Cattle   | 45 457           | 113           | 0.32                      | 48 054           | 118           | 0.33                      |
| Other farm income                                | 2 229            | 6             | 0.02                      | 2 242            | 5             | 0.02                      |
| <b>LESS:</b>                                     |                  |               |                           |                  |               |                           |
| Cattle purchases                                 | 4 833            | 12            | 0.03                      | 4 676            | 11            | 0.03                      |
| <b>Net cash income</b>                           | <b>931 703</b>   | <b>2 306</b>  | <b>6.62</b>               | <b>984 326</b>   | <b>2 413</b>  | <b>6.78</b>               |
| <b>Farm working expenses</b>                     | <b>492 162</b>   | <b>1 218</b>  | <b>3.50</b>               | <b>531 723</b>   | <b>1 303</b>  | <b>3.66</b>               |
| <b>Cash operating surplus</b>                    | <b>439 541</b>   | <b>1 088</b>  | <b>3.12</b>               | <b>452 603</b>   | <b>1 109</b>  | <b>3.12</b>               |
| Interest   | 199 380          | 494           | 1.42                      | 202 858          | 497           | 1.40                      |
| Rent and/or leases                               | 0                | 0             | 0.00                      | 0                | 0             | 0.00                      |
| Stock value adjustment                           | 3 925            | 10            | 0.03                      | -839             | -2            | -0.01                     |
| Minus depreciation                               | 41 287           | 102           | 0.29                      | 40 426           | 99            | 0.28                      |
| <b>Farm profit before tax</b>                    | <b>202 800</b>   | <b>502</b>    | <b>1.44</b>               | <b>208 479</b>   | <b>511</b>    | <b>1.44</b>               |
| Taxation   | 41 164           | 102           | 0.29                      | 63 568           | 156           | 0.44                      |
| <b>Farm profit after tax</b>                     | <b>161 636</b>   | <b>400</b>    | <b>1.15</b>               | <b>144 911</b>   | <b>355</b>    | <b>1.00</b>               |
| Add back depreciation                            | 41 287           | 102           | 0.29                      | 40 426           | 99            | 0.28                      |
| Reverse stock value adjustment                   | -3 925           | -10           | -0.03                     | 839              | 2             | 0.01                      |
| Dividend on dry shares                           | 0                | 0             | 0.00                      | 744              | 2             | 0.01                      |
| Off-farm income                                  | 7 905            | 20            | 0.06                      | 6 913            | 17            | 0.05                      |
| <b>Discretionary cash</b>                        | <b>206 903</b>   | <b>512</b>    | <b>1.47</b>               | <b>193 834</b>   | <b>475</b>    | <b>1.33</b>               |
| <b>APPLIED TO:</b>                               |                  |               |                           |                  |               |                           |
| Net capital purchases                            | 27 206           | 67            | 0.19                      | 30 303           | 74            | 0.21                      |
| Development                                      | 14 374           | 36            | 0.10                      | 13 525           | 33            | 0.09                      |
| Principal repayments                             | 37 581           | 93            | 0.27                      | 60 920           | 149           | 0.42                      |
| Drawings   | 64 063           | 159           | 0.46                      | 66 096           | 162           | 0.46                      |
| New borrowings                                   | 26 138           | 65            | 0.19                      | 6 970            | 17            | 0.05                      |
| Introduced funds                                 | 0                | 0             | 0.00                      | 0                | 0             | 0.00                      |
| <b>Cash surplus/deficit</b>                      | <b>89 817</b>    | <b>222</b>    | <b>0.64</b>               | <b>29 959</b>    | <b>73</b>     | <b>0.21</b>               |
| <b>Farm surplus for reinvestment<sup>1</sup></b> | <b>134 935</b>   | <b>334</b>    | <b>0.96</b>               | <b>120 824</b>   | <b>296</b>    | <b>0.83</b>               |
| <b>ASSETS AND LIABILITIES</b>                    |                  |               |                           |                  |               |                           |
| Farm, forest and building (opening)              | 5 265 191        | 13 033        | 37.41                     | 4 975 277        | 12 194        | 34.25                     |
| Plant and machinery (opening)                    | 163 198          | 404           | 1.16                      | 159 796          | 392           | 1.10                      |
| Stock valuation (opening)                        | 621 249          | 1 538         | 4.41                      | 625 511          | 1 533         | 4.31                      |
| Dairy company shares                             | 638 193          | 1 580         | 4.53                      | 646 530          | 1 585         | 4.45                      |
| Other farm related investments (opening)         | 0                | 0             | 0.00                      | 0                | 0             | 0.00                      |
| <b>Total farm assets</b>                         | <b>6 687 831</b> | <b>16 554</b> | <b>47.52</b>              | <b>6 407 114</b> | <b>15 704</b> | <b>44.11</b>              |
| <b>Total liabilities (opening)</b>               | <b>2 711 743</b> | <b>6 712</b>  | <b>19.27</b>              | <b>2 693 072</b> | <b>6 601</b>  | <b>18.54</b>              |
| <b>Total equity (assets-liabilities)</b>         | <b>3 976 089</b> | <b>9 842</b>  | <b>28.25</b>              | <b>3 714 041</b> | <b>9 103</b>  | <b>25.57</b>              |

**Note**

1 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

»» TABLE 2: NATIONAL DAIRY MODEL EXPENDITURE

|   | 2009/10         |              |                           | 2010/11 BUDGET  |              |                           |
|---|-----------------|--------------|---------------------------|-----------------|--------------|---------------------------|
|   | WHOLE FARM (\$) | PER COW (\$) | PER KG OF MILKSOLIDS (\$) | WHOLE FARM (\$) | PER COW (\$) | PER KG OF MILKSOLIDS (\$) |
| <b>FARM WORKING EXPENSES</b>              |                 |              |                           |                 |              |                           |
| Permanent wages                           | 69 838          | 173          | 0.50                      | 72 030          | 177          | 0.50                      |
| Casual wages                              | 13 022          | 32           | 0.09                      | 14 606          | 36           | 0.10                      |
| ACC                                       | 2 081           | 5            | 0.01                      | 3 513           | 9            | 0.02                      |
| <b>Total labour expenses</b>              | <b>84 940</b>   | <b>210</b>   | <b>0.60</b>               | <b>90 149</b>   | <b>221</b>   | <b>0.62</b>               |
| Animal health                             | 29 833          | 74           | 0.21                      | 30 585          | 75           | 0.21                      |
| Breeding                                  | 15 564          | 39           | 0.11                      | 16 288          | 40           | 0.11                      |
| Dairy shed expenses                       | 8 182           | 20           | 0.06                      | 8 283           | 20           | 0.06                      |
| Electricity                               | 20 645          | 51           | 0.15                      | 21 801          | 53           | 0.15                      |
| Feed (hay and silage)                     | 44 695          | 111          | 0.32                      | 52 820          | 129          | 0.36                      |
| Feed (feed crops)                         | 7 797           | 19           | 0.06                      | 7 558           | 19           | 0.05                      |
| Feed (grazing)                            | 51 925          | 129          | 0.37                      | 54 154          | 133          | 0.37                      |
| Feed (other)                              | 41 430          | 103          | 0.29                      | 40 817          | 100          | 0.28                      |
| Fertiliser                                | 65 646          | 162          | 0.47                      | 74 878          | 184          | 0.52                      |
| Lime                                      | 2 693           | 7            | 0.02                      | 2 958           | 7            | 0.02                      |
| Freight (not elsewhere deducted)          | 4 113           | 10           | 0.03                      | 3 887           | 10           | 0.03                      |
| Regrassing costs                          | 6 316           | 16           | 0.04                      | 6 259           | 15           | 0.04                      |
| Weed and pest control                     | 3 506           | 9            | 0.02                      | 3 863           | 9            | 0.03                      |
| Fuel                                      | 11 570          | 29           | 0.08                      | 12 604          | 31           | 0.09                      |
| Vehicle costs (excluding fuel)            | 13 977          | 35           | 0.10                      | 14 202          | 35           | 0.10                      |
| Repairs and maintenance                   | 33 798          | 84           | 0.24                      | 37 040          | 91           | 0.26                      |
| <b>Total other working expenses</b>       | <b>361 690</b>  | <b>895</b>   | <b>2.57</b>               | <b>387 997</b>  | <b>951</b>   | <b>2.67</b>               |
| Communication costs (phone & mail)        | 3 365           | 8            | 0.02                      | 3 362           | 8            | 0.02                      |
| Accountancy                               | 4 864           | 12           | 0.03                      | 4 934           | 12           | 0.03                      |
| Legal and consultancy                     | 3 708           | 9            | 0.03                      | 3 584           | 9            | 0.02                      |
| Other administration                      | 4 779           | 12           | 0.03                      | 4 755           | 12           | 0.03                      |
| Water charges (irrigation)                | 2 184           | 5            | 0.02                      | 2 267           | 6            | 0.02                      |
| Rates                                     | 11 816          | 29           | 0.08                      | 12 220          | 30           | 0.08                      |
| Insurance                                 | 7 656           | 19           | 0.05                      | 8 140           | 20           | 0.06                      |
| Other expenditure <sup>1</sup>            | 2 375           | 6            | 0.02                      | 9 086           | 22           | 0.06                      |
| Total overhead expenses                   | 4 785           | 12           | 0.03                      | 5 229           | 13           | 0.04                      |
| <b>Total farm working expenses</b>        | <b>45 531</b>   | <b>113</b>   | <b>0.32</b>               | <b>53 578</b>   | <b>131</b>   | <b>0.37</b>               |
| <b>Total farm operating expenses</b>      | <b>492 162</b>  | <b>1 218</b> | <b>3.50</b>               | <b>531 723</b>  | <b>1 303</b> | <b>3.66</b>               |
| <b>CALCULATED RATIOS</b>                  |                 |              |                           |                 |              |                           |
| Economic farm surplus (EFS <sup>2</sup> ) | 318 405         | 788          | 2.26                      | 327 563         | 803          | 2.26                      |
| Farm working expenses/NCI <sup>3</sup>    | 53%             |              |                           | 54%             |              |                           |
| EFS/total farm assets                     | 4.8%            |              |                           | 5.1%            |              |                           |
| EFS less interest and lease/equity        | 3.0%            |              |                           | 3.4%            |              |                           |
| Interest+rent+lease/NCI                   | 21.4%           |              |                           | 20.6%           |              |                           |
| EFS/NCI                                   | 34.2%           |              |                           | 32.3%           |              |                           |
| <b>PHYSICAL PARAMETERS</b>                |                 |              |                           |                 |              |                           |
| Effective area (ha)                       | 138             |              |                           | 138             |              |                           |
| Cows milked                               | 404             |              |                           | 408             |              |                           |
| Milksolids (kg)                           | 140 749         |              |                           | 145 246         |              |                           |

**Notes**

1 Includes DairyNZ levy.

2 EFS is calculated as follows: net cash income plus change in livestock values less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: \$38 000 allowance for labour input plus 1 percent of opening total farm assets to a maximum of \$85 000.

3 Net cash income.

»»» TABLE 3: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE NATIONAL DAIRY MODEL

| YEAR ENDED 30 JUNE                         | 2006/07 | 2007/08   | 2008/09 | 2009/10 <sup>1</sup> | 2010/11<br>BUDGET |
|--|---------|-----------|---------|----------------------|-------------------|
| Total milksolids revenue/cow (\$)          | 1 488   | 2538      | 1 788   | 2 160                | 2 215             |
| Kg milksolids/ha                           | 1 034   | 992       | 1 014   | 1 020                | 1 053             |
| Kg milksolids/cow milked                   | 361     | 342       | 349     | 348                  | 356               |
| Milksolids advance to end June (\$/kg)     | 3.65    | 6.62      | 4.15    | 5.15                 | 5.30              |
| Milksolids deferred payment (\$/kg)        | 0.50    | 0.81      | 1.00    | 1.05                 | 0.95              |
| Cattle income (\$)                         | 40 004  | 55 854    | 50 025  | 45 457               | 48 054            |
| Other farm income (\$)                     | 2 347   | 2 690     | 5 842   | 2 229                | 4 676             |
| Net cash income (\$)                       | 577 858 | 1 021 886 | 749 977 | 931 703              | 984 326           |
| Farm working expenses (\$)                 | 369 084 | 468 449   | 528 625 | 492 162              | 531 723           |
| Cash operating surplus                     | 208 774 | 553 438   | 221 351 | 439 541              | 452 603           |
| Farm profit before tax (\$)                | 70 014  | 384 034   | -6 329  | 202 800              | 208 479           |
| Farm surplus for reinvestment <sup>2</sup> | 1 677   | 263 472   | -50 416 | 134 935              | 120 824           |
| EFS <sup>3</sup> per cow (\$)              | 300     | 1 175     | 244     | 788                  | 803               |
| FWE <sup>4</sup> /NCI (%)                  | 63      | 45        | 71.2    | 52.8                 | 54.0              |
| EFS/total farm assets (%)                  | 2.1     | 7.5       | 1.1     | 4.8                  | 5.1               |

**Notes**

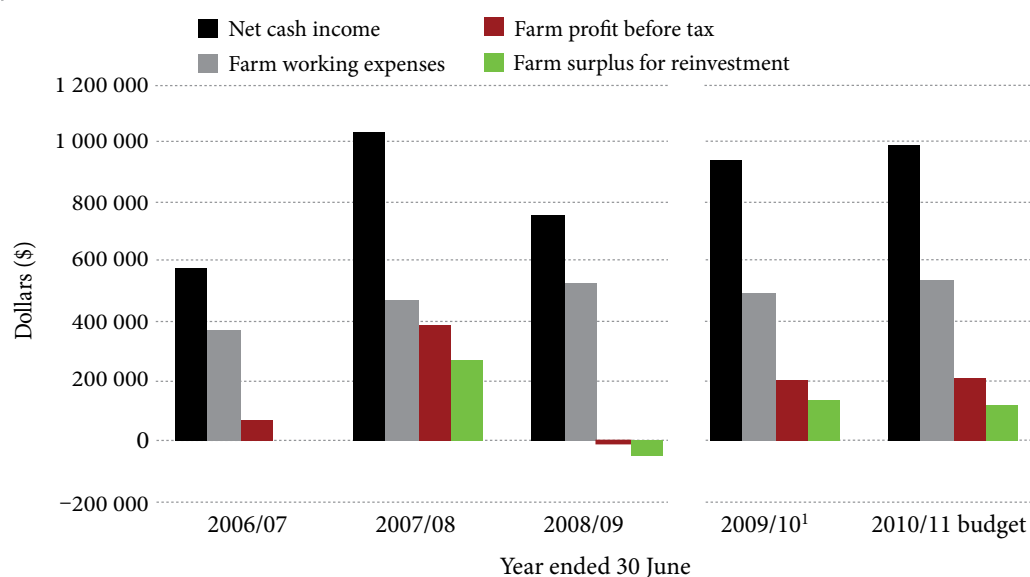
1 The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.

2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

3 EFS is calculated as follows: net cash income plus change in livestock values less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: \$38 000 allowance for labour input plus 1 percent of opening total farm assets to a maximum of \$85 000.

4 Farm working expenses.

»»» FIGURE 1: NATIONAL DAIRY MODEL PROFITABILITY TRENDS



**Note**

1 The sample of farms used to compile this model changed between 2008/09 and 2009/10. Caution is advised if comparing data between these two years.

## NATIONAL DAIRY PERCENTILE ANALYSIS

The following tables and graphs are based on an analysis of the total national sample of dairy farms monitored as part of the MAF monitoring programme. The analysis compares the bottom 10 percent of farms to the top 10 percent, based on their farm profit before tax per hectare for 2009/10.

### PERCENTILE ANALYSIS

»» TABLE 4: PERCENTILE ASSESSMENT OF FINANCIAL DATA FROM MONITORED DAIRY FARMS, 2009/10

|                                      | AVERAGE OF            |                       |                          |                  |                | AVERAGE OF            |                    |                    |
|--------------------------------------|-----------------------|-----------------------|--------------------------|------------------|----------------|-----------------------|--------------------|--------------------|
|                                      | BOTTOM<br>10%<br>(\$) | BOTTOM<br>25%<br>(\$) | BOTTOM<br>25-50%<br>(\$) | MEAN<br>(\$)     | MEDIAN<br>(\$) | TOP<br>50-75%<br>(\$) | TOP<br>25%<br>(\$) | TOP<br>10%<br>(\$) |
| <b>REVENUE</b>                       |                       |                       |                          |                  |                |                       |                    |                    |
| Milksolids                           | 671 545               | 772 236               | 835 159                  | 948 489          | 764 495        | 1 024 692             | 1 157 475          | 1 298 679          |
| Dividend on wet shares               | 7 842                 | 8 506                 | 10 069                   | 11 112           | 8 714          | 12 167                | 13 583             | 15 173             |
| Capacity adjustment                  | 3 097                 | 1 527                 | 1 301                    | 1 949            | 1 300          | 899                   | 5 190              | 6 746              |
| Cattle sales                         | 49 805                | 52 854                | 56 426                   | 61 806           | 51 527         | 59 505                | 78 201             | 93 357             |
| Other revenue                        | 7 070                 | 8 353                 | 6 256                    | 6 523            | 150            | 5 817                 | 5 292              | 6 040              |
| Cattle purchases                     | 16 339                | 14 718                | 22 728                   | 16 822           | 9 755          | 14 849                | 14 536             | 17 259             |
| <b>Net cash income</b>               | <b>730 406</b>        | <b>832 412</b>        | <b>891 501</b>           | <b>1 016 461</b> | <b>829 967</b> | <b>1 088 756</b>      | <b>1 248 555</b>   | <b>1 404 585</b>   |
| <b>Farm working expenses</b>         | <b>484 989</b>        | <b>497 844</b>        | <b>467 767</b>           | <b>519 193</b>   | <b>415 638</b> | <b>545 750</b>        | <b>567 623</b>     | <b>634 410</b>     |
| <b>Cash operating surplus</b>        | <b>245 417</b>        | <b>334 567</b>        | <b>423 734</b>           | <b>497 268</b>   | <b>399 082</b> | <b>543 006</b>        | <b>680 931</b>     | <b>770 174</b>     |
| Rent                                 | 18 701                | 25 718                | 26 263                   | 24 978           | 1 000          | 20 849                | 25 632             | 15 468             |
| Interest                             | 237 624               | 246 545               | 175 059                  | 204 476          | 151 680        | 196 106               | 200 100            | 204 334            |
| Stock value adjustment               | 18 207                | 9 606                 | 7 470                    | 9 482            | 992            | 9 982                 | 10 193             | 6 235              |
| Depreciation                         | 55 786                | 51 237                | 47 828                   | 44 971           | 35 000         | 41 060                | 36 937             | 42 089             |
| <b>Farm profit before tax</b>        | <b>-48 487</b>        | <b>24 516</b>         | <b>185 555</b>           | <b>237 265</b>   | <b>181 771</b> | <b>297 734</b>        | <b>436 314</b>     | <b>524 054</b>     |
| Tax                                  | 15 725                | 16 419                | 31 776                   | 36 397           | 23 049         | 38 116                | 45 453             | 47 961             |
| <b>Farm profit after tax</b>         | <b>-45 087</b>        | <b>26 927</b>         | <b>171 537</b>           | <b>224 010</b>   | <b>170 052</b> | <b>279 189</b>        | <b>415 358</b>     | <b>512 625</b>     |
| Add back depreciation                | 55 786                | 51 237                | 47 828                   | 44 971           | 35 000         | 41 060                | 36 937             | 42 089             |
| Reverse stock value adjustment       | 18 207                | 9 606                 | 7 470                    | 9 482            | 992            | 9 982                 | 10 193             | 6 235              |
| Dividend on dry shares               | 126                   | 145                   | 469                      | 255              | 0              | 321                   | 83                 | 25                 |
| Off-farm Income                      | 41 349                | 19 011                | 5 693                    | 11 855           | 0              | 13 637                | 8 559              | 5 367              |
| <b>Discretionary cash</b>            | <b>160 258</b>        | <b>143 782</b>        | <b>257 349</b>           | <b>337 752</b>   | <b>265 523</b> | <b>397 450</b>        | <b>543 371</b>     | <b>674 830</b>     |
| Capital purchases                    | 18 655                | 18 197                | 30 339                   | 24 725           | 8 000          | 29 540                | 21 354             | 30 956             |
| Development                          | 22 500                | 10 689                | 29 991                   | 17 235           | 0              | 14 925                | 11 916             | 13 741             |
| Principal                            | 11 361                | 60 463                | 36 286                   | 46 618           | 12 152         | 53 407                | 35 753             | 47 154             |
| Drawings                             | 45 934                | 53 593                | 61 400                   | 62 812           | 58 807         | 68 283                | 66 697             | 72 402             |
| New borrowing                        | 125 438               | 56 798                | 30 751                   | 55 466           | 0              | 40 854                | 89 924             | 108 496            |
| <b>Cash surplus/deficit</b>          | <b>63 312</b>         | <b>-2 991</b>         | <b>80 885</b>            | <b>150 445</b>   | <b>90 183</b>  | <b>166 993</b>        | <b>343 709</b>     | <b>432 260</b>     |
| <b>Farm surplus for reinvestment</b> | <b>81 175</b>         | <b>76 867</b>         | <b>192 781</b>           | <b>269 578</b>   | <b>197 592</b> | <b>326 867</b>        | <b>474 539</b>     | <b>601 295</b>     |
| <b>Net farm profit before tax/ha</b> | <b>-393</b>           | <b>119</b>            | <b>1 326</b>             | <b>1 625</b>     | <b>1 689</b>   | <b>2 039</b>          | <b>2 984</b>       | <b>3 489</b>       |

»» TABLE 5: PERCENTILE ASSESSMENT OF PRODUCTION DATA FROM MONITORED DAIRY FARMS, 2009/10

|                                | AVERAGE OF            |                       |                          | MEAN<br>(\$) | MEDIAN<br>(\$) | AVERAGE OF            |                    |                    |
|--------------------------------|-----------------------|-----------------------|--------------------------|--------------|----------------|-----------------------|--------------------|--------------------|
|                                | BOTTOM<br>10%<br>(\$) | BOTTOM<br>25%<br>(\$) | BOTTOM<br>25-50%<br>(\$) |              |                | TOP<br>50-75%<br>(\$) | TOP<br>25%<br>(\$) | TOP<br>10%<br>(\$) |
| PHYSICAL PERFORMANCE DATA      |                       |                       |                          |              |                |                       |                    |                    |
| Milking area (ha)              | 136                   | 149                   | 140                      | 145          | 129            | 146                   | 146                | 151                |
| Opening cow numbers            | 389                   | 419                   | 401                      | 444          | 384            | 455                   | 501                | 533                |
| Closing cow numbers            | 400                   | 423                   | 411                      | 453          | 388            | 465                   | 511                | 540                |
| Total opening stock numbers    | 497                   | 530                   | 524                      | 571          | 486            | 581                   | 646                | 679                |
| Total closing stock numbers    | 514                   | 541                   | 526                      | 578          | 491            | 589                   | 653                | 677                |
| Cows in milk (15 December)     | 369                   | 397                   | 384                      | 423          | 367            | 436                   | 475                | 510                |
| Total milk production (kgMS)   | 114 880               | 128 754               | 136 692                  | 155 179      | 123 366        | 167 010               | 187 426            | 210 701            |
| Milksolids per hectare (kg/ha) | 891                   | 879                   | 947                      | 1 040        | 1 024          | 1 101                 | 1 233              | 1 345              |
| Milksolids production per cow  | 298                   | 311                   | 337                      | 350          | 339            | 366                   | 384                | 401                |
| Stocking rate (cows/ha)        | 3.0                   | 2.9                   | 2.9                      | 3.1          | 3.1            | 3.1                   | 3.4                | 3.5                |
|                                |                       |                       |                          |              |                |                       |                    |                    |
| Opening assets                 | 6 032 127             | 6 625 955             | 6 649 211                | 7 380 105    | 5 999 649      | 7 625 633             | 8 543 936          | 9 050 979          |
| Opening debt                   | 3 314 988             | 3 423 530             | 2 418 636                | 2 874 203    | 2 280 113      | 2 804 993             | 2 822 771          | 2 971 144          |
| Equity (%)                     | 45%                   | 48%                   | 67%                      | 63%          | 64%            | 65%                   | 70%                | 67%                |
| FWE/kgMS                       | 4.25                  | 3.92                  | 3.44                     | 3.37         | 3.26           | 3.19                  | 2.97               | 2.90               |
| Debt servicing/kgMS            | 2.37                  | 2.19                  | 1.39                     | 1.47         | 1.44           | 1.23                  | 1.09               | 0.99               |
| Total debt/KgMS                | 29.6                  | 26.6                  | 16.9                     | 18.0         | 17.5           | 16.0                  | 12.7               | 12.2               |
| Drawings/kgMS                  | 0.49                  | 0.52                  | 0.60                     | 0.50         | 0.43           | 0.46                  | 0.41               | 0.37               |
| Economic farm surplus/hectare  | 810                   | 1 302                 | 1 927                    | 2 407        | 2 205          | 2 716                 | 3 665              | 4 155              |

## BREAKEVEN ANALYSIS

»» TABLE 6: BREAKEVEN ANALYSIS OF PRODUCTION DATA FROM MONITORED DAIRY FARMS (DOLLARS PER KILOGRAMS OF MILKSOLIDS)

|                       | MEAN        | MEDIAN      | BOTTOM 10%  | TOP 10%     |
|-----------------------|-------------|-------------|-------------|-------------|
| Farm working expenses | 3.37        | 3.26        | 4.25        | 2.90        |
| Debt servicing        | 1.47        | 1.44        | 2.37        | 0.99        |
| Drawings              | 0.50        | 0.43        | 0.49        | 0.37        |
| <b>Total</b>          | <b>5.34</b> | <b>5.13</b> | <b>7.11</b> | <b>4.26</b> |

The above table shows the “breakeven” point (covering farm working expenses, debt servicing and personal drawings) for the mean and median farm for 2009/10. This also ignores any capital depreciation, which is worth 31 cents (mean) and 29 cents (median) per kilogram of milksolids in 2009/10. The figures for the bottom and top 10 percent are also illustrated.



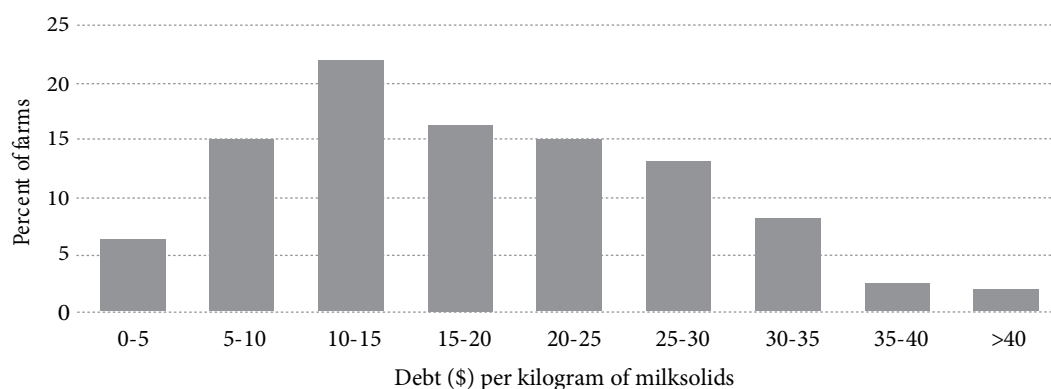
»» TABLE 7: COMPARISON BETWEEN LOW AND HIGH DECILE FARMS 2009/10

|   | AVERAGE OF<br>BOTTOM 10% | AVERAGE OF<br>TOP 10% |
|---|--------------------------|-----------------------|
| Milksolids per hectare (kg/ha)          | 891                      | 1 345                 |
| Milksolids per cow (kg/cow)             | 298                      | 401                   |
| Stocking rate (cows/ha)                 | 3.0                      | 3.5                   |
| Farm working expenses per cow (\$)      | 1 313                    | 1 243                 |
| Interest + rent cost per cow (\$)       | 694                      | 431                   |
| Farm profit before tax per hectare (\$) | -358                     | 3 477                 |

This shows that the higher decile farms are winning all the way, with a higher stocking rate, higher per cow and per hectare production, lower farm working expenses, and a farm profit before tax almost 1000 percent higher per hectare than the lower decile farms.

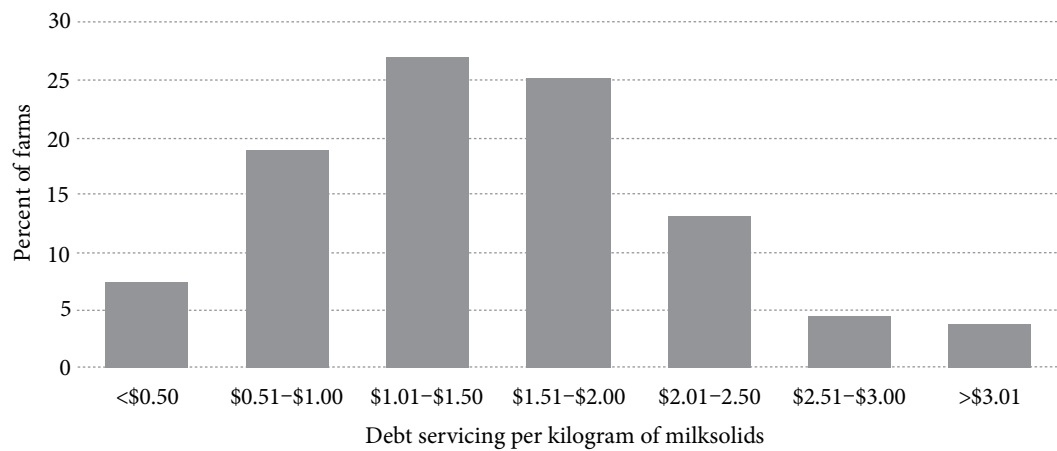
## DEBT AND DEBT SERVICING

»» FIGURE 2: DISTRIBUTION OF TOTAL DEBT BY DOLLARS PER KILOGRAM OF MILKSOLIDS



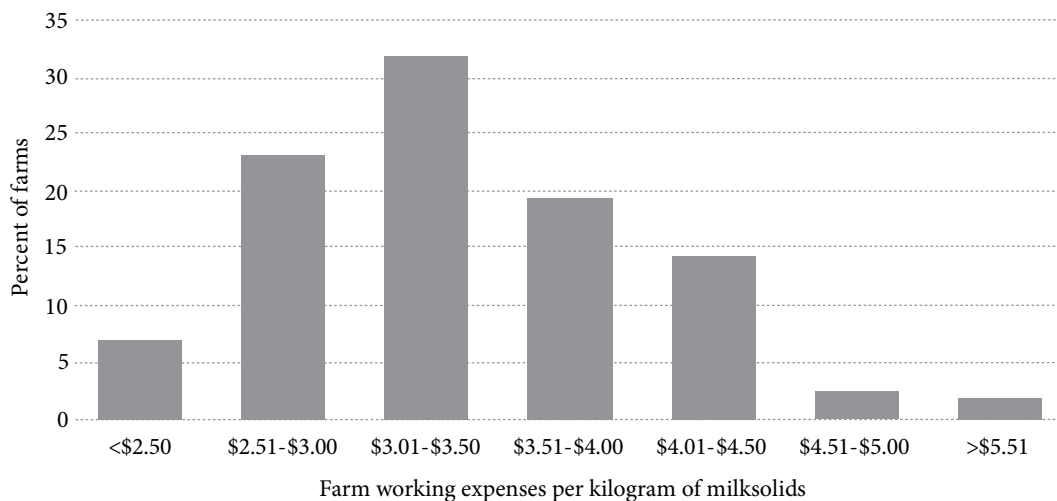
The above graph shows the distribution of debt for the 160 monitored farms, with a mean debt level of \$18.03, and median debt level of \$17.51 per kilogram of milksolids.



**>>> FIGURE 3: DEBT SERVICING DISTRIBUTION**

This graph shows the debt servicing distribution for the 160 monitored farms for the 2009/10 season. Within the monitored farms, average debt servicing was \$1.47 per kilogram of milksolids, median debt servicing was \$1.44, and the range varied from zero though to \$3.58 per kilogram of milksolids.

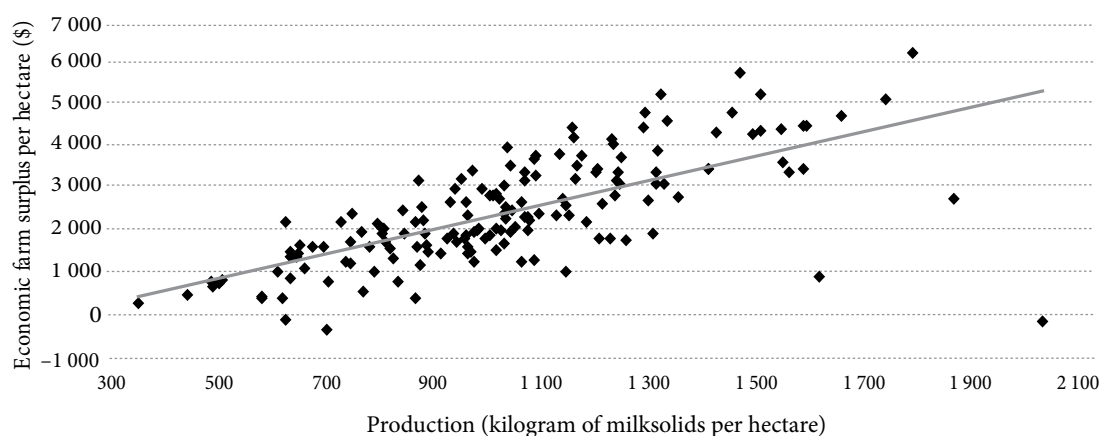
## FARM WORKING EXPENSES

**>>> FIGURE 4: FARM WORKING EXPENSES DISTRIBUTION**

This graph shows the farm working expenses distribution for the 160 monitored farms for the 2009/10 season. Within the monitored farms, average farm working expenses were \$3.37 per kilogram of milksolids, median farm working expenses were \$3.26, and the range varied from \$2.01 though to \$6.59 per kilogram of milksolids.



»» FIGURE 5: ECONOMIC FARM SURPLUS VERSUS PRODUCTION



This graph shows the relationship between profitability, as indicated by the economic farm surplus per hectare, and production, as indicated by kilograms of milksolids per hectare. While there is some relationship, it is relatively weak, with the regression line having a  $R^2$  value of 0.48.

## INDUSTRY ISSUES AND DEVELOPMENTS

### FONTERRA CAPITAL STRUCTURE

Possibly the most significant issue in the dairy industry this season was the question around Fonterra's capital structure, and the option put to a shareholder vote at the end of the season.

The result was a strong endorsement for the proposals, which will result in share trading between farmers, the formation of the shareholder fund, and a definite split in the milk payout paid on production, and the dividend paid on shares. There is still some concern amongst farmers as to how all this will work and the potential effect on the share price.

The separation of the dividend will have a big impact on the sharemilking industry, and debate and negotiation on how the dividend is incorporated into sharemilking contracts will need to occur. Farm owners are beginning to differentiate the two payments, and reviewing cost structures relative to the milk price, rather than total payments.

Farmers are also likely to sit on overshared positions to allow their production to fluctuate between seasons. Industry people believe it will be useful to farmers to think about the dividend and milk price separately, as they will tend to make spending decisions on-farm based only on the milk price. This should cause farmers to focus on expenses in relation to the milk price excluding the dividend.

### RURAL DEBT

The 2009/10 season affected farmer attitude to debt, primarily driven by a perceived change in banks' appetite for risk following the credit crunch. Responses to the credit crisis varied considerably, depending on individual circumstances. Some farmers paid large break fees to move onto floating rate mortgages and some made substantial debt repayments.



It is expected that farmers will scale back development/expansion plans and will instead concentrate on generating cash and reducing core debt. There is now a healthy recognition that cash flows and equity are very important to the long-term sustainability of the industry and the appetite for expansion by debt has been constrained by the effects of the global credit crisis. As a result, farmers are more reluctant to approach the banks for more funding.

For many farms one of the impacts of the credit crunch was the drop in interest rates, which represented a significant saving for farmers with non-fixed interest rates. The majority of farms have a portion of their debt on fixed rates, so the impact will continue to flow through as these loans come off fixed rates.

## **DROUGHT**

Drought conditions affected a number of regions throughout the country over the summer and autumn. This was particularly so in a number of major dairying areas; Northland, Waikato, Bay of Plenty, and south Taranaki. The worst affected region was Northland, which was declared in drought in February and which didn't break until May. A number of South Island regions were also affected, but given many dairy farms are irrigated, at least in Canterbury, the impacts were relatively minor.

While many farms have recovered from the drought more quickly than originally anticipated due to relatively mild winter conditions, many farms are going into calving with pasture covers and cow condition below target levels, which will likely adversely affect production in the 2010/11 season.

## **FARMER MORALE**

Morale took a hit at the start of the 2009/10 season with the announcement of a forecast payout of \$4.55 per kilogram of milksolids, especially coming out of the 2008/09 season which had been a very poor financial year for many farmers. Morale improved during the year on the back of improving payout announcements, although the drought took its toll during the summer and autumn.

At the end of the season morale had lifted significantly, due to a range of factors: improved payout, a strong payout forecast for the 2010/11 season, the breaking of the drought, and the forward momentum on Fonterra's capital restructuring.

This optimism is tempered, however, by pressure around debt, and cash flows will continue to be tight until the middle of the 2010/11 season. As a result, farmers are still spending cautiously.

## **SUPPLEMENTARY FEED**

Many farmers are increasing their use of supplementary feed, and there is no doubt that the availability and price of Palm Kernel Expeller (PKE) was a critical factor in farmer's response to the drought. Prices for PKE remained reasonably stable through the drought, although availability was limited for short periods and retailers emphasised the need for farmers to commit to contracts to ensure supply. Many farmers who had not fed PKE before the drought are looking at incorporating it into their farm system in the future. There is an issue building with the increasing use of PKE, and the extent to which farmers are building this into their management systems. Many farms are now very reliant on this currently readily available and relatively cheap feed, and would face issues if either of these factors changed.

In Canterbury, many dairy farmers have increased grain use at the cost of silages to capitalise on the low costs and ongoing benefits of grain feeding for cows. At the time of writing, there was still a high inventory of grain in the Canterbury region. The change towards grain and PKE use and away from silage has significantly dropped the requirement for energy and vehicle intensive silage feeding.

## IMPACT ON SERVICING FIRMS

With farmers taking a very cautious approach to spending, this has flowed through to servicing firms in most regions. This was also exacerbated by the drought conditions in various regions. Most service industries have had lower activity over the year and some very low. However, most have survived and are picking up slowly with improving prospects.

## ENVIRONMENTAL ISSUES

Farmers are well aware of continued pressure from a number of areas for them to become more environmentally sustainable. The main issue of focus at present is effluent systems, with the level of non-compliance rising. Many systems are in need of an upgrade, although a number of farmers are delaying any decisions until they are in a better financial position, and also until regional council policies become clear as to what expectations will be.

## WATER

Water reliability and security for the future remains a key risk to the viability of Canterbury dairy farms, and expansion of the industry. Water monitoring in management of irrigation is improving as the technology improves and becomes more readily available. Water infrastructure development remains of great interest to the dairy sector, and there are expectations of government sorting out the issues, with the removal of Environment Canterbury councillors seen as the first step to a change to the status quo. There is a lot of significant investment activity in specific schemes extending or in improving efficiency, such as Barrhill-Chertsey, Ashburton-Lyndhurst, Acton, and Rangitata South.

## LABOUR ISSUES

Farmers report that labour is more available than in previous years and uncertainty in the sector is helping encourage greater stability of staff between seasons. This stability combined with dampened enthusiasm for development expenditure is expected to impact on the uptake of automation (for example, Protrak).

Labour is a critical part of the financial and general management of the large Canterbury dairy farms. Concern is rising amongst the industry about future management capabilities, given the higher number of international transient staff. The international dairy workers provide an essential service in the current industry, but there are uncertainties around the long-term sustainability of the next level of workers. Overseas workers are often on temporary work permits or do not wish to stay long-term, and there are few New Zealand workers able or available to fill mid-management positions.

With general financial caution prevailing in the dairy industry this year there has been a lower than average change of sharemilking positions. With financial belt-tightening and some farm owners returning to milking themselves, or generally cutting back on staff, there has been a surplus of farm staff this season, a situation not seen for many years. As a result there has been little or no increase in farm staff wages, and in some cases when new staff are being employed their salary packages are below those previously paid.

## FURTHER INFORMATION

For more information on the national dairy model and analyses, please contact: [phil.journeaux@maf.govt.nz](mailto:phil.journeaux@maf.govt.nz)

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