CANTERBURY ARABLE CROPPING

KEY RESULTS FROM MAF'S 2011 ARABLE MONITORING PROGRAMME. Please note that several budget parameters have changed between 2009/10 and 2010/11. Caution should be taken when comparing this year's data to previous years. Refer to the budget table footnotes for more detail.

KEY POINTS

- Average cereal yields fell 15 percent in 2010/11 due to unfavourable weather conditions. However, uncontracted cereal prices increased from October 2010, compensating somewhat for the poor yields.
- Farm profit before tax fell 28 percent to $190 400 compared with $264 300 in 2009/10 following a reduction in crop yields and area.
- Farm surplus for reinvestment increased by $83 100 mainly due to a sell down of crop on hand.
- Arable farmers are expecting to increase net profit in 2011/12 by 91 percent to $362 700 based on a return to better than average yields, continuation of current cereal prices and having more crop options, especially ryegrass.
- Farmers are cautiously optimistic as they expect global commodity prices to continue to trend upwards and demand for dairy support to increase.

TABLE 1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE CANTERBURY ARABLE CROPPING MODEL

YEAR ENDED 30 JUNE	2007/08	2008/09	2009/10[1]	2010/11	2011/12 BUDGET
Total effective area (ha)	290	300	300	300	300
Effective cropping area (ha)	230	259	263	253	261
Total crop revenue ($)	736 700	844 400	885 000	841 300	1 037 200
Sheep opening stock units	910	859	1 759	1 459	1 219
Lambing (%)	125	120	130	125	130
Gross farm revenue ($)	903 000	1 012 000	1 073 100	1 005 400	1 212 500
Farm working expenses ($)	490 700	597 400	566 000	567 000	612 700
Farm profit before tax ($)	225 400	198 000	264 300	190 400	362 700
Farm surplus for reinvestment[2] ($)	81 500	48 200	125 800	208 900	213 300

Notes

1 To better reflect the current arable farm structure, the debt, revenue and stock numbers in the 2009/10 model have been adjusted to provide for consistent comparison with 2010/11. Care should be used when comparing these revised figures with previously published 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 farm profit after tax plus depreciation plus stock value adjustments less drawings.

TABLE 2: CANTERBURY ARABLE MODEL CROP AREAS

YEAR ENDED 30 JUNE CROP	2009/10 (HA)	2010/11 (HA)	2011/12 BUDGET (HA)
Wheat	84	82	82
Barley	25	33	38
Other cereals	5	4	4
Grass seeds	51	41	50
Clover seeds	21	12	19
Vegetable/brassica seeds	15	20	18
Other seeds	11	11	8
Pulses	21	22	12
Silage crops	14	12	16
Process/fresh vegetable crops	16	16	14
Total crop area	**263**	**253**	**261**
Effective area	300	300	300
Percent of effective area in crop	88%	84%	87%

TABLE 3: CANTERBURY ARABLE CROPPING MODEL BUDGET

	2009/10[1]	2010/11		2011/12 BUDGET	
	WHOLE FARM ($)	WHOLE FARM ($)	PER HA ($)	WHOLE FARM ($)	PER HA ($)
REVENUE					
Cereals	320 500	358 500		333 900	
Small seeds	278 000	332 100		319 300	
Other crops	78 200	97 500		99 700	
Process/fresh vegetables	53 300	58 000		57 900	
Land leased for cropping	7 200	7 000		6 600	
Crop residues	44 000	55 600		48 000	
Change in value of crop on hand	103 800	–67 400		171 700	
Total crop revenue	**885 000**	**841 300**	**2 804**	**1 037 200**	**3 457**
Sheep income (including wool)	304 800	242 600	809	261 500	872
Grazing income	37 600	63 500	212	66 000	220
Other farm income	17 500	18 000	60	13 100	44
LESS:					
Sheep purchases	171 800	123 600	412	141 700	472
Stock value adjustment	0	–36 400	–121	–23 500	–78
Gross farm revenue	**1 073 100**	**1 005 400**	**3 351**	**1 212 500**	**4 042**
Farm working expenses	**566 000**	**567 000**	**1 890**	**612 700**	**2 042**
Cash operating surplus	**507 100**	**438 400**	**1 461**	**599 800**	**1 999**
Interest	169 300	173 500	578	168 000	560
Rent and/or leases	0	0	0	0	0
Depreciation	73 600	74 500	248	69 100	230
Farm profit before tax	**264 300**	**190 400**	**635**	**362 700**	**1 209**
Tax	48 200	98 100	327	10 600	35
Farm profit after tax	**216 100**	**92 300**	**308**	**352 100**	**1 174**
ALLOCATION OF FUNDS					
Add back depreciation	73 600	74 500	248	69 100	230
Reverse stock value adjustment	–103 800	103 800	346	–148 200	–494
Drawings/living expenses	60 000	61 800	206	59 700	199
Farm surplus for reinvestment[2]	**125 800**	**208 900**	**696**	**213 300**	**711**
REINVESTMENT					
Net capital purchases	80 000	38 000	127	50 000	167
Development	30 000	92 000	307	100 000	333
Principal repayments	65 000	60 700	202	45 100	150
Farm cash surplus/deficit	**–49 200**	**18 200**	**60**	**18 200**	**60**
OTHER CASH SOURCES					
New borrowings	66 000	58 000	193	38 000	127
Introduced funds	0	0	0	0	0
Off-farm income	3 000	0	0	0	0
Net cash position	**19 800**	**76 100**	**254**	**56 100**	**187**
ASSETS AND LIABILITIES					
Farm, forest and building (opening)[3]	7 950 000	7 600 000	25 333	8 100 000	27 000
Plant and machinery (opening)	490 500	496 900	1 656	460 400	1 535
Stock valuation (opening)	166 900	220 900	736	184 600	615
Crop valuation (opening)	590 900	631 900	2 106	564 500	1 882
Other farm related investments (opening)	0	0	0	0	0
Total farm assets (opening)	**9 198 300**	**8 949 700**	**29 832**	**9 309 400**	**31 031**
Total liabilities (opening)	1 930 600	1 931 600	6 439	1 928 900	6 430
Total equity	**7 267 700**	**7 018 100**	**23 394**	**7 380 500**	**24 602**

Notes

1 To better reflect the current arable farm structure, the debt, revenue and stock numbers in the 2009/10 model have been adjusted to provide for consistent comparison with 2010/11. Care should be used when comparing these revised figures with previously published 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 farm profit after tax plus depreciation plus stock value adjustments less drawings.

3 Land and building asset value includes the value of owned land, trees and supports, other improvements, orchard buildings and dwellings on the property.

Please note that several budget parameters have changed between 2009/10 and 2010/11. These changes have been made to better reflect the financial position of the farm. New and adjusted definitions include farm surplus for reinvestment, farm cash surplus/deficit and net cash position. Caution should be taken when comparing this year's data to previous years.

TABLE 4: CANTERBURY ARABLE CROPPING MODEL EXPENDITURE

	2009/10	2010/11		2011/12 BUDGET	
	WHOLE FARM ($)	WHOLE FARM ($)	PER HA ($)	WHOLE FARM ($)	PER HA ($)
FARM WORKING EXPENSES					
Permanent wages	42 300	45 000	150	48 000	160
Casual wages	5 100	6 000	20	7 500	25
ACC - employees	1 329	900	3	1 220	4
Total labour expenses	**48 729**	**51 900**	**173**	**56 720**	**189**
Contracting (including harvesting/drying)	27 900	27 000	90	26 100	87
Animal health	4 200	4 200	14	4 200	14
Breeding	0	0	0	0	0
Electricity	24 600	21 600	72	29 700	99
Feed (hay and silage)	6 300	9 000	30	9 060	30
Feed (crops)	0	0	0	0	0
Feed (grazing)	1 500	4 200	14	4 320	14
Feed (other)	1 800	2 100	7	2 190	7
Fertiliser	109 482	112 950	377	118 370	395
Lime	2 250	2 400	8	2 560	9
Freight	17 400	20 100	67	22 500	75
Seed dressing	34 200	29 100	97	28 550	95
Seeds	27 400	35 260	118	33 700	112
Shearing costs	4 554	6 300	21	6 350	21
Weed and pest control	94 000	85 050	283	95 200	317
Fuel	29 100	32 400	108	36 600	122
Vehicle costs (excluding fuel)	26 400	24 900	83	27 900	93
Repairs and maintenance	47 100	35 700	119	36 900	123
Total other working expenses	**458 186**	**452 260**	**1 508**	**484 200**	**1 614**
Communications (phone and mail)	3 900	4 200	14	4 290	14
Accountancy	5 700	6 000	20	6 090	20
Legal and consultancy	3 600	3 600	12	3 720	12
Other administration	4 800	4 800	16	4 860	16
Rates	12 000	11 400	38	11 490	38
Insurance	15 600	16 500	55	18 000	60
Water charges	3 900	8 400	28	15 000	50
Other expenditure (incl. ACC - owners)	9 550	7 960	27	8 360	28
Total overhead expenses	**59 050**	**62 860**	**210**	**71 810**	**239**
Total farm working expenses	**565 965**	**567 010**	**1 890**	**612 730**	**2 042**
CALCULATED RATIOS					
Economic farm surplus (EFS)[1]	358 556	288 900	963	455 700	1 519
Farm working expenses/GFR[2]	53%	56%		51%	
EFS/total farm assets	3.9%	3.2%		4.9%	
EFS less interest and lease/equity	2.6%	1.6%		3.9%	
Interest+rent+lease/GFR	16%	17%		14%	
EFS/GFR	33%	29%		38%	
Wages of management	75 000	75 000	250	75 000	250

Notes
1 EFS is calculated as follows: gross farm revenue less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: $31 000 allowance for labour input plus 1 percent of opening total orchard assets to a maximum of $75 000.
2 Gross farm revenue.

FINANCIAL PERFORMANCE OF THE CANTERBURY ARABLE CROPPING MODEL IN 2010/11

Farm profit before tax fell 28 percent due primarily to cereal crop yields reducing 15 to 20 percent and a reduction in crop area. However, more crop was sold before the year end which increased farm surplus for reinvestment 66 percent to $208 900.

The area of crops grown reduced by 10 hectares or about 4 percent in 2010/11, as shown in Table 2. The key change from the previous year was the decrease in grass and clover seed areas, driven mostly by oversupply in global markets from previous harvests. Grazing these areas, or harvesting as silage, was assessed by many farmers as being relatively more profitable than seed production. Wet winter and early spring conditions made it impractical to plant more wheat, so farmers grew more spring barley. Open pollinated brassica seed areas also increased based on better global market conditions.

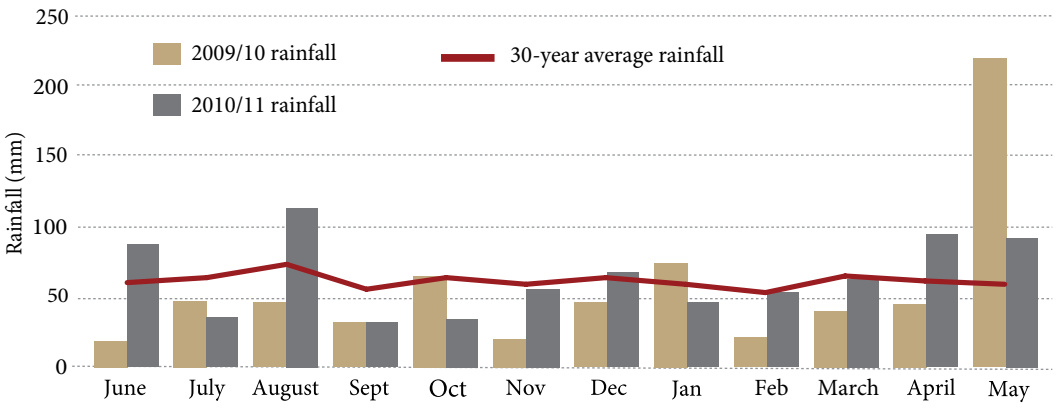
The model size remains at 300 hectares. To better reflect the structure of current Canterbury arable cropping farms, the model debt and winter stock numbers have been adjusted for the 2009/10 and 2010/11 opening budgets. Debt has been increased by $300 000 to $6400 per hectare from $5400 per hectare. Winter stock numbers have been increased by 1000 trading lambs, and the extra margins added into gross farm revenue. Comparisons in Table 1 are based on these changes being made in the 2009/10 budget. Care should be taken in interpreting comparisons with years before 2009/10.

POOR CEREAL YIELDS ERODE REVENUE

Crop revenue, after adjustments for stock on hand, fell 2 percent from $3365 per hectare of crop grown in 2009/10 to $3299 per hectare in 2010/11. Less crop was grown and total gross revenue from crops fell 5 percent overall from $885 000 in 2009/10 to $841 300 in 2010/11.

Cereal yields fell on average by 15 percent, although some farmers suffered decreases of up to 30 percent. Several factors conspired to reduce yields, including the wet autumn and winter that delayed sowing and hindered root development; a cold spring that reduced tillering; then a period of heat stress and winds in December that reduced grain size and caused some seed head loss. Figures 1 and 2 depict the rainfall and growing degree days (GDD) recorded at Winchmore in mid-Canterbury.

FIGURE 1: MID-CANTERBURY RAINFALL



Source
NIWA (Winchmore).

Some crops yielded slightly above average; in particular maize silage was up 5 percent and process vegetable crops generally benefited from the warm early summer. There was considerable variability in small seed crop yields, depending on flowering times. Ryegrass yields were affected by the same difficult conditions as cereals while clover crops showed a wide range of yields. Brassica seed crops provided good yields as they perform well in hot weather. Some high value, high expenditure crops such as carrot seed yielded very poorly following several good years.

Irrigation demand declined over the early and late parts of the season due to regular rains and the absence of strong north-west winds, apart from the period in early December when evapotranspiration exceeded 50mm in a week. There were no significant irrigation restrictions on any of the main irrigation schemes.

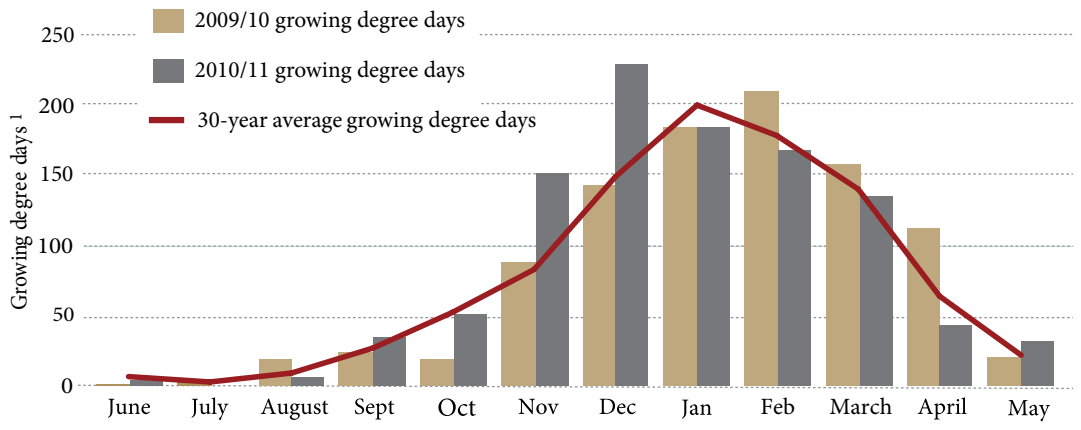
Harvest conditions overall were good, although there were delays in completion of later crops following a cool and wet February 2011. This year, germination and seed quality have generally been better than usual and dressing losses lower than average.

There was a shift in livestock returns away from livestock income towards more contract grazing income. This is the continuation of a trend in recent years. Fewer lambs have been purchased for 2011 winter due to higher store lamb prices. Grazing and lamb returns (net of purchases) in total improved by 7 percent which helped to cushion the reduced crop yields. Returns from grazing and from sales of crop residues to the dairy sector now provide $120 000 or 12 percent of gross revenue to the model.

GRAIN AND SEED PRICES FIRMER, COMPENSATING SOMEWHAT FOR YIELDS

Uncontracted grain prices began to rise in October 2010. Prices for feed market wheat were $250 per tonne in May 2010 but increased during the season to $410 per tonne in May 2011. While most grain was contracted at the lower prices, the increase has helped cushion the impact of reduced

FIGURE 2: MID-CANTERBURY GROWING DEGREE DAYS



Note
1 GDD – growing degree days. GDDs are calculated by taking the average of the daily high and low temperatures each day compared with a baseline (usually 10 degrees centigrade). They help to predict the date that a flower will bloom or a crop reach maturity.

Source
NIWA (Winchmore).

yields. Average prices received across the monitored farms have lifted about $20 per tonne for wheat and $50 per tonne for barley in 2010/11 compared with 2009/10.

Early 2011 also saw increasing pasture seed prices as global stocks cleared. Those with non-proprietary grass and clover seeds were able to take advantage of this. For most farmers, this price increase suggests higher contract prices and larger crop areas for 2011/12.

STOCKS ON FARMS SOLD DOWN TO GENERATE CASH

Higher crop and pasture seed prices, as well as high store lamb prices, encouraged farmers to sell down stocks of uncontracted grain and seed immediately following harvest to generate cashflow. Contracted grain was also acquired by buyers earlier in the year as spot prices remained high. The model shows crop on hand reduced by $67 400 due to this sell down. This is the first time crop on hand has reduced in many years. Despite this, the model still carries a crop asset value of $564 500 into the 2011/12 year.

EXPENDITURE HELD, HELPED BY WEATHER

Total farm working expenses rose 1 percent on 2009/10 levels to $567 000 or $1890 per hectare. However, within this there were some significant price rises that were mitigated by the reduced crop area and reduction in some inputs due to the weather. The farm working expenses to gross farm revenue (FWE/GFR) ratio increased to 56 percent from 53 percent in 2009/10 due to the decline in revenue.

Labour costs rose 6 percent in total as farmers found they needed to raise wage rates for good staff. This is being driven by the improving performance of the rural economy in general.

A fall in contracting activity, due to having less crop and lower yields, was somewhat offset by increased contracting prices. Electricity expenses fell as a result of the lower irrigation requirements, especially early in the season and in autumn 2011. Seed dressing expenses reduced as less small seeds were grown and lines were cleaner. Weed and pest expenditure fell 10 percent to $85 100, due partly to reduced crop area and partly because of lower chemical prices as some key products came off patent. Repairs and maintenance costs also fell as farmers deferred some maintenance following the poorer than expected harvest.

Expenditure on fertiliser rose 3 percent due to price increases, despite reducing the crop area and therefore the amount used. Any items associated with fuel use increased as oil prices surged, and more fuel was used resowing some crops following the wet autumn. Resowing, and the use of more certified seed on some of the paddocks, increased seed purchases. A major increase in water charges occurred in the model due to the commissioning of new irrigation schemes in arable areas in mid-Canterbury that have higher annual charges than older schemes.

NET RESULT DETERIORATES

Farm profit before tax fell 28 percent to $190 400. Taxation rose based on the previous year's good result.

Interest expenses increased due to higher overdraft levels through most of 2010/11. Interest rates have reduced where loans came to the end of their term and farmers have migrated to floating rates or shorter term instruments such as bank bills.

However, the farm surplus for reinvestment measure increased by 66 percent to $208 900 due to the sell down of grain and seed stocks. This is the reason that Table 3 shows an increase in cereal returns in 2010/11 despite yields reducing. In June 2011, banks confirmed that arable farmers generally have improving cash balances, with some farmers reducing their overdrafts over winter 2011.

Expenditure on capital and development items increased by 18 percent to $130 000 compared with 2009/10. Items were mainly machinery replacement and irrigation related, as farmers realise these are items that cannot be deferred indefinitely.

Drawings increased by approximately the rate of inflation to $62 000, showing restraint.

Principal repayments were relatively minor and debt levels overall continued to steadily increase, although banks noted that farmers appear to feel more comfortable when they are paying some principal back, albeit small amounts. Farmers believe land values have levelled off. In the absence of many sales, values were believed to have fallen in the year to June 2010, but by June 2011 had returned to just above June 2009 levels, driven by the improving dairy payout. Even so, there has been an attitude change against taking on more debt to buy more land.

BUDGET FINANCIAL PERFORMANCE OF THE CANTERBURY ARABLE CROPPING MODEL IN 2011/12

Arable farmers are expecting 2011/12 to be significantly better than the previous year with a 21 percent or $207 100 increase in gross farm revenue and 91 percent increase in farm profit before tax to $362 700. The key drivers for this increase are expectations of a return to above average yields, current cereal prices continuing and a wider availability of small seeds contracts, especially ryegrass. With better crop returns expected, the model is budgeting to increase the proportion of crop area to 2009/10 levels of 87 percent from 84 percent in 2010/11.

PRICES INCREASES AND YIELDS EXPECTED TO LIFT REVENUE

The early harvest and moist autumn have added to the confidence provided by high cereal prices and increased areas of contracted ryegrass seed production. Arable farmers consider feed wheat contract prices reasonable at around $410 per tonne (compared with $320 per tonne in May 2010). Milling contracts at around $435 to 465 per tonne (depending on specification) are considered less profitable, given the quality risks and lower yield potential.

Global perennial grass seed markets are showing greater promise in 2011/12 following a period of suppressed prices as stocks cleared both locally and globally. Farmers are hoping the price increase for non-proprietary varieties of grasses and clovers will continue, although pricing of proprietary variety prices have lifted only modestly.

CROP AREAS INCREASE TO 2010 LEVELS

Table 2 shows the crop areas for 2011/12 based on farmers' expectations. Vegetable and brassica seed areas and prices are expected to remain steady. Continuing demand for protein globally is expected to lift pea contract areas in the spring, although this is not reflected in the monitored group as peas are not generally a high return crop.

Increased areas of grass and maize silage are expected on the back of a much improved dairy payout outlook than existed in June 2010. This, along with better lamb prices, mean the contribution to gross revenue from livestock, grazing and the sale of residues is anticipated to at least hold at 2010/11 levels, underlining the mutual relationship of the livestock and arable sectors in Canterbury.

While trading lambs were expensive to purchase in autumn 2011, farmers are anticipating the margins required of around $40 per head will eventuate. This is budgeted to generate $119 000 in sheep sales (less purchases) in 2011/12, similar to the previous year.

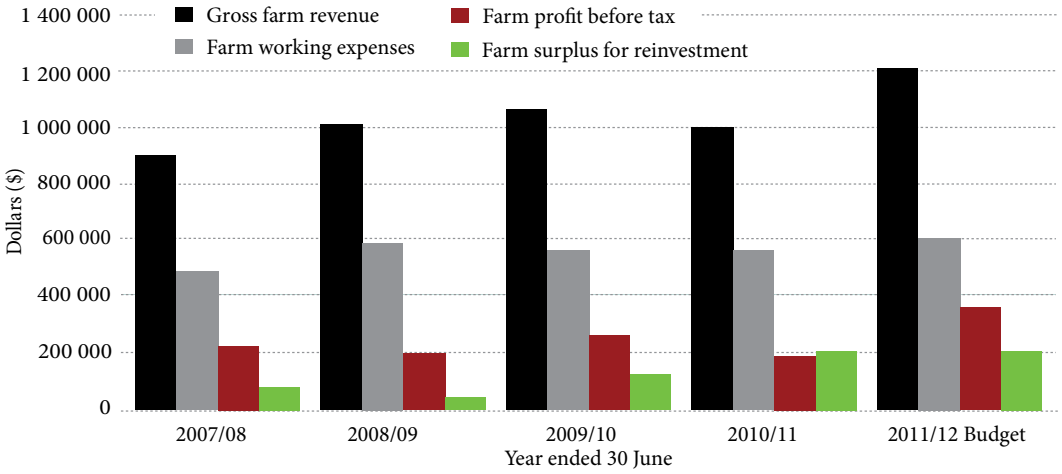
EXPENDITURE INCREASES MODERATELY

Farmers anticipate being able to hold expenditure to an overall 8 percent increase. This would decrease the ratio of farm working expenses to gross farm revenue from 56 percent to 51 percent, which is considered a very healthy level.

The 8-hectare increase in crop area will account for about 3 percentage points of the expenditure increase. A large increase in electricity expenditure reflects an expected return to typical irrigation levels as well as likely price rises. Farmers anticipate unit cost increases in fertiliser, fuel, weed and pest control, freight rates and insurance due to global drivers. Likewise, farmers expect they will need to increase labour rates to retain good staff. Contracting rates are expected to rise although activity is expected to reduce, resulting in a slight reduction in contracting expenditure.

Farmers are anticipating only small rises in most overhead expense items, although some industry commentators suggest this may not be realistic. Interest payments are expected to decrease as more loans are reviewed onto lower rates.

FIGURE 3: CANTERBURY ARABLE CROPPING MODEL PROFITABILITY TRENDS



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NET RESULT A TALE OF TWO MEASURES

While the gross farm revenue and the net profit show significant increases in 2011/12, the farm surplus for reinvestment measure is very similar to 2010/11. This is due to farmers anticipating a return to the difficult cashflow conditions that arable farmers typically face in which about 60 percent of the crop harvested will not have been sold by the end of June 2012.

Monitored farmers are remaining cautious following the poor yields in 2010/11. Development and capital expenditures are expected to rise modestly to about $150 000 from $130 000 in 2010/11 due to having more cash in the bank in June 2011 than usual. Farmers noted their development priorities are irrigation, water efficiency improvements and replacing machinery with more efficient items when possible. Farm expansion and large debts are not generally on the horizon for farmers, except where joining irrigation scheme developments.

INDUSTRY ISSUES AND DEVELOPMENTS

GROWER MORALE AND BUSINESS VIABILITY PLANS

Arable farmer morale has returned to neutral again, following a negative period that coincided with the last farm monitoring round in May 2010. Commodity prices in general have picked up and there are global concerns about cereal supply issues emerging due to dry conditions in major growing regions. This is expected to help hold these prices as the northern hemisphere harvest begins. The dairy sector outlook is good, resulting in expectations in the arable sector of increased demand for grains and dairy support activities. Autumn was excellent for crop establishment, and cash positions are relatively good. While farmers are therefore cautiously optimistic, they also are aware that some other farming systems are doing even better at present, relative to arable returns in 2010/11.

Arable farmers are generally positive about the prospect of new irrigation schemes around Canterbury, although some have decided they cannot wait and have put in their own buffer storage areas. Where they have joined schemes, arable farmers are making the investment based on capital protection rather than to increase arable profitability. Often the additional production from irrigation cannot justify the annual servicing costs of schemes except in the driest years.

FARMER RESPONSE TO INPUT PRICE CHANGES AND SHORTAGES

Farmers are very focused on keeping a tight rein on farm working expenses. During the period of a higher New Zealand dollar against the US dollar, there has been some strategic investment in irrigation hardware imported from the US, and farmers also recognise that the high exchange rate provides opportunities for favourable deals on farm equipment. Machinery suppliers have noticed a jump in sales during the first half of the 2011 calendar year, although it is difficult to know how much of this increase was from arable farmer demand compared to other farm types.

Livestock remain an important part of the arable farm model, for both financial returns and also for restoring organic matter to support the depletive cropping phases. However, the nature of the livestock enterprise is continuing the trend to a trading and contract grazing based system with fewer capital stock and a shifting emphasis to dairy support. This is being driven by gross margin returns, the simplicity of the system and cashflow needs.

ENVIRONMENTAL AND NATURAL RESOURCE MANAGEMENT

Tight control on expenditure focuses farmers' attention on eliminating wastage of nutrients and water. Attention is being paid to improving water efficiency. This is partly due to the focus that media and the regional council are placing on these issues, but mostly because it makes good business sense. Farmers are aware their water allocations need to go further, and are active in piping supplies, installing flow meters, upgrading to laterals and pivots, and monitoring soil moisture. Some useful research funded by the Foundation for Arable Research (FAR) and the results from a few high performing farms that have adopted these technologies are assisting farmer uptake. One of the sample farms puts their yield increases in 2010/11 down to converting to pivots from roto-rainers.

THE IMPACT OF DAIRY EXPANSION IN CANTERBURY ON THE ARABLE SECTOR

The pros and cons of the rapid and ongoing growth of dairying in Canterbury is on many peoples' minds, and is one that is sure to create a debate when raised. The arable farming sector has gained much from the dairy sector in terms of sales of residues, grazing services and increased grain consumption, but is also under threat as the change of land use undermines the industry's critical mass and the opportunity cost of land and water in alternative uses.

The benefit of the dairy market for grains and other produce is well illustrated in the model budgets in tables 3 and 4. What the figures do not show is that the system of contracting these services is still developing. There are many reports of problems on both sides of the equation over the past few years, for example, dairy farmers reneging on feed supply contracts when there is more feed available than anticipated, and likewise, arable farmers not supplying grain at an agreed price when grain shortages arise. While these examples are real and often are discussed within the community, the majority of transactions are successful for both sides, and useful lessons are being learned about how to manage customer relationships. Communication appears to be the issue that most needs improvement. Part of the Arable Industry Marketing Initiative (AIMI) is bringing the dairy and arable sectors together to develop better information and contracting arrangements. Other parts involve improving information on grain production and availability, and logistics issues in getting New Zealand grain to customers.

High equity arable farmers are increasingly taking the view that it would be prudent business sense to invest in dairy farming. There is increasing interest in establishing dairy units on part of an established cropping farm on an equity sharing basis, creating a mutually beneficial arrangement for both properties in risk management for finances and feed supply.

The effect of this situation is to push up land prices and further disconnect arable farm values from the returns on crops grown. Observed behaviour, for example buying in to irrigation schemes, tends to be driven by the future value of the farm system for dairying. This makes the pathway into arable farming even more difficult and good arable farmers are becoming fewer. The general feeling is that arable farmers do not want to become dairy farmers themselves but are counting on realising dairy-driven asset values as their superannuation.

The arable processing and marketing sector is under the most threat from this situation, as both the skill base and the area of crops grown are potentially decreasing. Commentators

suggest we may simply be in a transition period to a different industry structure – one where lower returning crops are cut out in favour of dairy support activities, and there may be some structural shifts in the industry underway. This may be more positive for the sustainability of the arable system than the "grow more crops" reaction to falling sheep prices in the 1990s. As always, the sector has shown it readily adapts to changing circumstances and is expected to do so in this case too.

INFORMATION ABOUT THE MODEL

Canterbury is the largest arable cropping area in New Zealand. The Canterbury arable cropping model represents approximately 500 properties larger than 100 hectares located throughout Canterbury, of which about half are in the mid-Canterbury region.

The model is created from information drawn from 18 arable farms and a wide cross-section of agribusiness representatives. The aim of the model is to typify an average arable farm for Canterbury. Budget figures are averaged from the contributing properties and adjusted to represent a real arable farm. Income figures include income from crops and stock, off-farm income, new borrowing, and other cash income. Expenditure figures include costs of production, debt, leasing, drawings and development and capital purchases.

The monitored farms generate more than 50 percent of their income from growing crops. They are generally either more than 75 percent irrigated, or are located in usually reliable rainfall areas. Most properties grow a combination of crops, which are grouped in the budget into cereals, small seeds (including grass, clover and vegetable seeds), process vegetables, silage and other crops. Most have some type of stock enterprise as an integral part of the system, for example, grazing, trading and/or breeding stock.

For more information on the model contact **Murray.Doak@maf.govt.nz**

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