



New Season Outlook 2019-20

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Executive Summary – Outlook 2019-20

Economic Conditions

The uncertainty that has defined recent years in the international trade environment and geo-political relationships seems heightened. New headlines are nearly daily occurrences, creating ambiguity in forecasts and risks remain weighted to the downside.

Global activity has softened, international trade and manufacturing has been sluggish. Global economic growth is forecast at 3.2 per cent for 2019 down on 2018. However, it is forecast to pick up in 2020.

Despite stifled growth and inflation, employment figures in many large economies are good. This is expected to maintain global consumption – a solid signal for New Zealand's export focused economy – however, improvements in global living standards are likely to be muted.

The gloomy international outlook has weighed on New Zealand's economy, leading to caution in household and business spending. Household credit growth has reduced while purchasing of permanent products continues, indicating a reigning-in of discretionary spending.

Lamb and Mutton

For 2019-20, lamb meat export receipts are forecast at \$3.26 billion FOB, up on 2018-19, and the third year in a row above \$3 billion.

Lamb exports are estimated to be even at 305,000 tonnes shipped weight. An increase in lambs processed offsets a decrease in carcase weights.

The easing New Zealand dollar and solid demand driven by China is expected to raise the average FOB value per tonne by 3.3 per cent.

At the mid exchange rate of USD0.66, the forecast lamb price of 773 cents per kg for 2019-20 is up 3.5 per cent from 2018-19. Only one month in 2018-19 went below 700 cents per kg.

In 2019-20, mutton exports are forecast to increase as the flock numbers are relatively steady and the flock ages up, and from a low base in 2018-19.

The average FOB value per tonne is expected to continue rising in 2019-20, to break \$7,100 for the first time. The combination of increased value per tonne at FOB and higher volume is expected to increase total mutton export receipts to \$776 million.

At the mid exchange rate of USD0.66, the annual average mutton price is forecast at 473 cents per kg in 2019-20, an increase of 4.2 per cent on 2018-19.

Beef

Overall, beef and veal receipts are expected to be \$4.17 billion FOB in 2019-20 – up 5.9 per cent – breaking the \$4 billion mark for the first time. The \$3 billion mark was only passed for the first time in 2014-15.

For 2019-20, New Zealand beef and veal exports are forecast to increase by 2.0 per cent to 463,000 tonnes shipped weight. The average FOB value per tonne is expected to increase 4.4 per cent.

For 2019-20, the number of cattle processed for export is forecast to grow by 1.7 per cent to 2.56 million head. New Zealand's export beef production is forecast to increase by 2.0 per cent – to 642,000 tonnes carcase weight.

At USD0.66, the estimated 2019-20 average annual price for P steer/heifer (270-295kg) is 572 cents per kg. It is forecast to average 420 cents per kg for M cow (170-195kg), which includes a large component of cull dairy cows, and 550 cents per kg for M bull (270-295kg).

Livestock Numbers

Overall, excellent lamb and mutton prices underwrote a deeper culling than usual of lower performance sheep in 2017-18 – countered by retention of ewe lambs. The younger breeding flock has matured and – all things being equal – numbers are relatively stable.

Sheep numbers at 30 June 2019 totalled an estimated 27.4 million head, almost static (+0.4%) on the previous June. This is the fourth year sheep numbers have been near the 27.5 million level.

Beef cattle numbers at 30 June 2019 totalled an estimated 3.82 million head, up 2.6 per cent on the previous June. This was largely driven by an increase in trade cattle and weaners, particularly in South Island regions.

Dairy cattle numbers at 30 June 2019 are estimated to remain almost static (-0.4%) at 6.36 million. Dairy cows are estimated to show the same trend.



Wool

The outlook for 2019-20 is for wool export volumes to increase 1.1 per cent on 2018-19 from almost static sheep numbers and a slight increase in shorn wool per sheep.

Total wool receipts at FOB remain almost unchanged (-0.6%) on the previous year, estimated at \$532 million. The estimate for the overall auction wool price is down 2.6 per cent on 2018-19.

Sheep and Beef Farms

Forecast weighted average gross revenue for the all Classes Sheep and Beef Farm in 2019-20, under an exchange rate scenario of USD0.66 is up by 1.2 per cent to \$545,900 per farm on average. This is driven by increased revenue from beef cattle and sheep.

Sheep revenue, which is forecast to contribute half of gross farm revenue, increases 1.1 per cent to \$308,500 for 2019-20. Farm-gate prices continue to be strong offsetting fewer prime lambs and sheep being sold.

Wool revenue decreases 1.3 per cent to \$37,700 for 2019-20. This is due to continued weak wool prices, with fine wool prices easing, offsetting an increase in the average volume of wool sold per farm. Wool revenue accounts for six per cent of gross farm revenue.

Cattle revenue increases 2.2 per cent to \$166,200 for 2019-20. This is due to strong international demand for New Zealand beef, which is reflected in cattle prices.

The weighted average total expenditure for the All Classes Sheep and Beef Farm is estimated to increase 1.8 per cent to \$456,800 per farm for 2019-20.

Higher expenditure occurs in all parts of farm businesses, except for weed and pest control, as farmers consolidate in the profitable seasons. On-farm inflation in prices for inputs used on sheep and beef farms is estimated to be 2.8 per cent on average.

Fertiliser, lime and seeds expenditure increases 1.7 per cent to average \$79,600. The volume applied is unchanged per stock unit – while the on-ground price increases slightly.

Interest expenditure decreases 3.4 per cent to \$54,400, which reflects the reduction in interest rates, i.e. the price of borrowing, and some reduction in debt levels. Repairs and maintenance increases 3.2 per cent, after increases of 12.4 and 5.6 per cent in the prior two years.

In nominal terms, Farm Profit before Tax is forecast at \$173,000, unchanged (-0.1%) on \$173,200 for 2018-19.

After adjusting for inflation, Farm Profit before Tax is \$128,500 in 2004-05 dollar terms, down 1.9 per cent on \$131,000 for 2018-19. This compares with \$131,100 per farm for 2011-12, which was the highest since the early 1970s, and is similar to 2001-02 when inflation-adjusted Farm Profit before Tax was \$126,900 per farm.

Economic Conditions

Global Growth Prospects

The uncertainty that has defined recent years in the international trade environment and geo-political relationships seems heightened. New headlines are nearly daily occurrences, creating ambiguity in forecasts and risks remain weighted to the downside.

Global activity has softened, international trade and manufacturing has been sluggish. Global economic growth is forecast at 3.2 per cent for 2019 by the International Monetary Fund (IMF) easing from 3.6 per cent in 2018. However, it is forecast to pick up in 2020, lifting to 3.5 per cent.

Despite stifled growth and inflation, employment figures in many large economies are good. This is expected to maintain global consumption – a solid signal for New Zealand’s export-focused economy – however, improvements in global living standards are likely to be muted.

For the year ending March 2019, growth rates were reduced from 2018 across most of New Zealand’s major trading partners except for Australia where growth was raised by 0.3 percentage points. The regression of trade relationships has dragged on many trading partners, chiefly involving the US – the world’s largest economy – and particularly with China.

The US has been in a long period of expansion and has favourable employment figures. This is regionalised and has benefitted the coastal states and regional hub cities. Inflation remains subdued and the outlook is for interest rates to remain low. The wind-down of fiscal stimulus will drive the lower growth in 2020.

The risk of the US going into recession hangs over the global economy. The likelihood of this occurring has increased recently. A Reuters poll of economists on the probability of a recession in the next two years lifted in August 2019 to 45 per cent – up from 35 per cent in July 2019 to its highest level since the poll began in May 2018. Other US and international indicators are highlighting the risk of recession. The inversion of the yield curve in the US bond market has gained a lot of attention, which occurred in March 2019 for the first time since 2007 – when the global financial crisis began. An inverted yield curve is when the short-term bond yields are greater than long-term, indicating a pessimistic economic outlook.

Economic growth in China has been relatively stable and is expected to soften in the short-term. While this has been expected in recent years, it has not become apparent. Authorities have been driving for a rebalancing of the economy towards consumption activity rather than being led by investment. Policy tools have been employed to minimise the impact of

the trade war on exports and imports but some slowdown is expected.

There are signals that softer consumer confidence and private investment will be counteracted by government infrastructure. Despite weaker confidence, consumption is expected to benefit from improving wages. The disruption to pork production due to the outbreak of African Swine Fever (ASF) in China will have a bearing on the consumer price index (CPI).

Brexit remains a major source of uncertainty for the EU and world. In recent weeks it has seemed that daily revelations and upheavals occur more often than not. Assuming a gentle Brexit, economic growth is forecast to remain steady. The lack of clarity for the future relationship with the EU restrains investment enthusiasm. Unemployment has decreased in recent years and boosted consumption, but the unemployment rate is forecast to be steady in 2020 and limit consumption growth.

Table 1 Economic Growth

	Annual Average % Change, March Year					
	2016	2017	2018	2019e	2020f	2021f
	%	%	%	%	%	%
US	+2.3	+1.8	+2.6	+2.5	+2.4	+1.9
UK	+2.2	+1.7	+1.7	+1.3	+1.3	+1.2
Euro zone	+2.0	+1.9	+2.6	+1.7	+1.1	+1.3
Japan	+1.4	+0.9	+1.9	+0.7	+0.6	+0.4
China	+6.8	+6.8	+6.8	+6.5	+6.2	+6.0
South Korea	+2.9	+3.0	+3.1	+2.6	+2.1	+2.2
Australia	+2.5	+2.6	+2.6	+2.9	+2.1	+2.6
Trading Partners	+3.5	+3.6	+4.1	+3.8	+3.3	+3.3
New Zealand	+3.6	+3.6	+3.2	+2.7	+2.3	+2.5

Note: "Euro zone" are 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia. "Trading Partners" account for about 85% of New Zealand's total merchandise trade. e estimate, f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions

Growth in the euro zone has diminished over the last year as international trade has slowed, weakening investor confidence that is still to get back on its feet since the global financial crisis. The headwinds on external trade have also impacted on intra-EU trade. This is expected to prolong expansionary monetary policy, however, solid labour figures are supporting private consumption.

In Australia, growth is expected to continue though slowing in 2020, in part due to the global trade slowdown. Similar to New Zealand, Australia has high level of household debt and house prices have gone down – leading to weaker consumption growth.

Japan's growth is forecast to remain relatively steady in the short-term – albeit at a low rate. Expected consumption growth will be driven by a modest rise in wages. One-off

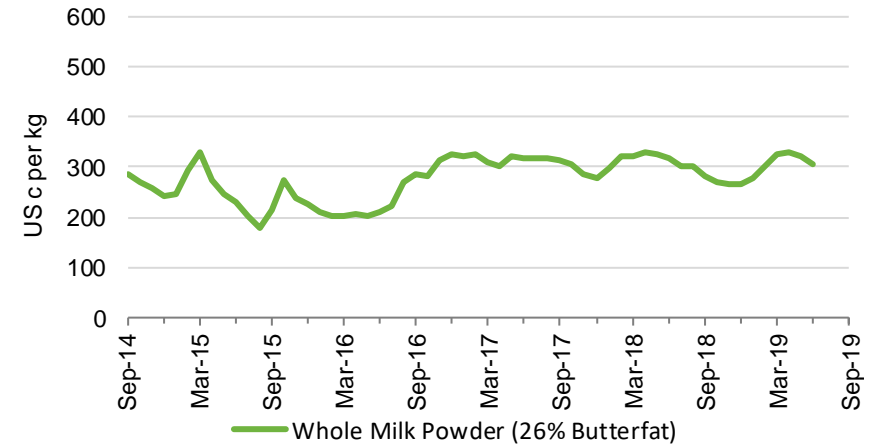
events such as the 2020 Olympics – and 2019 Rugby World Cup – and new trade agreements will help export earnings from goods and services. Japan's economy still has the high public-debt-to-GDP ratio hanging over it as a significant potential risk.

New Zealand

Global uncertainty is having a major influence on the outlook for New Zealand. However, New Zealand has relatively strong foundations despite the volatility internationally. Unemployment is at its lowest in over a decade, GDP growth is solid and in the longest period of growth in over 70 years. A great deal of the uncertainty has been generated by some New Zealand's significant trading partners. Increasing international uncertainty and disruption weighs on domestic private confidence and investment.

As other economies have picked up, population growth has eased because

Figure 2 Indicator Global Dairy Trade Auction



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

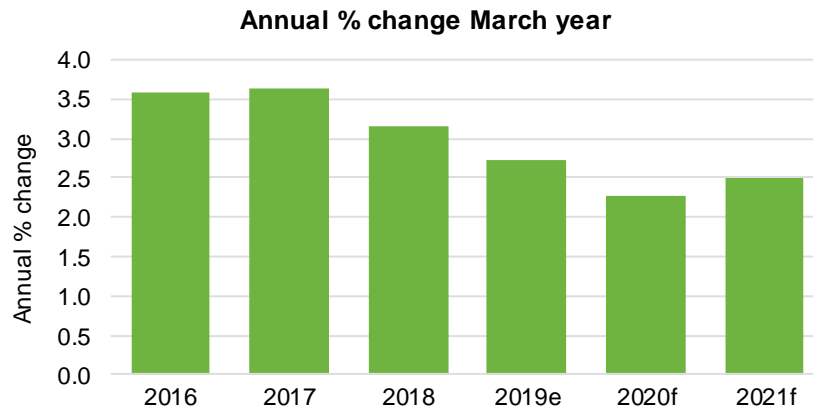
emigration rose while immigration has remained relatively steady. Net migration has been a significant driver of New Zealand's growth in recent years and as relative economic growth and opportunities have improved in other developed economies their appeal has improved. The talk of US recession, Brexit and trade wars – for example – may shift these relative economic outlooks.

The gloomy international outlook has weighed on New Zealand's economy, leading to caution in household and business spending. Household credit growth has reduced while purchasing of permanent products – such as appliances – continues unabated, indicating a reigning-in of discretionary spending.

Perceived lack of clarity in planning public infrastructure projects and tight construction capacity has increased uncertainty for the construction sector. A tight employment market with lower churn, combined with raising of the minimum wage contribute to higher labour costs.

New Zealand's exports have been performing well, with the exception of logs and strong wool. Chinese demand for logs eased in mid-2019 due an increase of supply from Europe, Russia and New Zealand as seen with other highs in the log price cycles. While dairy prices have eased recently in the Global Dairy Trade auction, the indicator whole milk powder price remains relatively high. Red meat exports have been historically strong with an encouraging outlook.

Figure 1 NZ Real GDP



e estimate, f forecast

Source: Beef + Lamb New Zealand Economic Service, NZIER Quarterly Predictions

Table 2 Consumer Prices

	Annual Average % Change, March Year					
	2016	2017	2018	2019e	2020f	2021f
	%	%	%	%	%	%
US	+0.4	+1.6	+2.1	+2.2	+1.9	+2.1
UK	+0.1	+1.1	+2.8	+2.3	+2.0	+2.0
Euro zone	+0.3	+0.7	+1.4	+2.0	+1.4	+1.4
Japan	+0.2	-0.1	+0.7	+0.8	+0.7	+0.8
China	+1.7	+1.9	+1.8	+2.1	+2.4	+2.3
South Korea	+0.7	+1.3	+1.7	+1.4	+0.8	+1.3
Australia	+1.5	+1.5	+1.9	+1.8	+1.9	+2.4
Trading Partners	+2.0	+3.5	+1.7	+1.8	+1.6	+1.8
New Zealand	+0.3	+1.1	+1.6	+1.7	+1.4	+1.8

Note: "Euro zone" are 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia. "Trading Partners" account for about 85% of New Zealand's total merchandise trade. e estimate, f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions

Consumer Prices

The annual average CPI for the year ending March 2019 lifted slightly to increase 1.7 per cent. New Zealand Institute of Economic Research (NZIER) highlights housing-related costs (rent and insurance), fuel and some household goods behind the small rise. Capacity in the construction sector remains tight and may spread into other industries.

The easing of the NZD relative to trading partners is expected to lift consumer prices for imported goods. The prolonged tight labour market and construction capacity is expected to drive non-tradeable inflation.

The outlook to March 2020 is for inflation to dip to 1.4 per cent, highlighting that growth is moderated.

Business confidence and household spending are cautious and restraining the ability of price rises in some areas. However, there is some potential for movement in areas like big-ticket household items.

NZIER has indicated that underlying the CPI, is higher Household Living-costs Price Index (HLPI) for lower income households – and a lower rate for higher income households. CPI was higher due to items such as rent, fuel and big-ticket household items, which lower-income households need to spend a greater proportion of income on, not discretionary spending. Lower relative HLPI for higher income households, lower retail borrowing rates and strong asset growth over the last decade have contributed to growing divergences of wealth.

Global inflation remains at subdued levels. There has been a general softening and inflation rates below central bank targets for some large economies. Caution surrounds investment and household spending on big-ticket items, with global trade uncertainty a big influence on this. The minor lift in US inflation is supported by growth and the tight labour market but below target rates. While oil prices have risen, this has been countered by tepid growth of wages in many large economies.

Interest Rates

The Reserve Bank of New Zealand (RBNZ) dropped the official cash rate (OCR) by 0.5 percentage points in August 2019 – double what many had expected. The New Zealand OCR is at a record low rate of 1.0 per cent. This easing is targeted towards lifting the inflation rate towards the 2 per cent target.

Table 3 Short-term Interest Rates

	% p.a., March Year					
	2016	2017	2018	2019e	2020f	2021f
	%	%	%	%	%	%
US	0.2	0.5	1.4	2.5	1.8	1.8
UK	0.5	0.0	0.3	0.7	0.8	0.8
Euro zone	-0.1	-0.4	-0.3	-0.3	0.0	0.0
Japan	0.1	0.1	0.1	0.0	0.2	0.3
Australia	2.4	1.8	1.8	2.1	1.1	1.2
New Zealand	2.6	2.0	1.9	1.9	1.9	1.0

Note: "Euro zone" are 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia. "Trading Partners" account for about 85% of New Zealand's total merchandise trade. e estimate, f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions

New Zealand's economy slowed since mid-2018 due to the external uncertainties, trade slowdown, and cooler domestic house prices and business confidence. These drags on the economy, which have persisted in 2019, are expected to remain in the short-term.

The RBNZ has stated the lower interest rates are to encourage spending and business investment to lift economic activity and maintain solid employment figures. There was some encouragement for the government to spend.

There has been some discussion around whether the extent of the rate drop was necessary - growth was still relatively strong, if enough capacity remains if global growth declines further and impacts of the NZD weakening further.

The RBNZ responded has by taking a 'sooner rather than later' approach, rather than 'too little – too late'. However, other commentators have supported the move and predicted further OCR lowering.

Many central banks of other economies have communicated cautious stances in the short-term as a reaction to risks to global growth and trade, and subdued inflation. In the last year, the US Federal Reserve has altered its trajectory from planned hikes to making the first cut in a decade in July 2019. The European Central Bank and Bank of Japan indicated that interest rates will remain steady at low levels at least until mid-2020, with the Monetary Policy Committee in the UK expected to follow a similar line.

Exchange Rates

Table 4 shows the annual average exchange rates for the three major currencies in which New Zealand's meat and wool are traded. For the year to September 2020, the outlook from banks at the time forecasting commenced was for the New Zealand dollar (NZD) to ease against the US dollar (USD), sterling (GBP) and euro (EUR).

Table 4 New Zealand Dollar Exchange Rates

Sep Year	Annual Average		
	USD	GBP	EUR
2017-18	0.70	0.52	0.59
2018-19e	0.67	0.52	0.59
2019-20f	0.66	0.51	0.58
2019-20f % change	-1.9%	-1.4%	-2.6%

e estimate, f forecast

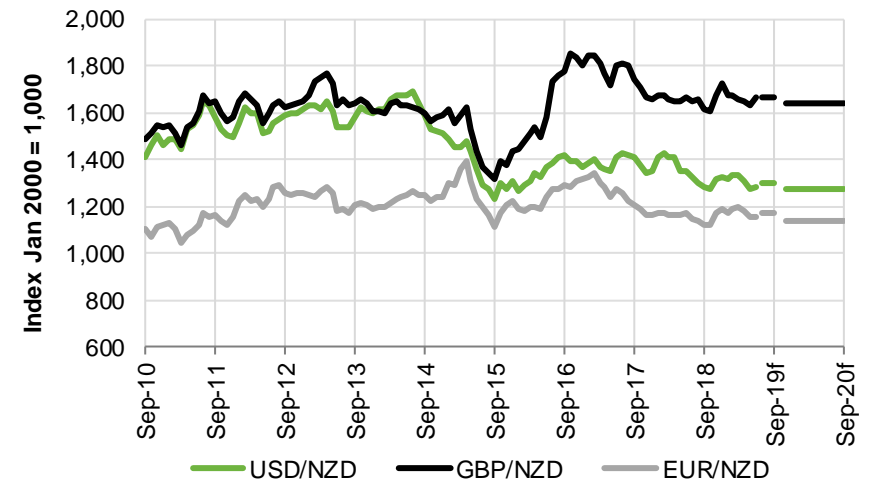
Source: Beef + Lamb New Zealand Economic Service, Reserve Bank of New Zealand

As the New Zealand economy has recently performed steadily and with comparatively high interest rates over recent years compared with most major trading partners, the NZD has remained high. However, despite the global economic headwinds, some advanced economies currencies have strengthened.

The outlook for the NZD weakening is also driven by RBNZ's August 2019 announcement that it would lower the OCR without a short-term increase in sight. The rising interest rates of other economies relative to New Zealand's outlook will encourage some currency speculation away from the NZD.

Exchange rates have a significant impact on meat export receipts because most New Zealand meat exports are denominated in foreign currencies. The currency of trade usually depends on the region of the trade.

Figure 3 Indicative Exchange Rates



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

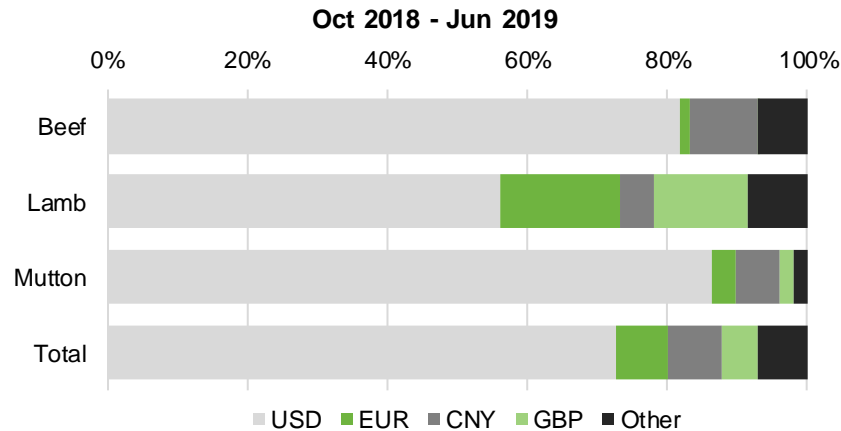
Figure 4 shows the proportion of New Zealand beef, lamb and mutton export volumes in the currencies in which the trade is denominated. For the first nine months of the 2018-19 production season, 73 per cent of total meat export volume was reported as being traded in USD-denominated contracts, 7.6 per cent in EUR and 5.3 per cent in GBP. The share of trade in EUR and GBP has declined from 9.0 per cent and 6.7 per cent respectively in 2017-18.

For the first nine months of the 2017-18 season, the yuan (CNY) was a minor currency used for New Zealand's total sheep and beef exports – just 1.6 per cent of the total volume of trade was in yuan. For the same period in 2018-19 this rose to 7.5 per cent of the total volume of trade – highlighting the growth in volume of red meat exports to China

and the significance of the yuan in this trade. The US government has labelled its Chinese counterparts currency manipulators and has become a feature in the US trade war.

The US was the second largest market for New Zealand's red meat in this period (21%), which partially explains the dominance of USD in trades. However, the largest market was China (44%). Importers effectively purchase USD using their own currency so as the value of Asian currencies adjusts, so does the product cost to the importer.

Figure 4 Meat Volumes in Currency of Trade



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

Trade Agreements

Brexit is continuing to cause a great deal of uncertainty not just for the United Kingdom (UK) and the European Union (EU), but for third countries like New Zealand too. The Brexit date of 31 October is fast approaching, and a no-deal scenario (i.e. a Withdrawal Agreement is not agreed) is looking more likely.

The new Prime Minister, Boris Johnson has stated that there is 'no prospect' of a deal unless the Irish backstop is dropped. This makes it clear that the UK will leave the EU on 31 October "do or die. Come what may." The Irish backstop is where Northern Ireland retains some aspects of the European Union Customs Union and Single Market to prevent a hard border, so the Good Friday Agreement is not compromised.

Johnson successfully sought the Queen's approval for an extended parliamentary recess. A move which was found to be unlawful by the British Supreme Court

In the event of a no-deal Brexit, there would be no time to bring in some form of a UK-EU trade deal from 1 November 2019, so trade between the UK and the EU would be on World Trade Organisation (WTO) terms (i.e. less preferential). New Zealand meat exports to the EU-UK would continue under the current terms of trade, although the EU and the UK intend to "split" New Zealand's sheepmeat and beef quotas between them based on the historical proportion of New Zealand's sheepmeat and beef exports to each market.

If the UK and EU can agree a revised Withdrawal Agreement, there will be a transition period to provide breathing space while the two sides negotiate a trade deal. During this period, the status quo will be maintained and there should be no significant impact on trade access and rules.

There are numerous scenarios, including: a no-deal Brexit, Brexit with a withdrawal agreement, a general election, deadline extension and second referendum; and all scenarios are still valid options. However, it will be a waiting game to see what happens on 31 October 2019.

Amidst the chaos of Brexit, the EU has continued to progress its trade agenda. It signed a Free Trade Agreement (FTA) with Mercosur (Argentina, Brazil, Paraguay, and Uruguay) and is currently negotiating an FTA with New Zealand and Australia.

The trade war between China and the US has had a significant bearing on international activity and global economic outlook. Trade wars create disruption, uncertainty, distortion and inflation in the market. However, it is unclear the extent to which New Zealand and others will become collateral damage in this current trade war between the United States and China.

Since President Trump's election in 2016, the US has pulled out of the Comprehensive and Progressive Trans-Pacific Partnership Agreement (CPTPP), renegotiated its North America FTA (NAFTA – now known as the United States–Mexico–Canada Agreement (USMCA)) and its FTA with Korea. President Trump has made his preference for bilateral trade agreements clear and believes that they are better than regional or multilateral agreements.

The US is also currently in trade talks with Japan and hopes to have a deal signed and entered into force in early 2020. The US beef industry is currently at a significant disadvantage compared to CPTPP member countries, including New Zealand, which now have a tariff advantage of over 11 percentage points. News outlets are reporting that the US has negotiated similar outcomes to CPTPP, however, nothing official has yet been released from the US administration or the Japanese government.

Exchange Rate Sensitivity – 2019-20

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.

The shaded column represents our forecasts of exchange rates for the major currencies 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 ± 5 and ± 10 per cent in the exchange rates for the USD, GBP, and EUR.

In 2019-20, the NZD is expected to ease against the USD, GBP and EUR. Exchange rate movement with the USD has the greatest effect because over 70 per cent of New Zealand's red meat exports are traded in this currency. The GBP is still important to New Zealand's lamb exports as nearly 5 per cent is traded in this currency, however, but has declined in recent years.

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 0.66 to 0.59 – and the associated cross rates against the GBP and the EUR, increases the average lamb price received by farmers by 14 per cent. Alternatively, if the NZD appreciates by 10 per cent – from 0.66 to 0.72 against the USD – then the farm-gate lamb price decreases by 12 per cent.

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.

Meat and wool production is seasonal with the majority of production sold from late November through to June, which means that the value of the NZD during this period is crucial to farmers and export companies. Exchange rate movements during that

period strongly influence the season-average prices for beef, lamb, mutton and wool and thus farm revenue.

Table 5 Exchange Rate Sensitivity

	NZD Exchange Rates					Exchange Rate Change from USD 0.66	
	-10%	-5%	Forecast	+5%	+10%	to USD 0.59	to USD 0.72
USD	0.59	0.62	0.66	0.69	0.72	-10%	+10%
GBP	0.46	0.49	0.51	0.54	0.57	-10%	+10%
EUR	0.52	0.55	0.58	0.60	0.63	-10%	+10%
Farm-Gate Prices Received							
\$ / head							
Lamb	166	155	145	136	128	+14.2%	-11.6%
Mutton	145	134	124	114	106	+17.5%	-14.3%
Steer/Heifer	1,772	1,655	1,549	1,454	1,367	+14.4%	-11.8%
Cow	953	890	833	782	735	+14.4%	-11.8%
Bull	1,913	1,787	1,673	1,570	1,476	+14.4%	-11.8%
All Beef	1,482	1,384	1,296	1,216	1,143	+14.4%	-11.8%
c / kg							
Lamb¹	883	825	773	726	683	+14.2%	-11.6%
Mutton¹	556	512	473	437	405	+17.5%	-14.3%
Steer/Heifer	643	601	562	528	496	+14.4%	-11.8%
Cow	482	450	422	396	372	+14.4%	-11.8%
Bull	634	592	554	520	489	+14.4%	-11.8%
All Beef	591	552	517	485	456	+14.4%	-11.8%
Fine²	1,939	1,799	1,673	1,559	1,456	+15.9%	-13.0%
Medium²	852	790	735	685	639	+15.9%	-13.0%
Crossbred²	307	285	265	247	231	+15.9%	-13.0%
All Wool²	469	435	405	377	352	+15.9%	-13.0%

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

Livestock Numbers

Sheep

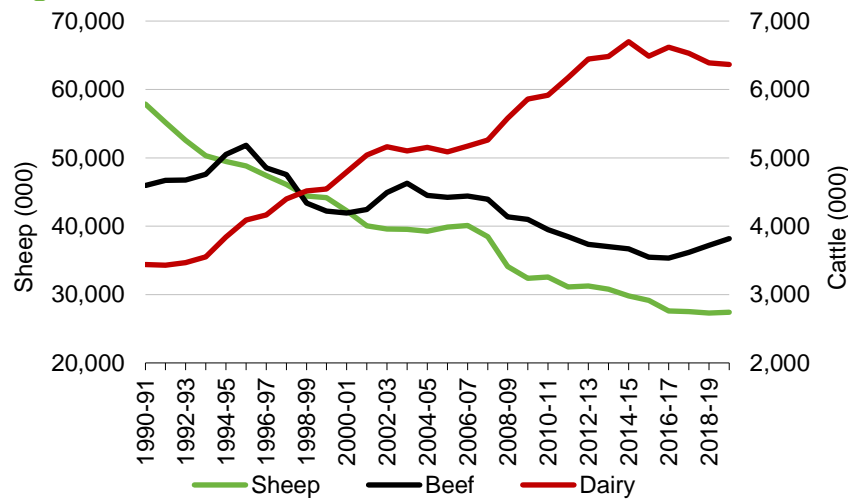
Sheep numbers at 30 June 2019 totalled an estimated 27.4 million head, almost static (+0.4%) on the previous June. This is the fourth-year sheep numbers have been near the 27.5 million level. Within this, breeding ewes decreased 1.1 per cent with decreases in all regions except the East Coast where ewe numbers held (+0.3%). While hogget numbers increased 3.4 per cent, a component of this increase were carryover trade-lambs for slaughter in the September quarter of 2019.

North Island sheep numbers decreased 0.7 per cent (-92,000 head) to 13.5 million at 30 June 2019. Within this, breeding ewe numbers

decreased 0.8 per cent with most of this decrease in Northland-Waikato-Bay of Plenty (-3.3%). Ewe numbers were almost static in the East Coast (+0.3%) and Taranaki-Manawatu (-0.3%). North Island hogget numbers remained almost static but were well up in North-Waikato-Bay of Plenty region (+9.2%) with a large component of carryover trade-lambs.

South Island sheep numbers increased 1.4 per cent. This increase reflected an 8.1 percent increase in hoggets which again included a large component of carryover trade-lambs for slaughter in September 2019 quarter. South Island breeding ewe numbers decreased 1.5 per cent and

Figure 5 Livestock Numbers



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

Table 6 Livestock Numbers (million head)

	Breeding		Total	Beef	Dairy
	Ewes	Hoggets	Sheep	Cattle	Cattle
30 June 2018	17.16	9.23	27.30	3.72	6.39
30 June 2019e	16.97	9.55	27.39	3.82	6.36
18-19 to 19-20 % change	-1.1%	+3.4%	+0.4%	+2.6%	-0.4%

e estimate

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

followed a 3.3 per cent decrease in the previous year. Breeding ewes decreased in all regions except Otago where numbers remained constant.

Overall, excellent lamb and mutton prices underwrote a deeper culling than usual of poorer performing sheep in the 2017-18 season – countered by retention of ewe lambs. The younger breeding flock has matured and – all things being equal – numbers are relatively stable.

Beef Cattle

Beef cattle numbers at 30 June 2019 totalled an estimated 3.82 million head, up 2.6 per cent on the previous June. This was largely driven by an increase in trade cattle and weaners, particularly in South Island regions.

North Island beef cattle numbers increased 1.8 per cent to 2.67 million head at 30 June 2019.

North Island beef breeding cow numbers declined 2.1 per cent with most of the decrease in Northland-Waikato-Bay of Plenty (-3.6%) and Taranaki-Manawatu

(-2.1%). The offset has been an increase in trade cattle underpinned by dairy-beef.

South Island beef cattle numbers increased 4.6 per cent to 1.15 million head at 30 June 2019.

South Island beef cow numbers remained static while other cattle increased 6.9 per cent with a component of this increase again carryover trade cattle for slaughter in the September 2019 quarter.

Dairy Cattle

Dairy cattle numbers at 30 June 2019 are estimated to remain almost static (-0.4%) at 6.36 million. Dairy cows are estimated to show the same percentage trend. The South Island contains 40 percent of the New Zealand dairy herd, up from 35 per cent 10 years ago.

Other: Farmers remain cautious when trading stock to minimise risk from exposure to *M. bovis* disease.

Lamb & Mutton Exports

Lamb

2018-19

Lamb exports are estimated to decrease 2.7 per cent to 305,000 tonnes shipped weight, following increased production in 2017-18 due to good carcase weights and record lambing percentage. The average FOB value per tonne was up again – by 2.9 per cent to \$10,375 – following strong increases in the previous two seasons (8.8% and 17%). It is estimated that 2018-19 will be the second season to average above \$10,000 per tonne.

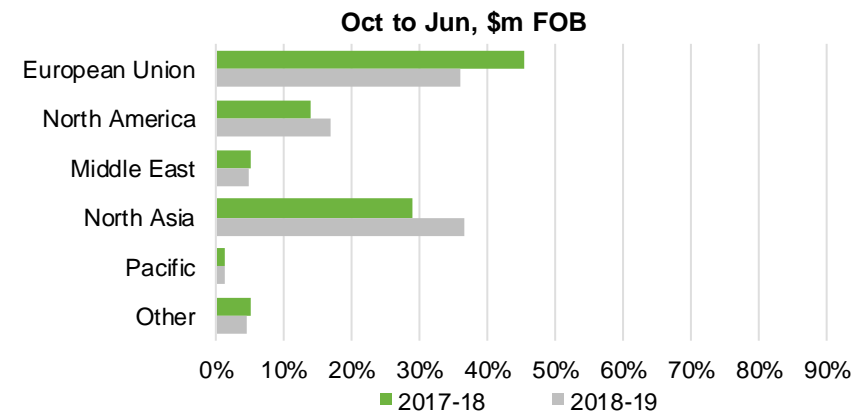
Total lamb receipts are estimated to be marginally down (-0.5%) to \$3.34 billion FOB – the second year over \$3 billion. The 2.7 per cent decline in lamb export volume drove the decline

in co-products and total export receipts.

Shipments in the first nine months of 2018-19 were marginally down – by 0.5 per cent. The export season started strong in the first month with high prices and relatively more lambs being processed late in the 2017-18 season. Good pasture availability in the December 2018 quarter delayed processing through into the March quarter, when there were generally drier weather conditions and lambs reached target weights.

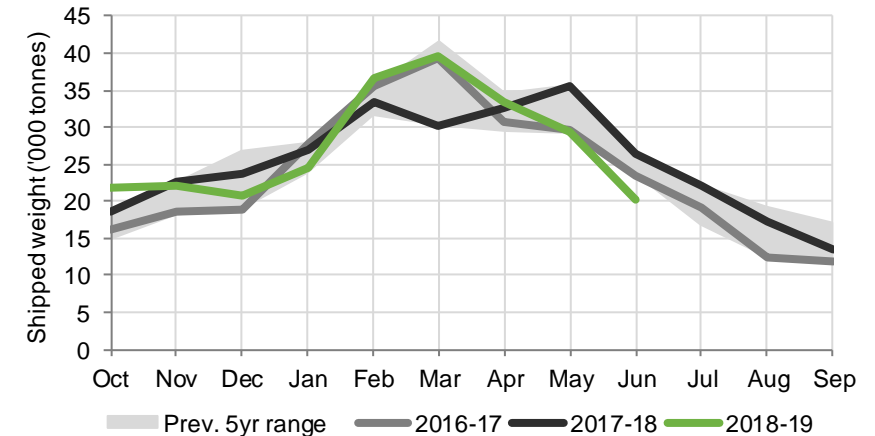
Export volume declined entering winter but there are signals that September quarter processing has been relatively strong. As shown in Figure 6, there has been a considerable shift in New Zealand's lamb export destinations. Export

Figure 6 New Zealand Lamb Export Value



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

Figure 7 New Zealand Lamb Export Volume



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

volume to North Asia – driven by China – has increased by 16 per cent to 126,400 tonnes – 37% of lamb exports). North Asia was worth \$978 million in export receipts for this period, with an 11 per cent increase in value per tonne.

As previously reported, this increase began in 2016 with Chinese grazing restrictions followed by a drought that impacted their breeding flock, combined with continual growth in consumption demand – particularly for mutton in the major and second tier city restaurants. The demand for mutton has extended into “value cuts” of New Zealand's lamb exports.

The share of total lamb export to the EU decreased sharply for the first nine months of the current season – down 18 per cent. This is a 29 per cent

decrease from the same period in 2014-15, largely due to disruptions created by the Brexit referendum and uncertainty around the process, and strong demand from China.

North America continues to perform solidly. This is the third largest regional market with the highest average value per tonne, dominated by the US demand for high value lamb racks. For the same period of 2017-18, it was first time in recent seasons there had been a volume decrease – by 2.9 per cent. However, this market grew again 2018-19 – up 10 per cent in volume and 11 per cent in value per tonne.

Table 7 New Zealand Lamb Exports

Sep Year	Lamb meat		\$m FOB	Co-Products \$m FOB	Total Lamb \$m FOB	Lamb Meat %*
	000 tonnes	\$ / tonne				
2015-16	303	7,907	2,397	187	2,584	93%
2016-17	295	8,603	2,538	168	2,706	94%
2017-18	313	10,086	3,156	199	3,355	94%
2018-19e	305	10,375	3,160	180	3,340	95%
2019-20f	305	10,713	3,262	189	3,451	95%
2019-20f % change	-0.0%	+3.3%	+3.2%	+5.0%	+3.3%	

* Lamb Meat value as a percentage of the value of Total Lamb exports, including Co-Products
e estimate, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

2019-20

For 2019-20, lamb meat export receipts are forecast at \$3.26 billion FOB, up 3.2 per cent on 2018-19 and the third year in a row above \$3 billion.

Lamb exports are estimated to be even at 305,000 tonnes shipped weight, with a 0.8 per cent increase in lambs processed offsetting the 0.8 per cent decrease in average carcass weight.

The forecast relative strengthening of major currencies in which New Zealand meat exports are traded and solid demand driven by genuine demand out of China is expected to raise the average FOB value per tonne by 3.3 per cent.

Export receipts from co-products are forecast to increase by 5.0 per cent in 2019-20, largely driven by an improvement in receipts for offals.

Mutton

2018-19

The historically high mutton prices have continued to be a feature of the sheep and beef sector. At export, the average FOB price per tonne for New Zealand's mutton exports is estimated to be up strongly by 4.8 per cent for 2018-19. However, total export receipts are expected down 9.2 per cent to \$690 million, driven by a 12 per cent decline in export volume.

The flow-on price from last season's record farm-gate price that encouraged high production is tighter supply. Following the 16 per cent increase in export volume in 2017-18, the 2018-19 volume was below the five-year average of the previous seasons.

While total export receipts were down due to the large decline in volume, they were second to 2017-18 since 1990-91 (in real terms) – despite the national flock declining over this time. This increase has been due to the high average FOB per tonne for the last three seasons.

The strong increase in average value per tonne at FOB to \$6,771 follows a 23 per cent increase for the previous season, and a 15 per cent increase for the season before. While exchange rates have supported this rising value, strong demand has been more significant over the last couple of seasons – particularly out of China.

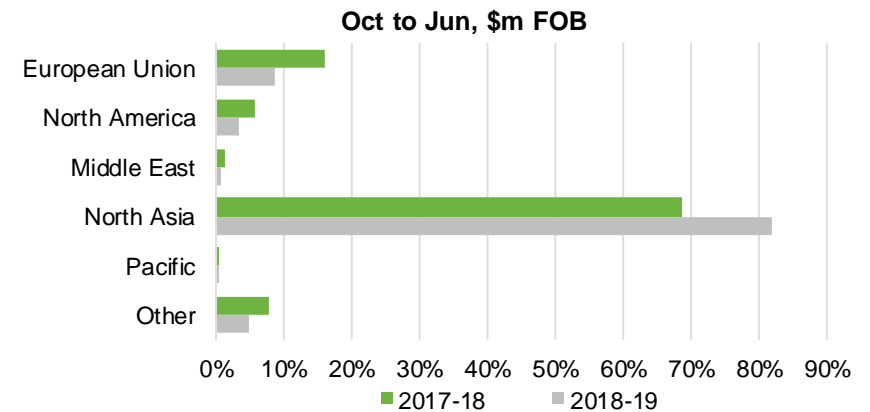
In the first nine months of 2018-19, total receipts from mutton exports

were down 8.4 per cent to \$490 million but the volume decreased 11 per cent – to 73,300 tonnes shipped weight. This was due to tighter availability than in 2017-18, and the average value per tonne increased 3.0 per cent.

North Asia remains the largest export region market, receiving 87 per cent of volume (63,500 tonnes) – though only up 1.6 per cent in absolute volume. The average FOB value per tonne increased by 7.4 per cent, compared to 3.0 per cent across all markets.

The proportion to North Asia increased from an already large share in 2017-18 (69%) but the total New Zealand export volume declined, further increasing the share of total mutton exports to North Asia. The North Asian market is dominated by China, which took 78 per cent of New Zealand's total mutton exports over this period.

Figure 8 New Zealand Mutton Export Value



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



2019-20

In 2019-20, mutton exports are forecast to increase 8.7 per cent as the flock numbers are relatively steady but ages following increased retention of ewe lambs in recent seasons. While high prices increased mutton production in 2017-18, more ewe lambs were retained for the breeding flock. Two seasons on, the proportion of younger breeding ewes returns closer to historical levels, as do yield of cull ewes.

The average FOB value per tonne is expected to continue rising in 2019-20, up a further 4.9 per cent to \$7,102. Beef and veal exports first exceeded FOB \$7,000 per tonne in 2014-15 to set new records, and now mutton is expected to exceed that level. The average value of mutton exports is up 55 per cent since 2015-16. This would exceed the high of \$760 million set in 2017-18, raising the export value of mutton from half a billion dollars in 2015-16 to be near three-quarters of a billion recently.

Table 8 New Zealand Mutton Exports

Sep Year	Mutton meat			Co-Products \$m FOB	Total Mutton \$m FOB	Mutton Meat %*
	000 tonnes	\$ / tonne	\$m FOB			
2015-16	83	4,581	380	132	512	74%
2016-17	81	5,247	424	120	544	78%
2017-18	94	6,460	606	154	760	80%
2018-19e	83	6,771	560	130	690	81%
2019-20f	90	7,102	639	137	776	82%
2019-20f % change	+8.7%	+4.9%	+14.0%	+5.5%	+12.4%	

* Mutton Meat value as a percentage of the value of Total Mutton exports, including Co- Products
e estimate, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

Lamb & Mutton – International Situation

Overview

The high export sheepmeat prices have been driven out of Chinese demand. This is due to growing and solid underlying demand rather than disruption to Chinese production of other proteins. Disruptions to Australian production and tight New Zealand supply supports demand for New Zealand sheepmeat, despite trade uncertainty in Europe.

China

The main drivers of the current high prices at the New Zealand farm-gate are being driven by higher demand out of China. These drivers are expected continue or grow in the short-term. The ASF outbreak has gained headlines for its impact on the largest national population with the greatest pork production and consumption. However, the impact of ASF on sheepmeat is less than other meats as it less of a substitute for pork than other meats.

Sheepmeat and beef receive highest prices at retail in China. It is more likely that high prices for pork created by ASF and purchasing restrictions will have more influence on demand for value proteins such as poultry, fish or value cuts of beef.

Sheepmeat remains a premium, but niche, protein source alongside beef, despite China being the largest sheepmeat producer and the largest import market. Sheepmeat is less than six per cent of average per capita

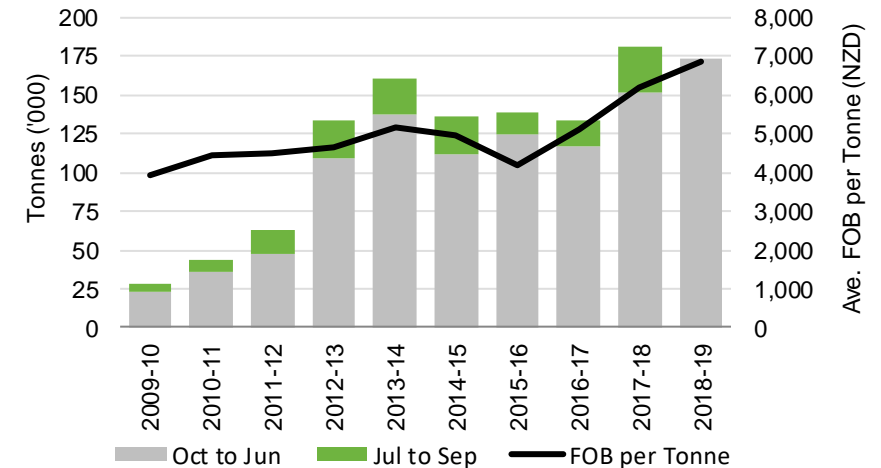
animal protein consumption in China. Sheepmeat is popular among urban and restaurant consumers. Nearly two-thirds of sheepmeat is eaten away from home according to USMEF.

The drivers of the current high prices at the farm-gate in New Zealand began in 2016. Within China, regulation around stocking rates to prevent over-grazing came into force in 2016 – as approximately half of traditional flocks are goats. Then a drought followed affecting domestic production. Over this time, the popularity of Chinese hot pot rose in the main centres, then filtered out into second tier cities. There has been growth in production – largely in more modern production systems – but consumption demand has outpaced domestic production to increase demand for imports.

The biggest consumers of sheepmeat are middle aged, educated and urban. Traditionally mutton is consumed as a winter meal due to perceived health benefits, which is complementary to New Zealand's seasonal production. This seasonal effect has been minimised in urban areas with more even consumption over the year.

The high demand for mutton from China has extended to demand for value cuts of lamb. Increased competition for these cuts has benefitted the lamb price at a time when the UK – a traditionally significant market – has been in a weaker purchasing position.

Figure 9 New Zealand Lamb Exports to China (Sep year)



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

Australia

The Australian flock is likely to begin rebuilding in 2019-20 – if weather conditions permits. Dry conditions limited pasture availability across Australia but were felt more keenly in some eastern regions, elevating the mutton slaughter and reducing the numbers breeding ewes. The Australian flock declined by 11 per cent from 2012-13 to 2015-16, initially because fewer lambs were retained then when ewe numbers were cut.

Shifting from elevated processing in 2018-19 to flock rebuilding in 2019-20 will tighten availability of animals, particularly for mutton. The Australian Bureau of Agricultural and Resource Economics (ABARES) has estimated

the number of lambs and adult sheep processed will fall nine per cent and 28 per cent respectively, as the national flocks lifts four per cent.

Tighter supply of lambs in a rebuilding phase has driven the price of replacements for breeding ewes up, on the back of already high sheepmeat prices. ABARES is forecasting the highest sale yard price for lambs since the mid-1970's. The demand for Australian mutton exports and tighter supply will help to support an increase in sheep prices.

Australia's tighter supply will have an influence on international trade. Australia and New Zealand account for over 70 per cent of the international sheepmeat volume exported, including intra-EU trade.

Chinese demand has a similar benefit to Australian exports as New Zealand because it is a significant export market and will play a role in raising export prices. However, this will not to the same extent as New Zealand, as the US and Middle East play a bigger role and a greater proportion of Australia's production is for their domestic market. The Australian government is reviewing live exports of sheep.

European Union

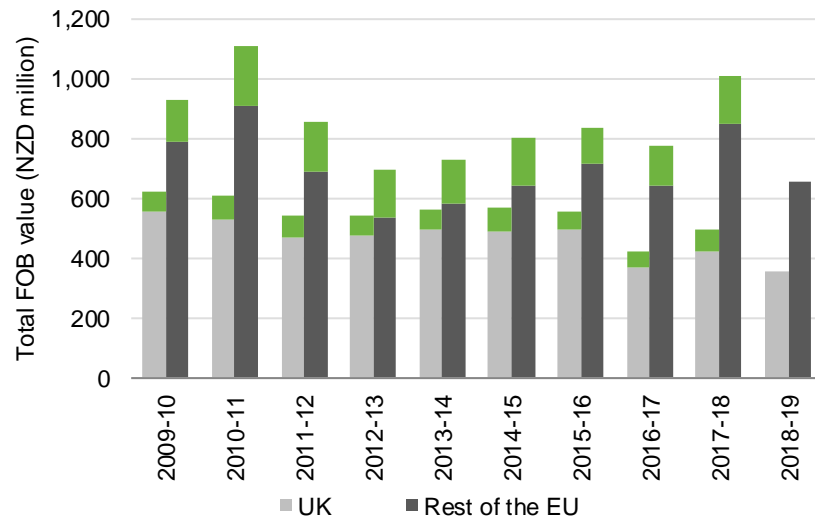
Across the EU, the sheep flock declined slightly (1.4%) in 2018, led by the UK that declined 3.2 per cent. The UK has the largest national flock in the EU accounting for over a quarter of

the EU flock and a third of sheepmeat production. This is due to a focus on meat and fibre rather than dairy in other large EU flocks. The Agriculture and Horticulture Development Board (AHDB) forecasts a slight decline in the UK flock in 2019.

An uptick in ewes put to ram and favourable lambing conditions is expected to increase the lamb crop despite an overall decline in sheep numbers. Within this, the UK lamb crop is estimated to decline by 4.0 per cent due to the decline in breeding ewes.

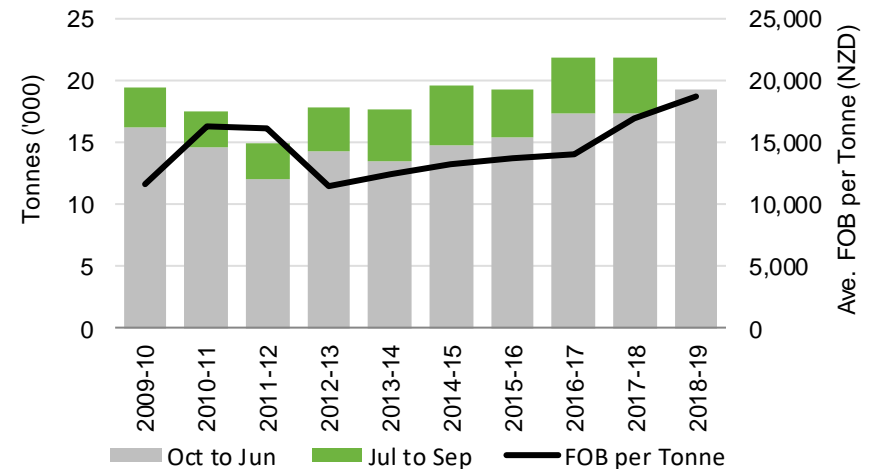
Production is expected to be up marginally across the EU (+0.5%) in 2019 due to improved average

Figure 10 New Zealand Sheepmeat Export Value (Sep year) UK and Rest of the EU



Note: The grey areas represent the value of exports from October to June and the green areas the value of exports for the rest of the season – from July to September. Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs

Figure 11 New Zealand Lamb Exports to US



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

carcase weight, outweighing a one per cent decline in animals processed. The UK is forecast to have a 1.2 per cent increase in total production despite the total number processed declining 1.6 per cent – lambs down by 2.2 per cent but sheep up by 3.3 per cent.

While farm-gate prices in Australia and New Zealand have continued to rise, EU farm-gate prices have fallen from the highs of 2018 in line with recent seasons. The same has occurred in the UK, with 2019 tracking close to the five-year average.

The sheepmeat outlook for the EU and UK has a high degree of uncertainty due to Brexit. The UK is the third largest exporter of sheepmeat. However, the majority of trade is within the EU, stressing the impact that Brexit could have on EU and UK production, trade and prices.

United States

Sheepmeat consumption in the US is a minor portion of animal protein consumption at 0.5 per cent of the average per capita consumption. However, the US is New Zealand's second largest import market behind China and New Zealand's third largest export market.

New Zealand's lamb exports to the US are dominated by lamb racks for the restaurant trade. It is an important high value market that generally takes a different carcase segment to the other major markets – China (value cuts) and the UK (legs).

From 2013-14, New Zealand's lamb exports to the US have not only gradually grown in volume but steadily increased in average FOB value per tonne. This trend has carried through to 2018-19.

Lamb & Sheep Prices – Farm-gate

Lamb

The different exchange rate scenarios presented in Table 9 highlight the leveraged effect of the exchange rate on the New Zealand lamb price to farmers. At the mid exchange rate of USD0.66, the forecast lamb price of 773 cents per kg for 2019-20 is up 3.5 per cent from the estimated 2018-19 price of 747 cents per kg. The forecast small 0.9 per cent increase of in-market prices across all export markets benefits from the predicted strengthening of New Zealand's major trading currencies.

Only in one month of 2018-19 has the all class average lamb price dipped below 700 cents per kg. Since the start of 2017-18, the monthly average lamb farm-gate price has been above 700 cents per kg in all but three months and two over 800 cents per kg. It is expected that the 800 cents per kg mark will be broken again in the September 2019 quarter.

Table 9 Lamb Price Sensitivity

All Class Lamb Price			
Exchange Rate	\$ per head	c per kg	
Low NZD			
USD	0.59		
GBP	0.46	166	883 High
EUR	0.52		
Mid NZD			
USD	0.66		
GBP	0.51	145	773 Mid
EUR	0.58		
High NZD			
USD	0.72		
GBP	0.57	128	683 Low
EUR	0.63		

Source: Beef + Lamb New Zealand Economic Service

A new inflation-adjusted record farm-gate price was set in 2017-18, but the 2018-19 estimate broke it and a new record is forecast for 2019-20.

Figure 12 shows the monthly, quarterly and annual weighted average price for all lamb to the end of September 2020. In addition to historical quarterly prices, Figure 12 includes forecast quarterly prices to show the likely seasonal pattern of lamb prices in 2019-20.

Three exchange rate scenarios are provided in the outlook for 2019-20 because of the volatility in exchange rates. The three scenarios use annual average exchange rates of USD0.59, USD0.66 and USD0.72 and the associated cross rates against the GBP and the EUR.

Quarterly prices are presented in Figure 12 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 number of lambs processed increases. In the last quarter, when the number of lambs processed starts to reduce again, prices tend to go up.

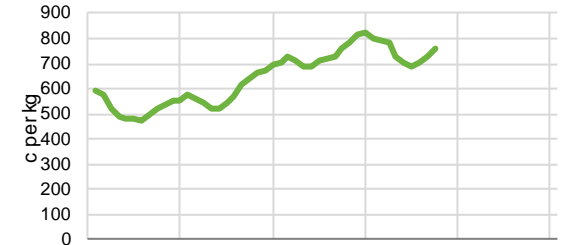
Mutton

At the mid exchange rate of USD0.66, the annual average mutton price is forecast at 473 cents per kg in 2019-20, an increase of 4.2 per cent on the 454 cents per kg estimate for 2018-19. The 2018-19 season was 8.3 per cent up on the previous season. The 2017-18 inflation-adjusted average farm-gate mutton price was 9.4 per cent higher than the previous record from 2010-11.

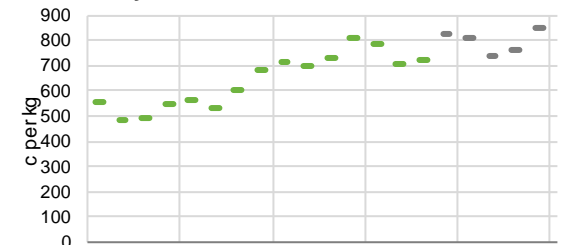
This increase reflects the more favourable exchange rates, supported by tight Australian supply and strong Chinese demand in 2019-20.

Figure 12 Weighted Average Lamb Farm-Gate Price

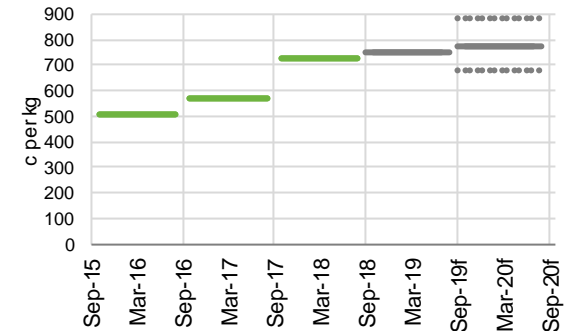
Monthly



Quarterly



Annual



Source: Beef + Lamb New Zealand Economic



Lamb & Mutton Production

Table 10 Export Lamb Production

Sep Year	Lamb Crop million head	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2015-16	24.6	19.9	18.3	364.9
2016-17	24.1	19.2	18.6	358.3
2017-18	24.7	19.9	18.6	368.9
2018-19e	23.3	18.7	18.9	355.2
2019-20f	22.7	18.9	18.8	355.1
2019-20f % change	-2.4%	+0.8%	-0.8%	-0.0%

e estimate, f forecast

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

Lamb

The total number of lambs tailed in the spring of 2019 is estimated at 22.7 million head, down 2.4 per cent or 0.6 million head on the previous spring, reflecting fewer breeding ewes. For the year to 30 June 2019, New Zealand's breeding ewe flock decreased 1.1 per cent to 17 million head and the lambing percentage is expected to ease from a high rate in the previous season.

For the year ending September 2020, the number of lambs processed in export-approved premises is forecast to increase 0.8 per cent or 0.1 million head to 18.9 million. The increase in 2019-20 lambs processed from a smaller lamb crop largely reflects the reduction in lambs retained, as the age distribution of the breeding ewe flock returns closer to historical patterns.

The estimated 2019-20 lamb crop is driven by slightly fewer breeding ewes. Ewes generally entered mating in good condition due to good feed supplies, which – for a variety of reasons – did not flow through to early scanning results for most regions. Pregnancy scanning results were mixed, and results did not necessarily meet farmer expectations. Anecdotally, parasite load, sub-clinical facial eczema and ram failure have contributed to lower scanning rates.

With 17 million ewes, each one percentage point change in breeding ewe lambing percentage is equivalent to 170,000 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.

Assuming normal climatic conditions for 2019-20, carcass weights are expected to average 18.8kg per head – a slight decrease from 2018-19

(-0.8%). December quarter pasture availability was excellent in many regions drove a greater proportion of lambs to be brought up to heavier finishing weights. The higher number of lambs processed will be offset by the lighter carcasses leaving a production level near even with the 2018-19 at 355,100 tonnes carcass weight.

Mutton

The number of sheep processed is forecast up 11 per cent or 0.4 million head to 3.4 million head in 2019-20. Record farm-gate prices drove higher processing numbers in 2017-18 – up 11 per cent, which limited availability in 2018-19 and reduced adult sheep processed by 15 per cent.

The number of ewe hoggets retained has declined after being elevated in the previous two seasons as the national flock size remained relatively steady but the average age

distribution returned to closer to historical levels and more were available for processing.

A decrease in the number of breeding ewes across all regions and retention of fewer ewe hoggets drove the slight decline in total sheep numbers at 30 June 2019. Lambs intended for processing before the end of the September-ending season carried over balance date made up a greater proportion of hoggets.

For the year ending September 2020, the average mutton carcass weight is projected to be down to 26.2kg per head (-2.2%), still historically high but the 2019-20 average carcass weight was the highest 1990-91. Total export mutton production is forecast to be down 8.7 per cent to 98,300 tonnes carcass weight as the increased number of sheep processed outweighs the decline in carcass weights.

Table 11 Export Mutton Production

Sep Year	Breeding Ewes million head	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2015-16	19.1	3.8	25.1	96.4
2016-17	18.1	3.6	25.7	92.2
2017-18	17.8	4.0	25.8	102.5
2018-19e	17.2	3.4	26.8	90.4
2019-20f	17.0	3.8	26.2	98.3
2019-20f % change	-1.1%	+11.1%	-2.2%	+8.7%

e estimate, f forecast

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

Beef & Veal Exports

2018-19

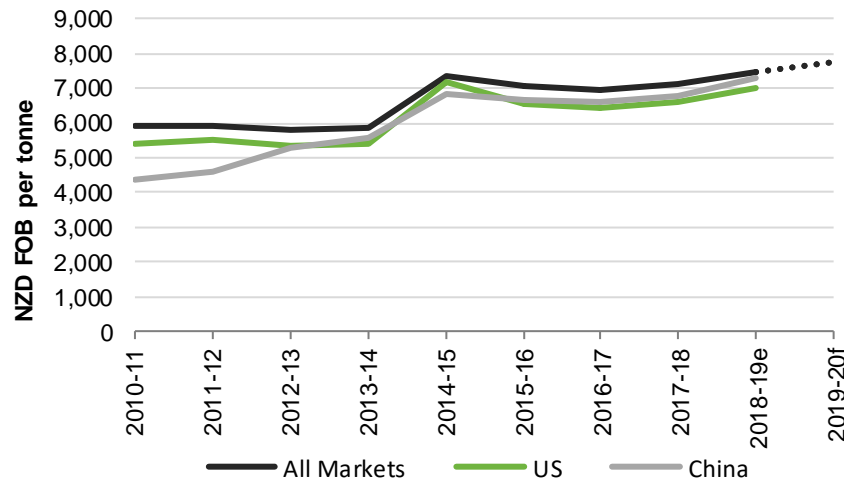
In 2018-19, China will take over as New Zealand's largest beef export market region, which was previously held by the US. Increased demand competition from China – particularly for cuts intended for manufacturing has helped to support export value per tonne of beef exports in the 2018-19 season. While China's demand for New Zealand's beef was strengthening prior to the ASF outbreak, the disease is likely to benefit demand for these manufacturing cuts.

Beef and veal meat exports are estimated up 5.1 per cent to 453,000 tonnes shipped weight in 2018-19.

The estimated average FOB value per tonne of beef and veal meat exports increased 4.4 per cent reflecting the softer NZD outweighing an easing of average in-market value per tonne. In 2018-19, total receipts for beef and veal exports are estimated at \$3.94 billion FOB, up 8.6 per cent on 2017-18.

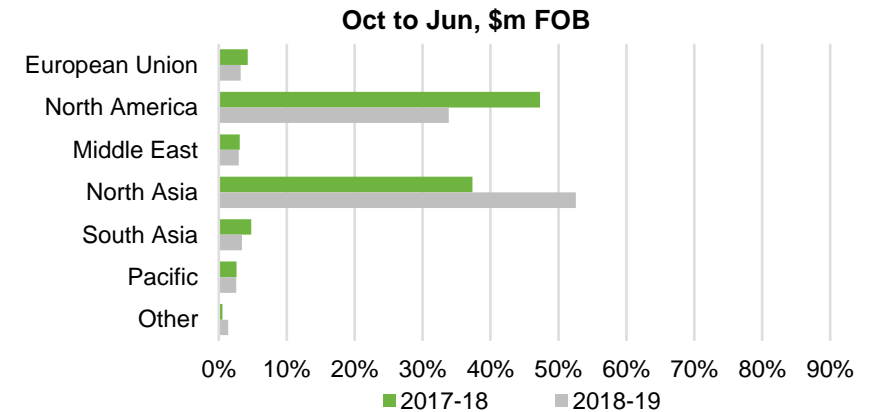
Figure 13 shows the historically high average FOB value per tonne of New Zealand beef and veal since the 2014-15 season, when a historically low US cattle herd drove a 27 per cent increase. The US herd production expanded as their herd grew in the time since. The average FOB value per tonne declined moderately over 2015-16 and 2016-17, though

Figure 13 Average FOB Value of Beef & Veal Exports (Sep Year)



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

Figure 14 New Zealand Beef & Veal Export Value



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

remained well above pre-2014-15 levels. China's demand has grown more recently – increasing in volume and FOB value per tonne.

The product mix of New Zealand's beef exports to the US and China are not necessarily like-for-like. New Zealand's exports to the US in recent seasons have been dominated by manufacturing cuts while China has been the significant secondary cuts market. Manufacturing beef exports account for approximately 60 per cent of New Zealand's total beef exports. In 2017-18, the proportion of manufacturing beef exports increased to China, likely highlighting both higher US beef production, which softened domestic prices, and continuing growth of Chinese import demand.

The rise of ASF in China has intensified this shift of New Zealand beef manufacturing cuts to China. There have been reports of restrictions in some areas in China on pork purchases and enforcement clamping down on the "grey trade". This is more relevant to manufacturing beef cuts as pork occupies a lower price point at retail than sheepmeat and beef on average. Additionally, there have been media reports that tightening of the beef "grey trade" has impacted on Indian production and India's average FOB value per tonne is significantly lower than New Zealand's.

The timing of the rise in Chinese demand for manufacturing beef cuts from New Zealand may be opportune. There are signals of herd reduction in the US and Australia. This could



temporarily increase production of lean manufacturing beef in the US – New Zealand’s second largest market – and in Australia, which exports similar beef products to New Zealand. If these signals are correct, it could put New Zealand’s beef exports in a strong position in the coming seasons.

Figure 14 shows that in the first nine months of 2017-18 and 2018-19, North America and North Asia dominated New Zealand’s beef and veal exports – accounting for 86 per cent of exports. Total beef and veal export receipts from North America declined by 22 per cent and accounted for 34 per cent of total export receipts, while those from North Asia increased by 54 per cent to be 53 per cent of New Zealand’s beef exports receipts.

For the first nine months of the 2018-19 season, the average FOB value per tonne of manufacturing beef exported to the US rose by 3.7 per cent while exports to China increased 11 per cent. There was a 4.5 per cent increase across all markets. This drove the total share of New Zealand’s beef exports going to the China up to 40 per cent and 34 per cent to the US – from 23 per cent and 47 per cent respectively in 2017-18.

2019-20

Overall, beef and veal receipts are expected to exceed for the first time \$4 billion FOB in 2019-20. This would be a 5.9 per cent increase from an estimated \$3.94 billion in 2018-19, which itself would be a record high. An increase in both volume and average FOB value per tonne drives higher export earnings.

For 2019-20, New Zealand beef and veal exports are forecast to increase by 2.0 per cent to 463,000 tonnes shipped weight. Under the USD0.66 exchange rate assumption, the average FOB value per tonne is expected to increase 4.4 per cent. Strong international demand driven by China – compounded by the ASF outbreak – combined with the US beef cattle herd, which is likely to be entering a downward part of the herd cycle, and Australian supply tightening due to herd rebuilding, supported by the easing of the NZD raise the average FOB per tonne.

Global beef production is expected to grow for 2019 and 2020 according to OECD-FAO estimates, along with consumption. The ASF outbreak and trade tensions between New Zealand’s large beef markets creates uncertainty. However, these issues also create opportunities for New Zealand.

Table 12 New Zealand Beef & Veal Exports

Sep Year	Beef and Veal Meat			Co-Products \$m FOB	Total Beef \$m FOB	Beef Meat %*
	000 tonne	\$ / tonne	\$m FOB			
2015-16	423	6,996	2,962	562	3,524	84%
2016-17	396	6,898	2,729	533	3,262	84%
2017-18	431	7,123	3,073	551	3,624	85%
2018-19e	453	7,434	3,371	566	3,937	86%
2019-20f	463	7,762	3,591	578	4,169	86%
2019-20f % change	+2.0%	+4.4%	+6.5%	+2.1%	+5.9%	

* Beef and Veal Meat value as a percentage of the value of Total Beef exports, including Co- Products e estimate, f forecast | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

Beef – International Situation

Overview

There have been shifts in production and trade relationships for the major beef exporters and importers. Brazil, Australia, India and the US are the four largest beef exporters, followed by New Zealand (excluding intra-EU trade). China and the US are the largest importers. While there have been significant levels of uncertainty and disruption over the last two seasons, there remains solid underlying prospects for New Zealand regardless of the impact of ASF.

Global production for 2019 has been revised up by the USDA, which is estimating a 2.3 per cent increase on 2018 led by a large increase in Chinese production and a moderate increase by the US. However, estimates are for global consumption to increase by 2.4 per cent for 2019, led China and the US – New Zealand's two major beef markets.

China

China has been playing a significant role in absorbing the global increase of beef production since 2014-15. Simply, Chinese domestic beef production has not kept pace with beef consumption. The USDA expects China's domestic beef production to increase by 15 per cent (960,000 tonnes) while consumption rises by 10 per cent (795,000 tonnes). While this may indicate a lowering of import demand it is confounded by ASF. At retail, beef maintains a premium price over other animal proteins.

The spread of ASF in China has intensified that country's demand for imported beef. ASF is not a human health issue – but a virulent production disease without treatment. China is the world's largest pork producer and consumer. It has around half of the world's pigs and reports suggest approximately one-half have been culled to control ASF. Prior to the ASF outbreak, China imported around 20 per cent of the global pork trade.

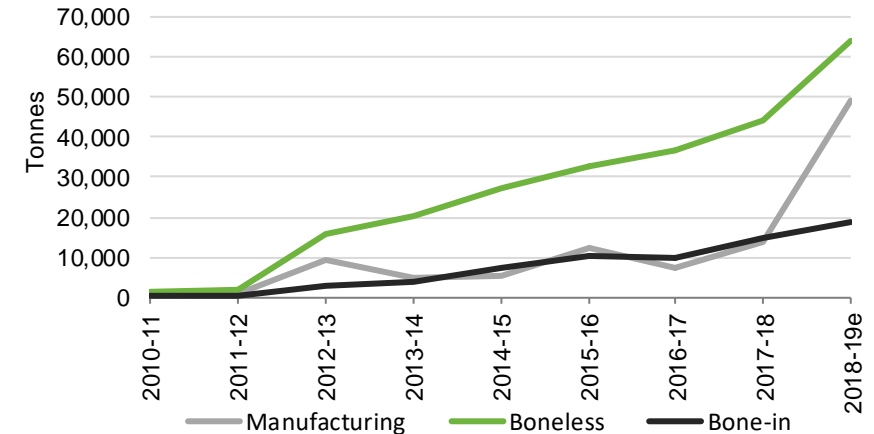
In recent seasons, New Zealand's beef exports to China have been dominated by secondary cuts. For most of 2017-18, there were strong increases in the volume of manufacturing cuts, which continued in 2018-19. This change was initially driven by increased production in the US, which softened domestic beef prices in 2018, while demand grew in China. New Zealand exports to the US are predominantly manufacturing cuts.

As ASF spread throughout Asia in 2019 and pigs were culled and disposed of, demand for alternatives to pork protein appears to have increased. Concurrently, the "grey trade" was tightened to control the movement of meat products as a way to control the ASF outbreak. That limited the supply from countries that do not have formal trade agreements. New Zealand's position of being the first country to have a free trade agreement (FTA), which was enhanced by its trusted reputation, benefits beef exports.

Chinese restrictions on the "grey trade" limited the volume of beef products coming through informal routes, which impacts imports from countries without developed trade arrangements – including large exporters such as India. The ongoing risk of foot-and-mouth disease and the current ASF outbreak reportedly drove the clampdown. This provides more of an advantage to countries that do have FTAs – like New Zealand.

While not necessarily like-for-like, beef products in the "grey trade" often occupy a segment lower value segment of the market to create some opportunity for New Zealand's beef cuts intended for processing – and to fill the gap created by tighter pork supply. Primal and secondary beef cuts generally receive a premium in the Chinese meat protein market and therefore the effects of ASF are more removed.

Figure 15 New Zealand Beef Exports to China



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

United States

Figure 16 shows the indicative price trend for imported frozen 95CL (95% chemical lean) beef in the US in USD and converted to NZD. For the season to June 2019, the average in-market price of 491 US cents per kg was down 2.4 per cent on the previous season. In NZD terms, there was a 3.5 per cent increase, reflecting the easing of the NZD relative to the USD. Further easing of the NZD will increase the difference between these prices.

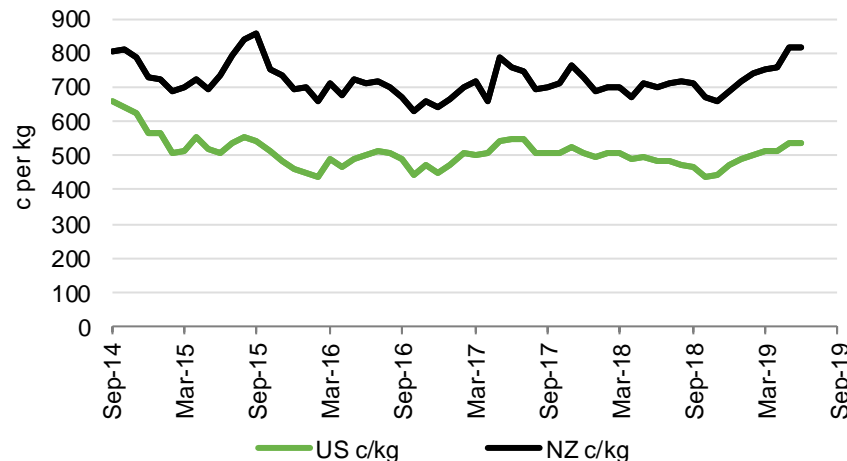
Figure 17 shows prices for US domestic fresh 50CL and 90CL beef, and imported frozen 90CL in USD terms. The prices for fresh and frozen 90CL beef have been relatively steady since coming off the highs in the 2014-15 season – despite the variability in prices of 50CL beef. The higher fat content trimmings from fed (feedlot-finished) cattle – 50CL – is

blended with lean manufacturing beef from non-fed cattle, which includes New Zealand's cow and bull beef.

There are some signs that the US breeding herd has come to the peak of the production cycle and may be entering the downward phase. This may be confounded by the drought in 2018, the trade war with China and disruptions to processing capacity. However, it has levelled at the least. In 2014, the US cattle herd began a rebuilding phase, which limited supply of domestic lean beef and drove increased demand for imported lean beef.

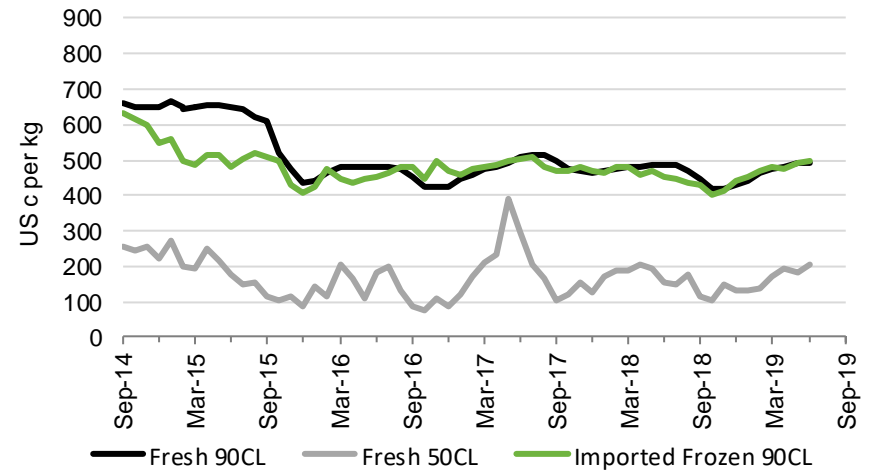
Generally, as a herd transitions from its peak to decline there is an upturn in cows slaughtered, which increases production of lean beef intended for processing – the same category that dominates NZ exports to the US. The surge of domestic US lean beef may create some competition.

Figure 16 Indicative Prices for Imported Frozen 95CL Beef



Source: Beef + Lamb New Zealand Economic Service

**Figure 17 US Lean Beef Prices
Chemical Lean – FOB Plant basis**



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

However, the number of heifers processed in the US also increases as the US national herd begins to decline – increasing the production of higher fat content trimmings – to absorb some of the increased lean production, and New Zealand's production is relatively small but complementary to US production and processing.

President Trump pulled the US out of the TPP agreement (Trans-Pacific Partnership, since renamed CPTPP – Comprehensive and Progressive Trans-Pacific Partnership) immediately after his inauguration in January 2017, however CPTPP entered into force in late 2017. This left US exports in a weaker position relative to competitors within the CPTPP – such as New Zealand and Australia.

The US is currently negotiating with Japan for a free trade agreement. The US has renegotiated with Mexico and Canada the North American Free Trade Agreement (NAFTA) to get similar conditions to CPTPP in the new USMCA (US-Mexico-Canada Agreement). As of publishing, this has only been ratified by Mexico.

US beef exports for the first half of 2019 declined 5.8 per cent. Large declines occurred in traditionally significant markets – Japan, Canada and Mexico – but there was substantial growth in exports to South Korea and Taiwan.



Australia

In recent seasons, Australia's beef cattle herd and beef production have been significantly affected by droughts and national herd reductions.

High numbers of cows and heifers processed in 2019 is estimated by Meat & Livestock Australia (MLA) to have reduced the herd by 7.3 per cent in the year ending June 2019.

Australia's beef exports to the US are like New Zealand's – dominated by cuts intended for processing. So increased cow slaughter may flow through to processing cuts to the US or other export markets.

The recent increase in Australian cow and heifer processing will have an impact on production for the next couple of seasons. Even if climate conditions improve, this would drive greater breeding cattle retentions for herd rebuilding and further limit production.

In August 2019, cumulative imports into China of Australian beef surpassed the threshold volume that triggered the safeguard duty. Duties increased on Australian boneless beef imported into China from 6 per cent to 12 per cent for exceeding 174,454 tonnes in 2019. This safeguard was part of the China-Australia Free Trade Agreement (ChAFTA) established in 2015. The impact was too early to be apparent at the time of writing.

In 2018-19, Australian beef production is expected to increase 4.7 per cent. The drought conditions have driven an increase in the number of cattle processed, particularly females as discussed earlier. Production is forecast to contract by 12 per cent in 2019-20 – to 2.05 million tonnes – due to the herd reduction in 2018-19.

Total beef exports are expected to be up by 7.0 per cent for 2018-19 and fall by 17 per cent in 2019-20 – to 1.0 million tonnes shipped weight. A greater proportion of Australia's beef production is consumed domestically compared with New Zealand, so the impact of a shift in production is greater at export. Australia is a significant competitor for New Zealand in many of the major markets.

Brazil

Brazil's scandals and disruption to beef production have quietened relatively in the last year, though there are still headline issues the industry's associations with issues – like fires in Amazon rainforest.

The trade position of Brazil's beef trade has improved. The Mercosur trade agreement with the EU has been signed. Mercosur is a South American trading bloc that includes Brazil. More Brazilian processing plants have been authorised for export to markets such as China, Indonesia and Russia.

Brazilian beef production is expected to increase from 2018 levels in the short-term and – excluding significant disruption – but to ease back towards 2018 levels in the medium-term. Brazilian production is estimated to be up 3.0 per cent on 2018 to remain the largest beef producer internationally.

Consumption per capita is expected to continue easing and help to drive export growth in the medium-term. Brazilian exports in 2019 are expected to be up 5.6 per cent.

Cattle Prices – Farm-gate

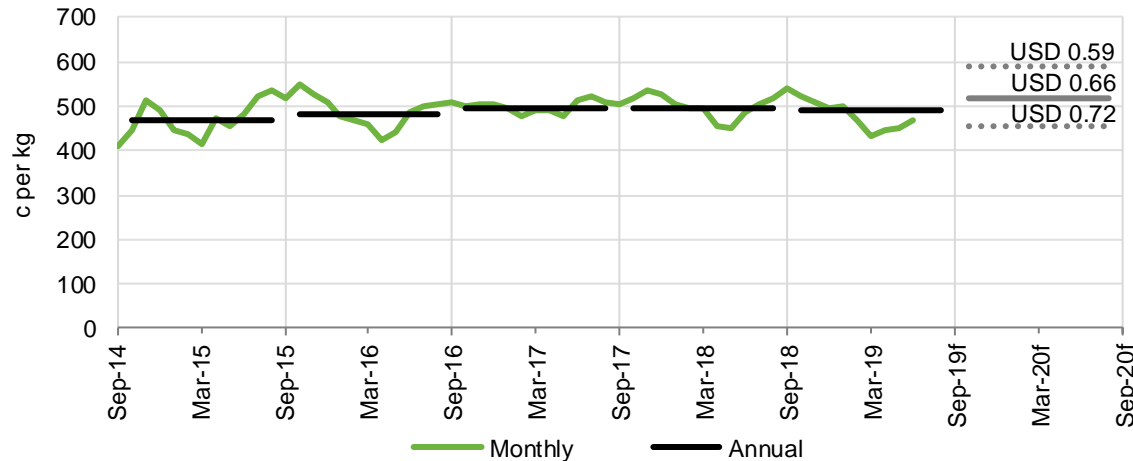
Figure 18 shows the monthly and annual average cattle price for all classes to the end of September 2020.

The estimated overall weighted average beef price for 2018-19 at 493 cents per kg was down slightly (-0.6%) on the previous year. This followed the beef price for all classes in 2017-18 remaining steady to average 496 cents per kg for the season.

The outlook for 2019-20 is for beef prices to increase by 4.9 per cent to 517 cents per kg, breaking the \$5 mark for the first time. Three exchange rate scenarios are used in the outlook for 2019-20 to indicate the effect of possible exchange rate variability. The three scenarios use annual average exchange rates of USD0.59, USD0.66 and USD0.72 and the associated cross rates against the GBP and EUR.

At USD0.66, the estimated 2019-20 average annual price for P steer/heifer (270-295kg) is 572 cents per kg. It is forecast to average 420 cents per kg for M cow (170-195kg), which includes a large component of cull dairy cows, and 550 cents per kg for M bull (270-295kg).

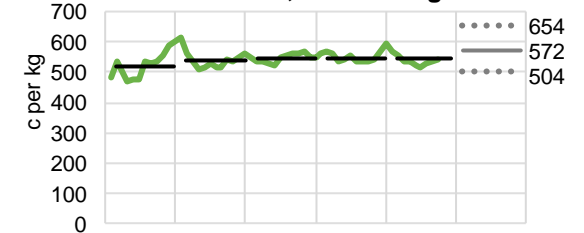
Figure 18 Weighted Average All Classes Cattle Farm-Gate Price



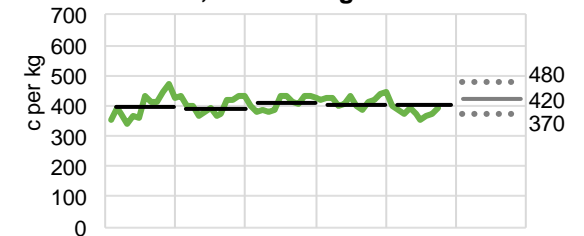
Source: Beef + Lamb New Zealand Economic Service

Figure 19 Weighted Average Cattle Farm-Gate Price

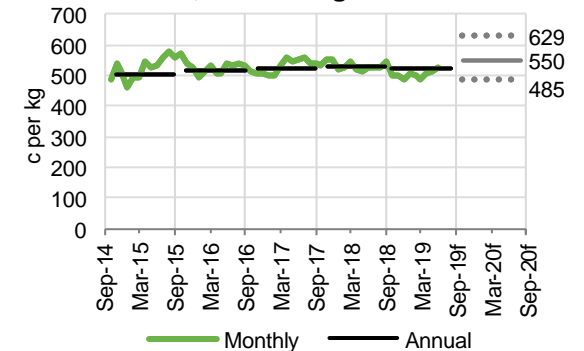
Steer/Heifer - P Class, 270-295 kg



Cow - M Class, 170-195 kg



Bull - M Class, 270-295 kg



Source: Beef + Lamb New Zealand Economic Service



Beef Production

Table 13 Export Cattle Slaughter Composition

Sep Year	000 head				
	Steer	Heifer	Cow	Bull	Total
2015-16	515	436	1,101	464	2,516
2016-17	524	441	937	461	2,363
2017-18	535	454	1,026	542	2,556
2018-19e	510	440	1,016	548	2,514
2019-20f	536	465	1,007	550	2,557
2019-20f % change	+5.1%	+5.7%	-0.9%	+0.4%	+1.7%

e estimate, 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
2015-16	308	238	195	298	246
2016-17	314	243	199	304	253
2017-18	312	241	197	305	251
2018-19e	307	238	199	305	250
2019-20f	308	239	198	305	251
2019-20f % change	+0.2%	+0.2%	-0.2%	0.0%	+0.3%

e estimate, 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
2015-16	158	104	215	141	619
2016-17	164	107	186	141	598
2017-18	167	110	202	163	642
2018-19e	157	105	202	165	629
2019-20f	165	111	200	166	642
2019-20f % change	+5.3%	+5.9%	-1.2%	+0.4%	+2.0%

e estimate, f forecast

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

Cattle Slaughter

For 2019-20, the number of cattle processed for export is forecast to grow by 1.7 per cent to 2.56 million head (see Table 13). The mix of cattle classes is forecast to shift in 2019-20 as the share of prime cattle increases. Steers and heifers are expected to lift strongly by 5.1 per cent and 5.7 per cent.

The strong increases in the forecast of the number of steers and heifers processed are not at the expense of total beef herd. Beef breeding cows have increased over 2017-18 (+2.4%) and 2018-19 (+5.4%) but are forecast to decline slightly in 2019-20 (-1.4%). The national beef herd has also increased steadily over this period and this is expected to continue in 2019-20 – between 2.6 per cent. This has increased the number of young prime cattle available for slaughter and indicates confidence in beef production.

The 2019-20 forecast follows an estimated 1.7 per cent decrease for 2018-19, due to moderate decreases in prime cattle – steers (-4.6%) and heifers (-3.1%). In 2018-19, it is expected there was a slight decrease in cows processed (-0.9%) while a minor rise in bulls (+1.0%). The number of cows and bulls processed are expected to stay relatively steady in 2019-20, however there had been large shifts in the previous seasons.

The number of cows processed in 2017-18 was 9.5 per cent higher as

the average age of the herd became older, following two seasons of fewer cow numbers processed. This volatility was largely created by the downturn in the dairy sector in 2014-15 creating younger dairy herds and reducing cows suitable for culling.

Cattle Weights

The estimated average export carcase weight was estimated down slightly (-0.4%) in 2018-19 due to minor decreases in steer (-1.6%) and heifer (-1.3%) weights (see Table 14). However, a decrease in the proportion of total slaughter made up from steers and heifers reduced the influence on the all classes average weight.

For 2019-20, the overall cattle weight is forecast to average 251kg per head, near even with 2018-19 and marginal change within cattle classes. There is little to drive change in the average carcase weight with sustained beef prices, customer demand needs, minimal land use change, a stable dairy herd and assuming moderate seasonal weather.

Beef Production

In 2019-20, New Zealand's export beef production is forecast to increase by 2.0 per cent – to 642,000 tonnes bone-in, due to the slight rise in the number of cattle processed (see Table 15) and weight. A slightly greater proportion of the production will be made up of cattle raised for finishing – steers, heifers and bulls.



Wool¹

Exports

The outlook for 2019-20 is for wool export volumes to increase 1.1 per cent on 2018-19 from almost static sheep numbers (+0.4%) and a slight increase in shorn wool per sheep (+1.0%). This reflects reasonably good seasonal conditions expected to remain for the year. Average export receipts at FOB are expected to decrease 1.7 per cent to \$5,790 per tonne.

Total wool receipts at FOB remain almost unchanged (-0.6%) on the previous year, estimated at \$532 million. The estimate for the overall auction wool price is down 2.6 per cent on 2018-19.

For the 2018-19 wool production season (from June to July), New Zealand wool exports were down 9.4 per cent to 90,800 tonnes clean. The previous year, 2017-18 wool exports were bolstered by the sale high carry-over stocks from the previous year.

North Asia remains New Zealand's largest wool market region and is dominated by China. In 2018-19 and 2017-18, North Asia accounted for 49 per cent of wool exports. Exports to the EU for 2018-19 - the next largest market (30%) - were down 9.0 per cent which was similar to the overall 9.4 per cent decrease in 2018-19 wool volumes exported.

Prices

The outlook for 2019-20 is for fine wool prices to ease 10 per cent but remain at a high level for the third year. In 2018-19, the season average fine wool price increased 9.6 per cent and followed on from a 58 per cent increase in the previous year. In 2018-19 fine wool made up 7 per cent of the wool export tonnage and 29 per cent of wool export receipts.

For 2019-20 the medium wool price is estimated to decrease slightly by 3.0 per cent but remain at a relatively high level for the second year. For 2018-19 medium micron wool made up 15 per cent of the wool export tonnage and 18 per cent of wool export receipts.

Strong wool prices for 2019-20 are estimated to remain low for the fourth year and little changed on 2018-19 (-0.3%). For 2018-19, strong wool made up 78 per cent of the wool export tonnage and 53 per cent of wool export receipts. In inflation adjusted terms the 2019-20 estimated strong wool price will be the lowest inflation-adjusted price since at least 1960-61 when the time-series of wool prices to hand started.

Table 16 Auction Prices and Raw Wool Exports

June Year	Auction Price	Wool Exports		
	\$ / kg clean	FOB \$ / kg clean	000 tonne clean	\$m FOB
2015-16	6.64	7.38	103.0	760.1
2016-17	5.18	6.16	84.8	522.1
2017-18	5.37	5.41	100.2	542.5
2018-19	5.62	5.89	90.8	534.9
2019-20e	5.47	5.79	91.8	531.9
2019-20e % change	-2.8%	-1.7%	+1.1%	-0.6%

e estimate | Source: Beef + Lamb New Zealand Economic Service, Wrightson Wool, New Zealand Wool Services International Ltd, Statistics New Zealand

Table 17 Season Average Auction Wool Prices

June Year	cents / kg greasy				
	Fine	Medium	Strong	Lambs	All Wool
2015-16	997	725	445	485	494
2016-17	1,074	616	314	298	386
2017-18	1,696	672	271	349	397
2018-19	1,859	758	266	396	416
2019-20e	1,673	735	265	398	405
2019-20e % change	-10.0%	-3.0%	-0.3%	+0.3%	-2.6%

e estimate | Source: Beef + Lamb New Zealand Economic Service, Wrightson Wool, New Zealand Wool Services International Ltd, Statistics New Zealand

¹Although there is no levy on wool, the Economic Service conducts basic analysis of wool because it contributes to sheep and beef farm revenue.

Production

For 2019-20, total wool production, which is estimated at 139,500 tonnes greasy, shows a 1.2 per cent increase on the previous year. While sheep numbers remain almost static (+0.4%) shorn wool per head increases 1.0 per cent. Slipe wool production remains almost static (+0.5%).

While sheep numbers on hand at the start of 2019-20 were almost static (+0.4%) a component of this was a carryover of trade lambs for slaughter in the September quarter of 2019. Breeding ewe numbers declined 1.1 per cent and made up 62 per cent of the flock. Slipe production estimated for 2019-20 reflects a similar slaughter to the previous year.

Shearing

Shearing charges increased significantly in 2018-19 and impacted significantly on crossbred (strong) wool producers when coupled with continuing abnormally low strong wool prices. Nearly all of the North Island

wool clip is strong wool and shearing expenditure for 2018-19 accounted for 90 per cent of farm wool receipts.

For strong wool producers, prior to current the 4-year run of abnormally low wool prices, shearing expenditure accounted for 45 per cent of farm gate wool receipts from the turn of this century to 2015-16 and made wool a significant contributor to farm profitability in this period and earlier.

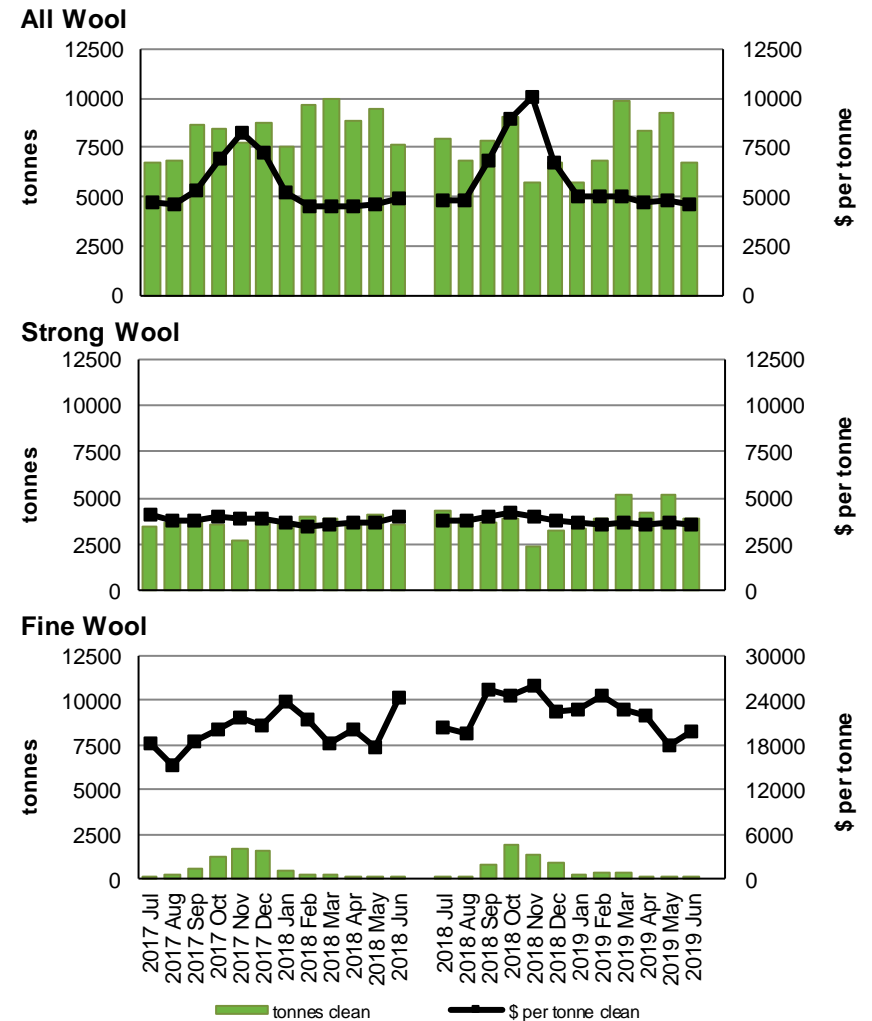
Table 18 Wool Production

June Year	Sheep million head	Shorn 000 tonnes greasy	Slipe 000 tonnes greasy	Total Shorn Wool 000 tonnes greasy	Shorn Wool kg / head*
2015-16	29.1	135.1	16.5	151.6	4.64
2016-17	27.6	126.9	16.5	143.4	4.60
2017-18	27.5	124.4	16.9	141.3	4.52
2018-19	27.3	122.2	15.6	137.7	4.48
2019-20e	27.4	123.8	15.7	139.5	4.52
2019-20e % change	+0.4%	+1.3%	+0.5%	+1.2%	+1.0%

*excludes wool on sheepskins

e estimate | Source: Beef + Lamb New Zealand Economic Service, Wrightson Wool, New Zealand Wool Services International Ltd, Statistics New Zealand

Figure 20 New Zealand Wool Exports



Source: Beef + Lamb New Zealand Economic Service



Climatic Conditions

Autumn 2019 Summary

New Zealand's fourth warmest autumn on record.

Rainfall

Rainfall totals over much of the North Island were below normal (50-79% of the autumn normal) with isolated pockets of well below normal (<50 % of the autumn normal). The exceptions to this were part of Bay of Plenty and western parts of the Wellington and Manawatu-Whanganui where near normal (80-120% of the autumn normal rainfall) rainfall totals were observed, and in the Taranaki region where rainfall was near to above normal (120-149% of the autumn normal). A large portion of the South Island observed above or well above normal rainfall (>120% of the autumn normal), including West Coast, much of Southland, western parts of Canterbury and Otago, as well as Nelson and northern Marlborough. Remaining parts of the South Island were largely near average with pockets of below average rainfall occurring throughout.

Temperature

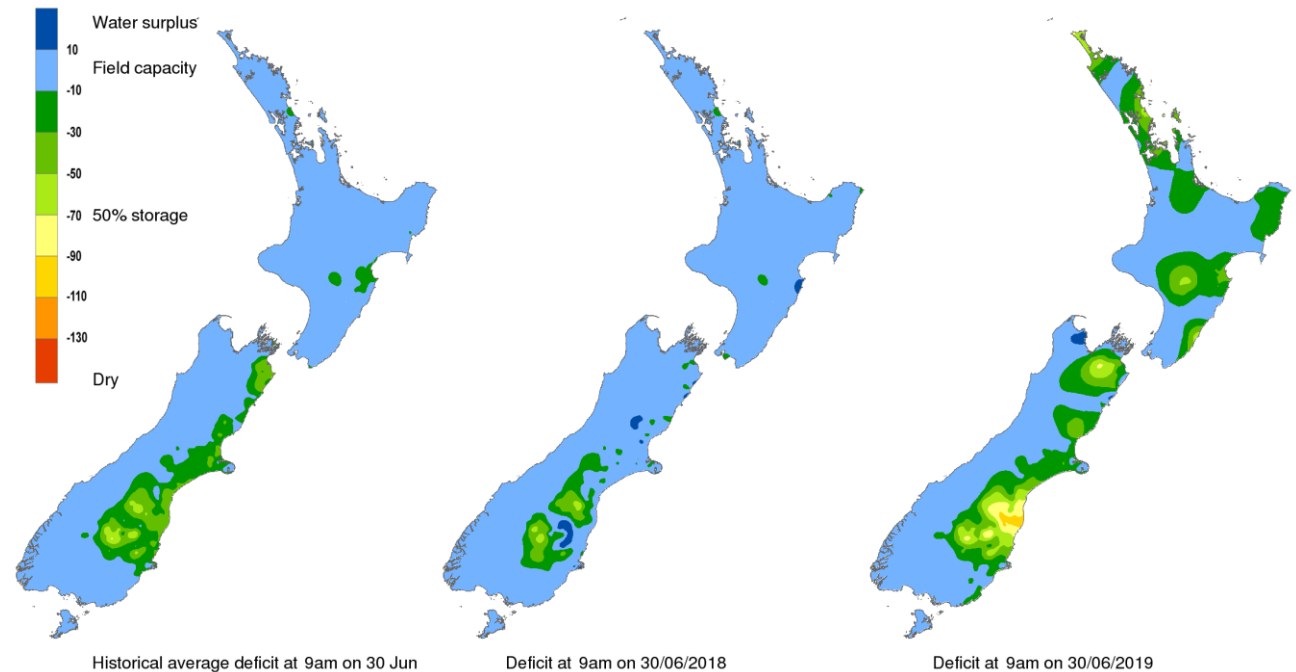
It was New Zealand's fourth-warmest autumn on record. Temperatures across the country were mostly above average (+0.51°C to +1.20°C of the autumn average) or well above average (>1.20°C of the autumn average) while few locations experienced temperatures which were near average (-0.50° to +0.50°C of the autumn average).

Soil moisture

By the end of autumn 2019, soils were drier than normal for much of the North Island with small areas of wetter than normal soils about western Waitomo and the Kapiti Coast. South Island soil moisture was generally near normal with pockets of below normal soil moisture about Waimate and Waitaki as well as interior Marlborough region.

Figure 21

Soil moisture deficit (mm) at 9am on 30/06/2019



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



Outlook – August to October 2019

Rainfall

Rainfall is about equally likely to be near normal (40% chance) or above normal (35% chance) for the west of the North Island and north of the South Island. Near normal rainfall (45% chance) is forecast for all remaining regions of New Zealand.

Temperature

Temperatures have about equal chances of being near average (35-40% chance) or above average (40% chance) for all regions of New Zealand. Despite a low chance for below average seasonal temperatures, an abnormally cold period is expected in early August.

Soil Moisture

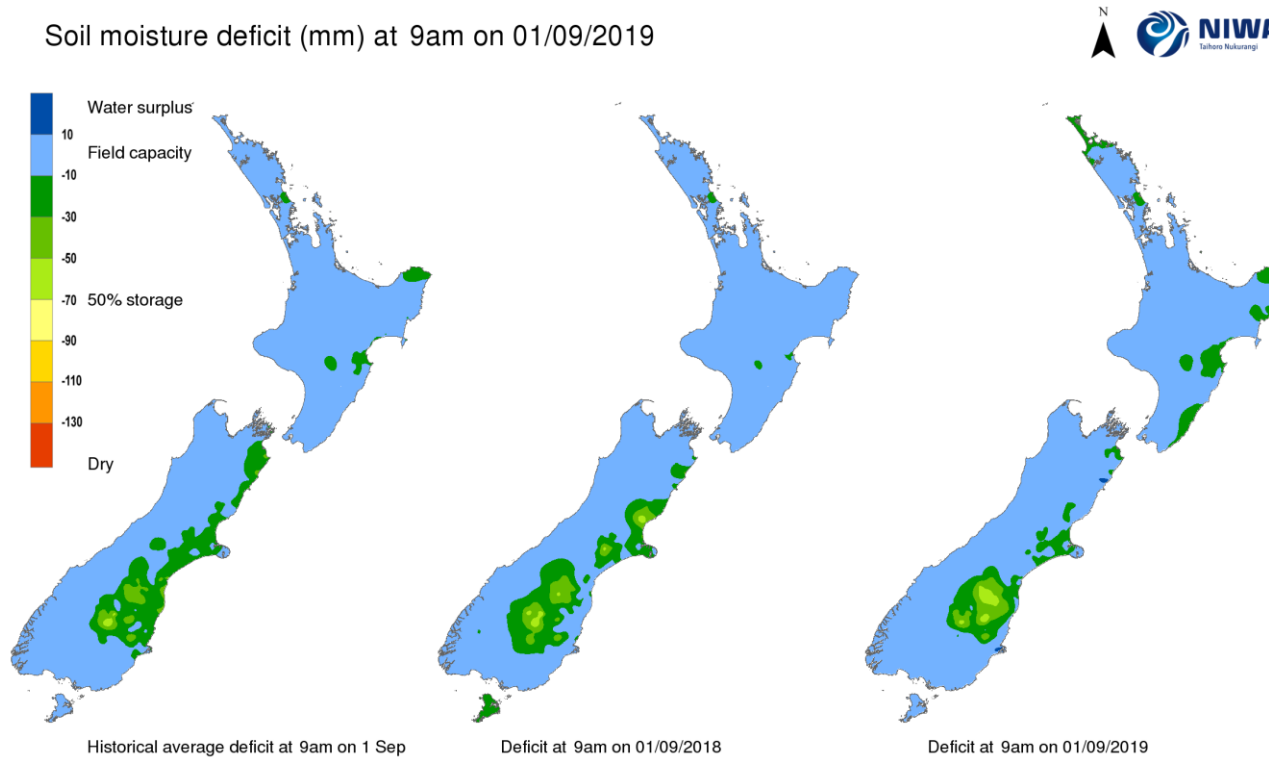
Soil moisture levels and river flows are most likely to be below normal (40-45% chance) in the north of the North Island. For the west of the North Island, soil moisture levels are most likely to be in the above normal range (45% chance) and river flows are about equally likely to be near normal (35%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

of the North Island and river flows and soil moisture levels in the east of the South Island are about equally likely to be normal (35-40% chance) or below normal (35-40% chance). For the north and west of the South Island, soil moisture levels and river flows are about equally likely to be near normal (35-40% chance) or above normal (40% chance).

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

Figure 22

Soil moisture deficit (mm) at 9am on 01/09/2019



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

Farm Revenue, Expenditure & Profit – New Zealand

Revenue

Forecast gross farm revenue for the 2019-20 farming year, which ends on 30 June, under an exchange rate scenario of USD0.66 the average across all farm classes is \$529,800 per farm – up by 1.2 per cent. This is driven by increased revenue from beef cattle and sheep, which are both forecast to increase by \$3,500 per farm.

Cattle revenue increases 2.2 per cent to \$166,200 for 2019-20. This is due to strong international demand for New Zealand beef, which is reflected in cattle prices. At an island level, increases in Northland-Waikato-BOP and Taranaki-Manawatu are offset by the decrease in East Coast, which is the result of rebuilding in 2018-19 after some difficult seasons. In the South Island, cattle revenue is forecast to increase by 10 per cent on average in Marlborough-Canterbury, and marginally in Otago-Southland. Overall, cattle revenue is forecast to contribute a quarter of gross farm revenue in 2019-20.

Sheep revenue, which is forecast to contribute half of gross farm revenue, increases 1.1 per cent to \$308,500 for 2019-20. Farm-gate prices continue to be strong offsetting fewer prime lambs and sheep being sold.

Wool revenue decreases 1.3 per cent to \$37,700 for 2019-20. This is due to continued weak wool prices, with fine wool prices easing, offsetting an increase in the average volume of

wool sold per farm. Wool revenue accounts for six per cent of gross farm revenue.

Dairy grazing revenue increases 5.3 per cent to average \$29,700 per farm in 2019-20. This small increase is largely led by competition for pasture from other production – beef, lamb and mutton. There is a difference between islands. In the North Island, revenue increases on average, driven by an increase in Northland-Waikato-BOP, while a stronger increase on average in the South Island masks a decrease in Otago-Southland. On average dairy grazing revenue contributes under five per cent of gross farm revenue.

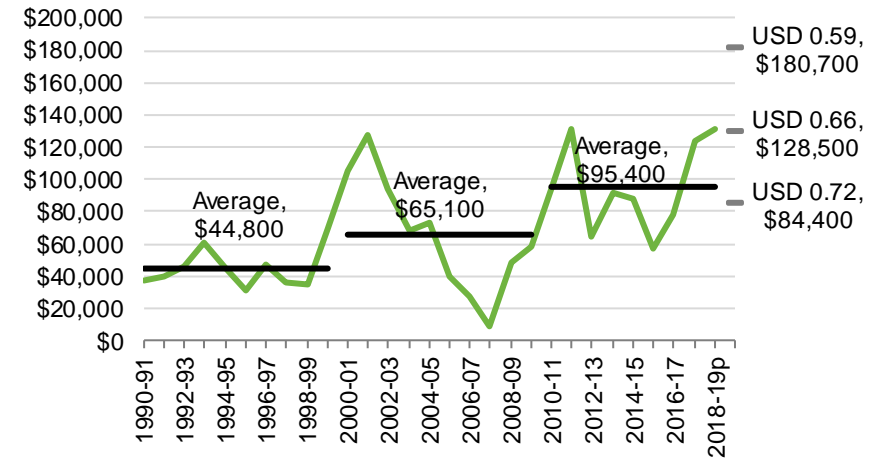
The cash cropping account is forecast to be unchanged for 2019-20. The cash crop account accounts for 9.1 per cent of gross farm revenue in 2019-20.

Aggregate Sheep and Beef Farm Revenue at the farm gate for 2019-20 is forecast at \$5.8 billion, up 1.2 per cent on 2018-19. Gross farm revenue is spent buying goods and services for running the farm business and then taxation, debt reduction and personal living expenses.

Expenditure

Total expenditure for the All Classes Sheep and Beef Farm is estimated to increase 1.8 per cent to \$456,800 per farm for 2019-20. Higher expenditure occurs in all parts of farm businesses, except for weed and pest control – as

Figure 23 All Classes Sheep and Beef Farm Inflation-Adjusted¹ Farm Profit before Tax per Farm



p provisional | f forecast | ¹Adjusted to 2004-05 \$ terms

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

farmers consolidate in the profitable seasons – and interest – due to lower interest rates. Interest expenditure accounts for around 12 per cent of total farm expenditure, and weed and pest expenditure is minor. Overall, increases occur in the majority of expenditure items.

Inflation in prices for inputs used on sheep and beef farms is estimated at 2.8 per cent in 2019-20. This follows 2.0 per cent for 2017-18 and a further 3.0 per cent in 2018-19, both of which were due to price rises across all farm inputs, except interest.

Fertiliser, lime and seeds expenditure increases 1.7 per cent to average \$79,600. The volume applied per farm

increases slightly – but is unchanged per stock unit – while the on-ground price increases slightly also, which leads to a small lift in expenditure. Around 17 per cent of total farm expenditure is on fertiliser, lime and seeds.

Interest expenditure decreases 3.4 per cent to \$54,400, which reflects the reduction in interest rates, i.e. the price of borrowing, and some reduction in debt levels. Repairs and maintenance increases 3.2 per cent, after increases of 12.4 and 5.6 per cent in the prior two seasons.



Farm Profit before Tax

Farm Profit before Tax is required to meet taxation payments, personal drawings for family living expenses, debt repayments and the purchase of capital items for the farm business, such as farm machinery.

Figure 23 shows the trend in inflation-adjusted Farm Profit before Tax expressed in 2004-05 dollar terms. It shows the steep fall in profitability from 2001-02 to a 50-year low in 2007-08. This was followed by a recovery driven by the improvement in international prices, which exceeded the effect of the strengthening NZD.

The inflation-adjusted profits of \$131,100 per farm for 2011-12 and 2018-19 were the highest since the early 1970s and similar to 2001-02 when inflation-adjusted Farm Profit before Tax was \$126,900 per farm, which was supported substantially by the low value of the NZD.

Three scenarios are shown in Figure 23:

- At the mid exchange rate (USD0.66), inflation-adjusted Farm Profit before Tax is \$128,500, down 1.9 per cent on \$131,000 for 2018-19. In nominal terms, Farm Profit before Tax is \$173,000, unchanged (-0.1%) on \$173,200 for 2018-19.
- At the lower exchange rate (USD0.59), inflation-adjusted Farm Profit before Tax would be \$180,700 per farm in 2004-05 terms for 2019-20, which would be 38 per cent higher than \$131,000 for 2018-19. In nominal terms, i.e. without adjusting for inflation, Farm Profit before Tax would be \$243,300, up 41 per cent on \$173,200 for 2018-19.
- At the higher exchange rate (USD0.72), inflation-adjusted Farm Profit before Tax would be \$84,400 per farm in 2004-05 terms for 2019-20, down 36 per cent on \$131,000 for 2018-19. In nominal terms, Farm Profit before Tax would be \$113,600, down 34 per cent on \$173,200 for 2018-19.

**Table 19 Sheep and Beef Farm Revenue and Expenditure
Weighted Average All Classes**

		Provisional				Forecast			Forecast % Change		
		2015-16	2016-17	2017-18	2018-19	2019-20 USD 0.59	2019-20 USD 0.66	2019-20 USD 0.72	2018-19 to 2019-20		
								USD 0.59	USD 0.66	USD 0.72	
Revenue											
Wool		54,136	36,240	35,962	38,200	42,700	37,700	32,000	+11.8%	-1.3%	-16.2%
Sheep		183,709	204,793	280,021	305,000	355,500	308,500	269,900	+16.6%	+1.1%	-11.5%
Cattle		125,930	139,455	158,417	162,700	190,100	166,200	146,500	+16.8%	+2.2%	-10.0%
Dairy Grazing		29,009	27,229	28,389	28,200	29,700	29,700	29,700	+5.3%	+5.3%	+5.3%
Deer + Velvet		3,819	4,588	6,104	6,300	6,900	6,000	5,300	+9.5%	-4.8%	-15.9%
Goat + Fibre		51	14	41	0	0	0	0			
Cash Crop		45,669	46,178	55,520	58,000	57,600	57,600	57,600	-0.7%	-0.7%	-0.7%
Other		17,218	20,702	24,682	23,700	24,100	24,100	24,100	+1.7%	+1.7%	+1.7%
Total Gross Revenue	\$ per farm	459,541	479,199	589,136	622,100	706,600	629,800	565,100	+13.6%	+1.2%	-9.2%
Expenditure											
Fert, Lime & Seeds		64,995	59,738	71,178	78,300	80,700	79,600	78,700	+3.1%	+1.7%	+0.5%
Repairs & Maintenance		32,747	31,234	35,119	37,100	38,800	38,300	37,900	+4.6%	+3.2%	+2.2%
Interest & Rent		68,017	65,754	74,411	72,000	70,200	70,400	70,600	-2.5%	-2.2%	-1.9%
Other Expenses		221,754	222,595	248,432	261,500	273,600	268,500	264,300	+4.6%	+2.7%	+1.1%
Total Expenditure	\$ per farm	387,513	379,321	429,140	448,900	463,300	456,800	451,500	+3.2%	+1.8%	+0.6%
Farm Profit Before Tax²	\$ per farm	72,028	99,878	159,996	173,200	243,300	173,000	113,600	+40.5%	-0.1%	-34.4%
EBITRm³	\$ per farm	143,678	169,276	238,478	249,448	318,900	247,792	188,700	+27.8%	-0.7%	-24.4%
Real (2004-05\$) Farm Profit ⁴		57,100	78,000	123,700	131,000	180,700	128,500	84,400	+37.9%	-1.9%	-35.6%
Index of Real Farm Profit		779	1,065	1,688	1,788	2,466	1,754	1,152	+37.9%	-1.9%	-35.6%
Fertiliser Use	kg per SU	25.7	23.7	27.0	26.2	26.5	26.1	25.8	+1.0%	-0.4%	-1.5%
Prices											
Wool auction	c per kg clean	663	519	538	563	636	548	476	+13.0%	-2.7%	-15.5%
All wool ⁵	c per kg greasy	444	314	289	303	348	300	260	+15.0%	-0.9%	-13.9%
Lamb	\$ per head	93	106	134	142	151	145	116	+6.5%	+2.5%	-18.2%
Mutton	\$ per head	57	74	108	122	129	124	94	+6.3%	+1.6%	-22.8%
Prime Steer/Heifer	c per kg	513	531	539	540	597	536	456	+10.5%	-0.8%	-15.6%

1. The Weighted Average for All Classes of Sheep and Beef Farm for 1 July 2019 was an effective area of 680 hectares with 2,796 sheep, 384 cattle and 38 deer, totalling 4,372 stock units.

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

3. Earnings before Interest, Tax, Rent and wages paid to a manager

4. Deflated by June year Consumer Price Index.

5. Net of charges and freight.

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

Farm Revenue, Expenditure & Profit – Regional

EBITRm

EBITRm is the abbreviation for Earnings before Interest, Tax, Rent and any wages paid to a manager (actual or family). It is a key measure of profitability. EBITRm per effective hectare is a standardised measure that facilitates benchmarking.

Table 20 shows per farm measures of financial metrics, including EBITRm, and Table 21 shows these measures per hectare.

North Island Summary

Sheep and Beef Farm Profit before Tax decreases 2.3 per cent to \$164,700 per farm for 2019-20. This is due to the combined impact almost static gross revenue, and higher total farm expenditure.

Gross revenue increases by just under one per cent to \$545,700. Sheep revenue increases by 1.6 per cent to \$265,700 due to strong prices for prime livestock. In contrast, cattle revenue is unchanged due to continued strong prices, which are forecast to be up across the board. Both 2018-19 and 2019-20 are expected to be record years for cattle revenue. Cattle revenue contributes around 38 per cent of gross farm revenue. Dairy grazing revenue is forecast to increase (+2.7%), while deer, and crop/grain and seeds revenue are expected to fall (by 11% and 4.1% respectively), however, combined these two items make up

less than three per cent of gross farm revenue.

Total expenditure increases 2.2 per cent to average \$381,000 per farm for 2019-20. Increases occur in all categories except interest (-6.5%) and feed and grazing (-0.4%). Repairs and maintenance continues to increase, which reflects cashflow supporting this expenditure. Shearing expenditure increases 6.4 per cent on 2018-19 when there was a 17.4 per cent increase from increased charges per sheep shorn.

South Island Summary

Sheep and Beef Farm Profit before Tax increases 2.1 per cent to average \$182,800 per farm for 2019-20, as both gross farm revenue and total farm expenditure increase. Gross farm revenue increases 1.6 per cent to \$731,500 for 2019-20 driven by increased cattle revenue.

Sheep revenue increases by less than one per cent to \$360,200 as livestock prices remain strong, offsetting the decline in the average number of prime lambs sold.

Cattle revenue increases 7.3 per cent to \$117,700 due to a lift in sales revenue, and less expenditure on purchases, which means net cash

revenue increases substantially. An increase in the number of weaners and trade cattle on hand at open contributes towards an upwards shift in the number of head sold, which also extends to fewer cattle purchases.

Total farm expenditure increases 1.4 per cent to average \$548,700 per farm for 2019-20. This is due to a lift in almost all expenditure except for weed and pest control, and a small decrease of less than one per cent in expenditure on interest reflecting lower interest rates. Average shearing expenditure is forecast to increase 3.7 per cent adding to sharp increases in recent years due to increased charges per sheep shorn.

Table 20 Regional Summary, All Classes Sheep & Beef Farm - \$ per Farm

Region	2017-18	2018-19 ^p	2019-20 ^f					
	Profit	Profit	Revenue	Expenditure	Profit	EBITRm ¹	Stock Units	Hectares
Northland-Waikato-BoP	140,465	133,500	466,700	336,200	130,500	179,200	3,600	370
East Coast	179,139	215,700	638,600	421,100	217,500	298,800	5,000	560
Taranaki-Manawatu	136,598	144,800	543,200	406,400	136,800	204,800	4,400	510
North Island	153,388	168,500	545,700	381,000	164,700	229,000	4,200	470
Marlborough-Canterbury ²	158,907	173,100	846,100	671,300	174,800	283,900	4,700	1,030
Otago/Southland ²	175,354	182,400	607,300	419,200	188,100	252,700	4,400	820
South Island²	167,998	179,000	731,500	548,700	182,800	270,300	4,500	950
New Zealand	159,996	173,200	629,800	456,800	173,000	247,800	4,400	680

^p provisional, ^f forecast | Exchange rate used in forecast year USD/NZD 0.66

¹ Earnings before Interest, Tax, Rent and wages paid to a manager

² Effective area is inflated by High Country Farms, which average over 8,000 hectares per farm

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

Regional Comment – North Island

Northland–Waikato– Bay of Plenty

Gross farm revenue increases 2.2 per cent to average \$466,700 per farm for 2019-20. This is the result of a fall in wool revenue, unchanged sheep revenue, and an increase in cattle and dairy grazing revenue, and these items together make up over 90 per cent of gross farm revenue.

Sheep revenue is unchanged, with stronger prices offsetting fewer prime lambs being sold.

Cattle revenue is forecast to increase by 3.7 per cent in 2019-20, after falling in 2018-19.

Total farm expenditure increases by 4.1 per cent to \$336,200 for 2019-20. Increased expenditure occurs in all categories except feed and grazing, and interest. The change in feed and grazing is due to slightly lower purchases, while lower interest rates and debt levels reduce interest expenditure.

Repairs and maintenance increases 9.3 per cent to average \$35,100 per farm. This follows increases in the previous two years as improved revenue provided the opportunity for farmers to catch up on maintenance that had been deferred.

Interest expenditure decreases 5.3 per cent to \$32,100 for 2019-20, due to the combined effect of reductions in term debt, and lower average term interest rates. Fertiliser expenditure increases 4.7 per cent to average \$64,300 for 2019-20 due to an increase in tonnage applied on hill country farms.

On average, Farm Profit before Tax decreases 2.2 per cent in 2019-20 to \$130,500 per farm.

On average, sheep and beef farms in the region carry 3,600 stock units on an effective area of around 365 hectares, and thus have an average stocking rate of less than 10 stock units per hectare. Farms in the region average around 465 ha total area meaning around 80 per cent is used to produce food and fibre, with 20 per cent in other non food-producing uses.

Table 21 Regional Summary, All Classes Sheep & Beef Farm - \$ per hectare

Region	2017-18	2018-19p	2019-20f				Stock Units per ha.
	Profit	Profit	Revenue	Expenditure	Profit	EBITRm ¹	
Northland-Waikato-BoP	383	364	1,272	916	356	488	9.7
East Coast	320	385	1,140	752	388	534	9.0
Taranaki-Manawatu	268	284	1,067	798	269	402	8.6
North Island	330	362	1,174	819	354	493	9.1
Marlborough-Canterbury ²	155	168	823	653	170	276	4.5
Otago/Southland ²	214	222	740	511	229	308	5.3
South Island²	177	188	770	578	192	284	4.8
New Zealand	234	253	921	668	253	362	6.4

p provisional, f forecast | Exchange rate used in forecast year USD/NZD 0.66

¹Earnings before Interest, Tax, Rent and wages paid to a manager

²Effective area is inflated by High Country Farms, which average over 8,000 hectares per farm

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



East Coast

Gross farm revenue increases marginally – by 0.6 per cent – to average \$638,600 per farm for 2019-20. This is substantially driven by an increase in sheep revenue, which is offset by decreased cattle revenue.

Sheep revenue increases 3.9 per cent to \$358,100 on average for 2019-20, which is a record high. Lamb prices continue to be strong. Fewer prime lambs are sold on average, but more store lambs are sold. The number of sheep on hand at open is unchanged with a small increase expected over the year demonstrating some confidence in the production side of the sector. Sheep revenue contributes 56 per cent of gross farm revenue.

Cattle revenue, which is equivalent to one-third of gross farm revenue, decreases 5.2 per cent to \$207,800 for 2019-20. This is due to stronger average prices for weaner cattle offset by lower prices for adult cattle, with mixed patterns in the number sold. Strong prices encourage some farmers on breeding properties to sell cull cows.

Total farm expenditure is up slightly – by 0.5 per cent to \$421,100 – for 2019-20. The most significant increases are for fuel, shearing expenses and insurance.

The largest decreases in farm expenditure occur in interest (-7.1%), and fertiliser, lime and seeds (-5.8%) because lime expenditure falls, while fertiliser expenditure is unchanged. Interest expenditure decreases due to reductions in term debt combined with lower interest rates.

Farm Profit before Tax increases slightly (+0.8%) to \$217,500 for 2019-20. On average, sheep and beef farms in the region run 5,000 stock units on an effective area of around 560 hectares, thus averaging around 9.0 stock units per ha. Farms in the region average around 675 ha total area meaning around 85 per cent is used to produce food and fibre, with 15 per cent in other non food-producing uses.

Taranaki–Manawatu

At \$543,200 per farm, average gross farm revenue is unchanged for 2019-20, with decreased revenue from sheep being offset by increased revenue from cattle.

Sheep revenue decreases 1.1 per cent to \$316,800 due to a reduction in the number of prime lambs being sold more than offsetting the increase in prime lamb prices. Fewer lambs are expected to be tailed in spring 2019 due to fewer breeding ewes being mated and a lower ewe lambing percentage than in the previous season. Sheep revenue contributes around 58 per cent of gross farm revenue.

Cattle revenue increases 5.3 per cent to \$156,100, which is due to an increase in the average sale price per head and more cattle sold. Cattle revenue contributes around 29 per cent of gross farm revenue.

Dairy grazing revenue decreases 14 per cent to \$14,100 per farm. Hill country farms that have historically been involved in dairy grazing activities are anecdotally looking to reduce risk associated with *Mycoplasma bovis*, and strong returns for sheep.

Total farm expenditure increases 2.1 per cent to \$406,400 per farm on average for 2019-20. Increases are forecast in all categories of expenditure except interest, due to reduced debt levels and lower interest rates.

Fuel expenditure increases 15 per cent to \$11,600 per farm. Fertiliser expenditure – 14 per cent of total farm expenditure – increased by 6.8 per cent as a result of increased volume and average price of fertiliser applied.

Shearing expenditure increases 5.0 per cent to \$28,100 continuing the increases experienced over recent years, which is a mix of an increase in the number of sheep shorn and increased per-head rates for shearing.

Farm Profit before Tax decreases 5.5 per cent to \$136,800 per farm for 2019-20 as a result of increased expenditure and no change in gross farm revenue. This level is the same as 2017-18.

On average, sheep and beef farms in the region run 4,400 stock units on an effective area averaging 510 hectares.

Regional Comment – South Island

Marlborough–Canterbury

Gross farm revenue increases 1.3 per cent to average \$846,100 per farm for 2019-20.

Sheep revenue declines (-1.6%) to \$291,000 for 2019-20. Sheep revenue contributes 34 per cent of gross farm revenue. Wool revenue decreases further – by 5.6 per cent – because of the greater influence of fine wool prices, which are expected to fall.

Cattle revenue increases 10 per cent to \$155,100 for 2019-20 in response to more cattle being sold at higher prices.

Dairy grazing revenue increases 8.5 per cent to \$69,100 per farm on average, which is equivalent to eight per cent of gross farm revenue. There is a mix of dairy grazing revenue, but most is from long-term grazing of young, lighter stock and at higher prices.

Cash cropping revenue, which contributes 25 per cent of gross farm revenue, is unchanged at \$211,000 per farm on average for 2019-20. While cash cropping revenue on mixed cropping and finishing farms increases as a result of higher prices and some reduction in inventory there is an increase in area sown in wheat offset by expected lower overall yields.

Total farm expenditure increases 1.4 per cent to average \$671,300 per farm for 2019-20, due to an increase in all expenditure except for weed and pest control (-3.5%) and lime (-5.0%)

though expenditure on lime averages about one per cent of total farm expenditure.

Interest expenditure is unchanged though lower interest rates are forecast, which offsets higher debt levels. On average, sheep and beef farms in this region carry around \$1.5 million in term liabilities, up from \$0.79 million ten years earlier. Fertiliser expenditure, at \$74,600 for 2019-20, is up slightly (+0.8%).

Farm Profit before Tax increases 1.0 per cent to \$174,800 per farm for 2019-20. This reflects the approximately equal percentage increases in gross farm revenue and total farm expenditure. This pattern masks the different prospects of different farm classes. Farm Profit before Tax for Farm Class 6 Breeding-Finishing farms, which are the most populous in the region, are forecast to experience a decline in Farm Profit before Tax as expenditure rises faster than revenue.

On average, sheep and beef farms in the region run about 4,700 stock units on an effective area of 1,030 hectares. Extensive High Country and foothill farms inflate the average area of farms in the region because for example Farm Class 1 High Country farms have an effective area around 9,500 hectares whereas Finishing-Breeding farms average 450 hectares effective area.

Otago–Southland

Gross farm revenue increases 1.9 per cent to average \$607,300 per farm for 2019-20. The largest drivers of the increase are sheep and wool, with smaller contributions from cattle. Revenue from wool and sheep combined accounts for 80 per cent of gross farm revenue.

Sheep revenue increases 2.2 per cent to \$431,900 for 2019-20. This is due to a small increase in the number of prime lambs sold and prices. On hill country properties, sheep numbers appear to have stabilised, while they are increasing on high country properties as some farmers shift towards cross breeds and meat production.

Wool revenue also increases 2.2 per cent – to \$52,100 per farm. This is due to an increase in the volume of wool sold – including some from on-farm inventories – while the average price of wool sold is forecast to be unchanged.

Cattle revenue increases 1.1 per cent to \$80,300 for 2019-20. The average number of cattle per farm at open increased, and sales increased – particularly of steers and bull beef – at higher prices than in the previous season.

Total farm expenditure increases 1.4 per cent to \$419,200 for 2019-20. The most significant increase in expenditure is on irrigation (+20%), but it is a very small part of total

expenditure (0.3%). Interest expenditure is forecast to decline as interest rates ease, and debt levels are reduced. Otherwise, the majority of expenditure items increase. Fertiliser expenditure, which accounts for 16 per cent of total farm expenditure, is unchanged. Expenditure on feed and grazing remains broadly stable, assuming no significant weather disruption.

Farm Profit before Tax increases 3.1 per cent to average \$188,100 per farm for 2019-20.

On average, sheep and beef farms in the region run 4,400 stock units on an effective area averaging 820 hectares. As in other parts of the South Island, the average farm size is inflated by Farm Class 1 High Country farms, which average 6,600 hectares, whereas Finishing-Breeding farms average 560 hectares and Intensive Finishing Farms average 240 hectares.



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