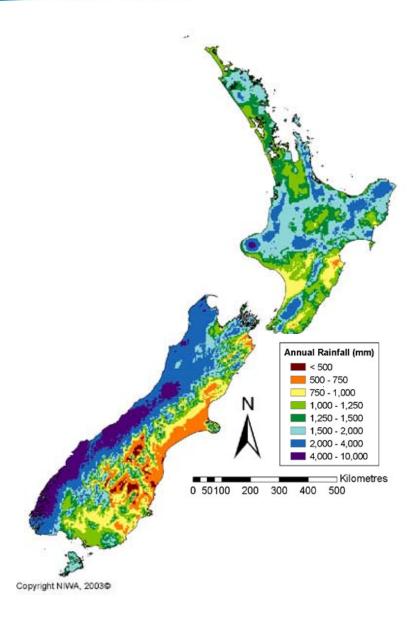
# An overview of the New Zealand Agricultural Sector

Charlie Graham - IFMA Conference

March 2011

## AGRICULTURE IS A BIG PART OF NZ'S ECONOMY

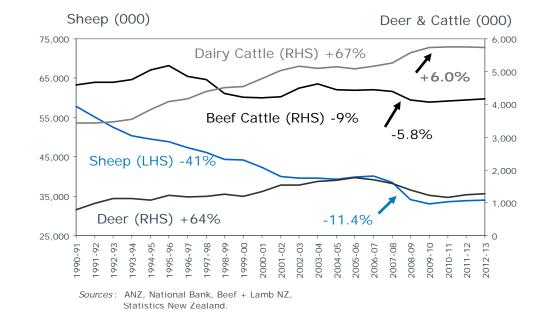
- Agriculture generates ~17% of New Zealand's GDP and 53% of its export revenues
- New Zealand has a natural comparative advantage due to its temperate climate
- Pastoral farming base provides low cost production systems, utilising rotational grazing techniques and integration of breeding/ finishing systems
- The dairy industry is the largest economic contributor, although the meat and fibre along with forestry and horticultural industries are all substantial and growing to varying degrees
  - 11.2 million hectares of farming land
  - 6 million dairy cattle, 32 million sheep, and 4 million beef cattle, 1.3 million deer
  - Over 63,000 farms, with an average size of ~230 hectares
  - 33,600 ha of vineyards and 13,000 ha of Kiwifruit
- Most common business model husband and wife partnerships as owner/ operators although greater "corporatisation" emerging
- Torrens system of land tenure enabling freehold ownership and stability of tenure



## TRENDS – LAND USE AND PRODUCTIVITY

- Real production has increased by 110% since 1990-91, compared to 61% for the rest of the economy
- Total farmed area down 20% since 1990-91, or 2.65 m ha from urban creep and shutting up of high country
  - Sheep numbers in steep decline, beef and deer declining but less so, dairy cattle numbers increasing
- Trends

- Real profitability levels along with regulation / legislation driving land use change
- Terms of trade driving aggregation and consolidation
- Farm management ability leading to widening profitability range of farms within industry
- Capital cost resulting in ownership structural change (greater "corporatisation")



#### Key productivity measures

1990-91 2009-10

% chq

Lambing % (ewe)	101.6	123.4	21%
Av lamb weight	14.35	17.65	23%
Wool kg/head	5.28	4.7	-11%
Av steer weight (kg)	297	312	5%
Milksolids/cow	260	318	22%
Av dairy herd (cows)	164	376	229%
Av Sheep&Beef (su)	3,400	4,000	18%

## **CANTERBURY – A PROVINCE TRANSFORMED**

- Canterbury transformed over 30 years through dry land irrigation
- Previous farming systems involved:
  - Livestock farming practices of finishing lambs for slaughter revolved around capitalising on two seasonal pasture flushes giving a Total Farm Income of \$500-600/ ha
  - Arable cropping of cereals, peas, ryegrass
- Overhead irrigation systems have allowed changes in farming practice
  - Expansion of dairying with a Total Farm Income of about \$8,000/ ha
  - Intensification of cropping systems with diversification into high yielding small seed production along with winter feed crop establishment for finishing lambs giving Total Farm Incomes of \$3,500-4,000/ha





On the charge - Richie McCaw

## **BEYOND FARM GATE**

- Exports/Domestic
  - 90-95% of New Zealand primary production exported
  - Destination has shifted from traditional markets of USA, UK, and Europe towards Asia, with some diversification into Latin America and Middle East
- Co-operatives
  - Largest processors / marketers of New Zealand primary production are farmer owned co-operatives (e.g. Fonterra, Silver Fern Farms, Alliance) although a number of smaller co-operatives successfully exist (Tatua Dairy Co-op, Westland Milk Products, NZ Dairy Goat Co-op)
  - Argument exists as to degrees of success, or whether co-operatives limit
- Investor Owned Companies
  - "Smaller" investor owned companies in all industries
  - Exploiting niches or competing in commodity markets based on lower unit costs
- Considerable product diversification
  - Most noticeable in dairy and meat industries
  - Consider avocado industry fruit, pastes, oils
  - Agritech and biotech industries leverage off agricultural sector



5

## CHALLENGES AND OPPORTUNITIES

#### • People

- Demographic of aging farm proprietor population (average age of farmers about 54)
- Legacy of perceived "attractiveness" of industry to next generation during the late 20<sup>th</sup> century
- Industry offers great opportunity for young people
- Generational change is accompanied by technological innovation and transformation
- Bio security
  - ensure robustness
- Food safety/traceability
  - embracing consumer trends in these areas and ensuring practices support "New Zealand brand"
  - Includes recognising consumer concerns about environmental sustainability and animal welfare
- Debt/property values ex Global Financial Crisis
  - Wake of debt based expansion and GFC hits larger operators hardest
  - Property values declined by 20-30%
  - Recapitalisation required will happen through asset sales (an overhang of property for sale currently exists)
  - Focus now upon cash return / Return on Assets



## **CHALLENGES AND OPPORTUNITIES continued**

- Investment in water resources
  - Infrastructure development
  - Efficient water management practices
- Upskilling of farmers
  - Governance and management skills for larger farming businesses requires continual development



- Conservative mindsets exist regarding embracing changing policies and management techniques particulary in the sheep and cattle industry
- The practices of the most successful are available for all farmers
- Extension services to disseminate and lock in superior practices
- Investment in research and development

# An overview of the New Zealand Agricultural Sector

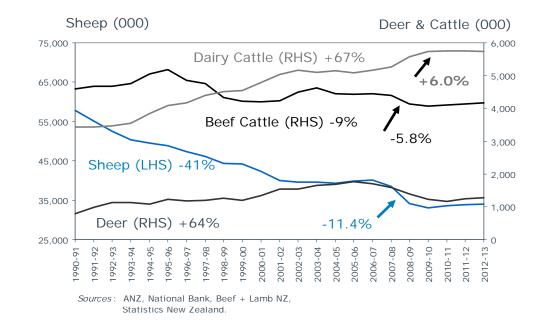
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March 2011

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### AGRICULTURE IS A BIG PART OF NZ'S ECONOMY

- > NZ has approximately 11.2 million hectares of farming land and some 6 million dairy cattle, 32 million sheep and 4 million beef cattle
- > Over 63,000 farms, with an average size of ~230 hectares, with a trend towards consolidation into larger farms
- > The agricultural sector generates ~17% of New Zealand's GDP and 53% of its export revenues
- > Whilst the dairy industry is by far the largest contributor, the meat and fibre along with forestry and horticultural industries are all substantial and growing to various degrees.

<u>Pastoral</u> Wool	September Year Ende Products - Raw Wool	d <u>2010</u> <b>\$ million</b> 570
Meat	<ul> <li>Lamb</li> <li>Mutton</li> <li>Beef &amp; Veal</li> <li>Venison</li> <li>Eddible Offal</li> <li>Other Meats (poultry,pork)</li> </ul>	2,347 344 1,853 211 188 190 <b>5,132</b>
Dairy	- Milk & Powders - Butter - Cheese - Casein <b>Total Dairy</b>	6,099 1,864 1,431 638 <b>10,032</b>
Other An	imal Products - Hides & Skins - Deer Velvet - Tallow - Animal Oils & Fats - Crude Animal Materials Total Other	175 31 134 22 292 <b>654</b>
Livestock		203
TOTAL PA	ASTORAL 10	16,591

#### Horticulture & Arable

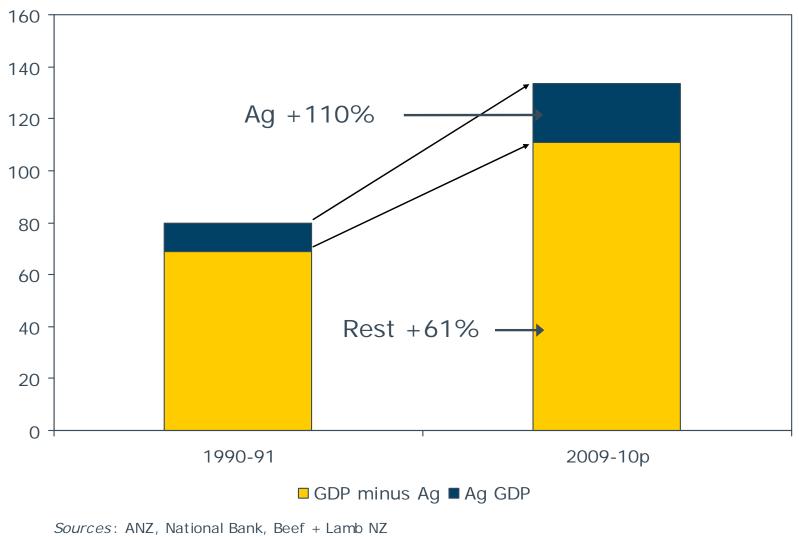
- Fresh Kiwifruit	975
- Fresh Apples	330
- Other Fresh Fruit	164
- Vegetables	412
<ul> <li>Seeds, Plants &amp; Plant Material</li> </ul>	221
- Cereals	8
Total Horticulture & Arable	2,110

#### Processed Agriculture

Processe	<u>a Agriculture</u>	
	- Tops, Yarns & Sliver	100
	- Carpets & Rugs	82
	- Other Final Woollen Products	30
	- Leather & Dressed Skins	255
	- Meat Meal & Animal Feeds	218
	- Processed Fruit & Vegetables	254
	- Wine	1,065
	- Cereal Products	10
	Total Processed	2,014
	Total Trocessed	2,014
Other Ag	ricultural Exports	597
TOTAL AG	GRICULTURE	21,311
Forestry	- Sawn Timber & Logs	2,142
<u>rorestry</u>	- Other Wood & Wood Products	595
	<ul> <li>Pulp &amp; Paper Products</li> <li>Total Forest Products</li> </ul>	1,213
	Total Forest Products	3,949
<u>Fish</u>		1,257
TOTAL PR	RIMARY BASED EXPORTS	26,518
Aluminiur	n	1,136
Mineral F		2,154
	y & Equipment	2,234
Other Exp		7,983
		7,705
<u>TOTAL NZ</u>	MERCHANDISE EXPORTS	40,024
Pastoral <sup>o</sup>	% of Exports	41.5%
	re % of Exports	53.2%
	% of Exports	66.3%
· · · · · · · · · · · · · · · · · · ·		

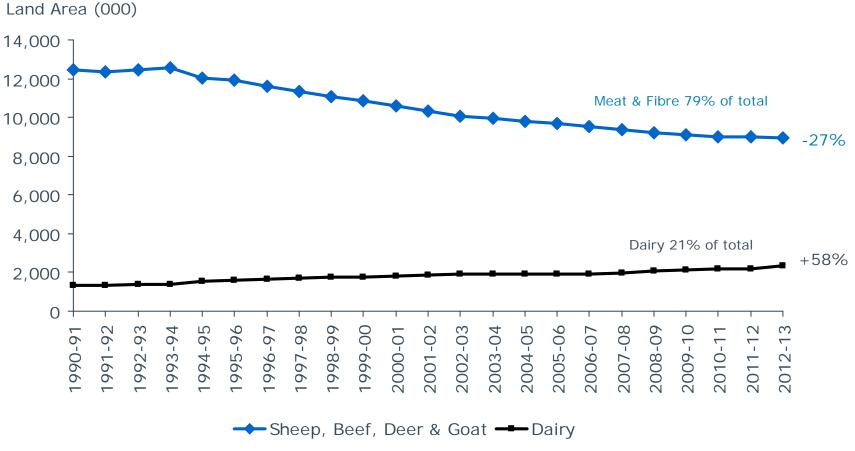
## URING THE PAST 20 YEARS GROWTH IN AGRICULTURE HAS OUTSTRIPPED THE REST OF THE ECONOMY

\$ Billion Real

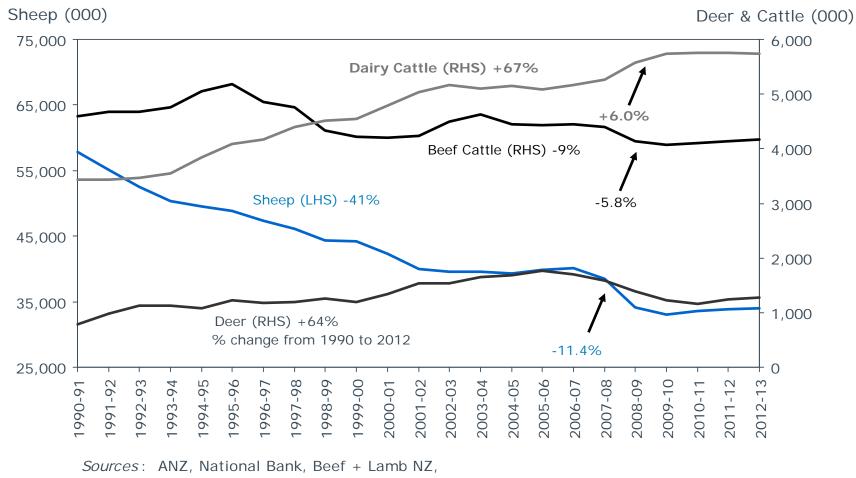


NZIER, MAF.

## TOTAL AREA OF 11.2 m ha, DOWN 20% SINCE 1990-91 OR 2.65 m ha FROM URBAN CREEP AND SHUTTING UP HIGH COUNTRY



Sources: Beef + Lamb NZ, Statistics New Zealand.

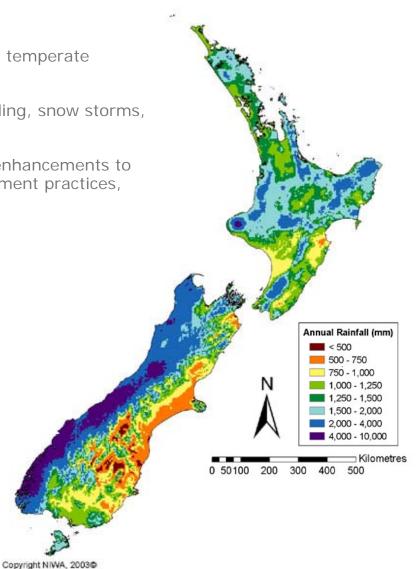


Statistics New Zealand.

- > New Zealand has a natural competitive advantage due to its temperate climate...
- ...however, the climate is also unpredictable (droughts, flooding, snow storms, etc) which impacts the level of production year to year.
- > The sector continues to achieve productivity gains through enhancements to animal and pasture genetics and new farm/orchard management practices, albeit the extent of these annual gains is slowing.

#### **Productivity Gains**

	1990-91	2009-10
Lambing Percentage (ewe)	101.6	123.4
Hogget lambs as % all lambs	-	3.4
Average Lamb Wt (kg)	14.35	17.65
Lamb sold kg/ewe	9.76	17.05
Wool Sold kg/head	5.28	4.75
Average Steer Wt (kg)	297	312
Milksolids per cow (kg)	260	318
Kiwifruit (Green t/ha, 2000 harvest)	6,500	8,000
Grapes (t/ha, 1994 harvest)	8.8	14 8.9



New Zealand Production								
Year	Wool	Lamb	Beef	Venison	Milk	Kiwifruit	Grape	Apples
Units	Clean	Tonnes	Tonnes	Tonnes	Kilograms	Trays	Tonnes	Tonnes
	Tonnes	Carcase	Carcase	Carcase	Milksolids	Million		
	(000)	Weight	Weight	Weight	Billion			
2000-01	236.8	433,500	571,800	22,700	1.09	55	119,000	-
2001-02	228.9	414,100	554,500	26,400	1.15	69	118,700	-
2002-03	229.6	433,500	634,100	24,400	1.19	64	76,400	333,400
2003-04	217.7	411,300	686,100	28,200	1.25	66	166,000	325,200
2004-05	215.5	437,600	629,500	34,800	1.21	83	142,000	364,500
2005-06	224.4	438,500	619,900	40,400	1.27	87	185,000	302,800
2006-07	217.5	452,700	600,800	40,900	1.32	86	205,000	259,900
2007-08	205.7	446,400	610,300	36,400	1.27	97	285,000	295,400
2008-09	157.4	397,600	611,700	34,500	1.39	106	285,000	265,200
2009-10	173.4	369,100	599,100	28,700	1.44	101	266,000	308,100
2010-11f	177.0	343,800	574,500	21,700	1.45	101	300,000	315,000
% Chg.	-25%	-21%	0.5%	-4.4%	+33%	+84%	+152%	-5.5%
% Exported	90%	94%	87%	96%	95%	95%	71%	

Sources: ANZ, National Bank, Beef + Lamb NZ, Dairy NZ, MAF, Pipfruit NZ, NIWA.

% change is for period 2000/01-2010/11

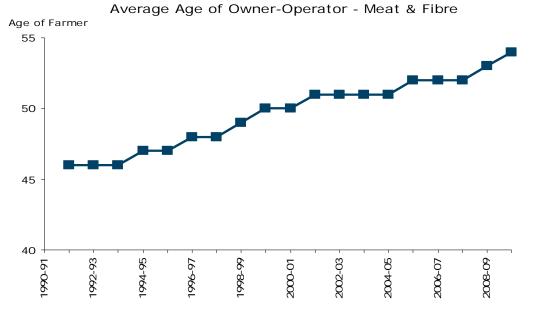
## FARM AGGREGATION PREVALENT ALONG WITH DEMOGRAPHIC CHANGES

	1984-85	2009-10	
Commercial M&F Farms	22,000	11,800	-46%
Av Stock Units	3,424	4,000	+17%
No of Dairy Herds	15,881	11,700	-26%
Av Cows at peak	144	376	+161%

#### Commercial Horticulture Units

7,000

Sources: ANZ, Beef + Lamb NZ, Livestock Improvement Corporation, Horticulture NZ.



Sources: ANZ, National Bank, Beef + Lamb NZ.

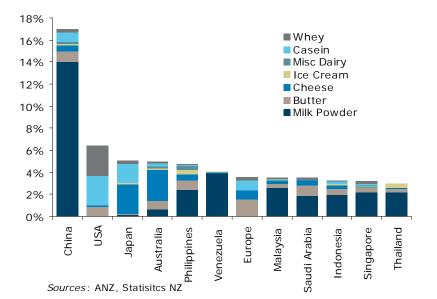
## DAIRY INDUSTRY OVERVIEW



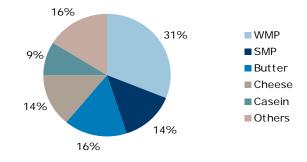
## NZ DAIRY INDUSTRY OVERVIEW

- > New Zealand is the world's largest dairy product exporter
  - Exporting 95% of country's dairy production
  - Accounting for approximately 35% of the global dairy trade
- > USA has historically been New Zealand's largest export market, but has been recently surpassed by China, with increasing diversification into Asia, Latin America and the Middle East
- > China and South East Asian markets are becoming increasing important due to:
  - Strong population and economic growth;
  - Close proximity to New Zealand;
  - Increasing import demand as domestic milk supplies are limited by climate conditions; and
  - Improved market accessibility after the signing of an agreement to establish the ASEAN-Australia and New Zealand Free Trade Area

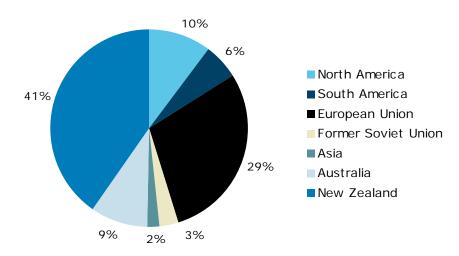
#### DAIRY PRODUCT EXPORTS BY MARKET DESTINATION



#### NEW ZEALAND EXPORT BY PRODUCT



#### GLOBAL DAIRY EXPORT VOLUMES (2010)

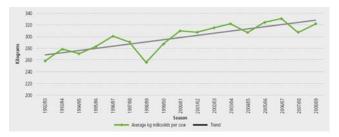


Sources: ANZ National Bank, USDA

18

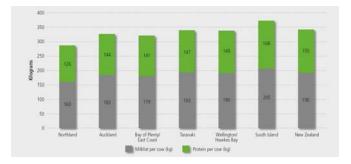
## NZ DAIRY FARM OPERATING STRUCTURE

New Zealand has a large dairy farming industry with a national herd of over 4.6 million cows in 2010 (CAGR of 3.0% since 2000). Productivity per cow also continues to improve.



#### DAIRY FARM REGIONS

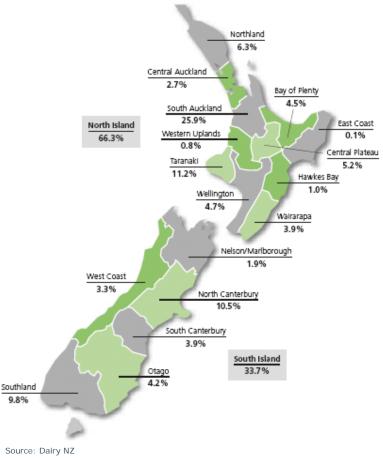
- > Approximately 66% of dairy cows in the North Island as at end of 2009. The South Island had the balance
- > Canterbury farms in South Island on average have higher production rates given they are irrigated <sup>1</sup>



#### DAIRY FARM OPERATING STRUCTURE

- > The main operating structures are:
  - Owner operator (64%): farmers own and operate their own farms
  - Sharemilker (34%): Operating a farm on behalf of the owner and receive an agreed share of the farm receipts.

#### REGIONAL DISTRIBUTION OF DAIRY COWS IN NEW ZEALAND



#### Note:

1. Including milk solids per hectare, milk solids per cow and milk solids per herd

## NEW ZEALAND REMAINS A LOW COST DAIRY PRODUCER

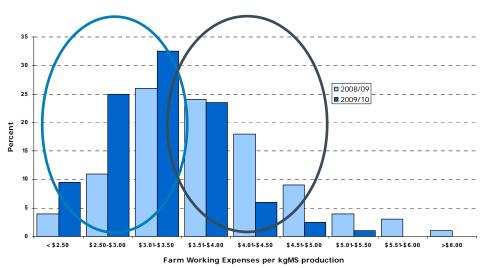
- > New Zealand is one of the world's lowest cost dairy producers:
  - Pasture based cost efficient production system
- > Benefiting from economies of scale with medium to large farming operations
- > Efficiency of farm management and costs of production vary both geographically and from farm to farm.

#### US DOLLAR COST OF PRODUCING 100 LITRES OF MILK

<20	20-25	25-30	30-40	>40
New Zealand	China	Israel	UK	Switzerland
Argentina	Brazil	Ireland	Germany	Netherlands
India	Uruguay	South Africa	Spain	France
Chile		USA	Sweden	Italy
Australia				Canada

Source: AGInvest 2008

#### AVERAGE ON-FARM COSTS PER KG OF MILK SOLIDS PRODUCED



Source: MAF 2009 Farm Monitoring Report

Traditional pastoral based farming systems. Waikato & Taranaki established regions Intensive farming systems...irrigation, supplementary feed. Canterbury, Nth Otago, Central NI growth regions

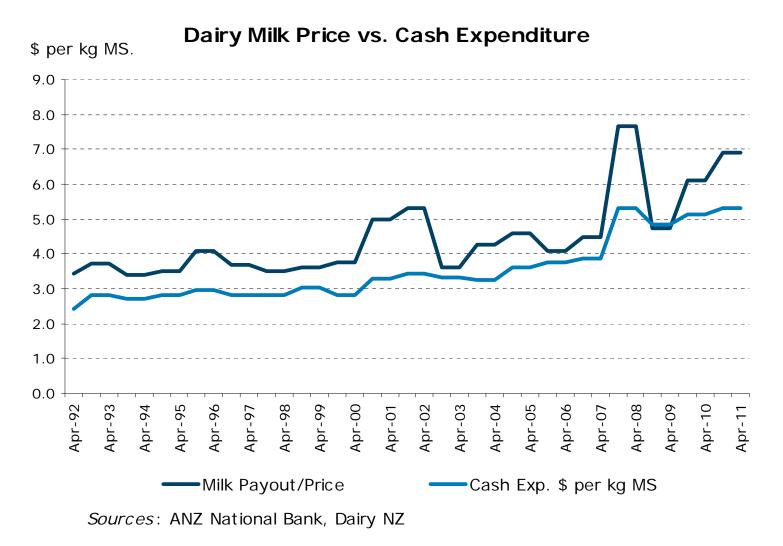
PHYSICAL CHARACTERISTICS:	per farm	per cow	per hectare	
Milking area (ha)	131.2			
Peak cows milked	374			
kg Milksolids produced	130,159	348	992	
	\$ per farm	\$ per cow	\$ per milking hectare	\$ per kg milksolids produced
DAIRY CASH INCOME:				
Milk sales (net of dairy levies)	888,805	2,376	6,774	6.83
Net livestock sales (sales - purchases)	42,395	113	323	0.33
Other dairy cash income	4,928	13	38	0.04
Net Dairy Cash Income	936,128	2,503	7,135	7.19
CASH FARM WORKING EXPENSES:				
Wages	75,950	203	579	0.58
Animal health	25,982	69	198	0.20
Breeding & herd improvement	15,422	41	118	0.12
Farm dairy	7,964	21	61	0.06
Electricity	12,902	34	98	0.10
Net feed made, purchased, cropped	92,099	246	702	0.71
Stock grazing	40,158	107	306	0.31
Run-off Lease	6,996	19	53	0.05
Fertiliser (incl nitrogen)	75,246	201	574	0.58
Irrigation	6,492	17	49	0.05
Regrassing	9,131	24	70	0.07
Weed & pest	4,057	11	31	0.03
Vehicles & fuel	25,993	70	198	0.20
Repairs & maintenance	39,339	105	300	0.30
Freight & general	6,330	17	48	0.05
Administration	16,102	43	123	0.12
nsurance	5,751	15	44	0.04
ACC	3,979	11	30	0.03
Rates	10,713	29	82	0.08
Farm Working Expenses	480,606	1,285	3,663	3.69
Cash Operating Surplus	455,522	1,218	3,472	3.50
ADJUSTMENTS:				
Value of change in dairy livestock	7,042	19	54	0.05
less Labour adjustment	55,885	149	426	0.43
plus Feed inventory adjustment	0	0	0	0.00
less Owned run-off adjustment	14,454	39	110	0.11
less Depreciation	55,559	149	423	0.43
Net Adjustments	-118,856	-318	-906	-0.91
OPERATING CASH & NON-CASH:				
Dairy Gross Farm Revenue	943,170	2,522	7,190	7.25
Dairy Operating Expenses	606,504	1,622	4,623	4.66
Dairy Operating Profit	336,666	900	2,567	2.59

#### Average Dairy Farm Owner-Operator - Cash Operating Surplus 2010-11

Source: Dairy NZ.

## **DAIRY FARM RETURNS - IMPROVING BUT CYCLICAL**

> As a result of cyclicality in dairy commodity prices and NZD/USD exchange rate volatility (dairy product trades are generally all priced and settled in USD), the New Zealand Dollar return to farmers has seen considerable fluctuations in recent years.



### HOWEVER THERE IS A SPREAD ACROSS FARMS AND REGIONS

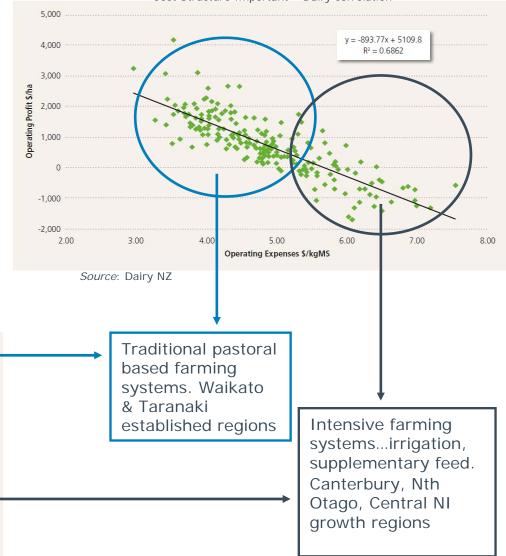
- > There is a strong relationship between operating profit and cost structure.
- > Cost structures are governed by the type of farming system adopted and level of debt.
- In general the traditional pastoral based farming systems in Waikato and Taranaki, which are the well established dairying areas, have better operating profit per hectare and lower input costs and debt levels.
- > In the regions that have recently expanded onto more marginal farm land they tend to have lower profitability per hectare. This is because of higher cost structures from operating on more marginal land and higher debt levels because of their recent expansion.
- > The more intensive farming systems that are based in Canterbury, North Otago, Southland and Central North Island tend to be larger to make-up for the reduced profitability per hectare.

Dairy Term Liabilities (\$per Kg MS)

30

Closing term laibilities \$/keMS

40



0

10

20

20

15

5

0

Per cent



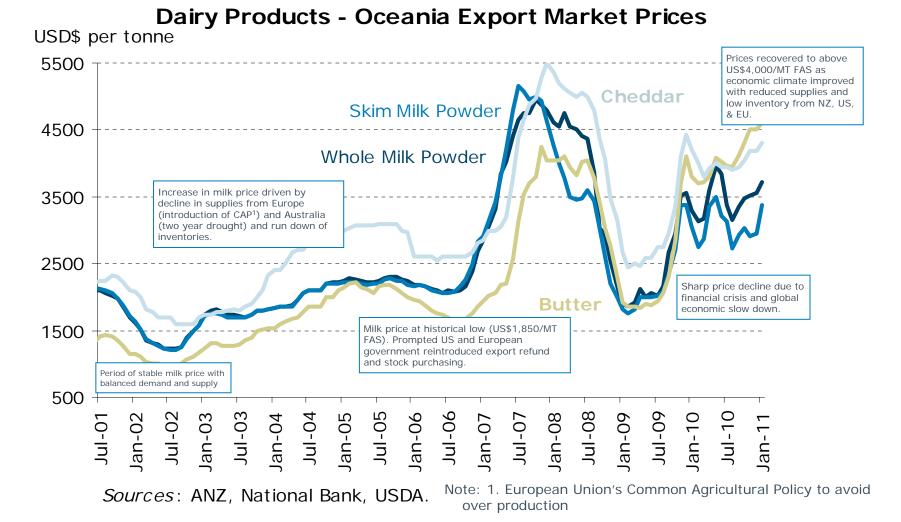
60

Mean 19.87

St Dev \$11.83

50

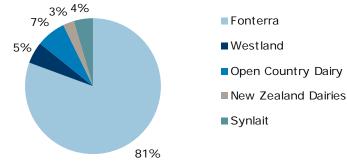
- > During the past three years, milk powder prices have experienced a significant amount of volatility due to changes in quantities of supply, global economic conditions, environmental impact and government interventions
- > Current whole milk powder prices have increased from reduced supply, low inventories and robust demand and is now approximately US\$4,000/MT FAS



## **OVERVIEW OF NZ DAIRY PROCESSORS**

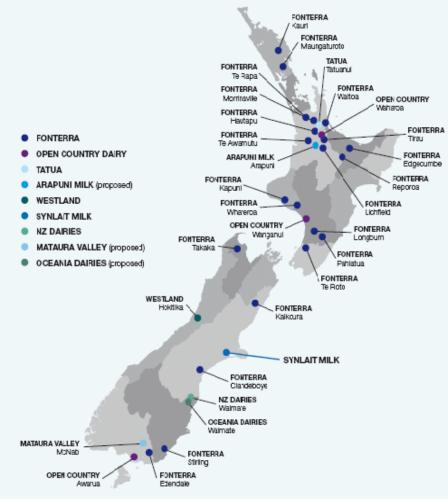
- In 2010, New Zealand dairy companies processed approximately 16 .5 billion litres of milk, containing 1.4 billion kgMS. Milk solids processed have been increasing at 4.0% CAGR since 2000
- > New Zealand dairy processing sector is highly concentrated, with six companies who collect, process and sell New Zealand farmers' milk into domestic and international markets:
  - Fonterra Co-operative Group Limited
  - Open Country Dairy Limited
  - Westland Co-operative Dairy Company Limited
  - Synlait Milk Limited
  - Tatua Co-operative Dairy Company Limited
  - New Zealand Dairies Limited
- > Fonterra is the largest producer, formed in 2001 by merger between Kiwi Co-operative Dairy Company, New Zealand Dairy Group and the New Zealand Dairy Board.
- > With the exception of Fonterra (with 20 plants) and Open Country Dairy (3 plants), the other companies are single site operations





Source: Synlait Note: Excludes Tatua as it does not produce milk powder

#### MAJOR DAIRY PROCESSING FACILITY LOCATIONS



Source: Synlait

## **NEW ZEALAND DAIRY PROCESSORS**

#### OPEN COUNTRY DAIRY



- > Manufacturing cheese, milk fat and milk powder products
- > Processed 40 million kgMS in 2009
- Has three processing sites located in Waharoa, Wanganui and Awarua
- > Major shareholders are Talley family and Olam



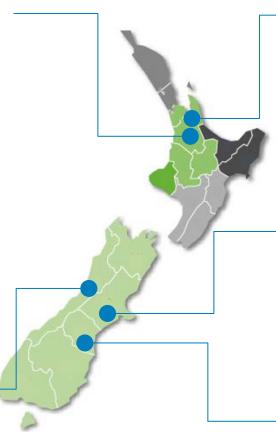
- Co oporativoly owpo
- > Co-operatively owned by over 11,000 farmers in New Zealand
- Processing over 14 billion litres of milk (1.2b kgMS) and selling over 2 million metric tonnes of milk products per annum
- > Multiple (20) processing plants located throughout the country

#### WESTLAND

**FONTERRA** 

#### Westland Milk Products

- > Co-operatively owned by its farmer suppliers
- > Product categories include milk powder, butter, AMF, caseins and caseinates
- > Processed 45 million kgMS in 2009



#### TATUA



- > Co-operatively owned by farmer suppliers
- –> Producing consumer food service ingredients, nutritional products, caseinates and AMF
- > Processed 15 million kgMS in 2009

#### SYNLAIT



- > Vertically integrated producer
- Milk powder and nutritional products
   focused
- > Processed 16 million kgMS in 2009
- > Bright Dairy acquiring 51% shareholding

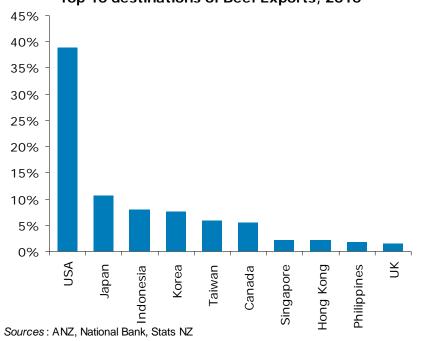
#### NZDL

- > Acquired by Russia-listed Nutritek in 2009
- Milk powder and nutritional products focused
- > Processed 15 million kgMS in 2009

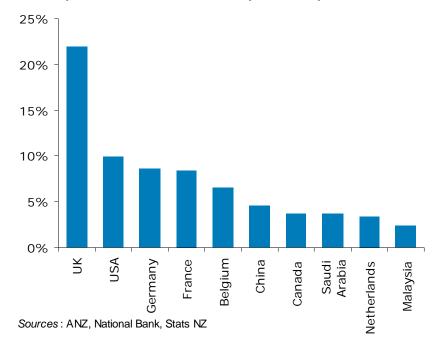
## MEAT INDUSTRY OVERVIEW



- > The meat export sector generated revenues of NZ\$5.1 billion in 2010, from total volumes of ~800 thousand tonnes.
- > Approximately 11,800 commercial meat and fibre farmers in NZ. The number of farms has declined by nearly 50% since 1984, but the average farm now carries 27% more stock units through loss of small farms to other land uses and amalgamation.
- > The bulk of our lamb exports remain to the UK. Beef production is commoditised and around 45-50% goes into the US grinding beef market. Although this is lower than prior to the BSE outbreak in the US during 2003 (75% of NZ exports to US), as this allowed NZ and Australia to export more secondary cuts into South Asia.
- > Both the UK and US markets continue to impose import quotas
- > Offal's and by-products are primarily exported to Asian markets.



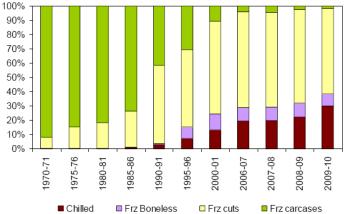




#### Top 10 destinations of Sheepmeat Exports, 2010

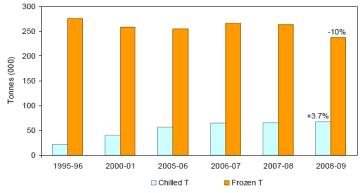
## **MOVING TO HIGHER VALUE LAMB EXPORTS**

Increasing volume of lamb being exported as premium chilled product, as opposed to frozen cuts



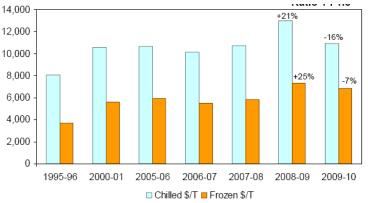
Source: Meat & Wool New Zealand Economic Service

#### New Zealand Lamb Exports – Product Mix



Source: Meat & Wool New Zealand Economic Service

25,000 12,000 Ratio 1 : 1.4 Ratio 1 : 2.7 71% of Total Exports 29% of Total Exports 20,000 10,000 FOB \$ per Tonne Ionne 8,000 15,000 per 6,000 10,000 Э 4,000 5,000 2,000 0 0 Other North Asia Pacific North European Middle East America Union Chilled \$/T Frozen \$/T



	2005-06	2006-07	2007-08	2008-09	2009-10p	2010-11f
Revenue Per Farm						
Wool	41,075	38,698	35,728	32,089	32,700	46,500
Sheep	141,075	132,526	117,692	166,153	173,900	173,200
Cattle	74,901	76,876	71,909	78,307	73,000	73,900
Dairy Grazing	7,373	7,381	9,262	16,485	15,500	14,400
Deer + Velvet	3,120	2,689	4,300	4,388	3,300	3,200
Goat + Fibre	14	2,005	4,000 5	4,000 17	0,000	0,200
Cash Crop	25,007	28,139	34,273	41,685	36,600	35,900
Other	8,458	12,783	16,841	16,740	14,700	15,500
Total Gross Revenue	301,017	299,117	290,010	355,864	349,700	362,600
Expenditure Per Farm						
Wages	20,262	19,985	19,392	19,317	19,648	20,190
Animal Health	14,669	14,364	13,949	13,750	13,826	14,101
Weed & Pest Control	7,720	8,272	8,137	10,180	9,072	9,497
Shearing Expenses	17,917	17,349	16,996	15,842	16,112	16,580
Fertiliser	30,517	31,231	35,323	35,950	34,112	36,875
Lime	2,546	2,925	2,411	4,456	2,988	3,661
Seeds	4,541	4,292	4,630	5,843	5,492	5,564
Vehicle Expenses	9,461	8,997	9,375	10,545	10,720	10,970
Fuel	8,825	9,225	10,545	11,101	10,950	11,482
Electricity	3,593	3,110	2,756	2,816	3,137	3,175
Feed & Grazing	10,444	12,900	12,249	14,357	13,633	13,501
Irrigation Charges	0	454	2,451	2,371	2,449	2,431
Cultivation & Sowing	3,506	3,247	3,452	4,288	3,700	3,848
Cash Crop Expenses	2,544	2,675	2,937	3,536	3,288	3,288
Repairs & Maintenance	20,710	19,954	17,011	20,578	21,100	21,900
Cartage	4,874	5,244	5,406	5,579	5,574	5,775
Adminstration Expenseses	9,111	9,582	9,416	9,891	10,283	10,143
Total Working Expenses	171,240	173,806	176,436	190,400	185,666	192,981
Insurance	3,677	3,843	4,156	4,758	4,932	5,099
ACC Levies	2,715	2,817	2,761	2,104	2,520	2,644
Rates	7,598	8,236	8,530	9,040	9,617	10,162
Managerial Salaries	2,078	2,148	2,129	2,336	2,500	2,466
Interest	40,899	47,937	54,811	56,586	49,300	43,939
Rent	6,156	6,573	8,151	10,432	8,600	8,675
Total Standing Charges	63,123	71,554	80,538	85,256	77,080	72,985
Total Cash Expenditure	234,363	245,360	256,974	275,656	288,700	265,966
Depreciation	24,956	24,647	23,956	25,266	25,326	25,704
Total Farm Expenditure	259,319	270,007	280,930	300,922	288,070	291,670
Farm Profit before Tax	41,698	29,110	9,080	54,942	61,600	70,930

#### Average Meat & Fibre Farm Owner-Operator - Cash Operating Surplus 2010-11

- > 98% of New Zealand livestock are raised and finished on pasture. There is only a small number of feedlot operations.
- > Average farm has 4,000 stock units. This is broken down into 2,780 sheep, 284 beef cattle and remaining is deer.

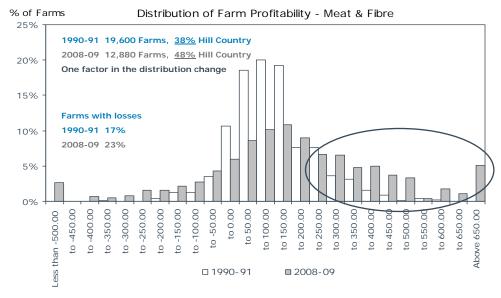
> Low returns from meat and fibre over the 2005-2008 period has led to diversification into more cropping and dairy support.

> Traditionally the hill country has a higher proportion of the breeding ewes and cows. The off-spring are sold via a store market to finishers on flatter/rolling country. This system improves the overall efficiency and speed which livestock can be brought to slaughter weights.

> Therefore, the make-up and management of a hill country farm is quite different to that of a finishing farm.

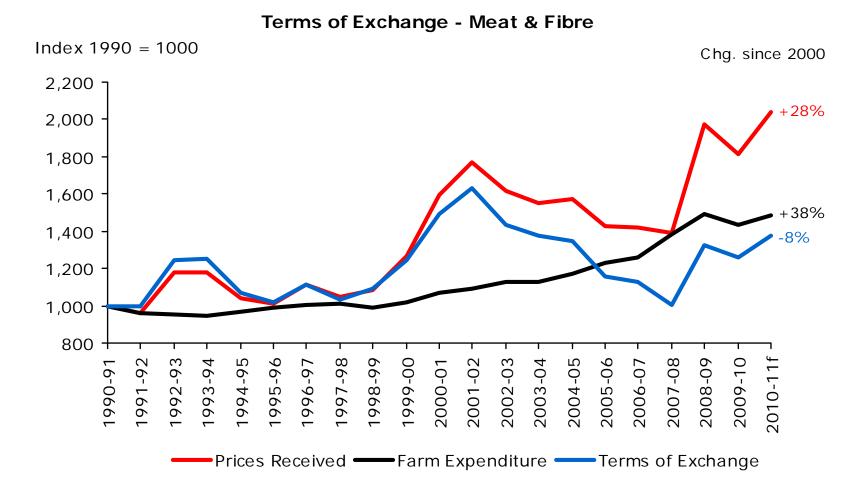
#### HOWEVER THERE IS A SPREAD.

- > The spread in profitability on meat and fibre farmers has doubled over the last 20 years.
- > Some of the main drivers are:
  - Land use change, with the best meat and fibre land converted to dairy, dairy support, cropping and horticulture.
  - Lack of investment on-farm in a number of area's such as labour, fertiliser and infrastructure. This has been caused by tight margins and the average age of owner-operator increasing.
  - Inflationary pressures on farm working expenditure over the last 10 years affecting the profitability of low cost systems.
- > This widening in performance has lead to a gap of \$20 per stock unit between the top 20 percent and average. Or \$80,000 for the average sized meat and fibre farm. When compared with a profit forecast of \$80,000 per farm this is a significant gap.



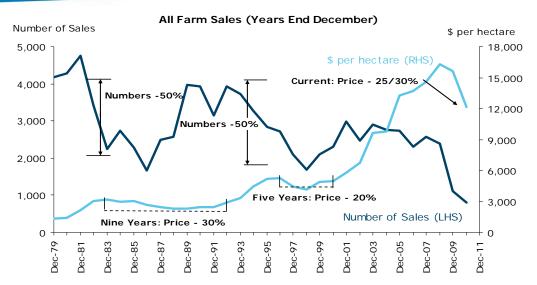
Sources: ANZ National Bank, Beef + Land New Zealand Economic Service

## **COST – PRICE SQUEEZE**



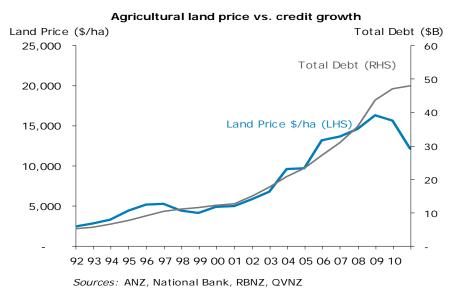
Sources: ANZ National Bank, Beef + Lamb New Zealand Economic Service

## FARM RETURNS TYPICALLY CAPITALISED INTO LAND VALUES - CURRENT CORRECTION LIKELY TO BE DIFFERENT GIVEN CREDIT CONDITIONS



Sources: ANZ, National Bank, Quotable Value

Average Meat & Fibre Farm		eat & Fibre Farm Average Dairy F	
ROE (%)	Equity (%)	ROE (%)	Equity (%)
4.6	81	8.5	63
4.4	81	9.5	63
2.4	80	3.6	62
1.2	82	3.5	65
1.2	82	3.0	68
0.2	81	2.6	63
0.0	80	2.2	64
-0.4	79	6.0	64
0.5	79	1.6	57
1.5	70	5.5	51
2.3	65	6.5	50
	ROE (%) 4.6 4.4 2.4 1.2 1.2 0.2 0.0 -0.4 0.5 1.5	ROE (%)Equity (%)4.6814.4812.4801.2821.2820.2810.080-0.4790.5791.570	ROE (%)Equity (%)ROE (%)4.6818.54.4819.52.4803.61.2823.51.2823.00.2812.60.0802.2-0.4796.00.5791.61.5705.5



> Credit growth was a strong determinate of the appreciation in land values.

> Total Ag Debt increased +360% from 2000 to2008. The price of land increased +330%.

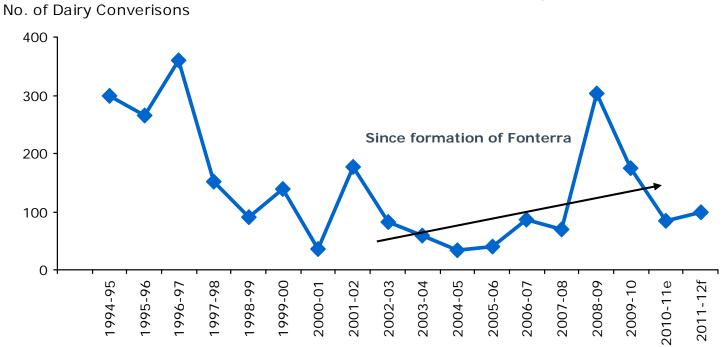
> Caused a dislocation between cash returns and underlying asset values. Leading to diminishing rates of return.

> As total debt and land price increased at the same rate, the serviceability of the interest cost was masked by stable equity ratios.

> The interest cost per productive unit increased by 80% on average dairy farm and 70% for meat and fibre.

## DECLINE IN LIVESTOCK NUMBERS AND LAND USE CHANGE

- > NZ has seen a significant decline in livestock numbers (farmed for meat) over the past 20 years. But improvements in per head performance have helped to offset the loss in total meat and fibre production to some extent.
- > Poor returns from dry stock pastoral farming, when compared to dairy farming, has resulted in a significant land use change to dairying.

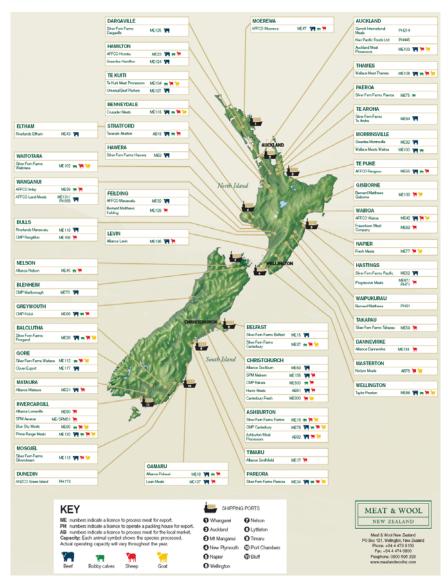


#### Number of Meat & Fibre Farms converted to Dairy

Sources: ANZ, National Bank, Beef + Lamb NZ, Fonterra

## MANY STEPS IN THE VALUE CHAIN OF MEAT INDUSTRY OF WHICH PROCESSING WITH ITS OVERCAPACITY ISSUES IS ONE

- > There are approximately 80 processing plants in NZ. The major processing companies (~70% of all production/export) are:
  - > Alliance (Co-operative, South Island based, 30% Sheepmeat, 8% Beef)
  - > Silver Fern Farms (Co-operative, NZ wide, 26% Sheepmeat, 25% Beef)
  - > ANZCO (Private company, North Island based, 7% Sheepmeat, 30% Beef)
  - > AFFCO (Public\*, North Island based- 13% Sheepmeat, 18% Beef)
- A number of smaller processing companies also exist typically single site operations and mainly in the North Island
- Despite declining livestock numbers, a commensurate reduction in processing capacity has not occurred – industry has 50% surplus capacity.
- Consolidation and/or capacity rationalisation is necessary to maximise facility utilisation and enhance overall industry returns
  - \* Currently the subject of a take-over offer by Talleys Group Limited existing 51% shareholder. Have 84% acceptance to date.

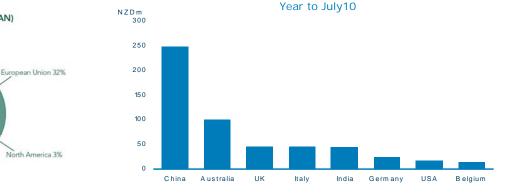


## WOOL INDUSTRY OVERVIEW



### WOOL PRICES AND VOLUMES HAVE BEEN IN DECLINE

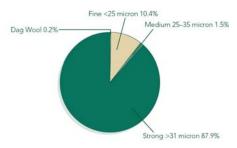
- > The value of all wool product exports represented 2.0% (NZ\$782 million) of New Zealand's total merchandise exports in 2009.
- > New Zealand is the world's 3<sup>rd</sup> largest producer of wool on a "clean" basis, with 13% of world production. However, wool is a niche fibre globally, comprising less than 2% of the global fibre market
- > Approximately 88% of New Zealand's wool production is coarse wool, used for carpet manufacture. Premium fine wool, used in garment manufacture, comprises less than 10% of production
- > Poor returns to farmers for coarse wool over many years has seen volume (and quality focus) decline.
- Industry continues to be fragmented, albeit the number of brokers, scourers and exporters has consolidated over recent years due to poor returns given the declining volumes.
- > Following the global credit crisis demand from New Zealand's traditional wool markets in Europe declined materially, with a number of customer defaults. China has become a significant export market in the past 2 years.



#### WOOL PRODUCTION AND AUCTION PRICE

	000 TONNES GREASY	NZ CENTS PER KG GREASY
1939–40	141	22.4
1959-60	262	82.0
1979–80	357	265.1
1985–86	358	343.8
1990–91	305	316.4
1991–92	296	327.6
1992–93	256	326.8
1993–94	284	312.4
1994–95	289	414.4
1995–96	269	371.5
1996–97	275	333.2
1997–98	266	337.5
1998–99	252	304.0
1999-00	257	329.9
2000–01	237	392.2
2001–02	229	385.3
2002–03	230	414.0
2003–04	218	353.3
2004–05	216	326.1
2005–06	225	298.4
2006–07	218	309.6
2007–08	206	313.7
2008–09	158	308.7

#### WOOL SOLD AT AUCTION (CLEAN) Year Ended June 2009



Sources: ANZ, National Bank, Beef + Lamb NZ, Stats NZ.

WOOL EXPORTS (CLEAN)

Year Ended June 2009 Other 3%

Middle East 3%

North Asia 41%

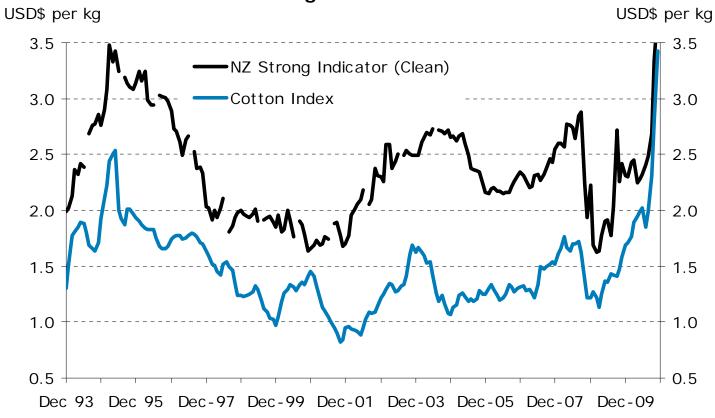
South Asia 14%

Pacific 4%

**KEY WOOL EXPORT MARKETS** 

### ALTHOUGH THINGS HAVE CHANGED RECENTLY

> Things have changed recently with the price of wool increasing substantially. This has been driven by an inventory rebuild post the GFC and the price of substitutes products such as synthetics increasing i.e. oil and cotton prices.



Strong Wool Vs. Cotton

Source: ANZ, National Bank

## HORTICULTURE OVERVIEW



## TWO BIGGEST HORTICULTURAL SECTORS HAVE SUFFERED CONTRASTING FORTUNES SINCE THE GFC

Viticulture	2007	2008	2009	2010	2011
Vineyard Area (ha)	25,355	29,104	31,057	33,200	33,600
Grape Production (t)	205,000	285,000	285,000	266,000	300,000
Wine Production (m. Litres)	145.3	201.9	202.7	189.2	213.4
Exports (m. litres)		88.6	113.2	141.1	160.0
<b>Domestic sales</b> (m. Litres)		46.5	59.3	56.7	60.0
Balance* (m. Litres)		10.2	29.4	4.9	-30.8

Viticulture has been hard hit by a down-turn in demand following the GFC.

There was also rapid expansion in the area of viticulture and grape production over the last 10 years, which coupled with lower demand has substantially reduced the price of grapes and wine leading to increased inventories.

The main export destinations for NZ wine are Australia, US and EU.

## **TWO BIGGEST SECTORS – KIWIFRUIT**



	GREEN	GOLD	TOTAL	
Average yield per hectare	7,587	9,398	7,916	
Number of hectares	10,495	2,330	12,825	
Orchard gate return per hectare	32,168	80,182	40,891	
Total NZ Orchard returns (\$M)	338	187	524	
Total NZ Exports (\$M)	647	358	1005	
Source: ANZ, National Bank, ZESPRI				

## Horticulture - Financials

MODEL	BOP KIWIFRUIT	HAWKE'S BAY Pipfruit	NELSON PIPFRUIT	MARLBOROUGH Viticulture	HAWKE'S BAY Viticulture	CANTERBURY ARABLE
YEAR END	March	December	December	June	June	June
Effective area (ha)	5	22	27	30	10	300
Total production 2009/10	44 130 trays <sup>2</sup>	68 135 cartons <sup>3</sup>	80 500 cartons <sup>3</sup>	285 tonnes	73 tonnes	
Net cash income (\$)						
2009/10	208 580	1 130 050	1 208 100	417 680	98 965	1 041 300
2010/11 budget	205 830	1 034 250	1 376 660	479 495	129 070	1 012 500
Orchard/farm working expenses (\$)						
2009/10	141 800	952 850	1 284 740	257 550	82 320	566 000
2010/11 budget	139 680	820 400	1 267 195	251 190	82 990	564 700
Cash operating surplus <sup>4</sup>						
2009/10	66 780	177 200	-76 640	160 130	16 645	475 300
2010/11 budget	66 150	213 850	109 465	228 305	46 080	447 800
Cash operating surplus (ha)						
2009/10	13 356	8 054	-2 839	5 338	1 700	1 585
2010/11 budget	13 230	9 720	4 054	7 610	4 608	1 492
Orchard/farm profit before tax (\$)						
2009/10	37 120	78 700	-226 540	55 730	-28 055	254 700
2010/11 budget	36 310	118 600	-28 335	127 405	4 180	218 400
Orchard/farm surplus for reinvestment (\$) <sup>5</sup>						
2009/10	-1 250	31 700	-228 640	54 530	-6 855	116 300
2010/11 budget	-2 460	68 850	-38 335	126 405	22 680	159 200
Ratios 2009/10 (%)						
Working expenses/net cash income	68	84	106	62	83	54
Equity ratio <sup>6</sup>	86	66	64	88	79	83
Return on equity <sup>7</sup>	-0.7	2.6	-16.4	-0.4	-6.1	2.6
Return on assets <sup>8</sup>	0.7	5.8	-6.3	0.7	-3.2	3.6
2009/10 2010/11 budget Cash operating surplus <sup>4</sup> 2009/10 2010/11 budget Cash operating surplus (ha) 2009/10 2010/11 budget Orchard/farm profit before tax (\$) 2009/10 2010/11 budget Orchard/farm surplus for reinvestment (\$) <sup>5</sup> 2009/10 2010/11 budget Ratios 2009/10 (%) Working expenses/net cash income Equity ratio <sup>6</sup> Return on equity <sup>7</sup>	139 680 66 780 66 150 13 356 13 230 37 120 36 310 -1 250 -2 460 68 86 -0.7	820 400 177 200 213 850 8 054 9 720 78 700 118 600 31 700 68 850 84 66 2.6	1 267 195 -76 640 109 465 -2 839 4 054 -226 540 -28 335 -228 640 -38 335 106 64 -16.4	251 190 160 130 228 305 5 338 7 610 55 730 127 405 54 530 126 405 62 88 -0.4	82 990 16 645 46 080 1 700 4 608 -28 055 4 180 -6 855 22 680 83 79 -6.1	564 7/ 475 3/ 447 8/ 1 5/ 1 4/ 254 7/ 218 4/ 116 3/ 159 2/ 2

Source: Ministry for Agriculture and Forestry

#### Notes

1 The pipfruit models use a December year end. Hence data for 2009/10 and 2010/11 for the pipfruit models refer to the years ending December 2009 and 2010, respectively.

2 A tray contains approximately 3.6 kilograms of kiwifruit.

3 Carton refers to a tray carton equivalent (TCE) which is a measure of apple and pear weight. A TCE is defined as 18.6 kg packed weight which equates to 18.0 kg sale weight.

4 Net cash income less orchard/vineyard/farm working expenses.

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

6 Ratio of orchard/vineyard/farm assets less debt (equity) to total assets.

7 Economic orchard/vineyard/farm surplus less interest and lease as a percentage of equity.
8 Economic orchard/vineyard/farm surplus divided by bitst surplus divided by bitst.

8 Economic orchard/vineyard/farm surplus divided by total assets.

## Cash Operating Surplus 2010-11 for main horticultural products and regions in NZ.

- Main horticultural regions of NZ are Bay of Plenty, Hawkes Bay, Nelson/Marlborough and parts of Canterbury/Northland. Each has its predominate strength.
- > Bay of Plenty accounts for approx. 72% of NZ's Kiwifruit.
- > Hawkes Bay accounts of approx. 60% of NZ's apples.
- > Nelson/Marlborough account for the vast majority of viticulture.
- > Canterbury & Hawkes Bay have quite a bit of area devoted to the production of squash, peas and sweetcorn.