



# New Season Outlook 2016-17

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# Executive Summary—Outlook 2016-17

## Economic conditions

In 2017, global economic growth is expected to be subdued, with annual growth in New Zealand's trading partners at just over three per cent for 2017 and 2018. Globally, weaker commodity prices have had an impact on all economies. Inflation remains low and is presenting challenges for central banks using monetary policy.

The outlook for the US economy is steady. Some uncertainty has been created by the Presidential and Congressional elections, which will be held in early November and result in a transition in early 2017. The Federal Reserve (the Fed) noted at its September 2016 meeting that inflation is expected to remain low. This leads to further uncertainty as to when the Fed will eventually lift interest rates.

China's economic growth continues to slow as the economy is rebalanced gradually from investment-led activity to consumption but economic growth remains high compared with other countries.

In Europe, though recovery continues economic growth has been slow—remaining below one per cent annually for a number of years (and negative in some)—and this has kept inflation low. The result of the June 2016 referendum on Britain's exit from the EU introduced uncertainty about the future relationship between the UK and the EU and can be expected to influence trade and investment decisions.

*Forecasts in this report are based on the NZD for 2016-17 averaging USD0.67 (-1.5%), GBP0.54 (+12.5%) and EURO.61 (unchanged). While these forecasts were based on opinion in July 2016, the New Zealand dollar was significantly stronger against the USD and GBP in September 2016. Some tables and comment in this report show outcomes at this higher exchange rate. Only time will tell where the exchange rate settles for 2016-17—and most importantly for the sector from November 2016 to June 2017 when the bulk of production is exported.*

## Livestock Numbers

Sheep numbers at 30 June 2016 provisionally totalled 28.3m head, down 3.0 per cent on the previous June. This was driven by culling older ewes, the impact of facial eczema in the North Island, dry summer conditions in some regions and a shift in emphasis to beef production.

Beef cattle numbers at 30 June 2016 provisionally totalled 3.65m head, up 2.8 per cent on the previous June. This was predominantly driven by strong beef prices relative to sheepmeat.

Total dairy cattle numbers provisionally decreased 0.9 per cent to 6.43m head at 30 June 2016. A continuing low milk price and strong beef price caused further culling of poorer performing cows in the move to lower cost milk production systems.

## Lamb

For 2016-17, export lamb receipts under the USD0.67 exchange rate scenario are forecast to total \$2.56 billion Free On Board (FOB), similar (-0.4%) to the previous season. Lamb shipments are projected to decrease (-1.6%) while an increase in co-products (\$32m) provides some offset to slightly lower volumes shipped.

For the year ending September 2017, the export lamb slaughter is forecast to decrease 1.8 per cent to 19.5m head, reflecting a smaller lamb crop (-2.4%) and sufficient replacements retained to leave sheep numbers little changed at 30 June 2017.

At the mid exchange rate of USD0.67, the annual average lamb price is estimated at 485 cents per kilogram for 2016-17, a 3.0 per cent decrease on the provisional price for 2015-16, largely due to a weaker pound sterling following the Brexit referendum in late June.



## Beef

Beef and veal receipts are expected to total \$3.4 billion FOB in 2016-17, up 2.3 per cent on the previous season, driven by an increase in the average value of exports (+1.6%) and shipments up slightly (+0.9%).

For 2016-17, the export cattle slaughter is forecast to decrease 1.5 per cent to 2.45 million head. This represents the second year of decline from the elevated level of production in 2014-15, which was boosted by a high dairy cull cow slaughter. The average carcass weight is expected to improve 2.4 per cent from a combination of overall improved carcass weights and the cow slaughter making up a smaller proportion of the overall slaughter. New Zealand export beef production is projected to increase slightly (+0.9%) to 609,000 tonnes carcass weight.

At the mid exchange rate of USD0.67, the annual average beef price is estimated at 467 cents per kilogram for 2016-17 (revised), a 2.5 per cent decrease on the provisional price for 2015-16.

## Wool

For 2016-17, total wool production is forecast to remain almost static (-0.4%) with an increased clip per head of shorn wool nearly offsetting a reduction in slipe wool and the impact of a 3.0 per cent decline in the sheep flock.

Wool export receipts are expected to decrease by 12 per cent for 2016-17 compared with the previous season. This reflects overall softer demand with volumes shipped similar (-0.4%) to the previous season.

For 2016-17, the overall annual average auction wool price is forecast to decrease 13 per cent on the previous year.

## Sheep and Beef Farms

Gross farm revenue for the All Classes Sheep and Beef Farm is estimated at \$433,900 per farm for 2016-17, down 3.8 per cent on 2015-16 largely from decreases in revenue for wool, sheepmeat and dairy grazing.

Total expenditure for the All Classes Sheep and Beef Farm is estimated to decrease 1.9 per cent to \$366,900 per farm for 2016-17. Decreases come from lower expenditure on interest through lower interest rates, and on fertiliser and repairs and maintenance linked to lower gross farm revenue. Fertiliser, interest, and repairs and maintenance make up 36 per cent of total farm expenditure.

Farm Profit before Tax for the All Classes Sheep and Beef Farm for 2016-17 is forecast at \$67,000 per farm, down 13 per cent on the previous year. Real (i.e. inflation-adjusted) Farm Profit before Tax is down 14 per cent on 2015-16 to \$52,300 per farm, the lowest since 2009-10.



# Economic Conditions

TABLE 1

	Economic Growth					
	Annual Average % Change, March Year					
	2013	2014	2015	2016e	2017f	2018f
	%	%	%	%	%	%
US	+1.8	+1.7	+2.7	+2.3	+2.0	+2.4
UK	+1.2	+2.5	+2.8	+2.2	+2.0	+2.2
Euro zone	-1.0	+0.3	+0.9	+1.5	+1.5	+1.5
Japan	+0.9	+1.9	-0.9	+0.6	+0.6	+0.5
China	+7.7	+7.6	+7.2	+6.8	+6.5	+6.2
South Korea	+2.2	+3.3	+3.0	+2.6	+2.6	+2.8
Australia	+2.9	+2.3	+2.4	+2.5	+2.6	+2.8
Trading Partners	+3.4	+3.9	+3.5	+3.3	+3.2	+3.3
<b>New Zealand</b>	<b>+2.3</b>	<b>+2.7</b>	<b>+3.6</b>	<b>+2.4</b>	<b>+2.9</b>	<b>+2.8</b>

Note: The Euro zone consists of 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia.

Trading Partners covers those countries that account for about 85% of New Zealand's total merchandise trade.  
e estimate, f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions

## Global Growth Prospects

In 2017, global economic growth is expected to be subdued, with annual growth in New Zealand's trading partners at just over three per cent for 2017 and 2018. Globally, weaker commodity prices have had an impact on all economies—positively and negatively. Inflation remains low globally, and that is presenting challenges for central banks using monetary policy.

The outlook for the US economy is steady. Some uncertainty has been created by the Presidential and Congressional elections, which

will be held in early November and result in a transition in early 2017. The Federal Reserve (the Fed) noted at its September 2016 meeting that the labour market continued to strengthen in the third quarter of calendar 2016, and economic growth improved. The unemployment rate has not really changed but there has been solid job growth. For the years ending in March 2017 and 2018, the US economy is expected to grow by 2-2.5 per cent annually. Inflation is expected to remain low, which means prices are generally stable. Twelve months ago, the Fed was expected to raise interest rates in late 2015 or

early 2016 but low inflation led to there being no changes in the first nine months of 2016. And, the Fed anticipated only gradual increases in the federal funds rate, which are not expected to occur for some time.

China's economic growth continues to slow as the economy is rebalanced gradually from investment-led activity to consumption. Nevertheless, economic growth remains high compared with other countries. In order to support economic activity, the government eased monetary conditions. However, the country's policymakers are now dealing with the rebalancing from inefficient investments and overcapacity, most notably in the steel sector, to consumption. The structural changes will gradually improve the Chinese economy's performance and opportunities for trade.

Financial markets were surprised by the United Kingdom's referendum vote in late June to exit the EU. A sharp depreciation of sterling followed and share markets fell. Although considerable uncertainty was created by the decision to leave the EU, some of the trend was reversed due to the Bank of England's Monetary Policy

Committee announcing in early August a package of measures to support the economy including a cut in interest rates—by 25 basis points to 0.25% p.a.—and an increase in purchases of bonds. Subsequently, economic indicators showed little change in consumer spending and sentiment.

By the third quarter of 2016, Japan continued to face the risks of deflation. And, adding to its unusual monetary policy—such as negative interest rates—the Bank of Japan introduced further measures in an attempt to stimulate the economy. Despite ongoing challenges and two decades of economic stagnation, Japan remains the world's third-largest economy after the US and China.



FIGURE 1



e estimate, f forecast | Source: Beef + Lamb New Zealand Economic Service, NZIER Quarterly Predictions

## New Zealand

Economic growth in New Zealand has continued to be strong relative to other developed economies. The rate of growth was reduced somewhat by the downturn in the dairy sector but reached an estimated 2.4 per cent in the year ended March 2016.

Strong population growth from immigration has driven economic growth through increased demand for goods and services, and housing. Between 1990 and 2015, New Zealand's population grew by 39 per cent, which is more than many countries. This has placed pressures on housing, most noticeably in Auckland, though the speed of the growth in house prices has slowed in the last 12 months—but only marginally—and increases have picked up in other regions.

Global dairy prices fell through 2014 and 2015, but by mid-2016 there appeared to be signs of an improvement. However, European and US supplies continue to weigh on the market. Pressures remain on dairy farms, whose owners/operators have responded by cutting back expenditure, which has a flow-on effect through rural communities.

In 2016-17, the New Zealand economy is expected to perform well economically while facing challenges from continuing volatile dairy prices, which appear to be recovering, reasonable demand for meat but with uncertainties surrounding the timing and impact of Britain's exit from the EU, China's economic changes and the outcome of elections in the US.

## Consumer Prices

Globally inflation remains low and the global economy is somewhat fragile. Inflation in New Zealand remains constrained despite strong economic growth. This reflects a range of factors including a relatively strong NZD and thus limited imported (or tradeable) inflation; limited wage growth, some of which is due to a strong supply of labour as a result of immigration; continued low international oil prices and continued loose monetary policy in many countries. Observers increasingly question whether monetary policy has reached its limits of containing inflation or stimulating economic activity. It looks increasingly uncertain that the Fed will raise interest rates in 2016. Central banks in Europe and Asia have provided large amounts of

stimulus since the Global Financial Crisis (GFC) but with limited impact—other than pushing up prices of assets. Inflation is expected to increase over the next few years.

Despite New Zealand's relatively strong economic growth, inflation was very low in the year ending March 2016. It is expected to increase in 2017 and again in the year to March 2018 but imported inflation and domestic inflationary pressures remained limited. For the year to March 2016, prices in New Zealand, as measured by the consumer price index (CPI), rose 0.3 per cent. Housing and household utilities were the main upward contributor but lower fuel prices provided downward pressure. Inflation is expected to reach 1.2 per cent in the year ending March 2017 and 1.9 per cent in the following year.

TABLE 2

	Annual Average % Change, March Year					
	2013	2014	2015	2016e	2017f	2018f
	%	%	%	%	%	%
US	+1.8	+1.4	+1.2	+0.4	+1.5	+2.4
UK	+2.7	+2.3	+1.1	+0.1	+1.1	+2.0
Euro zone	+2.3	+1.0	+0.2	+0.1	+0.6	+1.5
Japan	-0.3	+0.9	+2.9	+0.2	+0.2	+2.0
China	+2.3	+2.6	+1.7	+1.7	+1.7	+1.9
South Korea	+1.8	+1.2	+1.1	+0.8	+1.1	+1.7
Australia	+2.0	+2.6	+2.1	+1.5	+1.8	+2.5
Trading Partners	+2.3	+2.0	+1.5	+0.7	+1.3	+2.1
<b>New Zealand</b>	<b>+0.9</b>	<b>+1.3</b>	<b>+0.9</b>	<b>+0.3</b>	<b>+1.2</b>	<b>+1.9</b>

Note: The Euro zone consists of 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia.

Trading Partners covers those countries that account for about 85% of New Zealand's total merchandise trade.

e estimate, f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions



## Interest Rates

After the Fed ended its quantitative easing program in October 2014, suggesting it would be willing to increase interest rates as the US economy recovered, such moves have not occurred. Short-term interest rates in the US have been near zero for many years, with rate hikes anticipated a number of times but not eventuating due to conflicting economic indicators. In mid-2015, the Fed indicated it would raise rates before the end of the year, but only if the labour market continued to improve and if inflation was tracking upward. While unemployment fell somewhat and economic growth continued at reasonable levels, inflation remained subdued, and below the Fed's target.

In Europe, although recovery continues, economic growth has been slow—remaining below one per cent for a number of years (and negative in some)—and this has kept inflation very low. The result of the June 2016 referendum on Britain's exit from the EU introduced uncertainty about the future relationship between the UK

and the EU and can be expected to influence trade and investment decisions.

In Japan, weak economic growth and very low inflation have made it challenging for Japan's authorities to have much impact with monetary policy.

In emerging markets, growth has slowed markedly because much has relied on export markets that have been subdued (at best). China is undergoing a

transition from growth based on capital formation and exporting substantially funded by state-owned enterprises to one driven by consumption and private-sector activity. As China is the world's second-largest economy, risks there have global implications.

Such pressures have resulted in upward pressure on the currencies of economies that are considered to be in relatively strong positions. New Zealand is one such economy.

TABLE 3

	Short-term Interest Rates					
	2013	% p.a., March Year		2016e	2017f	2018f
	%	2014	2015	%	%	%
		%	%			
US	0.1	0.1	0.0	0.1	0.4	0.8
UK	0.3	0.3	0.4	0.5	0.5	0.8
Euro zone	0.4	0.2	0.2	0.0	-0.3	-0.2
Japan	0.1	0.1	0.1	0.1	0.1	0.2
Australia	3.6	2.8	2.7	2.2	2.2	2.3
<b>New Zealand</b>	<b>2.7</b>	<b>3.0</b>	<b>3.6</b>	<b>2.6</b>	<b>2.2</b>	<b>2.2</b>

Note: The Euro zone consists of 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia.  
End of March year, except New Zealand, average for March quarter.  
e estimate, f forecast | Source: Reserve Bank of New Zealand, NZIER Quarterly Predictions

## Exchange Rates

Table 4 shows the annual average exchange rates for the three major currencies in which New Zealand meat and wool are traded.

For the year to September 2017, the outlook from banks at the time the forecasting commenced was for the New Zealand dollar (NZD) to weaken slightly against the US dollar (USD), strengthen relative to sterling (GBP) and be unchanged against the euro (EUR). This is a different pattern than occurred in 2015-16 and reflects a number of factors. The most significant consideration in relation to New Zealand lamb exports

is the uncertainty and volatility caused by Britain's referendum vote in late June to leave the EU. Figure 2 clearly shows the sharp rise in the value of the NZD against sterling, which primarily reflects the sharp decline in the value of the GBP. Uncertainty will remain as Britain's exit from the EU is formally initiated, negotiated and concluded.

Meanwhile, the outcomes of the Presidential and Congressional elections in the US in November also contribute uncertainty about political direction in New Zealand's

largest beef market. While US economic prospects are generally positive, they have not yet resulted in the Federal Reserve raising interest rates, which could be expected to provide some more strength to the USD.

China's policy makers are working to rebalance the country's economy to consumption-led growth, which is a positive for the future of meat exports to China. However, the Chinese economy's adjustment provides some volatility and uncertainty.

New Zealand's economy continues to perform well overall. Population growth, driven by immigration, has boosted demand. The increase in prices at the [Global Dairy Trade](#) ("GDT") auctions in August and September 2016 provided some confidence for the dairy sector, though restructuring of individual farm operations continues in response to the new environment of lower milk prices relative to 2009-10 to 2013-14.

TABLE 4

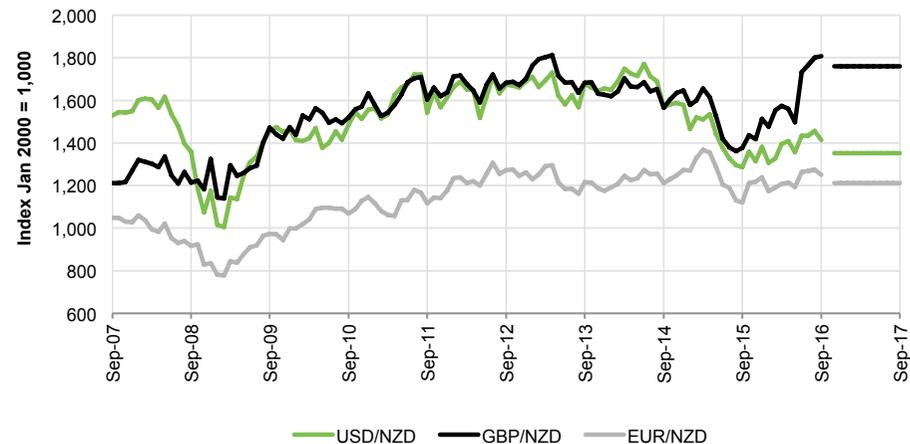
### NZ Dollar Exchange Rates

Sep Year	Annual Average		
	USD	GBP	EUR
2014-15	0.73	0.47	0.64
2015-16e	0.68	0.48	0.61
2016-17f	0.67	0.54	0.61
2016-17f % change	-1.5%	+12.5%	0.0%

e estimate, f forecast | Source: Beef + Lamb New Zealand Economic Service, Reserve Bank of New Zealand

FIGURE 2

### Indicative Exchange Rates



Source: Beef + Lamb New Zealand Economic Service, Reserve Bank of New Zealand



# Exchange Rate Sensitivity—2016-17

TABLE 5

NZD Exchange Rates

						Exchange Rate Change from USD 0.67	
						to USD 0.60	to USD 0.74
<b>USD</b>	0.60	0.64	0.67	0.70	0.74	-10%	+10%
<b>GBP</b>	0.49	0.51	0.54	0.57	0.59	-10%	+10%
<b>EUR</b>	0.55	0.58	0.61	0.64	0.67	-10%	+10%
<b>Farm-Gate Prices Received</b>							
<b>\$ / head</b>							
<b>Lamb</b>	104	96	89	82	76	+17.0%	-13.9%
<b>Mutton</b>	80	72	65	59	53	+22.5%	-18.4%
<b>Steer/Heifer</b>	1,547	1,438	1,340	1,251	1,171	+15.4%	-12.6%
<b>Cow</b>	870	809	754	704	659	+15.4%	-12.6%
<b>Bull</b>	1,655	1,539	1,434	1,339	1,253	+15.4%	-12.6%
<b>All Beef</b>	1,280	1,190	1,109	1,036	969	+15.4%	-12.6%
<b>c / kg</b>							
<b>Lamb<sup>1</sup></b>	567	524	485	449	417	+17.0%	-13.9%
<b>Mutton<sup>1</sup></b>	316	286	258	233	211	+22.5%	-18.4%
<b>Steer/Heifer</b>	558	519	484	452	423	+15.4%	-12.6%
<b>Cow</b>	437	406	378	353	330	+15.4%	-12.6%
<b>Bull</b>	547	509	474	443	414	+15.4%	-12.6%
<b>All Beef</b>	514	478	446	416	389	+15.4%	-12.6%
<b>Fine<sup>2</sup></b>	1,131	1,065	1,005	1,059	902	+12.5%	-10.3%
<b>Medium<sup>2</sup></b>	814	767	724	763	649	+12.5%	-10.3%
<b>Crossbred<sup>2</sup></b>	419	395	373	393	334	+12.5%	-10.3%
<b>All Wool<sup>2</sup></b>	480	452	427	450	383	+12.5%	-10.3%

<sup>1</sup> includes wool and skin <sup>2</sup> wool c/kg greasy | Source: Beef + Lamb New Zealand Economic Service

Table 5 shows farm-gate prices under five different exchange rate scenarios. This approach provides an indication of the impact of exchange rate volatility on the prices paid to farmers. However, it should be noted that the complex nature of sheep and beef farms as measured by the wide range of products, which are subject to a variety of currency mixes and timing considerations, means that the outcome for individual farms could be quite different from the indicative averages shown here.

The shaded column represents the forecast exchange rates for the major currencies for 2016-17 and the related farm-gate prices used to derive the base estimates of export receipts and farm revenue in this report. The four other scenarios show the impact on farm-gate prices of variations of  $\pm 5$  and  $\pm 10$  per cent in the exchange rates for the US dollar (USD), sterling (GBP), and the euro (EUR).

Meat and wool production is seasonal with the majority of production sold from late November

2016 through to June 2017, which means that the value of the NZD during this period is crucial to farmers and export companies.

In 2016-17, the NZD is expected to be considerably stronger against the GBP, which is important because around 20 per cent of New Zealand lamb exports by volume and value are to the UK.

These exchange rate movements impact the season-average prices for beef, lamb, mutton and wool and thus farm revenues.

Exchange rate movements have a significant leveraged effect on farm-gate prices. All other things being equal, a 10 per cent decrease in the NZD against the USD—from 0.67 to 0.60—and the associated cross rates against the GBP and the EUR, increases the average lamb price received by farmers by 17 per cent. Alternatively, if the NZD appreciates by 10 per cent—from 0.67 to 0.74 against the USD—and the associated cross rates against the GBP and the EUR, then the farm-gate lamb price decreases by 14 per cent.

## Livestock Numbers

Total sheep numbers for the year to 30 June 2016 decreased to 28.3 million head, down 3.0 per cent on the previous June. This was driven by culling of older ewes, the impact of facial eczema, shifting enterprises towards cattle and dry summer conditions for some regions.

North Island sheep numbers provisionally decreased 4.0 per cent (-0.57m) to 13.9 million at 30 June 2016. Within this, at 9.0 million, the number of breeding ewes was down 2.9 per cent, while hogget numbers decreased (-6.9%) to 4.6 million. Sheep numbers decreased across most regions due to the impact of facial eczema, strong returns to cattle and storm conditions during lambing for parts of the East Coast in spring 2015.

South Island sheep numbers provisionally decreased 2.0 per cent (-0.30m) to 14.3 million at 30 June 2016. The largest decline occurred in Marlborough-Canterbury (-3.0%) due to farmers opting to retain younger stock and cull older ewes.

Total beef cattle numbers for the year to 30 June 2016 increased to 3.65 million head, up 2.8 per cent on the previous season. This was predominantly driven by strong prices for beef relative to sheepmeat.

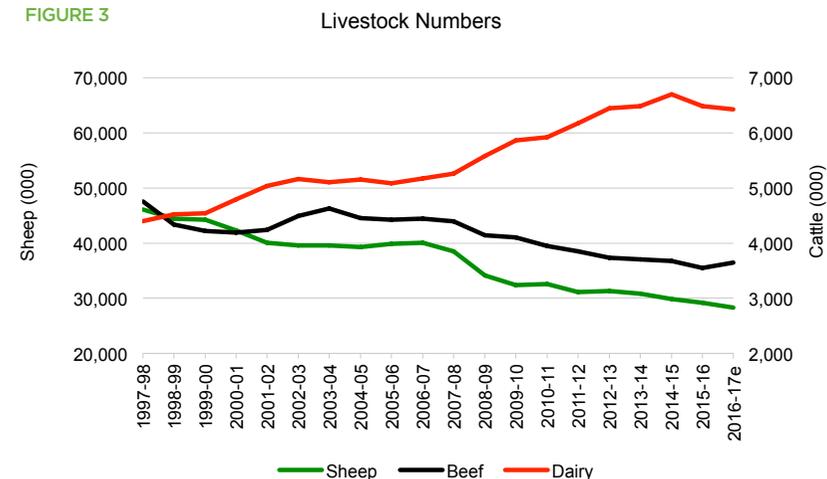
North Island beef cattle numbers increased 1.7 per cent to 2.57 million head at 30 June 2016. This was predominantly driven by significant shifts towards weaner cattle and influenced by improved margins on finishing weaner stock relative to finishing adult stock. The exception was decreased numbers in many parts of East Coast due to challenging climatic conditions. The North Island represents 70 per cent of the national herd.

South Island beef cattle numbers increased 5.5 per cent to 1.08 million head at 30 June 2016. The primary driver was an increase in the number of weaner cattle particularly in Marlborough-Canterbury due to selling of older stock in response to high prices, and a shift from dairy grazing activity to finishing cattle. The South Island represents 30 per cent of the beef herd.

Total dairy cattle numbers declined 0.9 per cent to 6.43 million head for the year to 30 June 2016. This follows a 3.2 per cent decrease for the previous year due to a sharp decline in farm-gate milk prices, and strong prices for beef, which encouraged continued culling of poorly performing dairy animals.

The South Island now contains 41 per cent of the New Zealand dairy herd, up from 27 per cent 10 years earlier.

FIGURE 3



Source: Beef + Lamb New Zealand Economic Service | Statistics New Zealand

TABLE 6

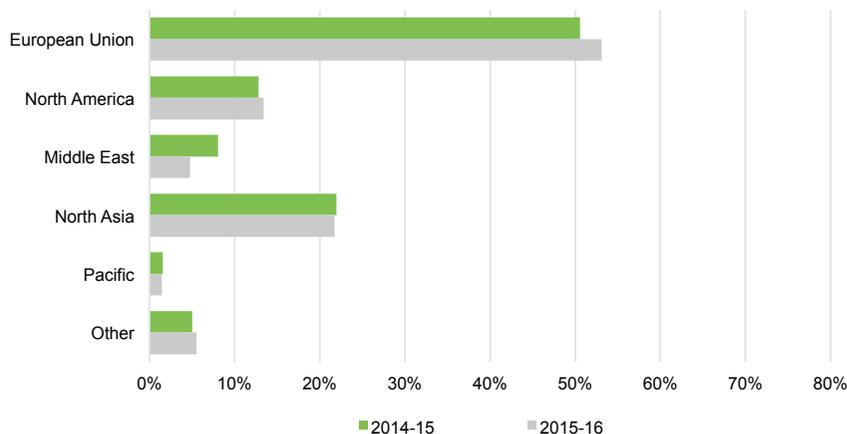
	Livestock Numbers Million Head				
	Breeding Ewes	Hoggets	Total Sheep	Beef Cattle	Dairy Cattle
30 June 2014	19.8	9.2	29.8	3.67	6.70
30 June 2015	19.1	9.2	29.1	3.55	6.49
30 June 2016 <sup>p</sup>	18.5	8.9	28.3	3.65	6.43
15-16 to 16-17 % Change	-3.1%	-3.0%	-3.0%	2.8%	-0.9%

<sup>p</sup> provisional

Source: Beef + Lamb New Zealand | Statistics New Zealand

# Lamb and Mutton Exports

**FIGURE 4**  
**New Zealand Lamb Exports**  
**Oct to Jun, \$m FOB**



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs, New Zealand Meat Board

## Lamb

### 2015-16

The volume of New Zealand lamb exports was provisionally down 2.1 per cent to 296,000 tonnes shipped weight reflecting a smaller lamb crop than the previous year. The average FOB value per tonne of lamb meat exports was provisionally down 6.2 per cent on 2014-15 to \$7,950. The strengthening New Zealand dollar and weaker in-market prices, particularly in the UK and China, were the major factors. Export receipts from co-products (including edible offal and skins) are expected to fall 12 per cent on 2014-15, largely reflecting a drop in lamb skin prices. Total lamb receipts are expected to decline 8.5 per cent to \$2.57 billion FOB in the year ending September 2016.

As shown in Figure 4, the share of total lamb export receipts achieved from the European Union increased from 51 to 53 per cent in the first nine months of the 2015-16 season. This reflected higher export tonnages (+3.9%) and the average value per tonne increased 2.7 per cent. Within the EU, shipments to the UK in the nine-month period were up 5.2 per cent on the same period in the previous season while receipts per tonne decreased 2.7 per cent. For the rest of EU, shipments were up 2.5 per cent and receipts per tonne were up 7.2 per cent. The Brexit vote, which occurred on 23 June 2016, and the subsequent fall of the GBP have influenced the UK market since.

North Asia remained the second largest market region for New Zealand lamb exports, accounting for 22 per cent of export lamb receipts for the second season in a row. Within North Asia, China was the largest market for New Zealand lamb. After increasing year-on-year since 2009-10, lamb exports to China fell 10 per cent in the first nine months of 2014-15 but rebounded 23 per cent for the equivalent period in 2015-16. However, export receipts per tonne were down 19 per cent from \$5,400 to \$4,375.

Shipments in the first nine months of the 2015-16 season were up 3.2 per cent reflecting an early slaughter pattern as a precautionary measure taken by farmers due to the forecast of a strong El Niño weather pattern and pending dry conditions. Overall, the dry conditions were less than anticipated over the country as a whole, but some regions were seriously affected.

### 2016-17

For 2016-17, lamb export receipts are forecast at \$2.56 billion FOB, down marginally (-0.4%) on the previous season.

The volume of lamb meat shipped is projected to decrease by 1.6 per cent, reflecting lower production and a minor change (-0.3%) in the average FOB value. The main driver for the change in the average receipts per tonne is a NZD that shows mixed trends against the main currencies in which lamb meat is traded, i.e. the USD, GBP and EUR. If the NZD were stronger than forecast, lower lamb receipts would result.

Export receipts from co-products are forecast to increase by 14 per cent in 2016-17 compared with 2015-16, partly in response to lower production, but more significantly due to an improvement in demand and prices for skins.

**TABLE 7**

### New Zealand Lamb Exports

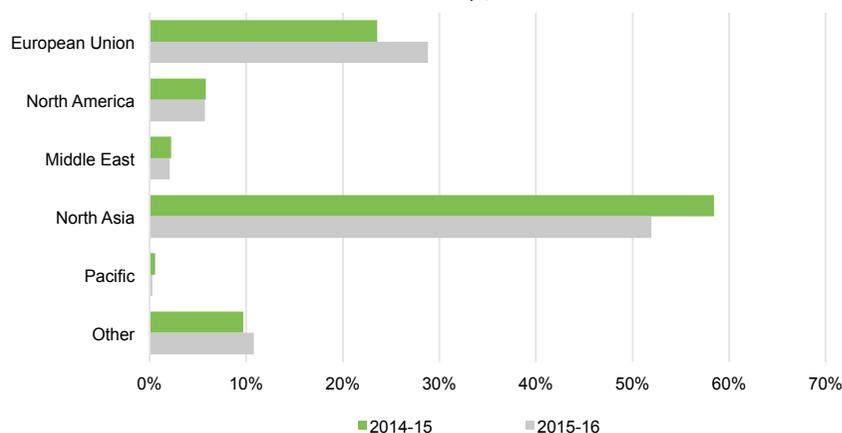
Sep Year	Lamb meat			Co-Products \$m FOB	Total Lamb \$m FOB	Lamb Meat %
	000 tonnes	\$/ tonne	\$m FOB			
2012-13	313	7,285	2,279	332	2,612	87%
2013-14	307	8,163	2,504	275	2,779	90%
2014-15	302	8,470	2,559	255	2,814	91%
2015-16p	296	7,949	2,350	225	2,574	91%
2016-17f	291	7,929	2,306	257	2,563	90%
2016-17f % change	-1.6%	-0.3%	-1.9%	+14.4%	-0.4%	

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand



FIGURE 5

New Zealand Mutton Exports  
Oct to Jun, \$m FOB



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs, New Zealand Meat Board

## Mutton

### 2015-16

New Zealand mutton exports were provisionally down 5.4 per cent on 2014-15. This decline is measured against elevated production and export levels in 2013-14 and 2014-15 that were boosted by dry conditions and the dairy herd expansion. However, the decline in 2015-16 was moderated by the impact of drought on sheep flocks in the east coast of both islands. The average FOB value of mutton exports was provisionally down by 11 per cent on 2014-15 reflecting some softness of in-market prices

and currencies. Export receipts from co-products (including edible offal and skins) are provisionally projected to fall 16 per cent. Total export receipts for mutton are projected to be down 16 per cent but still contribute over \$500m to New Zealand's export earnings in 2015-16.

In the first nine months of 2015-16, mutton exports increased by 3.2 per cent to 72,000 tonnes shipped weight largely as a result of an early and longer processing season due to farmer response to

anticipated dry El Niño conditions and some switching from sheep to beef cattle production. Receipts from North Asia declined 18 per cent over the first nine months of the season. As for lamb, this reflects weaker demand for New Zealand sheepmeat from China compared with the same period in the previous season. The share of receipts from North Asia, and particularly from China, fell in 2015-16, as shown in Figure 5. North Asia accounted for 52 per cent of New Zealand mutton export receipts in the first nine months of 2015-16, compared with 58 per cent in 2014-15.

The volume of exports to the European Union and North America were up 21 per cent and 3 per cent respectively partially offsetting the

drop in sales to North Asia. In the first nine months of 2015-16, the value of mutton exports (excluding co-products) decreased 8 per cent to \$333m FOB.

### 2016-17

In 2016-17, New Zealand mutton exports are forecast to decrease 3.9 per cent, reflecting lower mutton production as the sheep flock is expected to stabilise. However, the total value of mutton exports is expected to increase 2.2 per cent to \$518m FOB, with smaller volumes offset by improved returns, which are relatively less affected than lamb by the exchange rate for the NZD against sterling (GBP), and the anticipated decline in receipts from co-products.

TABLE 8

Sep Year	New Zealand Mutton Exports			Co-Products \$m FOB	Total Mutton \$m FOB	Mutton Meat %
	Mutton meat		\$m FOB			
	000 tonnes	\$ / tonne	\$m FOB			
2012-13	85	4,742	401	142	544	74%
2013-14	94	5,017	472	128	600	79%
2014-15	86	5,214	447	157	604	74%
2015-16p	81	4,618	374	133	507	74%
2016-17f	78	4,989	389	130	518	75%
2016-17f % change	-3.9%	+8.0%	+3.8%	-2.3%	+2.2%	

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

# Lamb and Mutton—International Situation

## Overview

After rising rapidly to a peak in 2013-14, China's sheepmeat demand slowed in 2014-15, which reflected an increase in local production, and again in 2015-16. Dry conditions and continued dairy expansion meant that the anticipated reduction of production in Australia and New Zealand did not eventuate in 2014-15.

In 2016-17, export lamb supplies are expected to be tight as seasonal conditions improve in Australia leading to flock rebuilding and a 3.1 per cent reduction in the New Zealand ewe flock, which constrains supply.

## Australia

The Australian sheep flock contracted from 2013 to 2015, driven by drought-induced lamb and mutton slaughter. At 30 June 2016, the sheep flock was estimated to have fallen to 68m head, down four per cent (-2.5m head) from 30 June 2015. However, rainfall was widespread across sheep areas of the country through late autumn and winter, leading

Australian analysts to forecast a five per cent increase in sheep numbers between June 2016 and June 2017 returning numbers to a range of 71-72m head. Increased retention of lambs for rebuilding the flock is expected, resulting in a decline in lamb processing in 2016-17. Similarly, the number of adult sheep processed is forecast to fall sharply—by around 20 per cent—as the culling of ewes specifically in response to drought conditions ends and the breeding flock stabilises.

For 2016-17, lamb slaughter is forecast at 22.9m (-1.2%) and sheep slaughter is forecast to be around 6.5m (-20%).

With reduced slaughter, lamb and mutton exports are expected to decrease by similar proportions—one per cent for lamb and 18 per cent for mutton—in 2016-17. Firm demand and the continued weakness of the Australian dollar (compared with its strength during the mineral resources boom) are expected to offset lower volumes of lamb, and moderate the decline in receipts from mutton.

## China

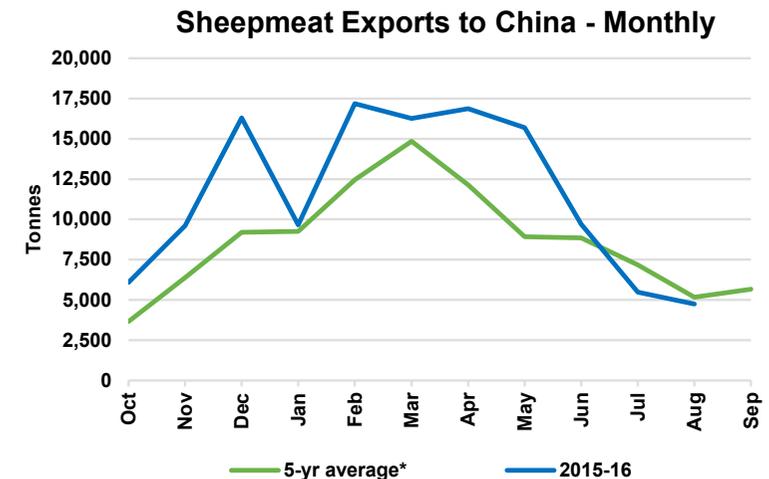
Sheepmeat production in China has been growing in response to strong demand, incentives provided by strong price growth and relatively low entry costs. Hot pot restaurants helped drive demand but slowing economic growth affected the willingness and ability of many Chinese migrants working in factories to pay for restaurant meals. Strong competition from other proteins also slowed growth in calendar 2015 and 2016.

The China New Zealand Free Trade Agreement (FTA) delivered

New Zealand reduced duties and placed New Zealand at an advantage relative to other countries resulting in imports from New Zealand being around two thirds of total sheepmeat imports in 2015.

For New Zealand, duties fell to zero from the start of 2016. For the nine-month period to 30 June 2016 sheepmeat exports were up 12 per cent on the same period for the previous year though the price per tonne was down 19 per cent reflecting the supply-demand balance.

FIGURE 6



\* 5 year av. 2010-11 to 2014-15  
Source: Beef + Lamb New Zealand Economic Service



## European Union

After four years of decline, the EU sheep flock grew 1.1m head to 86.1m (+1.3%) for the year ended December 2015. Nearly all of the growth was in the UK, where the flock increased 1.0m to 23.0m head the largest sheep flock in the EU. Spain has the next largest flock at 16.0m. The EU cattle herd was 88.3m at December 2015, up 0.8 per cent on the previous year, with most of the increase occurring in France (+0.2m) and Spain (+0.4m).

For the 12 months to August 2016, UK lamb slaughter of 8.0 million was down 3.4 per cent on the previous 12-month period mainly due to a lower carryover of the previous season's lambs. In contrast, adult sheep processing was up 9.5 per cent to 1.1 million due to a more normal culling rate. UK lamb retail prices averaged 809 pence per kg in August 2016, similar to August 2015 (+0.6%), while the average farm price for lamb in August 2016 was 417 pence per kg, up 81 pence (+24%) on the same month in 2015 indicating a tighter farm to retail price spread.

The outcome of the Brexit referendum resulted in a sharp depreciation of sterling against the euro, which made British lamb more competitive in continental Europe. In contrast, a weaker pound sterling in the second half of the calendar year will make imports of New Zealand lamb less competitive.

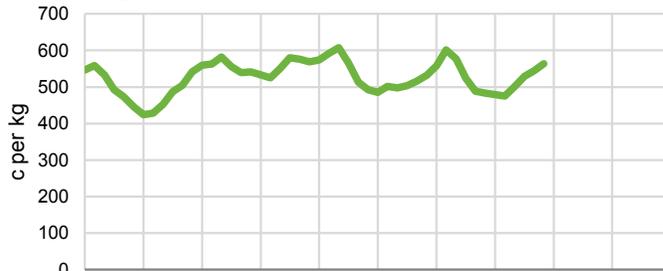
In mid August 2016, Britain's Chancellor of the Exchequer, Phillip Hammond, resolved some uncertainty for farmers and others when he announced that EU funding for farmers, scientists and other projects would be replaced by Treasury when Britain's formal exit from the EU is concluded.

In 2017, UK sheepmeat production is forecast to lift two per cent to 303,000 tonnes due to a larger carryover of lambs from 2016 combined with a smaller number of lambs required for replacements.

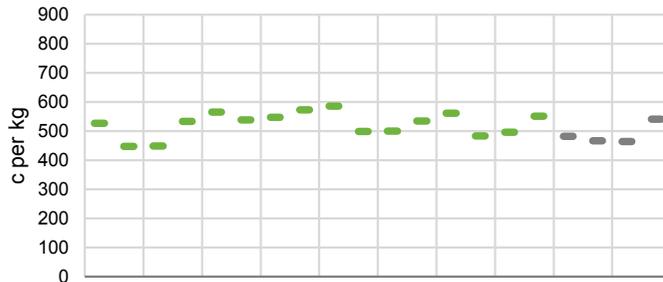
# Lamb Price—Farm-gate

FIGURE 7

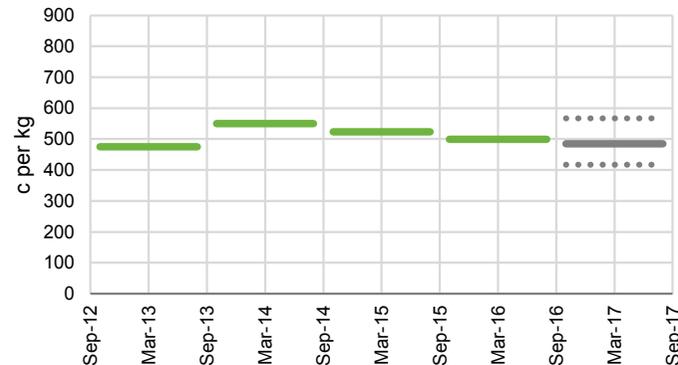
## Monthly



## Quarterly



## Annual



Source: Beef + Lamb New Zealand Economic Service

Figure 7 shows the monthly, quarterly and annual average price for the all grades lamb.

Three exchange rate scenarios are provided in the outlook for 2016-17 because of the volatility in exchange rates. The three scenarios use annual average exchange rates of USD0.60, USD0.67 and USD0.74 and the associated cross rates against the GBP and the EUR.

The different exchange rate scenarios presented in Table 9 highlight the leveraged effect of the exchange rate on the New Zealand export lamb price to farmers. At the mid exchange rate of USD0.67, the forecast lamb price of 485 cents per kilogram for 2016-17 is down 3.0 per cent from the 2015-16 price of 500

cents per kilogram. This is primarily driven by the weakness of sterling (GBP), particularly because around 20 per cent of New Zealand's lamb exports are to the UK.

Quarterly prices are presented in Figure 7 in order to better express the variation in prices within a season. Historical data shows that prices tend to be high during the December quarter and then gradually decrease as the season progresses and as slaughter numbers increase. By the end of the season, when slaughter numbers start to reduce again, prices tend to go up. In addition to historical quarterly prices, Figure 7 includes forecast quarterly prices to show the likely seasonal pattern of lamb prices in 2016-17.

At the mid exchange rate of USD0.67, the annual average mutton price is estimated at 258 cents per kilogram in 2016-17, an increase of 13 per cent on the provisional figure for 2015-16. This increase reflects that only around 9 per cent of mutton is exported to the UK and so the weakness of the GBP has less influence in the overall market price than it does for lamb. In addition, Australian mutton exports as noted earlier are expected to be down 18 per cent in 2016-17.

TABLE 9

### All Grades Lamb Price Sensitivity Analysis

Exchange Rate	Lamb price		
	\$ per head	c per kg	
<b>Low NZD</b>			
USD	0.60		
GBP	0.49	104	567 <b>High</b>
EUR	0.55		
<b>Mid NZD</b>			
USD	0.67		
GBP	0.54	89	485 <b>Mid</b>
EUR	0.61		
<b>High NZD</b>			
USD	0.74		
GBP	0.59	76	417 <b>Low</b>
EUR	0.67		

Source: Beef + Lamb New Zealand Economic Service



# Lamb and Mutton Production

## Lamb

The total number of lambs tailed in the spring of 2016 is estimated at 23.4 million head, down 2.4 per cent or 0.6m head on the previous spring. This reflects fewer breeding ewes. For the year to 30 June 2016, New Zealand's breeding ewe flock decreased 3.1 per cent to 18.5 million, due to decreased numbers in all regions as a result of more culling of older ewes from the impact of facial eczema, shifting enterprises towards cattle, and dry summer conditions for some regions.

Pregnancy scanning results have been mixed. North Island results are driven by the adverse impact of facial eczema, while in the South Island, results were more positive—the same as or better than the previous season. However, spring lambing conditions will be a key factor determining the final lamb crop.

While the number of breeding ewes was down, there has not been a significant increase in mating of ewe hoggets, so, although a warmer winter has resulted in more favourable conditions, the 2016-17 lamb crop is estimated to be down 2.4 per cent on the previous year.

The feed position for most regions is well set up for a good lambing. The exceptions to this are a large part of East Coast North Island, Marlborough-Canterbury and parts of Otago that were affected by drier than desirable conditions leading into winter.

TABLE 10

Sep Year	Lamb Crop million head	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2012-13	26.0	20.9	18.0	376.2
2013-14	25.0	20.3	18.3	371.5
2014-15	25.8	21.2	18.1	384.2
2015-16p	24.0	19.9	18.3	363.5
2016-17f	23.4	19.5	18.3	357.7
2016-17f % change	-2.4%	-1.8%	+0.1%	-1.6%

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand, New Zealand Meat Board

With 18.5 million ewes, each one percentage point change in breeding ewe lambing percentage is equivalent to around 185,000 lambs.

A final estimate of the number of lambs born will be made when Beef + Lamb New Zealand's Lamb Crop Survey is completed in November.

For the year ending September 2017, the number of lambs processed in export-approved premises is forecast to decrease 1.8 per cent or 0.35m head to 19.5m. The decline reflects the reduced lamb crop and sufficient replacements kept to leave sheep numbers little changed at 30 June 2017.

Assuming normal climatic conditions for 2016-17, carcase weights are expected to average 18.3kg, effectively unchanged from 2015-16. However, with fewer lambs processed, production is forecast to decrease by 1.6 per cent to 357,700 tonnes carcase weight.

TABLE 11

Sep Year	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2012-13	4.1	25.1	103.9
2013-14	4.2	25.3	107.0
2014-15	4.1	25.0	102.1
2015-16p	3.8	25.1	96.6
2016-17f	3.7	25.2	92.8
2016-17f % change	-4.2%	+0.3%	-3.9%

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand, New Zealand Meat Board

## Mutton

The New Zealand export mutton slaughter is forecast to fall 4.2 per cent or 0.2m head to 3.7m head in 2016-17. This decrease reflects the impact of drought conditions that prevailed in summer and autumn 2016 and the overall flock reduction.

On 25 September 2015, the Ministry for Primary Industries (MPI) released a technical paper that estimated "the total on-farm cost of the June 2015 storm in the Taranaki and Horizons regions at approximately \$70 million". The government classified the storm as a medium-scale adverse event and provided funding to assist the affected communities to recover from the impacts.

For the South Island, on 30 June 2016, Minister for Primary Industries Nathan Guy announced an extension of the medium-scale drought classification until the end of the 2016. The Minister noted that the area had been in drought for nearly two years. The initial classification was made on 12 February 2015, and the extension to the end of 2016 meant it was the longest period such a designation had been made.

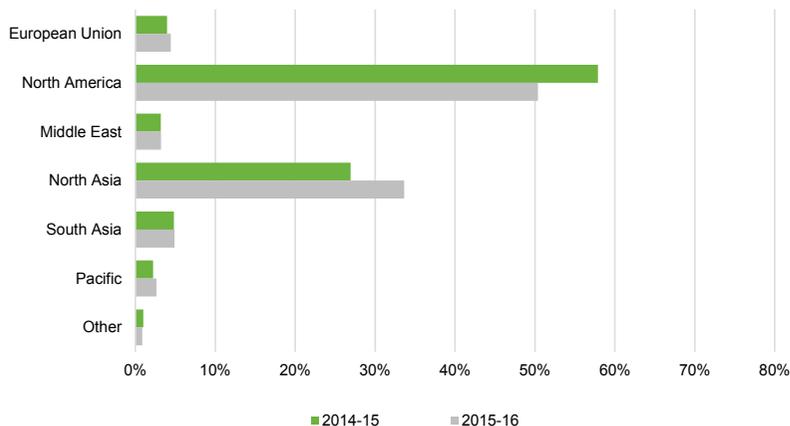
These events, combined with animal health challenges—most notably widespread occurrences of facial eczema in the North Island—moderated the decline in the number of adult sheep that were processed in 2015-16 and thus slaughter was higher than forecast at the start of the season.

In the North Island in 2016-17, export mutton slaughter numbers are expected to drop 3.6 per cent or 72,000 head to 1.96m head. The South Island slaughter is forecast to decrease 5.0 per cent or 90,000 head to 1.73m head. This decline reflects that sheep numbers at 30 June 2017 are expected to be almost unchanged on 30 June 2016. Continuing low farm-gate milk prices are expected to continue to limit dairy expansion in 2016-17.

For the year ending September 2017, the average mutton carcase weight is projected to increase marginally (+0.3%) to 25.2kg. Following the 5.4 per cent decline in export mutton production in 2015-16, a further 3.4 per cent decline is forecast for 2016-17 to result in mutton production of 92,800 tonnes carcase weight.

# Beef and Veal Exports

**FIGURE 8** New Zealand Beef and Veal Exports Oct to Jun, \$m FOB



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs, New Zealand Meat Board

## 2015-16

In 2015-16, demand from New Zealand's largest beef export market region—North America—eased relative to opportunities in North Asia, which is dominated by China in volume terms.

Beef and veal meat export volumes were provisionally down 7.4 per cent to 400,000 tonnes shipped weight in 2015-16 compared with 2014-15. The average FOB value of beef and veal meat exports decreased 5.1 per cent reflecting the increasing strength of the NZD against the USD as the season progressed coupled with softer in-market prices than for 2014-15. In 2015-16, total receipts for beef and veal exports provisionally stand at \$3.31 billion FOB, down 13 per cent on 2014-15. Export receipts from beef and veal are

expected to exceed those from lamb and mutton for the second season in a row.

Figure 8 shows that in the first nine months of 2015-16, the share of beef and veal export receipts from North America fell from 58 per cent in 2014-15 to 50 per cent. This was mainly driven by high demand from North Asia, and specifically China, which contributed over one-third of export beef and veal receipts. These two regions together accounted for 84 per cent of New Zealand's beef and veal export receipts in the first nine months of 2015-16.

After rising by over 25 per cent in the first nine months of 2014-15, the average FOB value per tonne of beef and veal fell in the first

nine months of 2015-16—by 2.7 per cent. The average value of exports to North America declined by 7.6 per cent, while those to North Asia rose by 2.8 per cent to \$7,340 per tonne shipped weight.

## 2016-17

For 2016-17, New Zealand beef and veal exports are forecast to increase marginally (+0.9%) to 403,000 tonnes shipped weight. Under the USD0.67 exchange rate assumption,

the average FOB value per tonne is expected to increase 1.6 per cent. However, a stronger NZD would lead to a lower average value. The value of co-products is forecast to increase by 1.4 per cent, after a sharp decline in 2015-16.

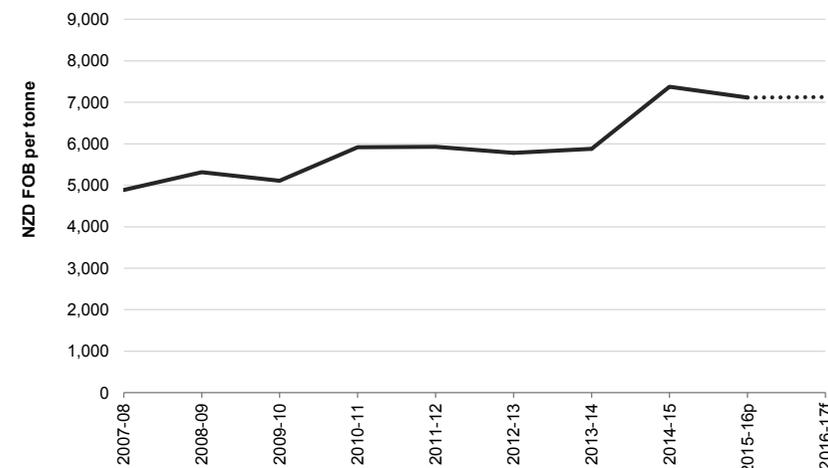
Overall, beef and veal receipts are expected to total \$3.4b FOB in 2016-17, up 2.3 per cent from 2015-16 but down from the record high \$3.8b achieved in 2014-15.

**TABLE 12** New Zealand Beef and Veal Exports Beef and Veal Meat

Sep Year	000 tonne	\$ / tonne	\$m FOB	Co-Products \$m FOB	Total Beef \$m FOB	Beef Meat %
2012-13	365	5,743	2,096	500	2,596	81%
2013-14	390	5,827	2,274	530	2,804	81%
2014-15	432	7,395	3,193	594	3,787	84%
2015-16p	400	7,015	2,804	542	3,346	84%
2016-17f	403	7,125	2,873	555	3,428	84%
2016-17f % change	+0.9%	+1.6%	+2.5%	+2.4%	+2.5%	

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

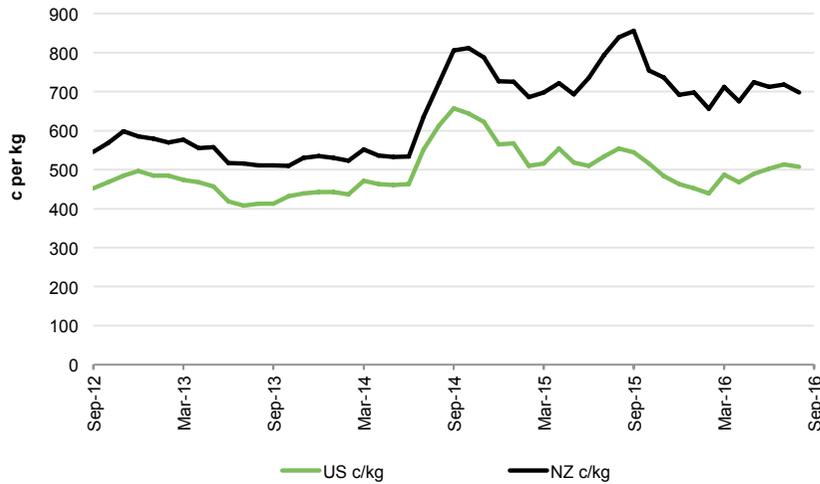
**FIGURE 9** Average FOB value of New Zealand Beef and Veal Exports 30 September Year End



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs

# Beef—International Situation

**FIGURE 10** Indicative Prices for Imported Frozen 95CL Beef in the US



Source: Beef + Lamb New Zealand Economic Service

Figure 10 shows the indicative price trend for imported frozen 95CL bull beef in the US in USD and converted to NZD.

For August 2016, the average in-market price at USD5.07 per kg was down 13 per cent on the August 2015 price. In NZD terms, the comparative decrease was 17 per cent reflecting the increased strength of the NZD relative to the USD.

Figure 11 shows prices for fresh 90CL beef in the US in USD. The price for fresh lean beef in the US rose to record high levels in 2014 and early 2015.

## Overview

Global beef supplies are expected to increase modestly in 2016-17 from herd expansion in the US, India, and Brazil offsetting lower production from Australia, which enters a herd rebuilding phase and lower slaughter following two years of high, drought-induced slaughter. Challenges continue to face the Chinese, Russian and Brazilian economies, while increased supplies of competing pork and poultry meats also place limits on beef prices.

## United States

While the US is the world's largest beef producer, it is nevertheless a net importer of beef. In 2015, the US cattle herd rebuilding phase entered its second year, which limited beef production. This changed in 2016 as cattle numbers stabilised and beef production increased. Higher "marketings" of fed steers and heifers from feedlots indicated feedlot operators were returning to a more normal pattern of sales after low levels in 2015. There was an increase in the average weight of fed cattle early in 2016 to add to the increase in numbers. Feed supplies were plentiful and thus cheap.

On the demand side, there was generally strong demand in the first half of 2016, and heading into the

traditional summer grilling season that runs from Memorial Day in late May to Labor Day in early September. Summer was hot, which may have dampened demand, while the high level of feedlot marketings in July and August resulted in large supplies of beef. These factors contributed to volatile wholesale beef prices.

On 1 August 2016, the US announced that it had reached agreement with Brazil to allow access for US beef to Brazil for the first time since 2003 when the US announced its first case of BSE. Also, USDA's Food Safety and Inspection Service (FSIS) approved the import of both chilled and frozen beef from Brazil and, as a result, imports from Brazil are expected from the second half of 2016.

**FIGURE 11** US Domestic Lean Beef Prices  
Chemical lean, fresh 90% - FOB Plant basis



Source: Beef + Lamb New Zealand Economic Service, USDA AMS



US beef imports were down 13 per cent in the first half of calendar 2016, and are expected to be down 12 per cent for the full calendar year. A further similar 12 per cent decline to 1.2m tonnes is expected in 2017.

The beef complex in the US is just that—complex. It has experienced considerable volatility with live cattle prices falling from the highs experienced in 2014 and 2015 (see Figure 12). Analysts are struggling to identify a clear reason and futures markets appear to be more pessimistic than implied by traditional supply and demand fundamentals.

This time last year we questioned the sustainability of high beef prices compared with cheap pork and poultry. A large part of the weakness of poultry prices in 2015 resulted from the occurrence of High Pathogenic Avian Influenza (HPAI) in the US that

resulted in trade restrictions, and depressed prices because domestic supplies built up (see Figure 14). The volatility/uncertainty in beef prices is reflected in cattle prices (Figure 12), and in prices of lean beef and fat trim, which is obtained from feedlot cattle (see Figure 13).

Beef prices are expected to decline further as the number of cattle marketed from feedlots increases in the second half of calendar 2016, heading into the northern hemisphere winter. And, in 2017, pressure is expected to continue as the slowdown in expansion of the cattle herd results in more cattle processing and higher production. USDA estimates US beef production at around 11.3m tonnes in calendar 2016, up about five per cent on 2015, with further growth of 3-4 per cent in calendar 2017.

US beef exports are predicted to grow by five per cent in 2017, reflecting momentum gained, particularly in Japan to which US exports grew 12 per cent in the first half of calendar 2016.

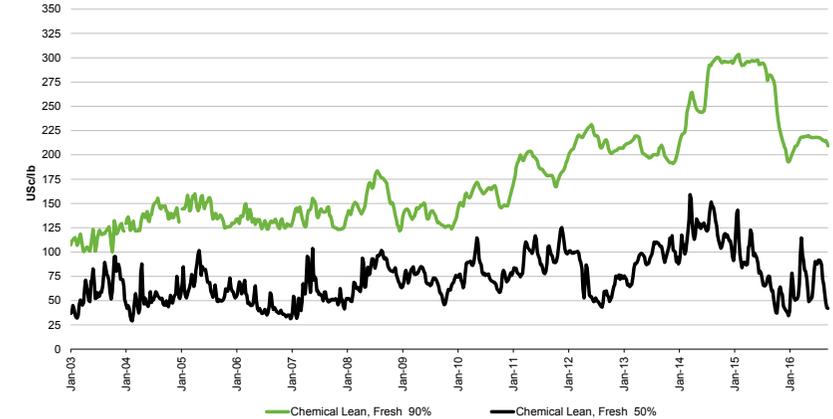
The USD has remained relatively strong, though questions remain about the impact an increase in interest rates might have on the value of the USD and thus competitiveness of US beef export markets.

**FIGURE 12**  
**Slaughter Cattle Prices**  
Steers, Choice, 11-13 cwt, Texas Panhandle



Source: USDA Livestock Dairy & Poultry Situation and Outlook

**FIGURE 13**  
**US Beef Prices - 50% and 90%**  
FOB Plant Basis



Source: USDA AMS

**FIGURE 14**  
**Broiler Prices**  
12-city composite wholesale price, ready-to-cook



Source: USDA Livestock Dairy & Poultry Situation and Outlook



## Brazil

Brazil's economy has been suffering recession, high inflation, increasing unemployment, and a weaker Real. The economic woes have affected purchasing power of Brazilians and strong beef prices have affected domestic beef consumption.

Brazil has gained increased access to markets, and the depreciation of the Real could be expected to make Brazilian beef and pork more competitive internationally. But the purchasing power in a number of Brazil's key markets for beef, such as Venezuela and Russia, has been affected by lower international oil prices and revenues. On the other hand, exports to China have grown rapidly, and on 1 August, USDA's Food Safety and Inspection Service (FSIS) approved the import of chilled and frozen beef from Brazil. Certification of individual plants is completed for some beef processing plants and Brazil will have limited access to the US because it does not have a country-specific Tariff Rate Quota (TRQ).

Brazil's JBS SA remains the world's largest beef and poultry producer, and also has significant pork production capacity. It has been caught up in at least five recent investigations by Brazil's federal authorities into possible irregular loans provided by state-owned banks. While there was no suggestion of wrongdoing by the Batista family that controls JBS, and the day-to-day operations of JBS's meat businesses were unaffected, JBS's share price was volatile.

## North Asia

China is a large complex market. The domestic cattle herd is 101m head of which about 51m are beef cows and 15m are dairy cows. Total beef production is estimated at 6.8m tonnes for calendar 2016, up 1.3 per cent on 2015.

After taking account of imports (and a small volume of exports), around 7.5m tonnes of beef is expected to be consumed, with beef imports equivalent to 10 per cent of consumption.

Beef consumption is expected to continue outgrowing domestic production continuing strong demand for imports.

Brazil, Australia and Uruguay each supply about one-quarter of China's beef imports. New Zealand contributed 13 per cent to beef imports for the year ended 30 June 2016 with shipments at 77,500 tonnes, up 58 per cent on the previous year.

Japan's total beef imports in 2016-17 are expected to increase slightly from 2015-16. However, New Zealand's share continues to decline. Supplies from Australia are expected to decline reflecting reduced production, providing opportunities for the US. Competition from pork and poultry remains strong. In addition to domestic supplies, imports come from North America and the EU.

Beef production in Korea is expected to decline, providing some opportunities for imports, but these face stiff competition from pork, and poultry in particular. Imports of beef from Australia are expected to decline reflecting that country's reduction in overall production. The New Zealand-Korea FTA entered into force on 20 December 2015 beginning a reduction in import duties and reducing the tariff disadvantage for New Zealand beef compared with Australia and the US, whose FTAs entered into force earlier.

## Australia

The Australian beef cattle herd is estimated at 23.3m head at 30 June 2016, down five per cent on the same time in 2015. It is forecast to increase 3.5 per cent to 24.1m head at 30 June 2017. A prolonged drought in major cattle-producing regions, strong international prices and a weak AUD contributed significantly to the 30 June 2016 decline. Even though the numbers processed are expected to decline sharply in 2016-17 (-14.7%), and herd rebuilding is expected, the cow herd will be the smallest in 10 years. Further, the challenging climatic conditions in many key producing regions have reduced the reproductive performance of beef cows.

Beef and veal production in 2015-16 provisionally fell around 12 per cent as a result of a similar decrease in slaughter.

In 2016-17, cattle slaughter is forecast to decline further—by 14.7 per cent to 7.5 million head—although this will be somewhat offset by an increase in average slaughter weight resulting in Australian beef and veal production declining by 9.5 per cent to around 2.1m tonnes.

After reaching a record high of 1.35m tonnes shipped weight in 2014-15, Australia's beef and veal exports provisionally fell by 13.5 per cent to 1.17m tonnes (shipped weight) in 2015-16, and are forecast to fall a further 12 per cent in 2016-17 to around 1.0m tonnes (shipped weight).

## European Union

As occurred in the sheepmeat sector, the result of the Brexit referendum caused disruption in the beef sector as viewed from Britain. In 2015, the total European Union (EU) cattle herd was almost static at 88.3 head, up 0.8 per cent compared with 2014. The dairy cow herd was expected to expand following the removal of the EU milk production quotas in April 2015 but this was affected by low dairy prices, which continued into 2016 causing producers to exit the industry.

EU beef production is forecast to increase 2.0 per cent for 2016, driven by increases in Poland, Ireland and the UK. The outlook for 2017 is for production to be stable at this higher level. However, as noted above, continuing low dairy prices could increase the supply of "cheaper" cow beef. Lacklustre economic growth and low consumer confidence underpin the EU outlook.

## Cattle Prices—Farm-gate

Figure 16 shows the monthly and annual average cattle price for all grades to the end of September 2016.

The overall weighted average beef price for 2014-15 at 470 cents per kg was up 29 per cent on the previous year. Provisionally for 2015-16 beef prices edged ahead a further 1.9 per cent to average 479 cents per kg for the season.

The outlook for 2016-17 is for beef prices to ease 2.5 per cent to 467 cents per kg at an exchange rate of USD0.67. However, at the time of writing in late September 2016, the exchange rate was around USD0.73. Should this situation prevail for the year to September 2017, then beef prices would be around 420 cents per kg, 10 per cent lower than the mid exchange rate outlook.

Three exchange rate scenarios are used in the outlook for 2016-17 to cover possible exchange rate variability. The three scenarios use annual average exchange rates of USD0.60, USD0.67 and USD0.74 and the associated cross rates against the GBP and EUR.

At USD0.67, the estimated average annual price for M bull (270-295kg) is 499 cents per kg and for P steer/heifer (270-295kg) it is 514 cents per kg, while M Cow (170-195kg), which includes a large component of cull dairy cows, is 395 cents per kg.<sup>1</sup>

**FIGURE 15** Cattle Price Trend and Forecast  
All Grades: Monthly and Annual Average



Source: Beef + Lamb New Zealand Economic Service

<sup>1</sup> Prices revised to latest available at the end of September 2016 and may differ from earlier provisional prices in this report.



# Beef Production

**TABLE 13** Export Cattle Slaughter Composition

Sep Year	000 head				
	Steer	Heifer	Cow	Bull	Total
2012-13	562	382	921	425	2,290
2013-14	559	407	931	438	2,335
2014-15	558	453	1,187	483	2,682
2015-16p	509	432	1,082	462	2,485
2016-17f	521	411	1,041	475	2,448
2016-17f % change	+2.4%	-5.0%	-3.8%	+2.9%	-1.5%

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

**TABLE 14** Export Cattle Carcase Weights

Sep Year	kg / head				
	Steer	Heifer	Cow	Bull	Total
2012-13	311	240	199	305	253
2013-14	305	236	199	301	250
2014-15	302	234	197	298	243
2015-16p	304	235	193	300	243
2016-17f	307	239	199	303	249
2016-17f % change	+1.2%	+1.3%	+3.2%	+0.8%	+2.4%

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

**TABLE 15** Export Beef Production Composition

Sep Year	000 tonne bone-in				
	Steer	Heifer	Cow	Bull	Total
2012-13	175	92	184	129	580
2013-14	170	96	186	132	584
2014-15	169	106	234	144	652
2015-16p	155	102	209	139	604
2016-17f	160	98	208	144	609
2016-17f % change	+3.6%	-3.8%	-0.7%	+3.7%	+0.9%

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

## Cattle Slaughter

For 2016-17, the export cattle slaughter is forecast to decrease 1.5 per cent to 2.45m head. This continues the decline from elevated levels in 2014-15, particularly for heifers and cows. Strong beef prices relative to sheepmeat prices and low farm-gate milk prices contributed to the focus on beef cattle in 2015-16. In areas not affected by drought, cattle numbers increased at the expense of sheep numbers.

In the year to September 2017, cow slaughter is forecast to remain above 1m head, but decrease by 40,000 head (-3.8%) from 2015-16 when dairy farmers continued to reduce the number of cows being milked. Heifer slaughter is expected to decrease by 5.0 per cent to 411,000 head in 2016-17. The reduction in the heifer slaughter largely reflects the number of dairy cows at 30 June 2017 being little changed from 2016.

For 2016-17, steer slaughter is projected to increase 2.4 per cent to 521,000 head from a low base in 2015-16, which was driven by the recent downward trend in beef cow numbers and the trend toward beef production in response to climatic factors and strong beef prices relative to sheep.

Bull slaughter is forecast to rise by 2.9 per cent to 475,000 head in 2016-17, which reflects the level of bull calves retained over the last two seasons.

## Cattle Weights

For 2016-17, the overall cattle weight is forecast to average 249 kg per head, up 2.4 per cent or 6 kg per head. This is a result of the combination of an improvement of the average weight for all classes of cattle—albeit a small increase for bull—and cows, which are the lightest class of cattle, making up a smaller proportion of the total than in recent seasons.

## Beef Production

In 2016-17, New Zealand's export beef production is forecast to increase slightly—by 0.9 per cent—to 609,000 tonnes bone-in, and thus is similar to the previous season, which was down sharply from the peak in 2014-15 that was due to high cull cow production.



# Wool

## Exports

In 2015-16, total New Zealand wool exports were down 13 per cent on the previous year to 103,000 tonnes clean. The average value of wool exports increased by 8.3 per cent to \$7,380 per tonne FOB compared with the previous year. With the increased average value per tonne offsetting lower production, wool export receipts fell 5.6 per cent to \$760 million FOB in 2015-16.

North Asia was New Zealand's largest market region, accounting for 53 per cent of both wool export volumes and receipts. Compared with the previous season, wool exports to North Asia decreased 22 per cent, while exports to the European Union, the next largest market (29%), increased 5 per cent.

The outlook for 2016-17 is for wool export volumes to be little changed (-0.4%) on 2015-16. The average export receipts per tonne is expected to decrease 12 per cent, driven by softer demand. Overall, total wool receipts fall 12 per cent to \$669 million.

## Prices

In 2015-16, the average fine wool price increased by 9 per cent, and other segment prices increased by greater percentages, as demand improved.

However, for 2016-17 the overall auction wool price is forecast to fall 13 per cent, reflecting weaker demand from China, and overall weaker demand from the construction sector for inclusion of wool carpets in buildings. In contrast, apparel demand appears generally robust.

## Production

In 2015-16, total wool production decreased 5.8 per cent to 146,000 tonnes greasy. Slipe wool production was little changed as a result of the total number of lambs and adult sheep processed remaining generally steady, while shorn wool production dropped six per cent from fewer sheep and a lower clip per head.

For 2016-17, total wool production is forecast to remain almost static (-0.4%) at 145,500 tonnes greasy, with a decline in slipe production (-6.6%) from fewer lambs and sheep slaughtered for the June-ending year offset by a higher shorn clip per head from three per cent fewer sheep. Fewer sheep on hand and an expectation of a recovery from the previous year's dry conditions improve sheep condition and shorn wool production per head.

TABLE 16 Auction Prices and Raw Wool Exports

June Year	Auction Price	Wool Exports		
	\$ / kg clean	FOB \$ / kg clean	000 tonne clean	\$m FOB
2012-13	5.16	5.55	122.1	677.6
2013-14	5.79	6.29	116.5	732.8
2014-15	5.95	6.82	118.0	805.0
2015-16	6.59	7.38	103.0	760.1
2016-17f	5.73	6.52	102.6	668.8
2016-17f % change	-13.0%	-11.7%	-0.4%	-12.0%

f forecast | Source: Beef + Lamb New Zealand Economic Service  
New Zealand Wool Services International Ltd, Statistics New Zealand

TABLE 17 Season Average Auction Wool Prices

June Year	cents / kg greasy			
	Fine	Medium	Strong	All Wool
2012-13	1,048	646	317	385
2013-14	1,000	549	384	431
2014-15	915	606	407	443
2015-16	997	740	444	491
2016-17f	1,005	724	373	427
2016-17f % change	+0.8%	-2.2%	-16.1%	-13.0%

f forecast | Source: Beef + Lamb New Zealand Economic Service  
New Zealand Wool Services International Ltd

TABLE 18 Wool Production

June Year	Sheep million head	Shorn 000 tonnes greasy	Slipe 000 tonnes greasy	Total 000 tonnes greasy	Shorn Wool* kg / head greasy
2012-13	31.3	152.0	17.9	169.9	4.86
2013-14	30.8	140.8	17.1	158.0	4.57
2014-15	29.8	139.1	15.9	155.0	4.67
2015-16p	29.1	130.3	15.8	146.0	4.47
2016-17f	28.3	130.7	14.7	145.5	4.63
2016-17f % change	-3.0%	+0.4%	-6.6%	-0.4%	+3.5%

\*excludes wool on sheepskins

p provisional, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand



# What's happening to producers in other countries?

## Australia

ABARES, which is part of the Australian Department of Agriculture and Water Resources, reported the following about the financial performance of lamb producers between 2013-14 and 2015-16, in a report commissioned and funded by Meat & Livestock Australia Ltd (MLA).

### Lamb Farms

In 2014-15 about 25,000 farms sold lambs for slaughter.

Farm cash income of lamb-producing farms rose between 2013-14 and 2014-15, with the majority of the increase coming from higher beef and lamb receipts due to increased prices and sales of both. This was partially offset by reduced crop receipts on many farms that were affected by dry conditions.

Average farm cash income of lamb-producing farms is estimated to have increased further in 2015-16—mainly due to increased crop, wool and beef cattle sales. There were differences between states and by scale of production.

Average debt for lamb producers increased by nearly 90 per cent in inflation-adjusted terms from 2000-01 to 2015-16. The increases were largely the result of consolidation and borrowing for land purchase, although farmers' ability to service debt improved too. Over the 10 years to 2015-16, interest payments required around 8 per cent of lamb producers' farm cash receipts but this fell to 6 per cent in 2015-16 as revenue increased.

### Beef Farms

Average total cash receipts for Australian beef farms increased by around 14 per cent in 2014-15 and by a similar percentage in 2015-16. The increases largely reflected higher cattle prices.

In inflation-adjusted terms, farm cash incomes for 2014-15 and 2015-16 were among the highest recorded since 2000 01.

Average farm debt increased reflecting a rapid increase in farm size. However, increases in debt were largely supported by an increase in capital value and consequently, the average equity ratio remained relatively steady between 2000-01 to 2015-16.

## US

USDA reports that receipts for animals/animal products are forecast to be 10 per cent lower in calendar 2016.<sup>2</sup> Prices for all major animal and animal product commodities, especially eggs, are expected to fall.

Cash receipts from cattle and calves are expected to decrease 11 per cent as cattle/calf prices decline. This reflects global declines in commodity prices, and is being reflected in falling land prices.

Increased crop plantings and good growing conditions—for pasture and crops—are expected to result in a bumper crop harvest in 2016 and thus reduced feed prices. Improved pasture can be expected to provide incentives for herd rebuilding in the cattle sector, which will contribute to increased beef production over the next decade or so. Beef cow numbers are forecast by USDA to rise from 29.7m head in 2015 to more than 33m by the mid 2020s. The total cattle herd is forecast to increase from 90m to more than 97m in the same period. Steadily rising slaughter weights also contribute to longer term increases in beef production.

Hog production is expected to continue rising in 2016 as the industry recovers from the porcine epidemic diarrhoea virus (PEDv) in 2014. As a result, hog prices are expected to drop in 2016, leading to a drop in cash receipts.

Poultry and egg cash receipts are expected to fall 16 per cent in 2016. This is due primarily to a fall in receipts for eggs, as supplies rebound after HPAI or "bird flu" resulted in 50m birds being destroyed in 2015. Broiler prices are expected to decline in 2016 as production increases.

USDA forecasts that farm sector equity will fall two per cent in 2016, which is the result of a 1.5 per cent drop in the value of farm real estate; declines in animal/animal product inventories, financial assets, and machinery/vehicles; and a small decline in farm debt reflecting farmers' management decisions (such as reducing input expenditures and therefore working capital requirements) offset by an increase in short-term commercial bank loan rates, which make debt more expensive.

<sup>2</sup> <http://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/2016-farm-sector-income-forecast.aspx>



## Canada

Even though global crop prices have fallen substantially in response to record global production, Canadian farmers are faring somewhat better than their US counterparts, primarily because the Canadian dollar has weakened substantially, providing some relief as exports have been more competitive.

After a steady decline from 2003, there is still no sign of the cattle herd being rebuilt, so beef production is expected to be unchanged or slightly down in 2017.

And although prices are expected to be lower than the historic highs reached in recent years, they remain above historical averages.

Interest rates remain low, yet land prices are softening, which is tempered by the generally positive outlook for the Canadian agriculture sector.

## Britain

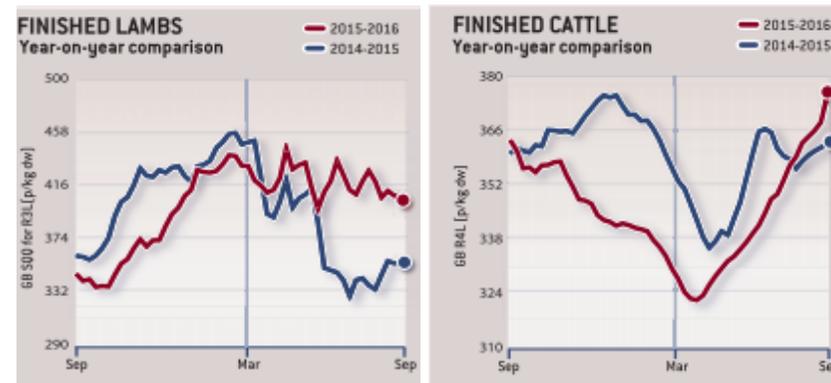
The farm situation is dominated by post-Brexit issues to be addressed over the five-year period following Britain's formal notification to leave the EU. The issues are:

1. UK agricultural policy
2. UK regulatory policy relating to agriculture
3. UK trade policy
4. UK economic growth.

In the short run the weakness of the GBP since the Brexit referendum result on 23 June 2016 has assisted UK farm exports and makes food imports more expensive. Both are positive aspects for the current farm outlook. However, British consumers will determine the demand for red meat compared with competing alternative meats.

FIGURE 16

UK Seasonal Cattle and Lamb Prices  
Year to September 2016



Source: UK Farmers Weekly 29 Sep 2016



# Climatic Conditions

## Autumn 2016 Summary

### Rainfall

Rainfall was above normal (120-149%) for the western portion of the South Island. Rainfall in northern and eastern parts of the North Island as well as Marlborough and Canterbury was below normal (50-79%). Near normal rainfall (80-119%) was observed in western Waikato, Taranaki, Manawatu-Whanganui and western Wellington.

### Temperature

Autumn temperatures were well above average (>1.2°C) for New Zealand. Pockets of above average temperatures (+0.5°C to +1.2 °C) were observed in Gisborne, Waikato, Marlborough, Nelson, Tasman, the West Coast and Southland. No locations observed average temperatures (-0.5°C to +0.5°C) or below average temperatures.

### Sunshine

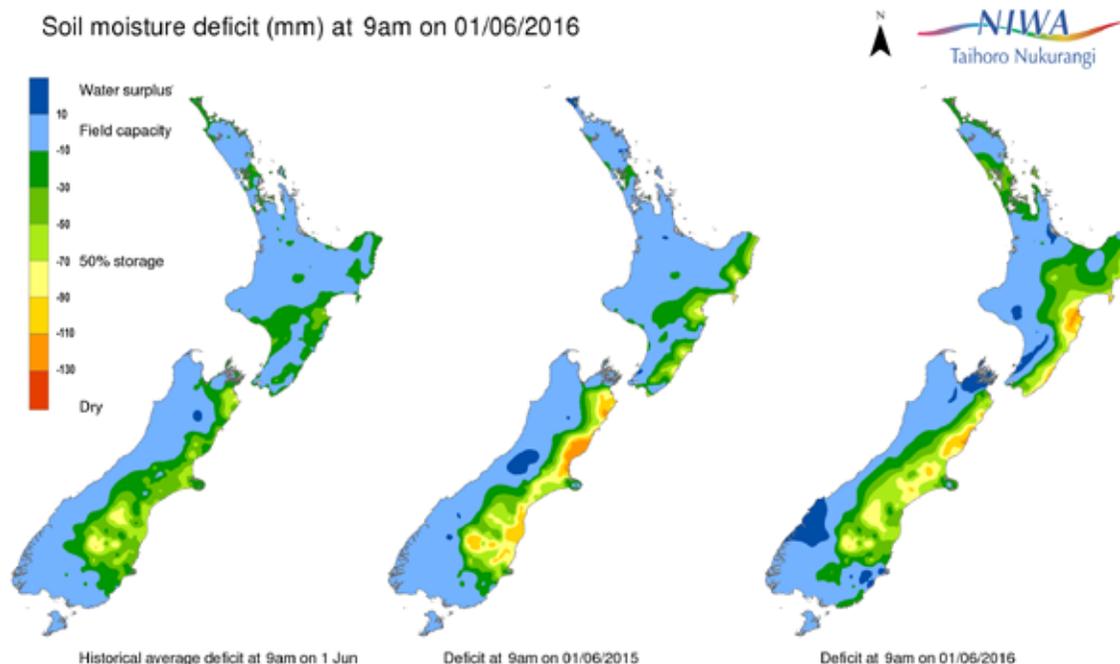
Autumn sunshine was near normal for the majority of the country. Above normal sunshine (110-125%) was observed in Northland, parts of Auckland and eastern parts of the Gisborne, Wellington, Canterbury and Otago regions.

### Soil moisture

As at 1 June 2016, soil moisture levels were below normal for the time of year for large parts of Gisborne, Hawke's Bay, and the Wairarapa as well as central and northern parts of Canterbury. Soil moisture levels for the remainder of the country were near normal for the time of year.

FIGURE 17

Soil moisture deficit (mm) at 9am on 01/06/2016



Source: National Institute of Water and Atmospheric Research Ltd (NIWA)

## Outlook—October to December 2016

### Temperature

Temperatures are most likely (50-55% chance) to be above average in the north of the South Island, east of the North Island and east of the South Island and very likely (60% chance) to be above average in the north and west of the North Island and the west of the South Island. Sea surface temperatures around New Zealand are forecast to remain near or above normal over the next three months.

### Rainfall

Rainfall totals are about equally likely to be in the near normal range (40%

chance) or above normal range (40-45% chance) in the North Island. Seasonal rainfall totals are most likely (45% chance) to be in the near normal range in the north of the South Island. In the east and west of the South Island, rainfall is about equally likely to be near normal (40% chance) or below normal (35-40% chance).

### Soil Moisture

Soil moisture levels and river flows are most likely to be above normal (45% chance) in the east and west of the North Island and equally likely (40% chance)

to be near normal or above normal in the north of the North Island. Seasonal soil moisture levels and river flows in the north of the South Island are most likely (40% chance) to be in the near normal range. Below normal soil moisture levels and river flows are most likely (45% chance) for the west of the South Island. In the east of the South Island, soil moisture levels and river flows are about equally likely to be below normal (40% chance) or near normal (35% chance).

Source: National Institute of Water and Atmospheric Research Ltd (NIWA)





# Farm Revenue, Expenditure and Profit—New Zealand

## Revenue

Gross farm revenue for 2016-17 under an exchange rate scenario of USD0.67 is estimated to decrease 3.8 per cent to \$433,900 per farm for the All Classes Sheep and Beef Farm. This is driven by lower income across all major revenue accounts.

Sheep revenue, which is the largest contributor to gross farm revenue, decreases 2.3 per cent to \$179,300 for 2016-17. This is largely due to a decrease in the number of lambs sold following fewer breeding ewes on hand and the residual effects of facial eczema for North Island regions. The expected average lamb price for 2016-17 is \$89 per head, down \$2 on the previous season. Sheep revenue contributes 41 per cent of gross farm revenue for 2016-17.

Wool revenue decreases 11 per cent to \$47,400 for 2016-17. This decrease is dominated by the forecast wool price decrease with the offset of an improved wool clip per head and a decrease in wool stocks on hand leaving the wool volume sold per farm similar to 2015-16.

Cattle revenue remains almost static (-0.5%) at \$117,000 for 2016-17. This is largely due to an expected increase in the value of stock on hand, offsetting decreased cash receipts from sales and purchases. The impact of this varies between regions, as the cattle account contributes 51

TABLE 19

Sheep and Beef Farm Revenue and Expenditure

	Weighted Average All Classes <sup>1</sup>								Forecast % Change			
	Provisional				Forecast			2015-16 to 2016-17				
	2012-13	2013-14	2014-15	2015-16	2016-17 USD 0.60	2016-17 USD 0.67	2016-17 USD 0.74	USD 0.60	USD 0.67	USD 0.74		
<b>Revenue</b>												
Wool	43,647	49,029	51,627	53,500	53,300	47,400	42,500	-0.4%	-11.4%	-20.6%		
Sheep	189,315	215,359	211,551	183,500	212,300	179,300	152,300	+15.7%	-2.3%	-17.0%		
Cattle	93,330	104,267	125,027	117,600	141,400	117,000	97,000	+20.2%	-0.5%	-17.5%		
Dairy Grazing	16,546	29,316	31,687	30,000	26,600	26,600	26,600	-11.3%	-11.3%	-11.3%		
Deer + Velvet	4,728	4,113	3,942	4,400	5,000	4,300	3,700	+13.6%	-2.3%	-15.9%		
Goat + Fibre	22	38	47	0	0	0	0					
Cash Crop	57,177	62,521	51,700	45,700	42,700	42,700	42,700	-6.6%	-6.6%	-6.6%		
Other	23,983	18,212	17,187	16,200	16,600	16,600	16,600	+2.5%	+2.5%	+2.5%		
<b>Gross Farm Revenue</b>	<b>\$ per farm</b>	<b>428,748</b>	<b>482,855</b>	<b>492,768</b>	<b>450,900</b>	<b>497,900</b>	<b>433,900</b>	<b>381,400</b>	<b>+10.4%</b>	<b>-3.8%</b>	<b>-15.4%</b>	
<b>Expenditure</b>												
Fert, Lime & Seeds	58,363	61,522	66,604	62,100	61,200	60,300	59,600	-1.4%	-2.9%	-4.0%		
Repairs & Maintenance	27,670	30,175	32,531	31,900	31,900	31,500	31,100	0.0%	-1.3%	-2.5%		
Interest & Rent	60,146	64,611	66,088	63,000	58,500	58,900	59,300	-7.1%	-6.5%	-5.9%		
Other Expenses	202,725	211,822	216,349	217,000	220,500	216,200	212,700	+1.6%	-0.4%	-2.0%		
<b>Total Expenditure</b>	<b>\$ per farm</b>	<b>348,904</b>	<b>368,130</b>	<b>381,572</b>	<b>374,000</b>	<b>372,100</b>	<b>366,900</b>	<b>362,700</b>	<b>-0.5%</b>	<b>-1.9%</b>	<b>-3.0%</b>	
<b>Farm Profit Before Tax<sup>2</sup></b>	<b>\$ per farm</b>	<b>79,844</b>	<b>114,725</b>	<b>111,196</b>	<b>76,900</b>	<b>125,800</b>	<b>67,000</b>	<b>18,700</b>	<b>+63.6%</b>	<b>-12.9%</b>	<b>-75.7%</b>	
<b>Real Farm Profit<sup>3</sup></b>	<b>2004-05 \$</b>	<b>64,800</b>	<b>91,800</b>	<b>88,400</b>	<b>60,900</b>	<b>98,200</b>	<b>52,300</b>	<b>14,600</b>	<b>+61.2%</b>	<b>-14.1%</b>	<b>-76.0%</b>	
Index of Real Farm Profit	2004-05 = 1,000	885	1,253	1,206	831	1,340	713	199	+61.2%	-14.2%	-76.0%	
Fertiliser Use	kg per SU	19.5	21.3	24.5	22.7	22.8	22.5	22.2	+0.6%	-0.9%	-2.0%	
<b>Prices</b>												
Wool auction	¢ per kg clean	516	579	595	659	645	573	514	-2.1%	-13.0%	-21.9%	
All wool <sup>4</sup>	¢ per kg greasy	318	373	400	439	436	388	348	-0.5%	-11.6%	-20.7%	
Lamb	\$ per head	85	100	94	91	104	89	76	+13.6%	-3.0%	-16.4%	
Mutton	\$ per head	61	76	67	57	80	65	53	+38.8%	+13.3%	-7.5%	
Prime Steer/Heifer	¢ per kg	403	409	513	470	558	484	423	+18.8%	+2.9%	-10.1%	

1. The Weighted Average All Classes Sheep and Beef Farm for 1 July 2016 carried stock numbers of 2,654 sheep, 330 beef cattle and 24 deer, totalling 3,998 stock units.

2. Farm Profit before Tax is required to meet personal drawings, taxation payments, debt repayments and the purchase of capital items.

3. Deflated by June year Consumer Price Index.

4. All shorn wool sales (auction 57% and private 43%) net of charges and freight.

Source: Beef + Lamb New Zealand Economic Service, Sheep and Beef Farm Survey

per cent of gross farm revenue for Northland-Waikato-Bay of Plenty farms, compared with 13 per cent in Otago-Southland.

Dairy grazing revenue decreases 11 per cent to \$26,600 for 2016-17. This is due to reduced grazing demand from dairy farmers, and some farms switching to other alternatives. Dairy grazing revenue

for 2016-17 contributes about 6.1 per cent of gross farm revenue, down 0.5 percentage points on the previous year.

The cash cropping account decreases 6.6 per cent for 2016-17 largely from softer crop prices. The cash crop account contributes around 10 per cent of gross farm revenue for 2016-17.

Aggregate Sheep and Beef Farm Revenue at the farm gate for 2016-17 is forecast at \$4.9 billion, down 3.8 per cent on the previous year. Gross farm revenue is spent buying goods and services for running the farm business then taxation, debt reduction and then personal living expenses.



## Expenditure

Total expenditure for the All Classes Sheep and Beef Farm is estimated to decrease 1.9 per cent to \$366,900 per farm for 2016-17. The largest drivers are reduced expenditure for fertiliser, interest, and feed and grazing. Combined, these three areas contribute around 31 per cent of total farm expenditure.

Prices for inputs used on sheep and beef farms are estimated to increase slightly (+0.5%) for 2016-17. This follows a 2.1 per cent decrease for 2015-16, which was strongly influenced by the price of borrowing (i.e. interest rates) and fuel, offsetting small price increases for repairs and maintenance and wages.

Fertiliser, and repairs and maintenance expenditure decrease 4.3 and 1.3 per cent respectively for 2016-17. Lower gross farm revenue impacts on these two items, which also leads to a decrease in fertiliser tonnage. These two items represent 22 per cent of total farm expenditure.

Interest expenditure decreases 8.6 per cent for 2016-17. This is due to a reduction in the rate of interest more than offsetting increased term and current liabilities. Interest

expenditure represents 13 per cent of total farm expenditure.

Fuel expenditure (+0.3%) and cartage (-0.1%) remain almost unchanged, for 2016-17. This follows a steep decline in oil prices, which began in June 2014. From then, West Texas crude oil prices have declined from USD105 per barrel to USD45 per barrel in September 2016.

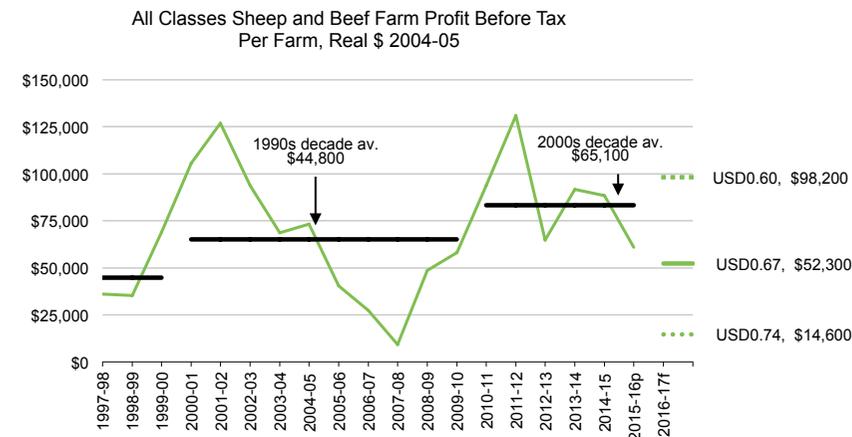
Feed and grazing expenditure decreases 5.6 per cent to \$18,200, down from a peak of \$19,300 for the previous year. Expenditure on “other” remains static (-0.4%) for 2016-17, with local government rates up 2.3 per cent, insurance up 1.6 per cent and rent up 1.8 per cent.

## Farm Profit before Tax

Three forecast scenarios are shown in Figure 20 in real 2004-05 dollar terms:

1. At the lower exchange rate (USD0.60), inflation-adjusted Farm Profit before Tax is \$98,200, up 61 per cent on \$60,900 for 2015-16. In nominal terms, i.e. without adjusting for inflation, Farm Profit before Tax is \$125,800, up 64 per cent on \$76,900 for 2015-16.

FIGURE 20



Source: Beef + Lamb New Zealand Economic Service, Sheep and Beef Farm Survey

2. At the mid exchange rate (USD0.67), inflation-adjusted Farm Profit before Tax is \$52,300, down 14 per cent on \$60,900 for 2015-16. In nominal terms, Farm Profit before Tax is \$67,000, down 13 per cent on \$76,900 for 2015-16.
3. At the higher exchange rate (USD0.74), inflation-adjusted Farm Profit before Tax is \$14,600, down 76 per cent on \$60,900 for 2015-16. In nominal terms, Farm Profit before Tax is \$18,700, also down 76 per cent on \$76,900 for 2015-16.

Figure 20 shows the trend in Farm Profit before Tax in inflation-adjusted, 2004-05 dollar terms. This shows the steep fall in profitability from 2001-02 to a 50-year low in 2007-08, which was followed by a recovery that was underwritten by improved international prices which exceeded the effect of the strengthening NZD.

The inflation-adjusted profit of \$131,100 per farm for 2011-12 was the highest since the early 1970s and similar to 2001-02 when real Farm Profit before Tax was \$126,900 per farm.

# Farm Revenue, Expenditure and Profit—Regional

## North Island Summary

Sheep and Beef Farm Profit before Tax decreases 14 per cent to \$78,100 per farm for 2016-17 compared with 2015-16. This is due to a 4.9 per cent decrease in gross farm revenue more than offsetting a 2.4 per cent decrease in total expenditure.

Gross revenue decreases largely due to lower revenue from both sheep and wool as a result of weaker lamb prices, fewer numbers sold, and lower volume and prices for wool sold. Combined, these two accounts contribute 51 per cent of gross farm revenue for North Island Sheep and Beef Farms. Cattle revenue buffers lower revenue from wool and sheep, but the impact of this will be most pronounced in

Northland where income generated from cattle contributes around 50 per cent of gross farm revenue.

Total expenditure decreases 2.4 per cent to \$308,600 for 2016-17. This is largely a flow-on effect of reduced gross revenue leading to reduced expenditure on fertiliser and repairs and maintenance. Interest expenditure decreases due to lower interest rates.

Overall, the outlook for North Island Sheep and Beef Farms is underpinned by beef cattle returns remaining similar to the previous season. Beef cattle revenue represents 40 per cent of gross farm revenue on average for North Island sheep and beef farms.

Facial eczema continues to remain a risk in most regions for ewe survival post lambing, for spring 2016, particularly where there are subclinical cases.

The North Island has 49 per cent of the sheep flock, 70 per cent of the beef cattle herd and 59 per cent of the dairy cattle herd.

## South Island Summary

Sheep and Beef Farm Profit before Tax decreases 11 per cent to \$54,500 per farm compared with 2015-16. This is due to a 2.7 per cent decrease in gross farm revenue, which exceeds a 1.5 per cent decrease in expenditure.

Gross farm revenue for 2016-17 decreases 2.7 per cent due to decreased revenue from wool, cattle and cropping that collectively contribute 44 per cent to gross farm revenue. Wool revenue decreases due to lower prices compared to the previous season with some offset from a lift in volume sold due to the sale of wool stock held over from previous seasons. Cattle revenue decreases 2.0 per cent due to softer prices compared with the previous season. Crop revenue decreases due to softer wheat and barley prices.

Sheep revenue is unchanged at \$203,400 per farm. Fewer lambs sold at lower prices than the previous season is offset by a lift in sales of mixed aged ewes and prime hoggets. The sheep account represents 42 per cent of total gross farm revenue.

Total expenditure decreases 1.5 per cent to \$432,500 for 2016-17. The most significant decreases include interest (-8.0%), fertiliser (-1.7%), and shearing (-5.0%) which combine to contribute around 29 per cent to total farm expenditure. Interest expenditure decreases due to lower interest rates on term and current liabilities, while fertiliser decreases in response to a reduction in gross farm revenue.

Overall, the profitability outlook for South Island Sheep and Beef Farms is not as strongly influenced by beef prices as the North Island due to cattle revenue only contributing 15 per cent to gross farm revenue. The South Island, apart from Nelson, was not impacted by facial eczema like the North Island. On this basis the overall lambing percentage is expected to be up on last year for the South Island.

The South Island has 51 per cent of the sheep flock, 30 per cent of the beef herd, and 41 per cent of the dairy herd.

TABLE 20

All Classes Sheep and Beef Farm - \$ Per Farm

Region	2014-15		2015-16p		2016-17 <sup>1</sup>		
	Profit	Profit	Revenue	Expenditure	Profit	2016-17 <sup>1</sup> Stock Units	
Northland-Waikato-BoP	99,915	85,100	342,000	265,500	76,500	3,251	
East Coast	158,599	89,300	426,000	356,500	69,500	4,844	
Taranaki-Manawatu	118,852	100,000	406,700	318,300	88,400	4,259	
<b>North Island</b>	<b>126,107</b>	<b>90,400</b>	<b>386,700</b>	<b>308,600</b>	<b>78,100</b>	<b>4,038</b>	
Marlborough-Canterbury	91,521	54,400	571,800	525,700	46,100	4,089	
Otago/Southland	98,362	67,900	383,500	320,400	63,100	3,776	
<b>South Island</b>	<b>94,417</b>	<b>61,400</b>	<b>487,000</b>	<b>432,500</b>	<b>54,500</b>	<b>3,954</b>	
<b>New Zealand</b>	<b>111,196</b>	<b>76,900</b>	<b>433,900</b>	<b>366,900</b>	<b>67,000</b>	<b>3,998</b>	

1. Exchange rate used USD/NZD 0.67

Source: Beef + Lamb New Zealand Economic Service | Sheep and Beef Farm Survey



## Region Comment—North Island

### Northland-Waikato- Bay of Plenty

Gross farm revenue decreases 4.5 per cent to \$342,000 per farm for 2016-17 compared with 2015-16. This is driven by a decrease in sheep and wool revenue.

Sheep revenue decreases 5.8 per cent to \$101,300 for 2016-17. This is primarily due to fewer lambs sold, which is in response to a reduction in ewe numbers, a slight decrease in ewe lambing percentages due to residual effects of facial eczema, and despite good breeding ewe condition for winter 2016. Sheep revenue contributes 30 per cent of gross farm revenue.

Cattle revenue for 2016-17 remains almost static at \$175,500 (+0.9%) compared with the previous season. While prices are expected to be down on the previous season, they remain higher than the recent five-year average. Higher sales and more stock on hand at close maintain cattle revenue. The cattle account contributes 51 per cent of gross farm revenue.

Total farm expenditure decreases 2.7 per cent on 2015-16 to \$265,500 for 2016-17. This is driven by decreased expenditure on interest and fertiliser.

Interest expenditure decreases 14 per cent to \$31,700 for 2016-17. This is due to the combined effect of term debt reduction, and lower interest rates. Term liabilities peaked in 2013-14, but have since decreased 3.3 per cent. Interest expenditure contributes 12 per cent to total farm expenditure.

Fertiliser expenditure decreases 13 per cent to \$37,800 for 2016-17. This is due to decreased fertiliser application reflecting reduced revenue compared with the previous year. Fertiliser expenditure contributes 14 per cent to total farm expenditure.

Farm Profit before Tax decreases 10 per cent on the previous season to \$76,500 for 2016-17.

Sheep and beef farms in the region run 3,250 stock units on 349 effective hectares for 2016-17.

### East Coast

Gross farm revenue decreases 5.3 per cent on 2015-16 to \$426,000 for 2016-17. This is driven by lower revenue across the majority of enterprises compared with 2015-16.

Sheep revenue decreases 3.3 per cent to \$199,100 for 2016-17. This is due to fewer lambs sold and weaker prices compared with the previous season. The reduction in lambs sold is due to fewer breeding ewes on hand, and residual effects of facial eczema. Breeding ewe numbers decreased due to the impact of facial eczema and more competitive returns from cattle. Sheep revenue contributes 47 per cent to gross farm revenue.

Cattle revenue decreases 2.4 per cent to \$156,400 for 2016-17. This is driven by weaker beef prices and fewer numbers sold. Cattle revenue is down on the previous two years, but still remains the third highest on record. Cattle revenue represents 37 per cent of gross farm revenue.

Total farm expenditure decreases 1.1 per cent to \$356,500 for 2016-17. This is due to reduced expenditure on fertiliser and interest. These two items contribute 26 per cent to total expenditure.

Fertiliser expenditure decreases 6.9 per cent to \$43,800. This is due to lower volumes applied particularly on hill country farms in response to reduced crop areas. Interest expenditure decreases 5.6 per cent due to lower interest rates on term debt.

Farm Profit before Tax decreases 22 per cent on 2015-16 to \$69,500 for 2016-17.

Sheep and beef farms in the region run 4,840 stock units on 580 effective hectares for 2016-17.

### Taranaki-Manawatu

Gross farm revenue decreases 5.9 per cent on 2015-16 to \$406,700 for 2016-17. This is largely driven by decreased revenue from sheep, wool and dairy grazing which collectively contribute 66 per cent to gross farm revenue.

Sheep revenue decreases 6.9 per cent to \$198,200 for 2016-17. This is due to lambs sold at lower prices compared with the previous season. Fewer lambs are also expected due to fewer ewes run with ram, and the impact of residual effects from facial eczema on lambing percentages for spring 2016. Sheep revenue contributes 49 per cent to gross farm revenue.

Wool revenue decreases 13 per cent to \$56,400 for 2016-17 due to a 1.9 per cent decrease in volume sold and lower prices. Wool represents 14 per cent of gross farm revenue.

Cattle revenue increases slightly (+0.9%) to \$112,600 for 2016-17. This is driven by softer prices and lower sales numbers for beef cattle but offset by a small increase in cattle numbers at close. Cattle revenue contributes 28 per cent to gross farm revenue 2016-17.

Total farm expenditure decreases 4.2 per cent to \$318,300 for 2016-17. This is driven by decreased expenditure for repairs and maintenance, and interest. Repairs and maintenance expenditure decreases from the highest recorded level in the previous year, which was underpinned by flood damage repairs following heavy rainfall on 19 June 2015, particularly in Taranaki. Repairs and maintenance represents 10 per cent of total farm expenditure.

Interest expenditure decreases 8.4 per cent to \$46,600 for 2016-17. This is driven by a decrease in interest rates partly offset by a lift in term liabilities. Interest expenditure represents 15 per cent of total farm expenditure.

Farm Profit before Tax decreases 12 per cent on 2015-16 to \$88,400 for 2016-17.

Sheep and beef farms in the region run 4,260 stock units on 480 effective hectares at the start of 2016-17.



## Region Comment—South Island

### Marlborough-Canterbury

Gross farm revenue decreases 2.9 per cent to \$571,800 per farm for 2016-17. This is due to a decrease in income from most revenue sources.

Sheep revenue increases 1.3 per cent to \$176,500 for 2016-17. This boost largely comes from last season's prime lamb sales in July-September 2016. The number of new season's prime lambs sold is similar to the previous year but at lower prices. Fewer breeding ewes are sold due to heavy culling in the previous year. Sheep revenue contributes 31 per cent to gross farm revenue for 2016-17.

Cattle revenue decreases 1.6 per cent to \$94,800 for 2016-17. This is driven by lower prices for beef compared to the previous year. Fewer breeding cows on hand at open also leads to fewer calves marked for spring 2016. Cattle revenue contributes 17 per cent to gross farm revenue.

Cropping revenue decreases 5.6 per cent to \$149,900 for 2016-17. This is due to lower prices, particularly for wheat and barley. Cropping contributes around 26 per cent to gross farm revenue for the All Classes average Sheep and Beef Farm in this region.

Total farm expenditure decreases 1.6 per cent to \$525,700 for 2016-17. This is largely due to lower expenditure on interest and feed and grazing. Interest expenditure decreases due to lower interest rates, while feed and grazing decreases following a high level of drought-related expenditure in this area for the previous year. These two items contribute 16 per cent to total farm expenditure.

Farm Profit before Tax decreases 15 per cent to \$46,100 for 2016-17.

Sheep and beef farms in the region run 4,090 stock units on 860 effective hectares at the start of 2016-17.

Extensive High Country and foothill farms inflate the average area of farms in the region. Finishing-Breeding farms average 385 hectares while High Country farms average 8,030 hectares.

### Otago-Southland

Gross farm revenue decreases 2.4 per cent to \$383,500 per farm for 2016-17.

Sheep revenue decreases slightly (-0.9%) to \$235,600 for 2016-17. This reflects lower lamb prices and a decrease in lambs sold due to fewer breeding ewes on hand at open (1 July 2016). There is some offset from slightly increased works ewe prices. The sheep account contributes 61 per cent to gross farm revenue for 2016-17.

Cattle revenue decreases 2.4 per cent to \$49,000 for 2016-17 due to lower prices compared to the previous year. Cattle revenue contributes 13 per cent of gross farm revenue. Total cattle numbers increased in Otago in response to stronger prices while total cattle numbers remained static in Southland. Cattle revenue contributes around 13 per cent to total gross farm revenue.

Wool revenue decreases 11 per cent to \$61,800 for 2016-17. This is due to decreased prices offsetting increased wool sold per farm due to expected sales of inventory held over from the previous season. The wool account contributes 16 per cent to gross farm revenue.

Total farm expenditure decreases 1.5 per cent to \$320,400 for 2016-17. The largest drivers of this are decreases in expenditure on fertiliser and interest. Fertiliser expenditure decreases 7.1 per cent to \$44,500 due to lower application rates, which follows a higher than average application rate for the previous season. Interest expenditure decreases due to lower interest rates. These two items contribute about 27 per cent to total farm expenditure.

Farm Profit before Tax decreases 7.1 per cent to \$63,100 for 2016-17.

Sheep and beef farms in the region run 3,780 stock units on 750 effective hectares.

In this region, the average farm size is inflated by High Country farms, which average 6,700 hectares, whereas Finishing-Breeding farms average 530 hectares and Intensive Finishing Farms average 220 hectares.

