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New Season Outlook 2020-21

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Foreword

About this report

The New Season Outlook 2020-21 presents projections for sheepmeat and beef production, exports, farm-gate prices and on-farm profitability. It also provides an overview of key international markets.

It has been prepared at a time of considerable volatility and uncertainty. The outlook is based on market intelligence available until mid-September 2020 and reflects the COVID-19 impact domestically and globally to that point in time. There is little certainty around the continued spread of the virus. The forecasts in this report are subject to the limitations of the uncertainty and the constantly evolving situation.

Executive Summary – Outlook 2020-21

Overview

Beef and sheepmeat exports face an uncertain outlook for the 2020-21 season as economic disruptions from the COVID-19 pandemic continue to impact consumer demand.

Despite this, there are solid underlying market fundamentals that will continue to support demand for New Zealand sheep and beef exports. Chinese demand for meat protein continues to be fuelled by African Swine Fever pork shortages and there is growing demand for high quality, nutritionally rich proteins. A shifting consumer preference towards food safety will also support demand for New Zealand sheepmeat and beef.

The global meat trading environment will face challenges in the 2020-21 season. In addition to COVID-19 disruption, competitive pressure in key export markets is expected to increase and ongoing uncertainty exists around key trade negotiations.

New Zealand sheepmeat and beef exports will not be immune to these challenges, however the premium attributes of New Zealand sheepmeat and beef make New Zealand products well positioned to weather the uncertainty.

Total beef, veal and sheepmeat export revenue for the 2020-21 season is forecast at $7.39 billion, down 12 per cent or $1 billion, from 2019-20.

Economic Conditions

There are many variables that will influence the outlook for global growth in the 2020-21 season. These include the persistence of the spread of COVID-19, with many countries experiencing second waves, the duration and reoccurrence of lockdown restrictions, the subsequent impact on economic activity and the implementation of fiscal and monetary policy support in individual countries.

On a positive note for the New Zealand red meat sector, the primary food sector is expected to show significantly more resilience to the pandemic crisis compared to other sectors. The demand for food products has been more stable compared to other commodities.

The deteriorating trade relationship between the US and China is a cause of wariness in the global trading environment and some believe it has the potential to jeopardise international co-operation.

The New Zealand economy has contracted in the first half of 2020 but is expected to experience a degree of recovery in the second half. The sharp contraction of global economies and the continuing closure of the border are expected to weigh on the economy into the 2020-21 season.

In response to the pandemic crisis, the RBNZ is now expected to introduce a negative OCR in 2021.

Lamb and Mutton

For 2020-21, total lamb export receipts are forecast at $2.94 billion FOB, down 14.8 per cent on 2019-20. Co-products are forecast to decline a further 7.9 per cent.

Lamb exports are forecast to be down 6.5 per cent to 280,000 tonnes shipped weight, driven by a lower 2020 lamb crop.

Average export returns for the season are forecast to decline 9.3 per cent to $9,841 per tonne but remain 3 per cent above the five-year average.

COVID-19 has introduced uncertainty into the outlook for sheepmeat. Consumer demand has been impacted by weaker economic conditions and the disruption to the foodservice sector will continue to be a challenge for lamb exports in the 2020-21 season.

Although, the outlook is uncertain, underlying fundamentals remain solid, driven by continued pork shortages in China, increasing demand for high quality proteins and increasing disposable income in some Asian countries.

The weighted average lamb farm-gate price is forecast to be between 620 and 715 cents per kg with a midpoint of 665 cents per kg, which is down 10 per cent on 2019-20. Despite the decline, the midpoint forecast price is above the above the five-year average.

The outlook for mutton in 2020-21 is also uncertain, driven by the same factors as for lamb.

In 2020-21, mutton export production is forecast to decline 10 per cent, as farmers maintain their breeding ewe flocks following the 2020 drought.

The average FOB value per tonne is forecast to decline 7 per cent but will still be above the five-year average.

Total mutton export receipts are forecast to decline 15.6 per cent on 2019-20, to $605 million, dropping below the five-year average.

The annual average mutton price for the 2020-21 season is forecast at 415-485 cents per kg with a midpoint of 447 cents per kg, a decline of 9 per cent on the 2019-20 estimate of 490 cents per kg.

Beef

Export revenue from beef and veal in the 2020-21 season is forecast to be $3.85 billion FOB, down 9 per cent on 2019-20.

Beef and veal exports are forecast to be steady on 2019-20 at 453,000 tonnes shipped weight.

The number of cattle processed for export in 2020-21 is forecast to decline marginally (-0.9%) on 2019-20 and export beef production is forecast to be mainly steady at 661,000 tonnes carcase weight.

Average export returns for the season are forecast to decline 9.5 percent to $7,445 per tonne.

The global beef market will face uncertainty due to COVID-19 in the 2020-21 season. Consumer demand has been weakened by economic uncertainty and the disruption to foodservice sector demand will also impact beef demand.

Global beef trade is expected to grow increasingly competitive in the 2020-21 season.

At USD0.66, the estimated 2020-21 average annual price for P steer/heifer (270-295kg) is 515 cents per kg. It is forecast to average 364 cents per kg for M cow (170-195kg), which includes a large component of cull dairy cows, and 480 cents per kg for M bull (270-295kg).

Livestock Numbers

The total number of sheep at 30 June 2020 is estimated at 26.2 million, down 2.3 per cent on the previous June and 55 per cent lower than in 1990.

The number of beef cattle at 30 June 2020 is estimated at 3.89 million, unchanged on the previous June and down 15 per cent on 1990-91. The change in the latest year was largely driven by little change in the number of weaners overall, after there was a high base of trade cattle and weaners on hand on 30 June 2019, particularly in the South Island.

The number of dairy cattle at 30 June 2020 is estimated to have decreased 2.1 per cent to 6.25 million. The number of dairy cows in milk is estimated to have decreased by a similar percentage (-2.5%).

Wool

Unfortunately, there is little optimism in the outlook for wool.

The outlook for 2020-21 is for wool exports to decline 2.8 per cent on 2019-20.

Average export receipts at FOB are expected to decrease 34 per cent to $3,700 per tonne, following an 18 per cent drop the previous year.

Total wool receipts are forecast to drop 36 per cent on the previous year to an estimated at $276 million.

The estimate for the overall auction wool price is down 20 per cent on 2019-20.

Sheep and Beef Farms

Gross farm revenue for the 2020-21 farming year, which ends on 30 June, is forecast to average $559,300 per farm – down 10 per cent.

The sheep and cattle revenue accounts, which combined account for three-quarters of gross farm revenue, are forecast to decline to levels below 2017-18, while wool is forecast to be about 30 per cent lower than in 2017-18, clearly reflecting the very challenging circumstances in the wool sector, and, revenue from dairy grazing is forecast to be similar to 2017-18.

Sheep revenue is forecast to decrease by 14 per cent to average $267,500 per farm for 2020-21.

Cattle revenue decreases 5.0 per cent to average $151,600 per farm due to steady international demand for New Zealand beef but some easing in prices for cattle.

A 24 per cent decrease in wool revenue to $25,500 per farm is forecast for 2020-21. Wool revenue accounts for less than five per cent of gross farm revenue, the lowest level on record.

Dairy grazing revenue is forecast to be almost unchanged (-0.7%) averaging $28,400 per farm (and five per cent of gross farm revenue) in 2020-21.

Economic Conditions

The Global Economy

The COVID-19 pandemic has pushed the global economy into the deepest recession since the Great Depression in the 1930s. Steep declines in economic growth are being recorded in all major economies, excluding China, unemployment is soaring, consumer spending has slumped and the purchasing power of key New Zealand markets has been restricted.

There are many variables that will influence the outlook for global growth. These include the persistence of the spread of COVID-19, with many countries experiencing second waves, the duration and reoccurrence of lockdown restrictions, the subsequent impact on economic activity and the implementation of fiscal and monetary policy support in individual countries.

On a positive note for the New Zealand red meat sector, while most markets are projecting a major global economic downturn, the primary food sector is expected to show significantly more resilience to the pandemic crisis compared to other sectors. The demand for food products has been more stable compared to commodities such as oil.

Global trade contracted through the first half of 2020, driven by the lack of international tourism and weaker overall demand. The volume of goods and services traded in the first quarter of calendar 2020 declined 3.75 per cent. The full extent of the impact of COVID-19 on trade in 2020 is still unclear, however economists from the World Trade Organisation (WTO) have estimated that world trade could decline between 13 and 32 per cent.

The outlook is for a swift recovery in 2021 (albeit after a precipitous fall), however expectations are that global GDP will still remain below pre-COVID-19 levels in 2021.

The global trade environment has been marred by rising protectionism, which has been accelerated this year by COVID-19. The escalating US-China trade war is also causing increasing wariness in the global trading environment, and some believe it has the potential to jeopardise international co-operation and prospects of freer trade.

Table 1 Economic Growth

Annual Average % Change, March Year	2017 %	2018 %	2019 %	2020e %	2021f %	2022f %
US	+1.8	+2.6	+2.8	+1.7	-6.4	+2.2
UK	+2.0	+1.6	+1.6	+0.5	-13.8	+3.2
Euro zone	+1.9	+2.8	+1.6	+0.1	-10.1	+3.0
Japan	+0.9	+2.0	+0.3	-0.0	-6.8	+0.9
China	+6.9	+6.9	+6.6	+2.7	+2.7	+6.5
South Korea	+3.0	+3.2	+2.5	+2.0	-1.4	+2.6
Australia	+2.6	+2.7	+2.4	+1.7	-1.7	+1.8
Trading Partners	+3.7	+4.2	+3.7	+1.7	-2.7	+3.7
New Zealand	**+3.7**	**+3.2**	**+3.1**	**+1.5**	**-8.2**	**+4.5**

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

China

China is one of the few economies expected to experience growth this year. China's economy contracted sharply in the first quarter of 2020 (-10.1%), however economic activity rebounded swiftly once lockdown restrictions were lifted, supported by fiscal and monetary policy stimulus. Economic activity recovered in the second quarter and the economy grew (+11%).

Economic recovery in the second half of 2020 is expected to be constrained by weaker consumer demand and the continued expectation of a global recession. China's growth prospects rely on the ability to stimulate consumer demand and boost the service sector, which contributes more than 60 per cent to its economic growth.

Other key factors impacting China's economic outlook include any resurgence of COVID-19, the weakening trade relationship with the US, which is discussed later in the report, and recovery from the extensive flooding experienced in mid-2020.

Food security is an evolving issue in China. The country has endured months of severe flooding and insect infestations, on top of African Swine Fever (ASF) and COVID-19. There is growing speculation that the country may be facing a shortage of grain, as well as pork. This speculation was fuelled by an announcement by the Chinese government in mid-August of its Clean Plates Campaign, which is intended to curb food waste and described the problem of food waste as "shocking and distressing". This follows a call for the need to stabilise agriculture and ensure the safety of grain and major non-staple foods. Record import volumes of wheat, rice, rapeseed, as well as meat, have been recorded in 2020, and food prices in China rose 10 per cent in the 12 months to July 2020.

ASF, which is a highly contagious disease in pigs but does not affect humans, continues to adversely impact Chinese meat production, and

remains a key driver of demand for New Zealand sheepmeat and beef exports in 2020-21. Analysts report that up to 45 per cent of China's sow herd have been lost to ASF, and while herd recovery is underway, pig numbers are still expected to only be at 80 per cent of pre-ASF levels by the end of 2021.

ASF outbreaks continue to be reported through 2020, in China as well as other countries, signalling the continuing relevance of this disease in world protein demand. In September 2020, the first case of ASF was confirmed in Germany – in a wild boar. Imports of German pork were subsequently banned by China and several other countries. Germany is the third largest supplier of pork to China following the US and Spain. However, reports indicate that the gap left by the absence of German pork in China is likely to filled adequately by pork from other EU countries, Brazil and the US.

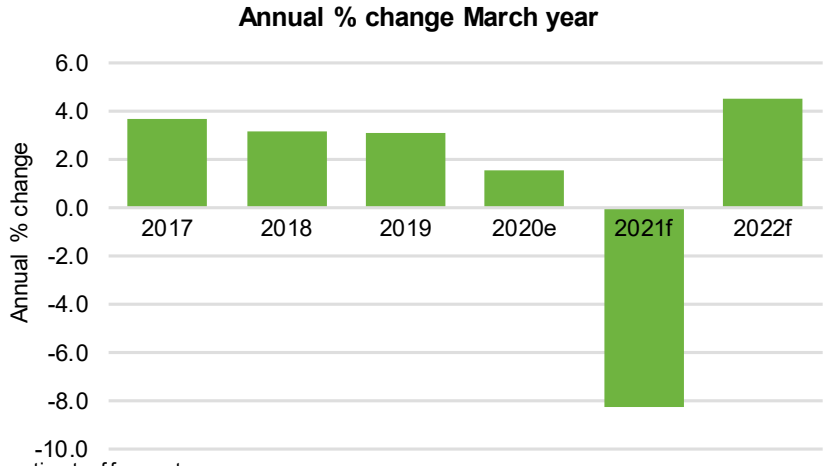
Chinese pork production between 2018 and 2020 is estimated to have dropped by just under 40 per cent or around 27 million tonnes. The Chinese Bureau of Statistics shows that Chinese pork output for the first six months of 2020 dropped 20 per cent on 2019.

Pork is the largest source of meat protein consumed in China. Chinese pork imports soared through 2019 and in 2020 in response to the shortage. In the first six months of 2020, China's pork imports rose a staggering 153 per cent.

The shortage of pork caused prices to surge, and alternative meat protein sources such as beef and sheepmeat to become more competitive.

Price and the increasingly important issue of food safety have encouraged more Chinese consumers to purchase beef and sheepmeat. While the return to full capacity pork production following recovery from ASF may result in Chinese consumers reverting to pork as the protein of choice, there are increasing signals the more affluent consumers may choose beef or sheepmeat as a higher quality, nutritionally rich protein source.

Figure 1 Change in New Zealand Real GDP



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

US

The outbreak of COVID-19 has been severe in the US. Human health and economic conditions have met unprecedented adversity. The pandemic has been slow to release it's grip on the US, however, at the time of writing in September there was evidence of progress in the management of COVID-19, with falling fatality rates and rising economic activity.

The US economy contracted sharply in the second quarter of 2020. In March and April, more than 20 million jobs were lost. Consumer confidence was severely shaken, and consumer spending, which is a key driver of the economy, was well down. However, macroeconomic reveals that April took the brunt of the impact, and recovery is expected during the third quarter.

Employment has rebounded more rapidly than expected and some estimates signal that GDP has the potential to return to the average of 2019, by the end of 2020.

Downside risk remains significant, however. The threat of a resurgence in COVID-19 cases is real, and there is also wariness surrounding the escalation of the US-China trade war and the economic this may have on the economy.

The outcome of the elections on 3 November will be a key point of focus for the US economy, and financial markets will focus on this in the lead-up to November.

New Zealand

The New Zealand economy has faced unprecedented change during 2020. The COVID-19 pandemic introduced a new economic playing field in New Zealand and across the globe, where the rules are largely unknown by anyone.

The New Zealand economy contracted in the first half of 2020, with GDP contracting by 12 per cent in the June quarter. The recession was expected by economists, given the level of disruption from COVID-19. The focus for the New Zealand economy for the second half of 2020 will shift to the speed of recovery and a move from recession. A lack of restrictions and sharp lift in economic activity in the third quarter of 2020 will support a recovery, however economists remain wary of the sharp contraction of global economies and the fact that the largest impact of the border closure is still to be felt as activity typically peaks between October and March.

While economic shock of COVID-19 lockdown restrictions are, for now, behind us, economists warn that the full impact of the closed border will be felt for many months ahead. The absence of international tourism, international students and the migrant labour force will be felt into the first

Table 2 Consumer Prices

Annual Average % Change, March Year	2017	2018	2019	2020e	2021f	2022f
	%	%	%	%	%	%
US	+1.6	+2.1	+2.3	+1.9	+0.7	+1.6
UK	+1.1	+2.8	+2.3	+1.7	+0.7	+1.3
Euro zone	+0.7	+1.4	+1.8	+1.1	+0.3	+1.0
Japan	-0.1	+0.7	+0.7	+0.5	+0.0	+0.1
China	+1.9	+1.8	+2.0	+3.7	+2.6	+2.1
South Korea	+1.3	+1.7	+1.3	+0.5	+0.2	+0.9
Australia	+1.5	+1.9	+1.8	+1.8	+0.1	+1.4
Trading Partners	+3.5	+1.7	+1.7	+1.8	+0.6	+1.4
New Zealand	**+1.1**	**+1.6**	**+1.7**	**+1.9**	**+1.0**	**+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

quarter of 2021, or until border restrictions are eased.

The extent of Government fiscal stimulus in the first half of 2020 has supported the New Zealand economy successfully, as indicated by better than expected data from the pre-election fiscal update (PREFU) in September 2020. However, there is some wariness surrounding how this stimulus may be sheltering the economy and the impact as the support spending of wage subsidies and COVID-19 relief payments begin to roll off. These factors all provide uncertainty to the outlook for the New Zealand economy

The emergence of the second wave of COVID-19 in New Zealand in August 2020, combined with the continuing spread of the virus overseas, also adds to the uncertainty. Policy makers as well as the New Zealand population were reminded that the risk of further outbreaks is very real.

The overall confidence of New Zealand consumers and businesses has been shaken, and caution has grown. Unemployment is rising, job security is uncertain for some, and investment and spending will be down.

The second wave of COVID-19 in New Zealand also resulted in the general election being delayed four weeks to 17 October 2020.

New Zealand's food exports have performed solidly during the COVID-19 disruption as international demand for food lifts. Export returns from meat, dairy and horticulture, particularly kiwifruit, have all displayed resilience so far in 2020. Returns from forestry fell as log prices reflected the effects of reduced global construction demand. The annual merchandise trade balance is strengthening, with year-on-year data signalling 8.6 per cent growth in exports over a 16 per cent decline in imports.

The New Zealand pastoral sector has had an extremely challenging year, with one of the worst, if not the worst, droughts recorded. On 12 March 2020 the entire North Island, parts of the South Island and the Chatham Islands were declared as being in drought by Agriculture Minister Damien O'Connor. The impact of the 2020 drought was felt throughout the entire North Island and upper South Island, with the full impact hitting the East Coast of the North Island.

The impact of the drought on the New Zealand economy was overshadowed by COVID-19. Sheep and beef farm revenues will be affected through loss of income and higher expenses. The impact will be felt most notably on the East Coast of the North Island. More detail is provided below.

Consumer Prices

The Consumer Price Index (CPI) for the June 2020 quarter dropped 0.5 per cent on the March quarter – the first quarterly deflation in over five years.

Transport was the largest contributor to the decline (-4.9%), driven by a 12 per cent drop in petrol prices for the quarter, the largest fall since the 2008 financial crisis. This reflects the weak demand for oil during March and April as major economies shut down.

Table 3 Short-term Interest Rates

% p.a., March Year	2017	2018	2019	2020e	2021f	2022f
	%	%	%	%	%	%
US	0.5	1.4	2.5	1.6	0.1	0.4
UK	0.0	0.3	0.7	0.7	0.0	0.0
Euro zone	-0.4	-0.3	-0.3	-0.4	-0.5	-0.5
Japan	0.1	0.1	0.0	0.0	0.0	0.2
Australia	1.8	1.8	2.1	0.9	0.1	0.3
New Zealand	**2.0**	**1.9**	**1.9**	**1.1**	**0.4**	**-0.1**

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

Food prices lifted 1.1 per cent, influenced by a 16 per cent rise in vegetable prices, which was driven by disruption to the food production process during the period of COVID-19 lockdown.

Annual inflation was 1.5 per cent in the year ending June 2020. The key drivers of the increase were higher housing costs (+3.2%), and higher food costs (+3.7%).

The impact of COVID-19 is expected to continue to be felt in the medium and long term. Projections are for the CPI to ease as the economic contraction weighs on inflation.

Interest Rates

Interest rates have dropped to all-time lows in 2020 as the Reserve Bank of New Zealand (RBNZ) attempts to soften the impact of COVID-19 on the New Zealand economy.

All around the world, central banks quickly responded to COVID-19 with expansionary monetary policy measures.

The initial outbreak of COVID-19 in New Zealand in March 2020 resulted in the RBNZ making an emergency 75 basis points cut to the Official Cash Rate (OCR) – to 0.25 per cent. A commitment was made to keep it at that level for at least 12 months.

In mid-August 2020, the RBNZ signalled increasing monetary policy support for the COVID-19-affected economy, by expressing a preference to move to a negative OCR. It also introduced a "funding for lending" programme to provide support for banks in a negative interest rate scenario. This programme would lend money directly to the banks to ensure that a lower benchmark rate would be passed onto customers. Economists are now forecasting a move to a negative OCR in April 2021.

Exchange Rates

Exchange rate forecasts are challenging even when global markets are stable. A combination of COVID-19 and subsequent economic impacts, and geopolitical tension makes a volatile backdrop for foreign exchange projections. The rapidly changing global and domestic environment introduces risk to the forecasts in this report.

The NZD depreciated sharply as the impact of the initial wave of COVID-19 hit the economy and weakened the growth outlook. The NZD dropped to a low of USD0.5670 in March 2020. A weaker NZD through March and April provided some support for New Zealand exporters in an otherwise disrupted market.

Despite continued easing in monetary policy by the RBNZ, the NZD began to lift from May. This partly reflected the success of New Zealand in eliminating the virus as well as ongoing strong commodity prices.

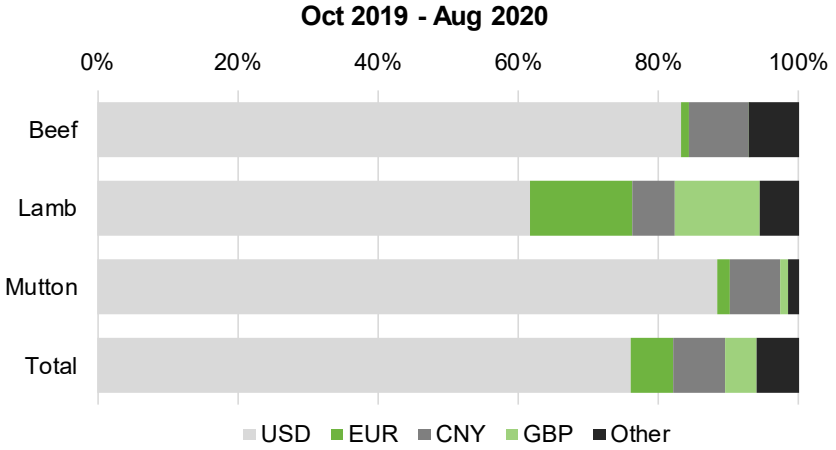
The NZD remained strong through mid-2020 with the NZD reaching a 16-month high in September of USD0.6798. The stronger tone was despite signals from the RBNZ of further cuts to the OCR in early 2021. Monetary policy measures expected in 2021 will be a key driver of the direction of the NZD.

Global risk is also a factor in the outlook. Economists are monitoring closely the spread of COVID-19 in major global economies and the deteriorating relationship between the US and China.

The outlook for 2020-21 is for the NZD to appreciate against the USD by 3.6 per cent on 2019-20 (Table 4).

For the first eleven months of 2019-20, 76 per cent of total meat export volume was reported as being traded in USD-denominated contracts. The Chinese yuan has maintained its position as the next most significant currency, with 7.4 per cent of New Zealand's red meat exports traded in this currency. However, this decreased from 8.1 per cent in the 2018-19 season, reflecting the disruption in the Chinese market during COVID-19. The EUR and GBP account for 5.9 and 4.4 per cent of red meat exports respectively.

Figure 3 Meat Exports by Currency of Trade



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

Table 4 New Zealand Dollar Exchange Rates

	Annual Average		
Sep Year	USD	GBP	EUR
2018-19	0.67	0.52	0.59
2019-20e	0.64	0.52	0.59
2020-21f	0.66	0.50	0.57
2020-21f % change	+3.6%	-4.0%	-3.3%

e estimate, f forecast

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

Global Trade

Brexit

The UK's departure from the EU, scheduled for 31 December 2020, is one of the most concerning trade issues for New Zealand red meat, particularly sheep, exporters.

While the UK and EU are currently negotiating a trade deal that will apply after departure date, at the time of writing, the outcome did not look promising. The risk of a “hard Brexit” was growing in probability. A “hard Brexit” would leave the UK with no preferential trade access to the EU. For New Zealand, the relevance of this will be the UK’s loss of free trade access to the continental EU for UK sheepmeat exports. While the UK is seeking new trade avenues with other countries, the outcome of these are long-term. In the short-term, a “hard Brexit” may result in a decline in demand for New Zealand sheepmeat exports to the UK as domestic product saturates the market.

New Zealand would be further impacted by a decision from the EU and UK, as part of the Brexit process, to split New Zealand's current sheepmeat and goat meat tariff-rate quota (TRQ) access equally between the UK and EU. Currently, the TRQ applies to the two markets combined. Splitting the TRQ would result in the loss of flexibility for New Zealand exporters to shift sheepmeat between the two markets in response to changing demand and price trends. The impact of this will be even more pronounced if UK sheepmeat exports lose preferential access to the EU, and the UK domestic market becomes oversupplied.

US-China

The relationship between the US and China is deteriorating. The two countries are engaging in a cycle of retaliation against each other, including stepping up sanctions on officials. This escalating situation is creating significant risk to the “Phase One” deal, which was struck late in 2019 and sought to resolve the US-China tensions. It included an undertaking by China to make very significant purchases of US agriculture exports, including red meat.

The deal potentially placed New Zealand exports to China at a competitive disadvantage, particularly given China’s stated intention to loosen restrictions on the use of hormone growth promotants in imported beef.

To date, however, the volumes of US agricultural exports purchased by China have been well below the mandated levels. The magnitude of the deficit increases the risk of China not meeting its commitment, unless it makes some unprecedented purchases in the second half of the year. That is possible given the main crop harvest occurs in the second half of the year in the US.

There is growing speculation that tensions between the two countries will be a long-term trend, with phases of escalation and de-escalation.

US-Japan

In September 2019, Japan and the US signed a limited trade deal that eliminated tariffs for a certain number of agricultural products, including beef. The US now enjoys the same tariffs on beef into Japan as New Zealand and Australia do under the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). The US responded quickly to the lower tariff rate; Japan’s imports of US beef lifted 8.5 per cent in the first half of 2020. The increased presence of US beef in increased competitive pressure for New Zealand.

Trade challenges

Outside of trade negotiations between specific countries, there are other headwinds to consider.

Rising protectionism has been a growing concern for New Zealand trade officials over the past three years. COVID-19 has accelerated this trend, as major economies dispense support to farmers. Both tariff and non-tariff barriers are a growing concern for the red-meat industry. Non-tariff barriers include subsidies and other mechanisms that are becoming more prevalent such as animal welfare and environmental standards.

The World Trade Organisation (WTO) dispute settlement system is current being destabilised. The appeals process is no longer operational as a result of US blocking new appointments to the Appellate Body. to appoint the necessary judges, While New Zealand has signed on to an interim mechanism alongside a group of other WTO members, long-established WTO rules and commitments may become less easy to enforce.

Trade opportunities

New Zealand is continuing to pursue new trade arrangements and innovative trade policy approaches. New Zealand is currently negotiating Free Trade Agreements (FTAs) with the EU and the UK, aiming to conclude in 2021. As long-established high-value markets, these FTAs present important opportunities, particularly for beef exports, which are currently constrained by EU and UK policy settings, but both the EU and UK have already signalled a high degree of sensitivity around opening up their agriculture markets.

Separately, the Regional Comprehensive Economic Partnership (RCEP) negotiations with a range of Asian trading partners and Australia have concluded, with likely modest improvements in market access, but India (a big potential market for New Zealand lamb) pulling out of the deal before conclusion. Other negotiations in prospect include expansion of the CPTPP to more trading partners in Asia and potentially the UK and strengthened trade arrangements with countries in Latin America – but these are likely to have a longer timeframe.

Exchange Rate Sensitivity – 2020-21

Exchange rate movements have a significant leveraged effect on farm-gate prices.

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 2020-21, the NZD is expected to strengthen against the USD and ease against the GBP and EUR. Exchange rate movement with the USD has the greatest effect because 75 per cent of New Zealand's red meat exports are traded in this currency (Figure 3).

All other things being equal, a 10 per cent decrease in the NZD against the USD – from 0.66 to 0.60 – and the associated cross rates against the GBP and the EUR, increases the average lamb price received by farmers by 15 per cent. Alternatively, if the NZD appreciates by 10 per cent – from 0.66 to 0.73 against the USD – then the weighted average farm-gate price for lamb for the season would decrease by 12 per cent.

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 0.6	to USD 0.73
USD	0.60	0.63	0.66	0.69	0.73	-10%	+10%
GBP	0.45	0.48	0.50	0.53	0.55	-10%	+10%
EUR	0.51	0.54	0.57	0.60	0.63	-10%	+10%
	Farm-Gate Prices Received $ / head						
Lamb	146	135	126	118	110	+15.5%	-12.7%
Mutton	137	126	116	107	99	+18.1%	-14.8%
Steer/Heifer	1,672	1,552	1,445	1,348	1,260	+15.7%	-12.8%
Cow	837	777	723	675	631	+15.7%	-12.8%
Bull	1,677	1,558	1,450	1,353	1,264	+15.7%	-12.8%
All Beef	1,348	1,252	1,165	1,087	1,016	+15.7%	-12.8%
	c / kg						
Lamb[1]	768	714	665	621	581	+15.5%	-12.7%
Mutton[1]	528	486	447	413	381	+18.1%	-14.8%
Steer/Heifer	596	554	515	481	449	+15.7%	-12.8%
Cow	421	391	364	339	317	+15.7%	-12.8%
Bull	555	516	480	448	419	+15.7%	-12.8%
All Beef	532	494	460	429	401	+15.7%	-12.8%
Fine[2]	1,148	1,054	970	894	824	+18.4%	-15.0%
Medium[2]	541	497	457	421	388	+18.4%	-15.0%
Crossbred[2]	168	154	142	131	121	+18.4%	-15.0%
All Wool[2]	251	230	212	195	180	+18.4%	-15.0%

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

Livestock Numbers

Sheep

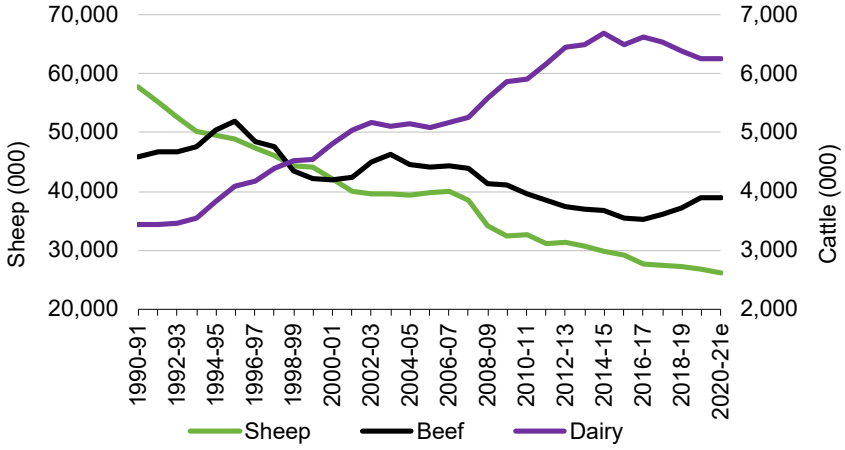
The total number of sheep at 30 June 2020 is estimated at 26.2 million, down 2.3 per cent on the previous June and 55 per cent lower than in 1990. This is the second year in a row that sheep numbers have been below 27 million. Within this, the number of breeding ewes was unchanged and the number of hoggets decreased 8.1 per cent, which reflects two factors: carryover trade lambs on hand at 30 June 2019 that were processed in the September quarter of 2019, and underlying changes in the retention of younger animals.

In the North Island, the number of sheep decreased 3.5 per cent (-466,000) to 12.7 million at 30 June 2020 and the number of breeding ewes decreased 1.2 per cent. Decreases in the number of breeding ewes occurred in East Coast (-2.7%) and Taranaki-Manawatu (-1.1%) while there was an increase in Northland-Waikato-Bay of Plenty (+1.6%). The number of hoggets in the North Island decreased 8.6 per cent with East Coast estimated to have decreased by 12 per cent, primarily in response to drought.

In the South Island, the total number of sheep decreased 1.1 per cent. This was made up of a small increase of less than one per cent in Otago/Southland and a larger decrease in Marlborough (-3.5%), which reflected a relatively high number of trade lambs on hand at 30 June 2019 that were processed in the September 2019 quarter. The number of breeding ewes increased 1.2 per cent after decreasing for many years, due to several factors including conversions to dairy farming and the impacts of drought.

After excellent lamb and mutton prices underwrote a deeper culling than usual of poorer-performing sheep in 2017-18 – partly offset by farmers retaining ewe lambs – the younger breeding flock matured resulting in a decrease in the number of hoggets.

Figure 4 Livestock Numbers



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

Table 6 Livestock Numbers (million head)

	Breeding Ewes	Hoggets	Total Sheep	Beef Cattle	Dairy Cattle
30 June 2019	16.85	9.14	26.82	3.89	6.26
30 June 2020e	16.86	8.40	26.21	3.89	6.25
19-20 to 20-21 % change	+0.1%	-8.1%	-2.3%	+0.1%	-0.1%

e estimate

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

Beef Cattle

The number of beef cattle at 30 June 2020 is estimated at 3.89 million, unchanged on the previous June. This was largely driven by little change in the number of weaners overall (but some differences between regions), and a high base of trade cattle and weaners on hand on 30 June 2019, particularly in the South Island.

In the North Island, the number of beef cattle decreased 1.0 per cent to 2.68 million at 30 June 2020.

The number of beef breeding cows decreased 7.8 per cent with the largest decrease in East Coast (-11.3%) in response to drought. The magnitude of the change also reflected an increase in the number of trade cattle, underpinned by dairy-beef, on hand as at 30 June 2019.

In the South Island, the number of beef cattle increased 2.5 per cent to 1.21 million at 30 June 2020.

The number of beef cows decreased 3.5 per cent, while the number of other cattle increased modestly (+1.3%).

Dairy Cattle

The number of dairy cattle at 30 June 2020 is estimated to have remained static (-0.1%) at 6.25 million. The number of dairy cows in milk is also estimated to remain static (-0.2%). The South Island contains 39 per cent of the New Zealand dairy herd, up from around 35 per cent 10 years earlier.

Sheepmeat Outlook 2020-21 – Opportunities and Challenges

Opportunities

- Demand potential in China due to African Swine Fever induced pork shortages
- Growth in disposable incomes in Asian markets increases demand for high quality proteins
- Tight global supplies of sheepmeat
- Shifting consumer preference towards nutritionally rich food products
- Shifting consumer preference for food safety

Challenges

- COVID-19 market disruption
  - Economic recession
  - Weaker consumer confidence
  - Increasing consumer price sensitivity
  - Declining demand from foodservice
  - Declining demand for high-value frozen lamb cuts
- Increasing sheepmeat inventories in some markets
- Decreasing NZ sheepmeat production will limit market development opportunities and create opportunities for competitors
- Price and supply of competing proteins – pork and poultry
- Trade risk – e.g. Brexit
- Geopolitical risk

Lamb & Mutton Exports

Lamb

2019-20

The 2019-20 sheepmeat export season has been one of two extremes. Exceptionally strong demand from China, fuelled by the ASF-induced pork shortage, drove record export returns for the first quarter of the season. However, export returns slumped in late December as Chinese demand slowed following government intervention in the protein market. This was followed closely by COVID-19 disrupting all New Zealand's key sheepmeat export markets.

A weaker NZD buffered export returns from the full impact of the COVID-19-induced drop in export prices in markets, however, disruptions to the foodservice sector and weakening economic conditions have weighed on average export values (Figure 5).

The strong start to the export season held up total receipts for lamb (including co-products) for the 2019-20 season. An increase of 1.7 per cent is estimated (Table 7).

Average export returns for 2019-20 are estimated to be up 4 per cent on the previous season, to average a record $10,850 per tonne. Data for October 2019 to August 2020 provides a solid foundation for this estimate, with approximately 95 per cent of volume exported in this period. This data shows an average export value of $10,815 per tonne - up 4 per cent on the same period in 2018-19.

A weaker NZD supported export returns in 2019-20. The annual average value of the NZD was 4 per cent down on the 2018-19.

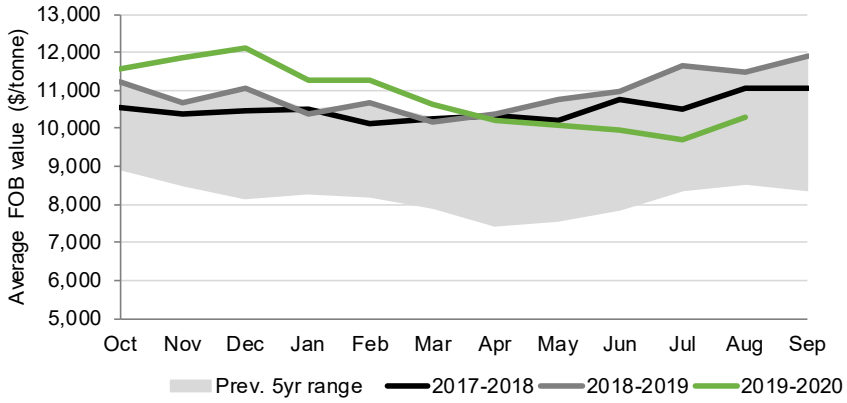
Export lamb production for the 2019-20 season is expected to be down 1.6 per cent on 2018-19. A smaller lamb crop in spring 2019, the 2020 drought and COVID-19 have been drivers of export volumes.

COVID-19 disruption has been the leading issue in New Zealand's key lamb export markets in 2020. The sharp decline in foodservice demand has impacted the US, China, UK and EU-27. While retail demand is steadily increasing in some of these markets, the growth is not enough to offset the deterioration in the foodservice trade.

Sales of frozen middle lamb items in particular, have been impacted by the decline in foodservice demand.

In the five months from April 2020 to August 2020, the average export value of lamb racks was 21 per cent lower than in the same period of 2018-19. In contrast, demand for lamb sold in the retail trade, or that could be easily transferred to the retail sector, fared much better. Exporters reported the volume and value of chilled lamb sales were maintained and export statistics show both chilled and frozen legs maintained value in the months following the initial outbreak.

Figure 5 New Zealand Lamb Average Export Value



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

The outbreak of COVID-19 has weakened the global economic outlook. Consumers are wary regarding emerging new waves of COVID-19 and deteriorating economic conditions. Exporters note that consumers are increasingly price sensitive, and the threat of protein substitution with cheaper pork and poultry products will challenge growth in demand for lamb.

Growth in lamb import demand in the short term is also being challenged by reports of larger than typical volumes of sheepmeat held in storage. The decline in foodservice sector sales has resulted in key markets accumulating lamb in cool stores. For China, the problem was exacerbated by high imported growth in late 2019.

China continues to be New Zealand's leading market for lamb. In the eleven months from October 2019 to August 2020, export volumes to this market lifted 7 per cent year-on-year and accounted for 45 per cent of total lamb exports, up from 35 per cent just two seasons earlier (in 2017-18). In the same two-year period, the average FOB value of exports lifted an impressive 30 per cent, from $6,600 per tonne to $8,600. From October 2019 to August 2020 the average export value was 13 per cent higher than in the same period of 2018-19.

COVID-19 has disrupted trade to the EU (including UK) this season. From October 2019 to August 2020, exports were 5 per cent lower than in 2018-19.

During April and May exports were 47 and 37 per cent lower than in the same months in 2019. Exports declined to the UK (-2%), Netherlands (-9%) and France (-3%), but Germany

Table 7 New Zealand Lamb Exports

	Lamb meat			Co-Products	Total Lamb	Lamb Meat
Sep Year	000 tonnes	$ / tonne	$m FOB	$m FOB	$m FOB	%*
2016-17	295	8,603	2,538	168	2,706	94%
2017-18	313	10,086	3,156	199	3,355	94%
2018-19	305	10,445	3,186	203	3,389	94%
2019-20e	300	10,850	3,255	190	3,445	94%
2020-21f	280	9,841	2,760	175	2,935	94%
2020-21f % change	-6.5%	-9.3%	-15.2%	-7.9%	-14.8%	

* 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

lifted (+5%). The average value of lamb exports to the EU lifted 5 per cent. Exceptionally strong returns in the first quarter of the season supported the weaker market as COVID-19 spread.

Export sales to the US have suffered severely from COVID-19. Export volumes dropped 23 per cent from October 2019 to August 2020 and the average FOB value of exports declined 6 per cent. This market remains New Zealand's third largest, accounting for 7 per cent of volumes; down from 8 per cent in 2018-19.

Exports to the Middle East lifted significantly (+20%) from October 2019 to August 2020, driven by market diversification in response to the impact of COVID-19.

The value of co-products has been in decline in recent years, and COVID-19 placed further pressure on this "fifth quarter" of the meat industry. The total value of New Zealand's exports of co-products is estimated to decline 6 per cent in 2019-20.

Of the items included in this category, there is only good news coming from the tallow and meat-and-bone meal (MBM). Hides and pelts have suffered a loss in value due to changes in fashion and a shift in consumer preferences.

2020-21

The outlook is one of uncertainty for lamb. Underlying fundamentals remain strong, driven by continued pork shortages in China, increasing demand for high quality proteins and increasing disposable income in some Asian countries.

The economies of most of New Zealand's key markets are also expected to recover rapidly in the outlook period.

The challenges for lamb exports outlined above, are, however, expected to persist in 2020-21. Sheepmeat inventories in key markets will need to be shifted and foodservice sector demand in key markets is still expected to be below pre-COVID-19 levels.

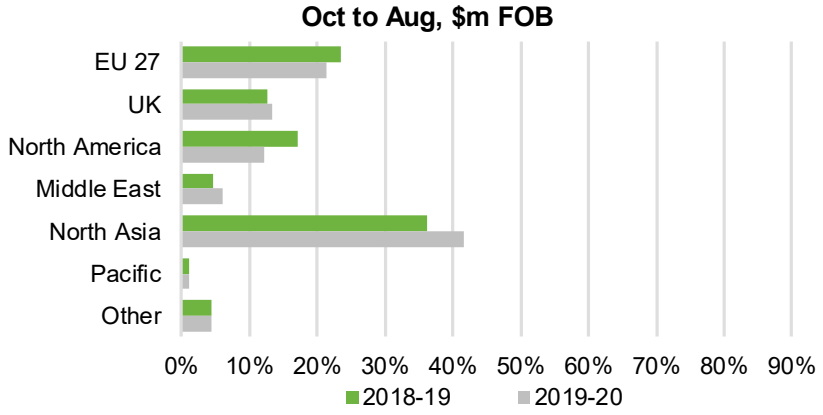
For 2020-21, total lamb export receipts (including co-products) are forecast at $2.94 billion FOB, down 14.8 per cent on 2019-20, and 5 per cent below the five-year average. Co-products are forecast to decline a further 7.9 per cent. The outlook for pelt demand is weak as consumer spending remains low.

Lamb exports are forecast to be down 6.5 per cent to 284,000 tonnes shipped weight. A lower lamb crop in 2020 is the predominant driver of the decline. Average export returns for the season are forecast to decline 9.3 per cent to $9,841 per tonne.

While the decline is significant, average export values remain 3 per cent above the five-year average of $9,500 per tonne. As discussed above, there are some strong fundamentals supporting lamb demand, despite the risk posed by COVID-19-related market disruption. First quarter lamb exports will be traded into an uncertain market; however, we expect market sentiment to improve as 2020-21 progresses.

Two windows of international demand that will provide insight into the direction export returns might take in the outlook period are the peak buying periods of Chinese New Year and

Figure 6 New Zealand Lamb Exports



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

chilled lamb exports to the UK and EU for Christmas. Typically, these windows of demand drive high export returns in the first quarter of the processing season.

Current market sentiment for both China and the UK/EU is uncertainty around solid price expectations for these periods. Despite chilled lamb sales at retail performing well so far this year, the reduction in consumer disposable income may impact demand in the lead into Christmas. The volatility of the Chinese market means demand could go either way as their peak demand window opens from September. Consumer sentiment, however, will need to be significantly stimulated to see a lift in export prices.

The outcome of Brexit will also be a contributing factor to the export outlook for lamb. This has been discussed in detail earlier in the report.

Mutton

2019-20

Mutton was a strong export performer in 2019-20, despite COVID-19. The key drivers of the strong performance were the large decline in Australian mutton exports and the speed at which the Chinese economy recovered from COVID-19.

For the eleven months from October 2019 to August 2020, China accounted for 70 per cent of total mutton exports. Demand trends in this market are the sole driver of export performance.

Average export values for mutton are estimated to finish the 2019-20 season on a record high of $7,482 per tonne, up 11 per cent on the previous season and 32 per cent up on the five-year average. Export volumes are estimated to hold steady on 2018-19. Total mutton export receipts (including co-products) are estimated to lift 8 per cent for the season.

A weaker NZD/USD also supported mutton returns, with most Chinese trade undertaken in US dollars.

The impact of COVID-19 has only recently taken its toll on mutton average export values, with values declining year-on-year from June to August. This has been driven by weaker sentiment in China as uncertain economic conditions and geopolitical tension weigh on demand for sheepmeat imports.

2020-21

The outlook for mutton in 2020-21 is one of uncertainty. The same drivers outlined in the lamb section will underpin the season ahead for mutton. Economic and political sentiment in China will be key to import demand patterns.

Table 8 New Zealand Mutton Exports

	Mutton meat			Co-Products	Total Mutton	Mutton Meat
Sep Year	000 tonnes	$ / tonne	$m FOB	$m FOB	$m FOB	%*
2016-17	81	5,247	424	120	544	78%
2017-18	94	6,460	606	154	760	80%
2018-19	84	6,715	564	100	664	85%
2019-20e	83	7,482	625	92	717	87%
2020-21f	75	6,948	522	83	605	86%
2020-21f % change	-10.1%	-7.1%	-16.5%	-9.5%	-15.6%	

* 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

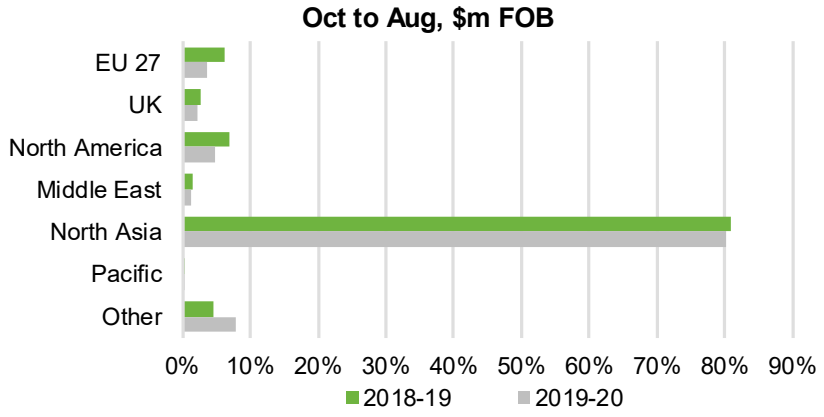
ASF and the shift towards high quality protein are expected to maintain export returns at historically high prices, however there will be downside risk in the forecast.

In 2020-21, mutton export production is forecast to decline 10 per cent as the farmers rebuild breeding ewe flocks following drought-induced turn-off in the autumn 2020.

The average FOB value per tonne is forecast to decline 7 per cent, however, will still trend 12 per cent above the five-year average.

Total mutton export receipts are forecast to decline 15.6 per cent on 2019-20. The large drop in export production combined with lower average export values results in 2020-21 mutton export receipts dropping 5 per cent below the five-year average.

Figure 7 New Zealand Mutton Exports



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

Lamb & Mutton – International Situation

Overview

The outlook period for global sheepmeat trade is one of uncertainty. Markets have been dramatically altered by COVID-19. The disruption to the foodservice sector has resulted in a sharp decline for high-value frozen lamb cuts. Consumer demand has weakened, and price sensitivity has lifted, driven by deteriorating economic conditions. The drop in consumption has resulted in an increase in protein inventories in some key markets. Trade uncertainties and geopolitical tension also contribute to the volatile outlook.

Underlying the uncertainty, however, there remains solid fundamentals to support sheepmeat demand. ASF-induced pork shortages and tight global supplies will be leading demand drivers. In addition, there continues to be growth in middle class incomes across Asia, and a shift in affluent consumer demand toward high quality protein sources.

World sheepmeat production is expected to lift by 1 per cent in 2020, with most of the growth coming from China. World trade of sheepmeat, however, is expected to contract in the 2020-21 season, with both Australia and New Zealand recovering from drought.

While tighter sheepmeat supplies will provide support for demand, factors such as consumer price sensitivity and increasing competition from pork and poultry, will constrain the lift in global sheepmeat prices typically induced by tighter supplies.

Brexit uncertainties continue to plague the UK and EU-27 markets, however, have been overshadowed by COVID-19. An outcome will become clear early in 2021 and current signals suggest that there is the potential for significant disruption for New Zealand sheepmeat exporters.

Geopolitical tension between the US and China is escalating and will be a risk to be monitored during 2020-21.

China

China is one of the only major global economies forecast to experience annual growth in 2020. While it is leading the way globally with COVID-19 recovery, the market continues to face challenges in the 2020-21 outlook period.

Weaker economic conditions prevail post COVID-19. Following years of economic growth, the sharp change has created uncertainty for consumers. Demand has weakened and price sensitivity has lifted. The decline in foodservice demand is also of concern for sheepmeat demand. In addition, the escalating tension between China and the US is a growing concern for the Chinese consumer.

Despite this risk, the underlying fundamentals for sheepmeat demand remain solid, driven by ASF induced pork shortages and continued growth in consumer disposable incomes.

Sheepmeat consumption in China is small, making up only 6 per cent of total meat consumed in 2019. However, the market has experienced considerable growth from 2018 due to ASF and increasing consumer incomes. There is growing demand from the affluent Chinese consumer for high quality, nutritionally rich protein, and imported sheepmeat is expected to fill this demand going forward. Consumption is expected to lift 3 per cent in 2020 and growth rates of 1-2 per cent are forecast out to 2025. While there is a risk demand for sheepmeat may decline as China recovers from ASF, it is thought that there may be a permanent shift by the more affluent consumer towards higher quality proteins.

Sheepmeat production in China is expected to lift in 2020 and into the medium term. The most recent estimates of growth from FAO signal a 2 per cent growth in production as record high sheepmeat prices in late 2019 provided incentive for Chinese sheepmeat producers to increase flocks.

The estimated gains in domestic Chinese production remain insufficient to meet consumption requirements. This market will continue to be reliant on imports, although the gap between the two is shrinking. While there is much volatility in Chinese domestic production trends, there is potential for increasing domestic production to dampen demand for imported sheepmeat in the medium to long term.

ASF continues to drive demand for sheepmeat in the outlook period. As discussed earlier in this report, while significant investment into recovery for the Chinese pork industry is occurring, pork production is not expected to lift to pre-ASF levels for at least 24 months. Given the risks outlined earlier, it is unlikely that demand will lift to the ASF-driven highs seen in late 2019, however prices are expected to remain at historically high levels.

The outbreak of COVID-19 in China resulted in a sharp drop in sheepmeat consumption in the months from April to August 2020. An estimated 60 per cent of Chinese sheepmeat consumption occurs in the foodservice sector, and the majority of New Zealand product is destined for this sector. While there has been strong growth in on-line and retail sales in the months following the Chinese COVID-19 outbreak, volumes are still minor compared to foodservice sector sales.

Chinese import data for the first six months of 2020 shows evidence of the challenges COVID-19 has inflicted on sheepmeat demand. For the first six months, Chinese sheepmeat imports from all countries are down 4 per cent on 2019 levels. This is in contrast to a 43 per cent lift in beef imports from all countries.

The COVID-19 outbreak in China came on the back of a record month of sheepmeat imports in December

2019, fuelled by demand for the peak consumption period of the Chinese New Year. The loss of restaurant sales during the COVID lockdown period resulted in much of this imported demand remaining unsold. These inventories are a contributing factor to weaker demand and have the potential to weigh on short-term demand for imported sheepmeat.

Geopolitical tension between China and the US also creates significant downside risk for global sheepmeat trade. This has been discussed earlier in this report.

The product mix of lamb exported to China remains dominated by lower value lamb items, however, there has been significant change in the value of this market in recent years due to ASF.

The average FOB value of exports to China in 2018-19 was $7,700 per tonne, this is up 70 per cent from $4,500 per tonne in 2015-16. Lamb flaps and bone-in breast cuts continue to dominate the product mix, accounting for 56 per cent of total lamb exports in 2018-19, however this has proportion has dropped from 70 per cent in 2015-16. There has been an increase in bone-in leg shipments, which now account for 10 per cent of total volumes. For the first eleven months of the 2019-20 season (October 2019 to August 2020), exports continue to show a similar trend in value and product mix as 2018-19, despite COVID-19. The average FOB value per tonne has lifted 13 per cent on the same period last season.

Chinese also dominates New Zealand mutton exports, accounting for close to three-quarters of total volumes in 2018-19. Similar to lamb, the average FOB value of mutton exports to China has lifted in recent years, with a 92 per cent lift in value recorded from 2015-16. The product mix has changed in that period also, with the proportion of mutton carcasses lifting from 20 per cent in 2015-16 to just under 40 per cent in 2018-19. Interestingly, the average FOB value of mutton carcase exports to China in 2018-19 was $7,300 per tonne; not far off the average value of lamb exports to China at $7,700 per tonne.

Australia

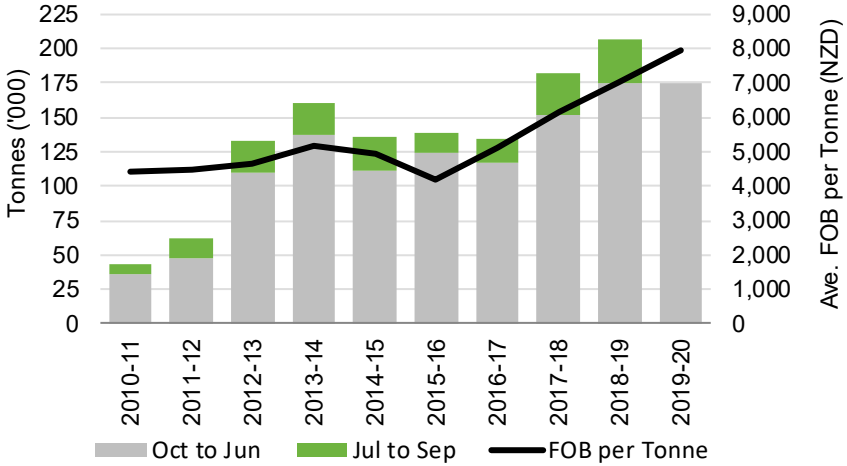
Australia's competitive presence in the global sheepmeat market will continue to be subdued in 2020-21.

Flock rebuilding is underway in Australia, following drought induced contraction since 2017. Improving climatic conditions in 2020 have allowed producers to focus on increasing breeding numbers.

Meat Livestock Australia (MLA) estimated that at June 2020 the national flock was at 63.5 million head, the lowest level in a century and 12 per cent lower than June 2017.

The rebuilding phase will limit Australian lamb processing in the 2020-21 season as a higher proportion of ewe lambs are retained on farm. The number of lambs processed declined 5 per cent in the 12 months to June 2020. MLA estimate processing rates will begin to lift again in 2021, however will not reach pre-drought levels until 2022-23.

Figure 8 New Zealand Lamb Exports to China (Sep year)



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

Lamb export production declined 1 per cent in the 12 months to June 2020 but is expected to lift 5 per cent into 2021 as average carcase weights improve. Lamb export production is forecast to lift by 17 per cent out to 2023. This forecast will lift Australian lamb exports to record levels.

Mutton processing rates have been significantly impacted in the 12 months to June 30, with a 30 per cent decline estimated. Processing numbers are expected to remain stable at this low level in the 2020-21 season and begin to lift from 2021-22.

Mutton export production has declined 31 per cent in 2019-20 season. It is estimated to remain relatively stable at this low level into 2020-21, and then build solidly out to 2023. Mutton exports in 2023 are forecast to lift to levels last seen in 2014-15.

Continued levels of lower sheepmeat export production in 2020-21 will present opportunities for New Zealand sheepmeat. However, any advantages will be short lived as both lamb and mutton production lift solidly in the medium term. New Zealand will need be wary of Australia's increasing competitive presence, particularly when our own export production is on the decline.

Similar to New Zealand, Chinese demand for sheepmeat has become a critical factor to Australia's sheepmeat export performance. China is the leading market destination for Australian sheepmeat, accounting for 33 per cent of total sheepmeat exports in 2019. The US is the second major market, accounting for 16 per cent of export volumes in 2019.

Australian sheepmeat exporters are facing similar challenges to New

Zealand from COVID-19 disrupted markets. Weak Chinese demand, a decline in foodservice trade and the risk of economic recession in many key export markets will be key drivers of export returns in 2020-21.

Also like New Zealand, however, the underlying fundaments for the sector remain strong, driven by ASF-induced pork shortages and tight global supply of sheepmeat.

Domestically, COVID-19 has hit the state of Victoria in a deadly second wave, invoking further lockdown restrictions from July to September 2020. The lockdown restrictions have limited meat processing capacity in Victoria, with only two thirds of the peak workforce permitted on site each day. Lamb production is expected to be more impacted than beef. Victoria is Australia's largest lamb processor, with the most capacity. This means that other states do not have the capacity to absorb Victoria's lamb slaughter. The lockdown restrictions will also extend into the first two weeks of peak spring lamb processing for the state.

The second wave of COVID-19 will also have an impact on Australia's own domestic consumption of lamb, which accounts for 35 per cent of the country's total lamb production. This may result in an increased focus on export markets if the second outbreak proves persistent. Mutton production is largely destined for the export trade.

On the trade front, the exit of UK from the EU may benefit the Australian sheepmeat industry, while increasing competition in the UK market for New Zealand. In June, Australia and the UK launched negotiations for a Free Trade Agreement. Australia's access to the UK has historically been limited by the virtue of the UK being a member of the EU.

EU-27 & UK

Economic impacts following the outbreak of COVID 19 and trade between the EU-27 and UK are the overarching themes for this region in the outlook period.

Uncertainty is a key theme in both EU-27 and the UK markets. Economies have been severely disrupted by COVID-19 and are facing significant economic recession in 2020. While a swift recovery is expected, the adverse impact on consumer spending has the potential to be felt in sheepmeat trade.

The existing tariff free quota for lamb New Zealand currently has with the UK and EU combined, will need to be re-organised early in 2021 to address UK's separation from the EU. In 2018-19 the EU-27 accounted for 54 per cent of total lamb exports to the region with the UK accounting for the remaining 46 per cent. As discussed earlier in this report, negotiations are still underway to determine what the new trading environment will look like following Brexit.

EU-27

Sheep and goat meat production in the EU, as reported by the EU Commission, lifted 5.8 per cent in 2019 following flock expansion. Forecasts for 2020 signal a 1.5 per cent decline in production, reflecting COVID-19 disruptions to both domestic and export demand and potential effects of dry weather.

EU sheepmeat imports are expected to fall 5 per cent in 2020. Imports from the UK fell 15 per cent in the first quarter of 2020 and COVID-19 disrupted the volume of imports from Australia and New Zealand. The EU Commission is forecasting that the volume of imports from New Zealand for the remainder of 2020 will decline.

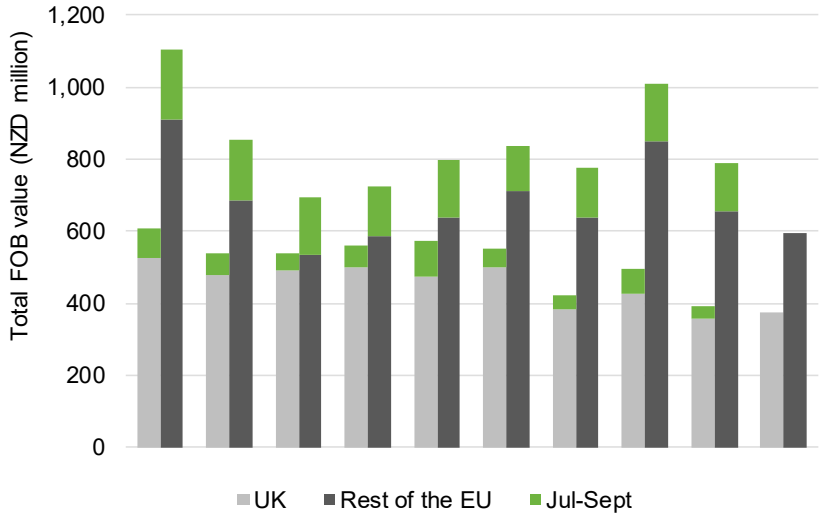
The first quarter of 2020 recorded a 9 per cent lift year-on-year in sheepmeat exports. Switzerland and the Middle East were key export markets. Exports to the UK declined 15 per cent in the same period.

Sheepmeat consumption in the EU is expected to decline by 3 per cent in 2020 due to COVID-19 impacting foodservice sales and lower meat availability.

Recent year's growth in China has largely come at the expense of the volume of New Zealand exports to the EU market. The EU and UK combined accounted for 30 per cent of total export volumes season to date. This is down from 40 per cent two seasons ago.

The outlook shows little promise of New Zealand gaining further import growth in this market. Economic recovery in EU is expected to be slow, and New Zealand exporters will also

Figure 9 New Zealand Sheepmeat Exports to UK and Rest of EU (Sep year)



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

have to work with a changing trade environment as Brexit occurs.

UK

The UK breeding flock was largely steady in 2019 according to the Agriculture and Horticulture Development Board (AHDB). Forecasts signal that breeding numbers will contract out to 2022, driven in the short term by Brexit uncertainty and in the longer term, changes to farm subsidy payments will be a contributing factor.

The 2020 lamb crop is expected to be similar to 2019. Production is expected to be lower however, as processing rates in the first half of the year were significantly impacted by COVID-19. New season lamb slaughter has been limited so far in 2020, but these lambs are expected to come forward in the next 12 months.

Domestic consumption of sheepmeat in the UK is expected to decline in 2020. While consumption has been trending down in recent years, COVID-19 has compounded the trend. Lamb is viewed as a premium protein in the UK, and as such demand depends on economic conditions and consumer confidence.

The AHDB project import levels will decline in 2020. This reflects lower supply from both New Zealand and Australia, as well as decreased consumer demand.

Export levels in the UK reflect production trends. Exports are therefore expected to decline in 2020. This year export growth will also be impacted by lower demand in the EU due to COVID-19. The EU is UK's largest export market. The outlook for exports is therefore quite uncertain given COVID-19 volatility and disruption to trade access as Brexit occurs early next year.

United States

The US market is New Zealand's third largest market for lamb exports. A low and declining sheep production base means this market offers no competitive threat to New Zealand sales, but consumption trends are critical to ongoing market growth.

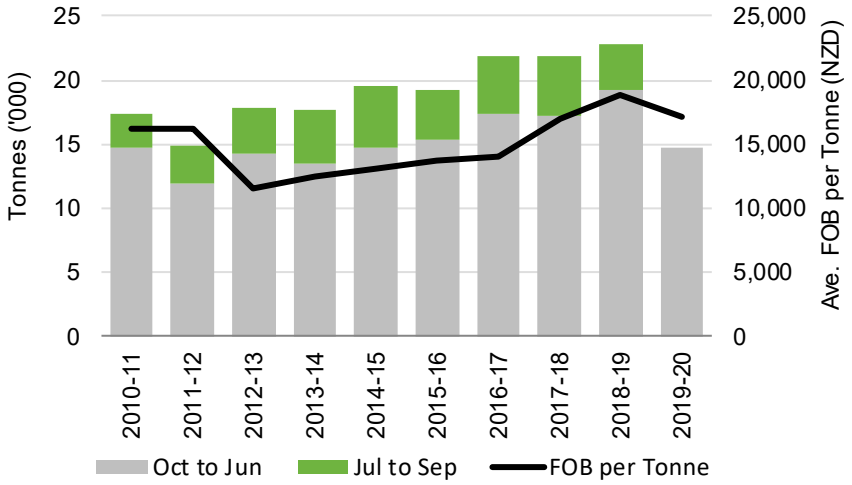
Imports make up approximately 70 per cent of total sheepmeat consumed in the US. Australia is the major supplier, accounting for around 75 per cent of total imports. New Zealand is the second largest supplier accounting for 23 per cent of imports.

New Zealand lamb exports to the US have increased in volume and value from 2016-17. With exports focusing on high-valued product destined for the restaurant trade, this market has historically delivered some our highest average export values. In 2018-19 the average value of exports was $16,700 per tonne, equal to high value EU markets of Germany and Belgium.

US sheepmeat consumption in 2020 has been severely disrupted by the outbreak of COVID-19 and the subsequent decline in foodservice sector.

It is estimated foodservice sector sales dropped over 40 per cent year-on year when the COVID-19 crisis begun in March 2020. A recovery was recorded through May-June as lock-down restrictions were eased, however the resurge in the spread of the virus in mid-2020 resulted in the recovery being short-term. Estimates signal that total foodservice sales in the US for 2020 will be down 25-35 per cent,

Figure 10 New Zealand Sheepmeat Exports to US



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

The drop in foodservice sales has made sales of New Zealand lamb, typically destined for the restaurant trade, into this market challenging. Export volumes to the US from March-August 2020 dropped 27 per cent from the same period last year. The average export value for the same period dropped 12 per cent.

Just under 30 per cent of New Zealand lamb exports to the US were sold as racks and other middle cuts in the 2018-19 season. Imported prices for frozen and chilled racks in June 2020 were down 25-30 per cent on year-ago levels. Lamb items transferrable to the retail trade have fared considerably better, with frozen leg and shoulder prices up approximately 7 per cent as at June 2020. New Zealand exporters have successfully diversified the product mix into this market to take advantage of the higher prices in the retail category. Exports of legs and shoulders to the US from March to August 2020 have lifted to account for just under 50 per cent of total exports; up from 40 per cent for the same period last year.

Despite the disruption to US sheepmeat consumption, USDA forecasts at July 2020 signal that the total volume of sheepmeat imports in 2020 will be up slightly on 2019. This is partially driven by a 25 per cent year on year increase in first quarter

imports and partially driven by higher volumes of Australian lamb imports.

Australian lamb import volumes into the US have fared significantly better compared to New Zealand, post COVID-19. While Australian export volumes and value declined sharply from March, they have managed to hold to historical levels into May and June.

While Australian export volumes to the US have held up better in comparison to New Zealand, not all product is being drawn down by consumers. USDA cold-storage figures note that the supply of lamb in freezers at the end of July was 5 per cent up on year-ago levels and 18 per cent higher than the five-year average. There are also anecdotal reports that some of the larger lamb processors also are holding larger inventories than typical.

Looking forward into the 2020-21 season, this market will remain challenging for New Zealand. Food service sector recovery is picked to be anywhere between one to four years, depending on how the second wave of the virus is contained. Signals from Australia suggest that the US will be a renewed focus for their lamb exports, with recent performance solid in comparison to alternative markets. The reported high inventory levels of lamb existing in the market may also have the potential to limit demand for New Zealand imports.

Lamb & Sheep Prices – Farm-gate

The 2019-20 season has been a challenging one for New Zealand sheep farmers. COVID-19 and widespread drought has tested farmer resilience. These factors have also made for a season of extremes for farm-gate prices, providing much uncertainty for farmers.

Lamb and mutton farm-gate prices had an exceptional start to the 2019-20 season, fuelled by ASF driven Chinese demand. Other markets were forced to compete on price to secure product and farmers processing lambs in the first quarter received record returns. However, the period of record prices was abruptly cut short by a slump in Chinese demand in December, widespread drought in summer and autumn 2020 and COVID-19.

The decline in foodservice demand across the globe resulted in a sharp decline in export volumes and value for the high-value end of New Zealand lamb exports. This decline has flowed into farm-gate prices and has been particularly notable in the latter months of the 2019-20 processing season, when typically farm-gate prices reach their seasonal peak.

Despite the challenging conditions in the latter months of season, the annual weighted average lamb farm-gate price for 2019-20 only declined marginally on the 2018-19 season. Supported by record high farmgate prices in the first quarter of the season and a weaker NZD, the estimated result for season is 740 cents per kg.

The challenging export environment for lamb is expected to weigh on lamb farm-gate prices in the 2020-21 season. The forecast is for a weighted average lamb farm-gate price of 665 cents per kg: a 10 per cent decline on 2019-20. Weak co-product prices and a stronger NZD are also contributing factors to the declining farmgate price forecast.

Despite the challenging outlook, the forecast farm-gate price still sits just above the five-year average of 658 cents per kg.

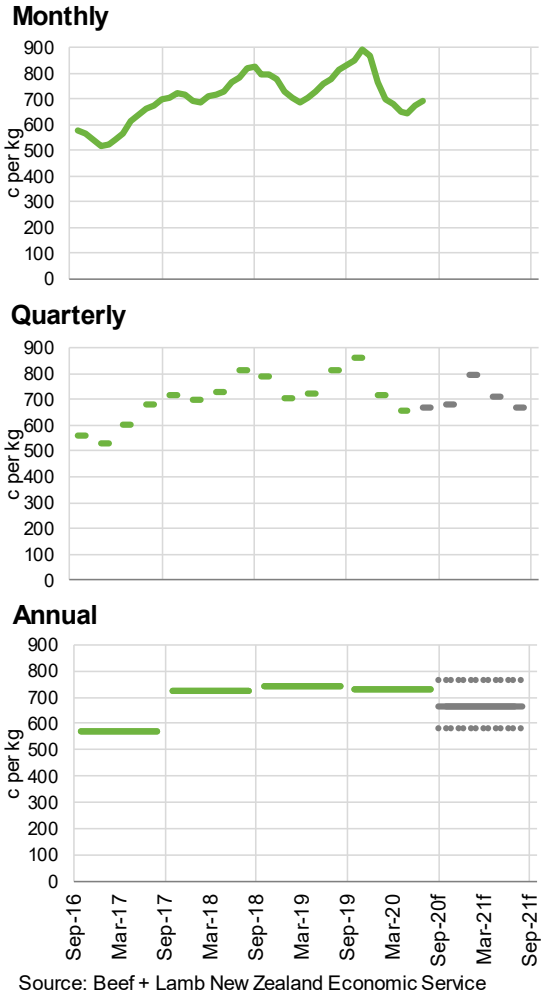
The annual average mutton price for the 2020-21 season is forecast at 447 cents per kg, a decline of 9 per cent on the 2019-20 estimate of 490 cents per kg.

Table 9 Lamb Price Sensitivity

		All Class Lamb Price		
Exchange Rate		$ per head	c per kg	
Low NZD				
USD	0.60			
GBP	0.45	146	768	**High**
EUR	0.51			
Mid NZD				
USD	0.66			
GBP	0.50	126	665	**Mid**
EUR	0.57			
High NZD				
USD	0.73			
GBP	0.55	110	581	**Low**
EUR	0.63			

Source: Beef + Lamb New Zealand Economic Service

Figure 11 Weighted Average Lamb Farm-Gate Price



Source: Beef + Lamb New Zealand Economic Service

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
2016-17	24.1	19.2	18.6	358.3
2017-18	24.7	19.9	18.6	368.9
2018-19	23.8	18.8	19.1	359.0
2019-20e	23.3	18.7	18.9	353.0
2020-21f	22.3	17.4	19.0	330.1
2020-21f % change	-4.2%	-6.8%	+0.3%	-6.5%

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 spring 2020 is estimated at 22.3 million head, down 4.2 per cent or 1 million head on the previous spring.

Key drivers of the large drop in the forecast lamb numbers are the 2020 drought, and subsequent drop in lambing percentage, and a lower number of breeding ewes in the 2019-20 season.

For the year to June 2020, the number of breeding ewes declined 2 per cent to 16.8 million. The number of ewe hoggets mated also declined in this period (-6%), although from a low base. The widespread drought in through the summer and autumn of 2020 resulted in lower ewe condition at mating, tighter feed supply while in-lamb and the adverse conditions resulting in an increase in animal health issues. Scanning rates in drought areas are reported to be anywhere from 10-25 per cent down. Longer-term animal health issues related to facial eczema are also reported to be a factor in ewe condition. The national average lambing percentage for spring 2020 is estimated to decline 6 percentage points to 132 per cent, making it the lowest national lambing percentage since 2015-16.

For the year ending September 2021, the number of lambs processed for export is forecast to decline 6.8 per cent or 1.3 million head to 17.4 million.

Climatic conditions through the months of September and October will be critical to determining the outcome of the 2020 lamb crop. 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.

Mutton

The number of adult sheep processed in 2020-21 is forecast to decline 11 per cent to 3.1 million head. The large decline follows an estimated 3.8 per cent increase in processing numbers in the 2019-20 season. Drought conditions in the North Island through autumn were a key driver in the lift in adult sheep processing as farmers were forced to reduce stock numbers. Processing rates in May and June were up 50-60 per cent year-on-year.

Assuming favourable climatic conditions, farmers are expected to rebuild ewe numbers into the 2021 season, driving the decline in processing numbers.

Drought conditions resulted in a 4 per cent drop in the average mutton carcase weight in the 2019-20 season. For the year ending September 2021, the average mutton carcase weight is projected to be up 1.1 per cent to 25.9 kg, which remains slightly above the five-year average.

Total export mutton production is forecast to be down 10.1 per cent to 80.9 tonnes carcase weight. This will be the lowest production on record and tracks 14 per cent below the five-year average.

Table 11 Export Mutton Production

Sep Year	Breeding Ewes million head	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2016-17	18.1	3.6	25.7	92.2
2017-18	17.8	4.0	25.8	102.5
2018-19	17.2	3.4	26.8	90.5
2019-20e	16.8	3.5	25.6	89.9
2020-21f	16.9	3.1	25.9	80.8
2020-21f % change	+0.1%	-11.1%	+1.1%	-10.1%

e estimate, f forecast

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

Beef Outlook 2020-21 – Opportunities and Challenges

Opportunities

Increased demand for meat protein from China driven by African Swine Fever induced pork shortages

Growth in disposable incomes in Asian markets increases demand for high quality proteins

Shifting consumer preference towards nutritionally rich food products. New Zealand's grass-fed beef is being promoted in this market position through the Taste Pure Nature brand.

Shifting consumer preference for food safety.

Growth in processing beef demand (ground beef) driven by convenience, lower value and ease of use for home cooking.

Challenges

COVID-19 market disruption
- Economic recession
- Weaker consumer confidence
- Increasing consumer price sensitivity
- Declining demand from foodservice

Increasing competitive presence of Central and South American beef in NZ's two largest beef markets; the US and China.

Price and supply of competing proteins – pork and poultry

Geopolitical risk

Beef & Veal Exports

2019-20

Global beef demand has held up relatively well during the 2019-20 season, given the disruption of COVID-19, resulting in a solid export performance for New Zealand beef.

Similar to sheepmeat, beef exports had a very strong start to the season, driven by ASF induced demand for meat protein. Of critical importance for New Zealand beef exports, was suring Chinese demand for processing beef, forcing the US and China to compete fiercely for New Zealand product. This has played a key role in offseting the disruption COVID-19 inflicted on foodservice demand.

The deterioration of the food service has put a significant dent in demand for beef, however beef has transferred readily into the retail sector. Ground beef has been a strong performer, with the lower value and convenience of the product proving adaptable to both lower consumer confidence in the economic outlook and lockdown restrictions of cooking at home.

The last quarter of the 2019-20 season has provided more challenges for the sector. Chinese consumer confidence is weakening as both economic and geopolitical conditions deteriorate and there is increasing competition in the global imported beef market. The lift in market demand that historically drives higher returns in the latter months of the season, as illustrated in figure 12 may be a big ask this season.

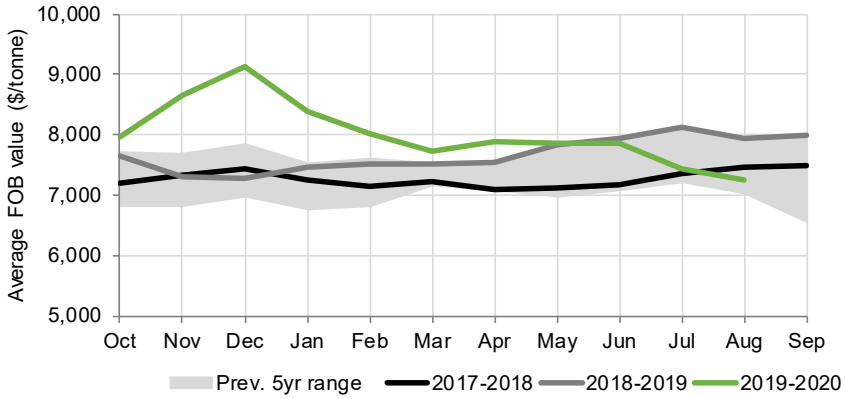
For the 2019-20 season beef and veal meat export volumes are estimated to hold largely steady on 2018-19 at 453,000 tonnes shipped weight

The estimated average FOB value of beef and veal exports is a highlight, lifting 10 per cent to $8,200 per tonne. Solid market demand, as described above, combined with a weaker NZD are drivers of this strong result. Total receipts for beef and veal exports are estimated at $4.2 billion FOB, up 8.3 per cent on 2018-19.

Export data for the first eleven months provides a solid foundation for these estimates. For the season from October 2019 to August 2020, beef export volumes were up 2 per cent on the same period last season, and the average FOB export value is up 11 per cent.

Strong demand for processing beef supported the higher return. In the eleven months from October 2019 to August 2020 the average export value of processing beef lifted 18 per cent on the same period last season to $7,800 per frozen tonne. Strong competition between China and the US for processing beef in the first quarter of the season resulted in surging values for processing beef. Imported processing beef prices lifted to record highs in late November, with frozen 95 chemical lean (CL) imported beef prices trading at 45 per cent above five-year average levels. 95 CL imported beef prices dropped below historical levels in March 2020 because of COVID-19, however, for every other month of the season, they have tracked higher in comparison to historical levels. Demand for processing beef, particularly in the US, has proven “recession and lockdown proof’ due to the attributes of low value and convenience.

Figure 12 Average Monthly Value of Beef & Veal Exports



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

Table 12 New Zealand Beef & Veal Exports

	Beef and Veal Meat			Co-Products	Total Beef	Beef Meat
Sep Year	000 tonne	$ / tonne	$m FOB	$m FOB	$m FOB	%*
2016-17	396	6,898	2,729	533	3,262	84%
2017-18	431	7,123	3,073	551	3,624	85%
2018-19	453	7,451	3,377	531	3,908	86%
2019-20e	453	8,227	3,728	504	4,232	88%
2020-21f	453	7,445	3,370	479	3,850	88%
2020-21f % change	-0.1%	-9.5%	-9.6%	-5.0%	-9.0%	

* Beef and Veal Meat value as a percentage of the value of Total Beef exports, including Co-Products

e estimate. f forecast I Source: Beef + Lamb New Zealand Economic Service. Statistics New Zealand

Solid demand from the US underpinned beef export values through the latter half of the 2019-20 season, despite the disruption to the foodservice sector. Disruption to meat supply as a result of COVID-19 restrictions in May, combined with lower supply of US domestic cow meat, drove a surge in imported demand and prices through mid-2020 and New Zealand beef exporters capitalised on the opportunity. As a result, the US market overtook China as New Zealand's leading export destination for beef through June, July and August.

Processing beef accounts for 85 per cent of New Zealand beef exports to the US market, which has supported the export performance so far this season. In the eleven months from October 2019 to August 2020 the value of beef exports to the US has lifted 17 per cent and the volume was up 13 per cent.

Despite the strong presence of the US in the second half of the year, China has remained the leading market destination for New Zealand beef exports in 2019-20. In the eleven months from October 2019 to August 2020 this market accounted for 36 per cent of total export volumes and value. This share has dropped from the same period last season however, when China accounted for 40 per cent of total beef export value and volume. The average FOB value of exports to this market has lifted 11 per cent year on year for the first eleven months of the season.

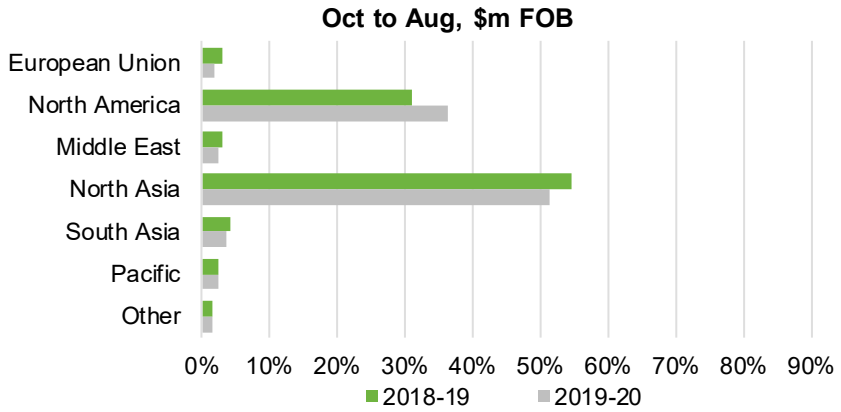
Chinese import demand for beef begun to deteriorate in the second half of 2020. The volume and average value of beef exports dropped year-on-year. Demand for manufacturing beef has been notably weak, particularly following the strong demand in late 2019. There is growing uncertainty in this market as economic and trade relationships weaken and there is increasing evidence of price sensitivity.

Competition in the imported beef market has also lifted as Brazil and Argentina increase their export focus on this market, supplying beef at lower price points compared to New Zealand beef. These factors have the potential to weigh on Chinese demand for beef for the remainder of the season and into 2021.

The US and China combined account for 69 per cent of total New Zealand beef export volumes for the first eleven months of the season. The next most significant markets are Japan (5%), Korea (4%) and Taiwan (4%). The share of exports to each market has stayed relatively steady in 2019-20 compared to the previous season.

The value of co-product exports are estimated to decline 5 per cent for the 2019-20 season.

Figure 13 New Zealand Beef & Veal Exports



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

2020-21

The outlook for New Zealand beef exports is more subdued, however overall export prices are expected to remain historically high.

ASF and the growing demand for quality proteins from the affluent Asian consumer will continue to be key drivers of demand. However, there will be challenges for New Zealand exporters. Lower foodservice demand, increasing competitiveness in the imported beef market and geopolitical risk will continue to be relevant in the outlook period.

Demand from the US and China, and subsequent competitive pressure between these two markets will also underpin export price direction in 2020-21.

There are challenges ahead in the US market. Competition is expected to increase in the imported beef space as both Central and South America lift supply into the market. Demand for beef, which has been strong through the US summer months, is expected to ease in the first quarter of the 2020-21 season. Combined with an expected increase in domestic beef supplies as drought and dairy cow liquidation lift production, US imported beef prices are expected to come under pressure in the first quarter of the new season.

The level of demand from China for their New Year celebrations will be critical to first quarter returns. This demand has underpinned high returns in recent years. The current sentiment in this market casts a shadow on both the volumes demanded and returns from what has been a very lucrative window of demand from China.

Overall, 2020-21 beef and veal receipts are expected to come off their 2019-20 high: declining by 9.0 per cent to $3.9 billion FOB. Export beef volumes are expected to remain largely steady on 2019-20, however the average FOB value is expected to decline 9.5 per cent to $7,600 per tonne. While the decline is significant, the average value continues to remain just above five-year average levels.

Beef – International Situation

Overview

The outlook for the global beef market is volatile, fuelled by COVID-19, increasing competition and geopolitical risk. However, overall, there are strong fundamentals in this market that will underpin global export demand for beef.

Similar to sheepmeat, global beef trade will be driven by demand patterns in China. Underlying fundamentals in this market are strong, driven by ASF related pork shortages and growth in middle class incomes, particularly in Asia.

Beef has become an increasingly popular source of protein in developing Asian economies. It has become more price competitive with pork due to ASF driven pork shortages, and during COVID-19 has been proven to be convenient to cook at home.

Consumer demand trends post COVID-19 have also shifted towards protein sources that are nutritionally rich and from a trusted source. New Zealand beef is well positioned to fill this market position. New Zealand's Taste Pure Nature brand is expanding its promotional effort into key markets to increase awareness of key attributes of New Zealand beef.

In general, the beef market has been less impacted by COVID-19 in comparison to lamb, however there are still some COVID-19 related challenges in the outlook. Similar to lamb, the biggest headwind is expected to lower consumer demand and increasing price sensitivity.

The global beef trading environment has become increasingly competitive in 2020. Export growth from Brazil, Argentina and Mexico has been notable in New Zealand's two largest markets, the US and China. With more supply options, the price competition, that has been a factor of New Zealand's high export returns in recent years, may become limited.

Geopolitical tension will be a downside risk for the global beef market. The relationship between China and the US has deteriorated through 2020. A cycle of retaliation between these countries with tit-for-tat sanctions is causing great uncertainty globally. There is increasing pressure for New Zealand to "pick a side", both options would result in an adverse outcome for New Zealand beef exports. There is also speculation that the deterioration of relations between these countries will prove a significant risk to the Phase One trade deal.

Global beef production for 2020, as estimated by the USDA in July 2020 is expected to decline 1.5 per cent on 2019. The decline reflects lower production from Australia, North America, Brazil and China. Drivers for each country will be explored in the market specific commentary.

Global beef consumption in 2020 is forecast to decline 1 per cent. Except for China, all key beef consuming markets are forecast to decrease beef consumption. Weak economic sentiment is the predominant driver of the declining consumption trend. Beef consumption in China is forecast to lift 6 per cent in 2020. Global beef trade will be very sensitive to downwards revision in this forecast, with implications for all beef exporting countries.

The USDA (July 2020) estimates global beef imports will lift marginally (+0.6%) in 2020. This contrasts with the 8 per cent lift recorded in 2019.

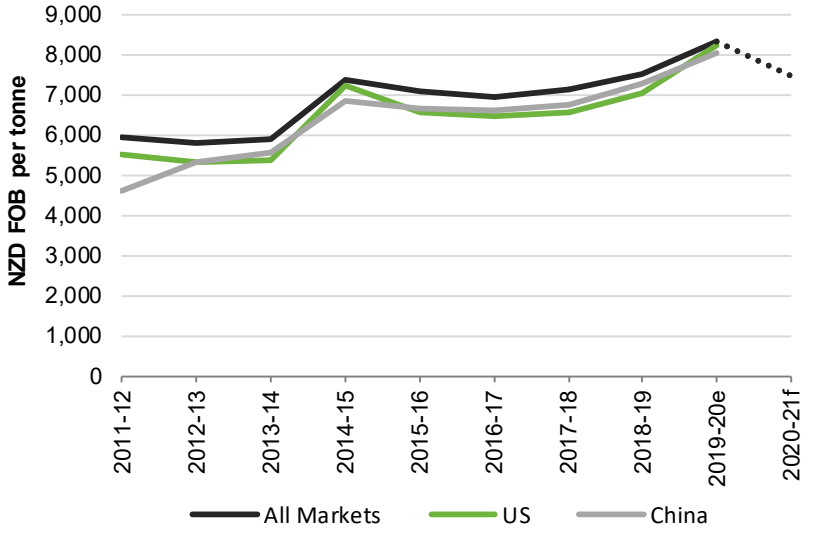
Global beef exports are expected to decline 2 per cent in 2020. A 19 per cent decline in Australian beef exports is the predominant driver of this decline.

China

China has emerged as the largest imported beef market in recent years. The decline in Chinese pork production as a result of ASF combined with growth in middle class incomes have driven this trend. Beef is also gaining popularity as a protein choice for the Chinese consumer, with quality and convenience driving the shift in demand.

China has continued to increase its share of the global beef market in 2020. In the first seven months of 2020, Chinese beef imports have lifted 41 per cent year-on-year. In July 2020, the USDA estimated China accounted for 30 per cent of global beef imports. This is up from just 8 per cent in 2015. This import growth

Figure 14 New Zealand Beef Exports to China



is expected to continue into the outlook period as ASF continues to restrict pork production. While total Chinese beef imports lifted significantly from January to July 2020, this lift has been driven by Brazil and Argentina. Brazilian beef imports to China lifted 139 per cent year-on-year and Argentinian beef imports lifted 45 per cent. New Zealand's beef imports for the same period were down 12 per cent, signalling the competitive pressure in this market from South American beef. New Zealand is unable to compete on volume or price with South America. Brazil and Argentina are the leading suppliers of beef to China, accounting for 36 per cent and 22 per cent of the market respectively.

Beef production in China is forecast to lift 2 per cent in 2020. The growth is underpinned by herd expansion, particularly on large-scale farms, as producers seek to capitalise on strong demand for beef and the shortfall of pork. The extend of growth has been revised downwards as 2020 has progressed, however, reflecting intense import competition.

Of key importance to the global beef trade is that Chinese beef consumption is estimated to lift by 6 per cent in 2020. This continues a steady trend of increasing beef consumption in this market, despite a decline in foodservice sector demand. The estimates for 2020 place beef consumption 36 per cent ahead of 2016 consumption. The shortage of pork in China due to African Swine Fever has made beef more price competitive in comparison to pork, which has enticed more consumers to switch protein source. There is also growing interest in high quality protein sources among affluent consumers. This trend has become more prominent post COVID-19 as consumer preferences have shifted towards nutritionally rich food sources.

The ease at which beef has transferred into the Chinese retail market post COVID-19 will support the long-term consumption trends of beef, even as pork supply recovers from ASF.

While the outlook for Chinese beef demand is largely positive, the market is expected to face some headwinds as a result of COVID-19. China's record run of economic growth has suffered a major setback due to COVID-19. This has shaken consumer confidence and increased price sensitivity. COVID-19 has also disrupted beef sales in the foodservice sector, slowing the movement of the record imported volumes through the supply chain.

China has become New Zealand's most valuable market. In the eleven months from October 2019 to August 2020 China accounted for 36 per cent of total beef and veal exports by value and volume.

The product mix of beef exported to China has changed in the past five-years. Demand for processing beef has increased significantly, with this category accounting for 40 per cent of export volumes in 2019-20, up from 27 per cent in 2015-16. This has come at the expense of secondary cut and loin exports but has not come with any loss in value. The average FOB value of beef exports to China is $8,100 per tonne in the season from October 2019 to July 2020, up from $6,800 per tonne in 2015-16.

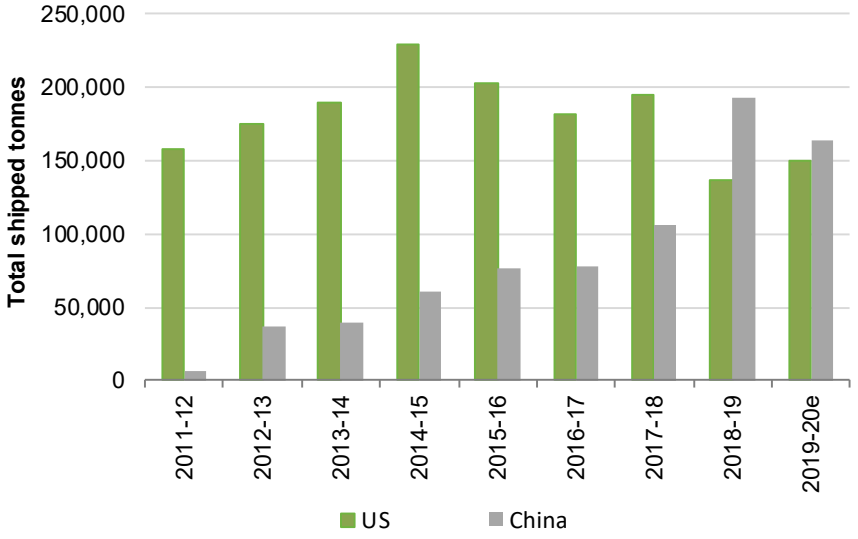
The growth of demand for processing beef has been of benefit to the New Zealand beef industry. Prior to China's entry, New Zealand was reliant on the US market for processing beef exports, particularly for 95 CL beef. China has introduced price competitiveness into this market, which was the driver behind the record prices seen in late 2019.

The competitive presence of South American beef is challenging demand for New Zealand's processing beef in 2020. For the months of June, July and August 2020, New Zealand processing beef exports to China were down 75 per cent on the same period in 2019. This is a concerning trend for New Zealand beef exporters.

Trade relationships between China and the rest of the world, but particularly the US, are a growing area of risk. The relationship between the US and China and the Phase One trade deal have been discussed earlier in this report. One of the other issues that is causing uncertainty in global beef trade, is that China has imposed regulations that call for COVID-19 on all imported meat products. This has introduced more cost, time, and administration for exporting countries, and has also slowed the movement of product through the Chinese ports as there are more, and longer inspections.

Between June and late July, China had suspended 20 overseas plants processing pork, beef and poultry on the basis of new COVID-19 testing regulations. North America and South American plants have been impacted.

Figure 15 New Zealand Beef Exports to China and the US



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

China also suspended four Australian beef processing plants in May on the grounds of "failures in quarantine and customs requirements".

While the series of plant closures are increasing the risk of exporting into China, the sheer magnitude of their demand for meat, means most beef exporters have accepted the risk.

United States

The outlook for the US beef market is uncertain as the impacts of COVID-19 continue to be felt through the supply chain. Disruptions to meat processing capacity, the foodservice sector and both imports and exports have created a volatile market. Against the odds, the US beef market outperformed expectations in the 2019-20 season and proved a lucrative destination for New Zealand exporters. However, this adds to the volatility and makes picking a direction for the 2020-21 season challenging.

The US is the world's largest beef producer, accounting for an estimated 20 per cent of world beef production in 2020. The USDA (September 2020) estimate that beef production will fall marginally (-0.3%) in 2020, reflecting the disruption to meat processing during COVID-19. During April and May 2020 beef production dropped 20 per cent and 21 per cent respectively year-on-year. Recovery has been rapid, however, and heavier carcase weights are boosting production levels.

The disruption to meat processing due to COVID-19 has resulted in a backlog of cattle on feed. In September, the inventory of cattle that have been on feed for over 150 days was 21 per cent higher than a year ago. Combined with rising carcass weights, the inventory levels will increase beef supply in the later months of 2020 and are already weighing on spot market beef prices.

Drought conditions and demand for dairy products, will also be drivers of beef production for the remainder of 2020. Drought conditions in key beef producing states through the US summer has elevated the beef cow kill and will potentially result in more cattle being placed on feed. In addition, a sharp decline in dairy prices may also result in an increased dairy cow liquidation in the US autumn. Record prices in June and July saw dairy cow slaughter decline, and kept a lid on production, despite the drought impact on the beef herd. The high lean beef price may prove an incentive for dairy farmers to push more cows to the processors and subsequently lift the supply of domestic lean beef, putting pressure on import demand.

Looking forward into 2021, New Zealand can expect to face increased competitive pressure from domestic beef on the US market. USDA forecasts signal 2021 production will lift 1.1 per cent to a record 12.57 million metric tonnes.

The volume of beef imported into the US has surged through 2020, driven by strong demand for processing beef and subsequent higher imported beef prices. Forecasts in early 2020 signalled a decline in imports for the 2020, however USDA's September 2020 forecast now expects import volumes to lift 7 per cent on 2019.

For the seven months from January to July 2020, beef imports were up 8.5 percent on the same period last year. All top four suppliers, Australia, Canada, New Zealand and Mexico increased imports in this period.

An increasing presence from South and Central America has been a contributing factor in the surging import levels. Brazil, Argentina and Nicaragua have all increased their focus on the US in 2020.

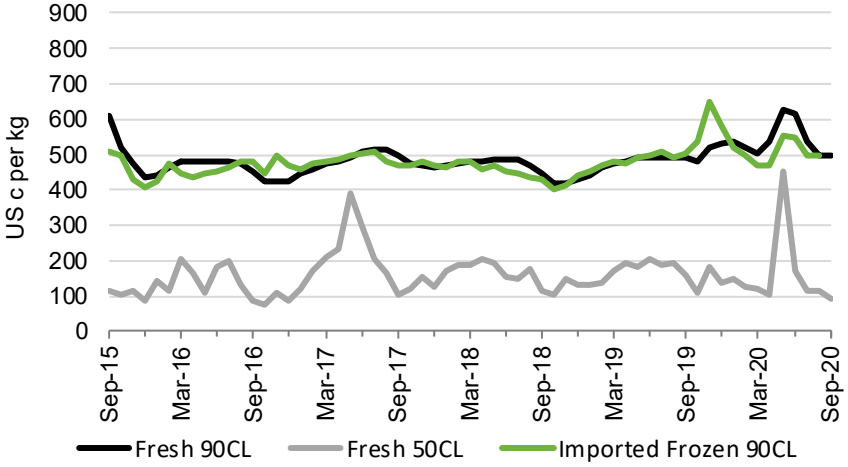
Mexico is now the second largest supplier of imported beef after Canada. For the first six months of 2020, Mexican beef imported into the US totalled 152,000 tonnes compared to 123,000 tonnes from Australia and 98,000 tonnes from New Zealand. Mexican beef imports in July 2020 lifted 34 per cent year on year.

Both Central and South American grinding beef is offered at lower prices compared to Australia and New Zealand, and many industry participants believe that US end users will be increasingly seeking to include product from these markets in their meat formulation.

Weaker demand from China in the second half of 2020 has also contributed to the increased focus on the US market. Looking forward, Chinese buying power will be a critical factor in US imported beef price direction for the remainder of 2020 and into 2020-21.

US beef consumption is expected to decline marginally (-0.5%) in 2020, reflecting the impact of COVID-19 restrictions on the sector. While retail sector has experienced strong growth in meat items such as ground beef and sausages, this growth has not

Figure 16 US imported beef prices Chemical Lean - FOB Plant Basis



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

been enough to offset the decline in foodservice sales. For the first six months of 2020 grocery retail sales were up 13 per cent while foodservice sales were down 23 per cent.

Another risk factor for beef demand in the US will be increasing supply of pork and poultry. Production of both has lifted significantly above historic levels in May and June, and estimates are for further production increases in July and August. Prices have come under pressure as supply increases, making pork and poultry increasingly attractive by price, a point that might be considered by the US consumer in a time of economic recession.

US beef exports during 2020 have been impacted by the disruptions to meat processing capacity. The USDA is estimating a decline of 4 per cent in export volumes for the year. Declining exports to Mexico are a leading driver of the trend. Growth year-to-date is evident in the Japanese market, where US beef is benefiting from the improved market access as part of their newly signed Free Trade Agreement. Exports to South Korea are also up. Lower export supply from Australia is also a factor in the growth of US beef sales in these markets. US beef exports to China remain low in volume, however showed a sharp lift in July.

Australia

The outlook period for the Australian beef industry is focused on rebuilding following drought. Despite beef producers indicating the intention to rebuild herds early in 2020, slaughter statistics show female cattle has remained high through 2020. The expectation now is for supply to begin to contract from the end of 2020.

The national cattle herd was estimated by Meat Livestock Australia (MLA) to be at 24.6 million head in 30 June 2020, down 6 per cent on year-ago levels. Slow expansion is expected in the 12 months to June 2021, with numbers forecast to lift 1.9 per cent. The rebuild is slower than expected, reflecting elevated live cattle shipments and higher than expected slaughter rates as Australian beef producers try to balance the need for cashflow and the need to rebuild.

Cattle slaughter is estimated to decline 17 per cent in 2020 and a further 1.5 per cent in 2021. Australian beef exports are estimated to have declined 17 per cent in the 12 months to 30 June 2020. Forecasts for 2021 signal Australian beef export volumes will be largely steady on 2020, but will recover, with 2023 export production estimated to lift 18 per cent.

Australian exports for the first half of 2020 tracked relatively close to 2019 levels, despite expectations of significant decline due to rebuilding. The first signals of the sharp contraction in production became evident in June, however, with beef production down 11 per cent year on year. July export volumes dropped 23 per cent year on year in turn. Export volumes for the remainder of 2020 are expected to be well down on 2019 levels.

Japan continues to be Australia's largest market destination in 2020. The US market challenged this position in June and July, however, as imported beef prices rallied, drawing more imported product into the market. In the first seven months of 2020, Australian beef exports to the US were up 27 per cent on the same period last year.

Australian beef export growth to China declined sharply in July, with monthly volumes down 56 per cent year-on-year. In the first seven months of 2020 beef exports to China were down 9 per cent.

Australia also has to contend with an increased tariff rate on exports as cumulative imports into China of Australian beef surpassed the threshold volume that triggered the safeguard duty. In early July, China's imports of Australian beef also triggered a higher duty rate under the China-Australia Free Trade Agreement, with the rate increasing from 4.8% to the most-favoured-nation (MFN) tariff rate of 12% through the end of 2020.

The relationship between Australia and China has also grown tense in 2020. Australia have signalled support for the US in the escalating trade war between US and China. China suspended four Australian beef export plants in May 2020, citing as "quarantine and customs non-compliance" as the reason. This has added to the already souring relationship.

COVID-19 has been a persistent disruption in Australia in 2020. A second outbreak put the state of Victoria into further lockdown during July and August. Beef processing capacity in this state will be restricted, however the main supply impact is expected to be to sheepmeat.

The Australian domestic market has been strong post COVID-19. The domestic market consumes approximately 30 per cent of total beef production, and this share has remained constant so far in 2020 despite the sharp decline in beef production. Demand has been buoyant post COVID-19 and the market is sheltered from currency impact and volatile export markets. New Zealand beef exporters have recognised the attractiveness of this market, with beef exports to Australia up 136 per cent from October 2019 to August 2020.

South America

Brazil

Brazil's influence on global beef trade has continued to grow through 2020.

Brazil is the world's second largest beef producer, accounting for 16 per cent of global beef production in 2020. It is the world's largest exporter of beef and estimates from the USDA forecast Brazil will account for 24 per cent of global beef exports in 2020, up from 18 per cent in 2016.

Brazil consumes approximately 75 per cent of its production domestically, and surplus production is exported. Export trends subsequently reflect domestic demand patterns.

Brazilian beef trade has weathered the storm of COVID-19 particularly well, despite the severity of the outbreak. Export performance has been well

supported through 2020 by the weak Brazilian real, making Brazilian exports very price competitive. The largest impact of COVID-19 disruption is expected to be felt on the domestic market. Growing uncertainty around economic conditions has resulted in estimates for domestic beef consumption in 2020 declining 5.5 per cent year-on-year. This decline will increase the volume of beef available to be exported with 2020 beef exports projected to lift 11 per cent from 2019.

Brazilian beef exports are heavily reliant on China. In the first seven months of 2020, 48 per cent of total beef exports were destined for this market, lifting from just 20 per cent in 2019. The weak Brazilian currency and the decline in Chinese imports from Australia and New Zealand have bolstered Brazilian beefs market share in China so far in 2020.

Egypt and Russia are the next largest export markets for Brazil, although export volumes to these markets have declined in 2020, as reliance on China increases. While Brazilian beef exports to the US are lifting on the back of regaining access, the volumes are still low as a proportion of Brazilians total exports.

Estimates from the USDA signal that Brazilian beef exports will lift a further 8 per cent in 2021.

Argentina

Argentina has increased its presence in the global beef market in 2019 and 2020. It now exports a larger volume of beef than New Zealand. Export growth between 2018 and 2019 was strong, with volumes lifting 52 per cent.

Beef production in 2020 is forecast by the USDA to lift 2 percent on 2019, however a declining calf crop for the past two years is expected to result in a 3 percent decline for 2021.

Export growth is expected during 2020, with China accounting for approximately 65 per cent of beef exports. For the first seven months of 2020 Argentina's exports increased 16 per cent, driven almost entirely by a large jump in exports to China (+24%), which accounted for more than 60% of Argentina's total shipments. Argentina's exports to the United States also lifted sharply in the period from January to July. From minimal export volumes in 2019, 2020 exports lifted to over 14,000 MT, up more than 200 per cent year-on-year.

Exports are forecast to drop 2 percent in 2021 as a result of declining production.

Cattle Prices – Farm-gate

Farm-gate returns for cattle were volatile in 2019-20, swinging from unprecedented highs to lows that farmers had not encountered for over five years. While the season got off to an exceptional start for farmers processing stock in the first quarter, the combination of drought and COVID-19 abruptly knocked farm-gate prices.

The annual weighted average all classes cattle price for 2019-20 is estimated at 460 cents per kg; 4.6 per cent down on 2018-19 and 5.2 per cent down on the five-year average.

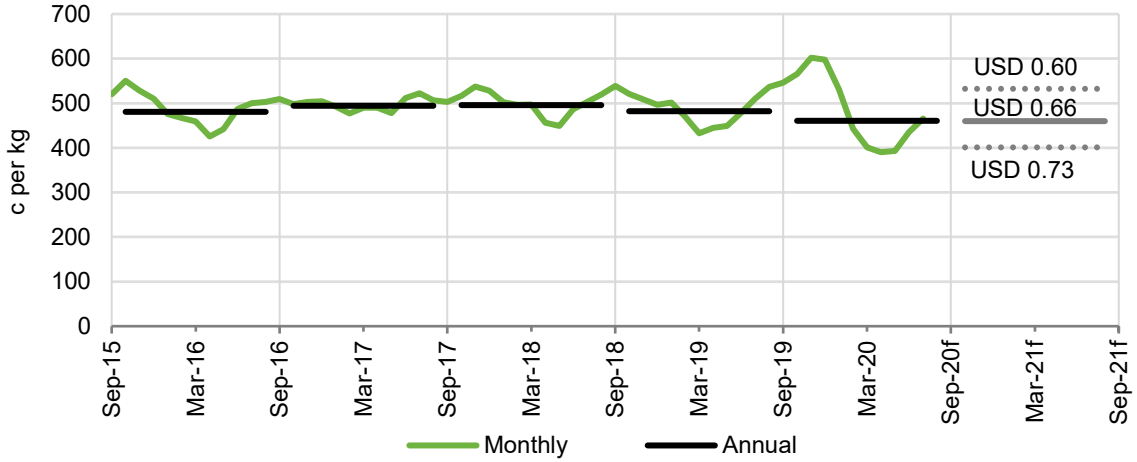
Key challenges that weighed on farm-gate prices include: weaker global economic conditions, consumer uncertainty and price sensitivity, softer demand from China compared to the highs of late 2019, increasing supply of imported beef in key New Zealand markets and the deteriorating US/China trade relationship.

The outlook for 2020-21 is for farm-gate prices for cattle to remain largely steady on 2019-20. The challenges facing global beef trade are expected to remain relevant. Volatility will be a continuing theme. The speed of global economic recovery following COVID-19 and the level of competitive pressure from other beef exporting countries will be key drivers of the direction of farm-gate prices.

A stronger NZD will also weigh on farm-gate returns in the 2020-21 season.

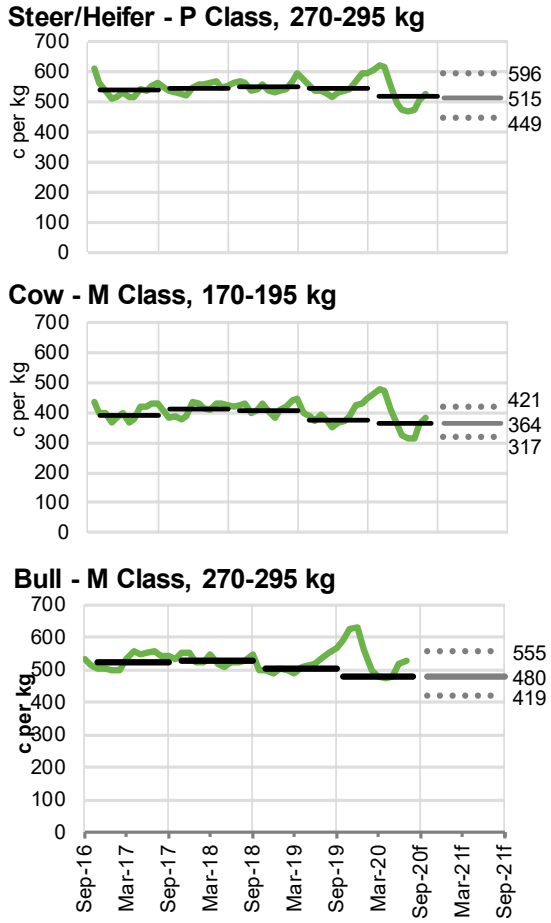
Three exchange rate scenarios are used in the outlook to indicate the effect of exchange rate variability. The three scenarios use annual average exchange rates of USD0.60, USD0.66 and USD0.73 and the associated cross rates against the GBP and EUR. At USD0.66, the estimated 2020-21 average annual price for P steer/heifer (270-295kg) is 515 cents per kg, M cow (170-195kg) is forecast to average 364 cents per kg and the forecast for M bull (270-295kg) is 480 cents per kg.

Figure 17 Weighted Average All Classes Cattle Farm-Gate Price



Source: Beef + Lamb New Zealand Economic Service

Figure 18 Weighted Average Cattle Farm-Gate Price



Source: Beef + Lamb New Zealand

Beef Production

Table 13 Export Cattle Slaughter Composition

	000 head				
Sep Year	Steer	Heifer	Cow	Bull	Total
2016-17	524	441	937	461	2,363
2017-18	535	454	1,026	542	2,556
2018-19	565	474	1,018	555	2,612
2019-20e	570	480	1,044	541	2,636
2020-21f	597	462	1,011	541	2,611
2020-21f % change	+4.8%	-3.9%	-3.2%	0.0%	-0.9%

e estimate, f forecast
Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

Table 14 Export Cattle Carcase Weights

	kg / head				
Sep Year	Steer	Heifer	Cow	Bull	Total
2016-17	314	243	199	305	253
2017-18	312	241	197	301	251
2018-19	313	243	200	300	254
2019-20e	309	240	199	301	251
2020-21f	311	241	199	302	253
2020-21f % change	+0.5%	+0.6%	+0.1%	+0.2%	+0.9%

e estimate, f forecast
Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

Table 15 Export Beef Production Composition

	000 tonne bone-in				
Sep Year	Steer	Heifer	Cow	Bull	Total
2016-17	164	107	186	141	598
2017-18	167	110	202	163	642
2018-19	177	115	204	166	662
2019-20e	176	115	207	163	662
2020-21f	186	111	201	164	661
2020-21f % change	+5.3%	-3.3%	-3.2%	+0.2%	-0.1%

e estimate, f forecast
Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

Cattle Slaughter

For 2020-21, the number of cattle processed for export is forecast to decline marginally (-0.9%) to 2.6 million head (Table 13). The mix of cattle classes is forecast to shift as the number of steers available for processing lifts 4.8 per cent. This lift is offset by a decline in heifer and cow slaughter. The number of bulls available for processing is expected to remain steady on 2019-20.

The lift in steer slaughter reflects the increasing beef cow herd in the previous two seasons and the subsequent increase in the supply of steers. Heifer slaughter is forecast to decline following a high offtake of both beef heifers and beef cows during the 2020 drought and higher retentions post drought.

The decrease in the number of cows slaughtered largely reflects recovery in beef cow numbers following the drought. Dairy cow slaughter is expected to remain largely steady on last year as dairy cow numbers are expected to remain static.

The offtake of bull beef is dominated by dairy-beef bulls. The stable slaughter numbers reflect steady dairy-bull beef calf retentions in the previous two years.

Cattle Weights

The estimated average export carcase weight was estimated down slightly (-0.9%) in 2019-20 due to the impact of drought on steer, heifer and cow (Table 14).

For 2020-21, the overall cattle weight is forecast to average 253kg per head, marginally (+0.9%) up on the 2019-20 season. This assumes a return to more “normal” climatic conditions in the 2020-21 season.

Beef Production

In 2020-21, New Zealand’s export beef production is forecast to be largely steady on 2019-20, at 661,000 tonnes bone-in (Table 15). The 2020-21 forecast is 4 per cent above the five-year average and signals three years of consistent high beef production.

Wool[1]

Prices

There is little optimism in the outlook for wool prices. The industry was depressed prior to COVID-19, and the probability of an upturn in the volatile trading environment post COVID-19 is considered very unlikely by industry participants.

Wool inventories are building in New Zealand, driven by weak export demand, low export volumes through the COVID-19 lockdown period in New Zealand, and the seasonal pre-lamb shear. Exporters are facing a very uncertain trading environment, with terms of trade and existing contracts frequently being renegotiated.

Increased demand is required to clear wool stocks. While producers have now signalled a desire to move their product by accepting lower prices at auction, the lack of end-user demand is challenging exporters' ability to shift product offshore.

COVID-19 has disrupted operation of woollen mills in the EU, with production capacities reported to be significantly down. There is also limited demand for carpet-type wools in the current economic climate, with contraction expected in the construction of new buildings, houses and business refurbishments.

The outlook for 2020-21 is for fine wool prices to ease 33 per cent, following a 22 per cent decline the previous season. Medium wool prices are forecast to decrease 31 per cent and strong wool prices are forecast to decline 35 per cent.

The market is a challenging one to forecast in the current environment. It is hoped there is a demand shift in the outlook period and that there is upside to this forecast.

Not all farmers will feel the full impact of the forecast price declines, as some have taken the opportunity to commit to longer term contracts.

Table 16 Season Average Auction Wool Prices

	cents / kg greasy				
June Year	Fine	Medium	Strong	Lambs	All Wool
2016-17	1,696	616	419	298	378
2017-18	1,696	672	271	349	375
2018-19	1,859	763	266	397	383
2019-20e	1,447	666	218	247	321
2020-21f	970	457	142	148	212
2020-21f % change	-33.0%	-31.4%	-34.9%	-40.0%	-34.2%

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

Exports

The outlook for 2020-21 is for the volume of wool that is exported to decline 2.8 per cent on 2019-20 driven by declining sheep numbers. However, there could be upside to this forecast due to a high carry-over of wool stocks from the 2019-20 season. The outlook for wool export revenue is depressed. Average export receipts at FOB are expected to decrease 34 per cent to $3,700 per tonne.

Total wool receipts are forecast to drop 36 per cent on the previous year, estimated at $276 million. The estimate for the overall auction wool price is down 20.4 per cent on 2019-20.

For the 2019-20 wool production season (from June to July), New Zealand wool exports were down 18.2 per cent to 76,700 tonnes clean.

The largest decline was in the fine crossbred wool category, with volumes down 36 per cent on the previous season. This category accounted for 20 per cent of total wool exports. Strong crossbred wool volumes, which made up 57 per cent of wool exports in 2019-20 have declined 8 per cent.

China remained New Zealand's largest wool market region in 2019-20, accounting for 39 per cent of wool export volumes. This is down from 48 per cent in 2018-19. Export volumes to the EU for 2019-20 - the next largest market (30%) - were down 16 per cent but made up a similar proportion of total wool exports to the previous season. India and the Middle East accounted for an increased share of total exports. India accounted for 12 per cent of total exports, up from 8 per cent last season.

Table 17 Auction Prices and Raw Wool Exports

	Auction Price	Wool Exports		
June Year	$ / kg clean	FOB $ / kg clean	000 tonne clean	$m FOB
2016-17	5.12	6.16	84.8	522.1
2017-18	5.09	5.41	100.2	542.5
2018-19	5.21	5.86	93.8	548.9
2019-20e	4.37	5.63	76.7	432.1
2020-21f	3.48	3.71	74.6	276.7
2020-21f % change	-20.4%	-34.2%	-2.8%	-36.0%

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

[1]Although 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 2020-21, total wool production is forecast to decline 2.8 per cent on the back of declining sheep numbers. At 133,000 tonnes, this will be the lowest wool production on record and sits 7 per cent below the five-year average. Slipe wool production is forecast to decline in line with falling sheepmeat slaughter numbers.

Shearing

The cost of shearing continued to lift in the 2019-20 season, with a 1.4 per cent rise recorded. This follows a sharp lift of 11 per cent in shearing costs in 2018-19.

The cost of shearing over the years has lifted at a higher rate in comparison with other sheep and beef farm expenses. Between 2004-05 and 2019-20 the cost of shearing has lifted 75 per cent compared with 36 per cent inflation for overall sheep and beef farm expenses.

Shearing expenditure in 2019-20 accounted for 99 per cent of wool revenue for North Island sheep farmers and 45 per cent for South Island sheep farmers. This is up from 40 per cent in the North Island and 35 per cent in the South Island just 10 years ago.

The current low state of wool prices is close to turning into a net cost for sheep and beef farmers, carried out only for animal health reasons. Some farmers are seeking different policies, including less frequent shearing, different sheep breeds, and for some farmers it is driving an increase in the cattle to sheep ratio on farm. For a large proportion of sheep farmers, however, there is no alternative but to accept the increasing costs and anticipate a turn in market sentiment for wool prices.

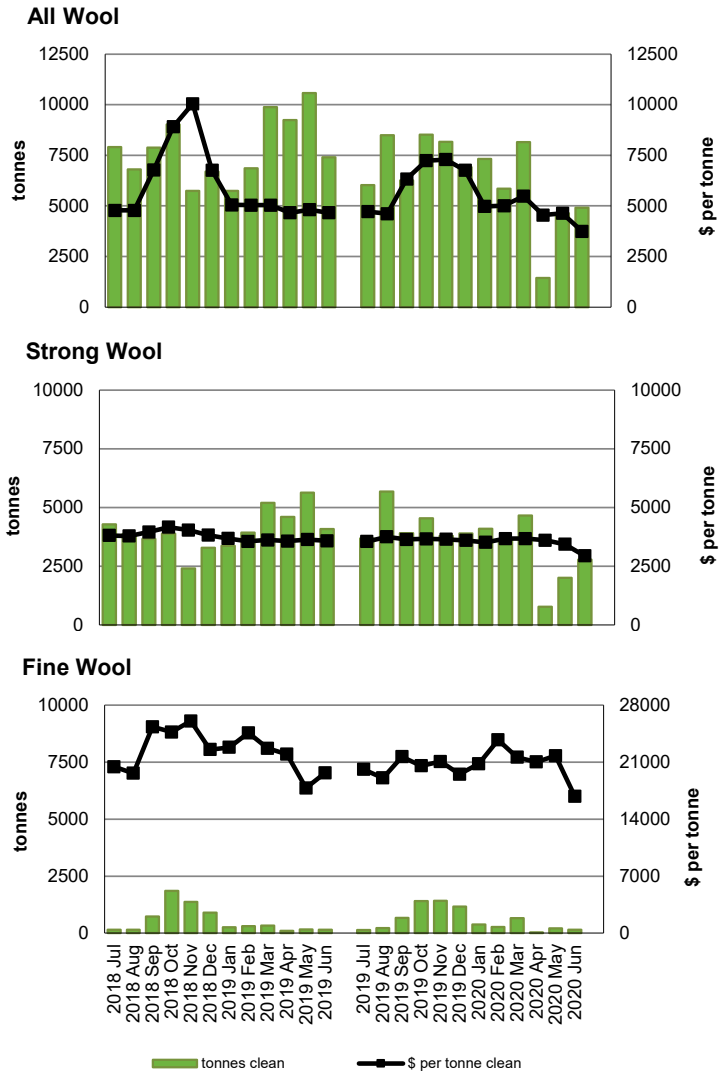
Table 18 Wool Production

June Year	Sheep million head	Shorn 000 tonnes greasy	Slipe 000 tonnes greasy	Total 000 tonnes greasy	Shorn Wool kg / head* greasy
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	26.8	121.0	15.7	136.8	4.51
2020-21f	26.2	118.4	14.6	133.0	4.52
2020-21f % change	-2.3%	-2.2%	-7.3%	-2.8%	+0.1%

*excludes wool on sheepskins

e estimate | Source: Beef + Lamb New Zealand Economic Service, Wrightson Wool.

Figure 19 New Zealand Wool Exports



Climatic Conditions

Autumn 2020 Summary

The main theme for Autumn 2020 was a lack of rainfall, with many parts of the country receiving considerably less rainfall than usual.

The lack of rainfall meant soils were drier than usual and meteorological drought was a feature for many parts of the country. This created considerable water shortages, particularly in areas that had also experienced a dry summer – notably Northland, Auckland, Waikato and Hawke's Bay.

Autumn temperatures were near average for most New Zealand locations.

Rainfall

Rainfall totals were below normal at 50-79% of normal or well below normal (<50% of normal) in parts of nearly every New Zealand region. The exceptions were West Coast, Marlborough, Wellington and Wairarapa where rainfall totals were near normal (80-119% of normal).

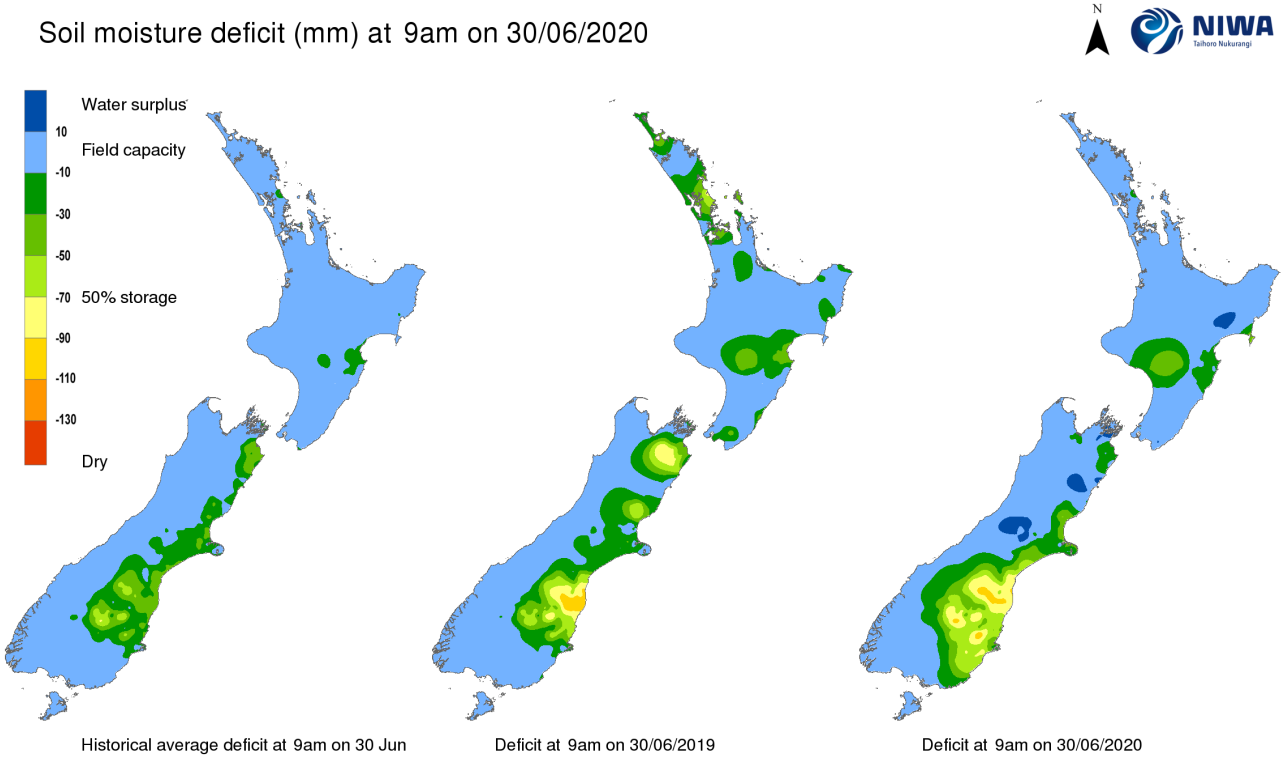
Soil moisture

An ongoing lack of rainfall resulted in below normal soil moisture for many parts of the country. Meteorological drought receded significantly during March, but remained in parts of Northland, Auckland, and northern Waikato in early April, with severe meteorological drought across the Coromandel Peninsula. By the end of autumn 2020, soils were drier than normal for many northern, central and eastern parts of the North Island, as well as eastern, inland and southern parts of the South Island. Soil moisture was generally near normal for remaining parts of the country.

Temperature

Temperatures were mostly near average (within 0.50°C of the autumn average).

Figure 20 Soil Moisture Deficit



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

Outlook – August to October 2020

Rainfall

Rainfall is most likely to be near normal for the west and east of the North Island and the north and west of the South Island. Rainfall is about equally likely to be near or below normal in the east of the South Island. For the north of the North Island, rainfall is about equally likely to be near or above normal.

Temperature

Air temperatures are about equally likely to be near or above average in the east of the North Island and the north and west of the South Island. Above average temperatures are likely for the east of the South Island and very likely for the north and west of the North Island.

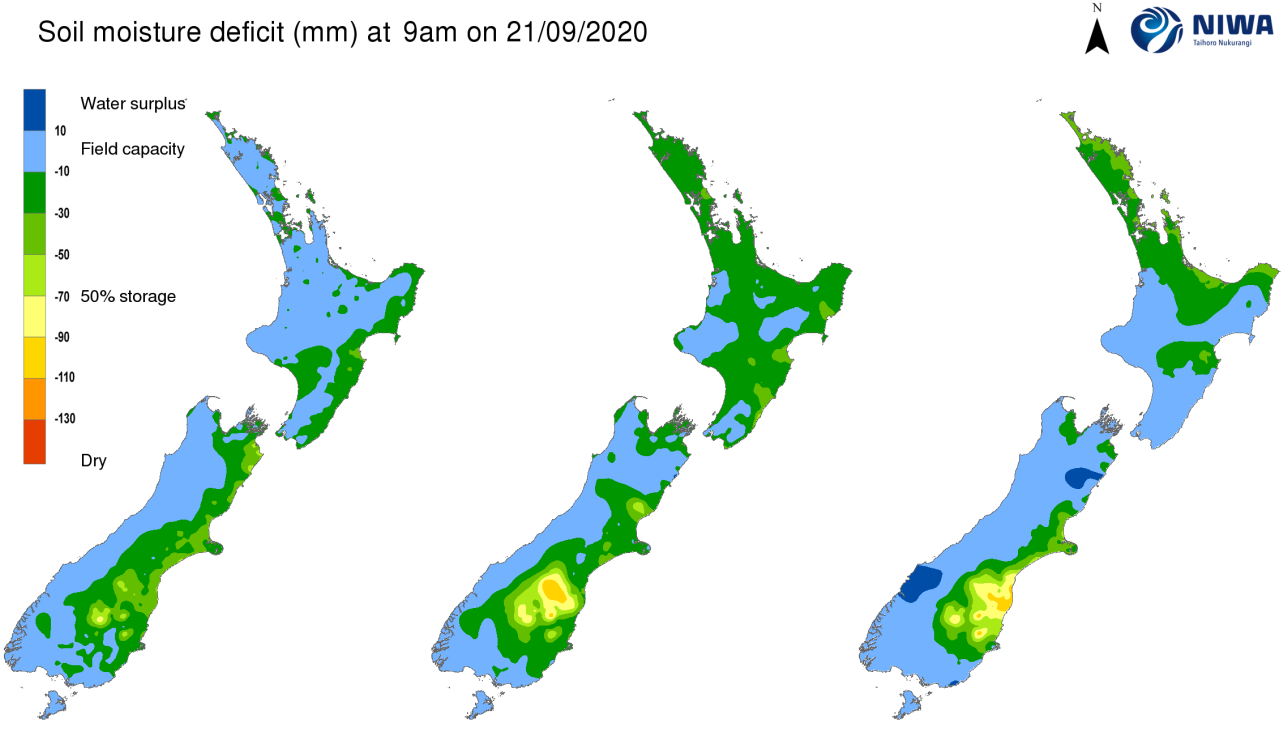
Soil Moisture

Soil moisture levels and river flows are about equally likely to be near or below normal in the east South Island. Soil moisture levels and river flows in the remainder of the country is expected to be near normal.

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

Figure 21 Soil Moisture Deficit

Soil moisture deficit (mm) at 9am on 21/09/2020



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

Farm Revenue, Expenditure & Profit – New Zealand

Revenue

Gross farm revenue for the 2020-21 farming year, which ends on 30 June, under an exchange rate scenario of USD0.66 is forecast to average $559,300 per farm – down 10 per cent (Table 19). This is driven by decreased revenue from all revenue streams, but particularly sheep and wool, which are forecast to decrease by $43,700 (14%) and $8,000 (24%) per farm respectively.

All revenue accounts, except dairy grazing, are forecast to decline clearly reflecting the challenging and volatile global trading environment, although underlying demand for red meat remains strong as outlined earlier.

Sheep revenue is forecast to decrease by 14 per cent to $267,500 per farm for 2020-21. Livestock prices are expected to fall from the high levels experienced in 2018-19 and 2019-20.

The decline in wool revenue continues – but at a faster rate than in recent seasons. The 24 per cent decrease in revenue to $25,500 per farm for 2020-21 reflects the sharp fall in price, which is much greater than the forecast increase in the average amount of wool sold per farm. Wool revenue accounts for less than five per cent of gross farm revenue, the lowest level on record.

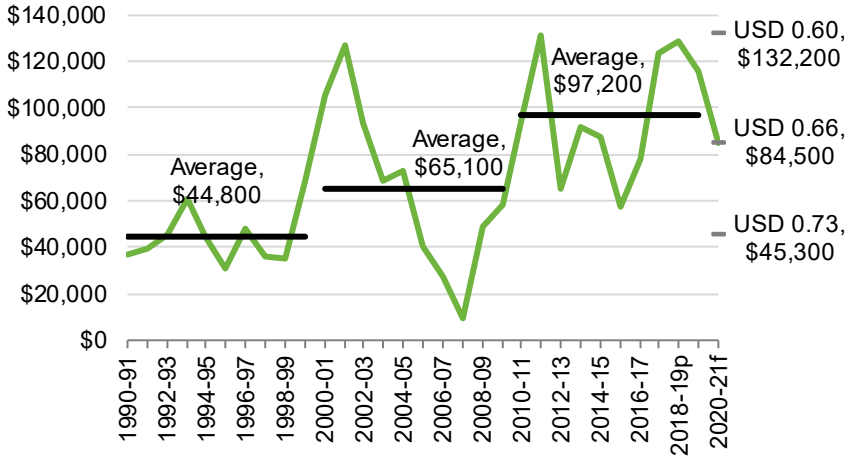
Cattle revenue decreases 5.0 per cent to average $151,600 per farm although there is steady international demand for New Zealand beef. At an island level, a major decrease (-21%) is forecast for East Coast indicating the impact of drought in the region during 2019-20. An increase is forecast for Northland-Waikato-BOP after a tough season in 2019-20, and a decrease is forecast for Taranaki-Manawatu. Overall, average per-farm cattle revenue is forecast to fall by 5.9 per cent in the North Island.

In the South Island, cattle revenue is forecast to decrease by 2.9 per cent on average. In Marlborough-Canterbury, cattle revenue is forecast to increase as the region recovers somewhat from recent droughts, but it is forecast to decrease by 14 per cent in Otago/Southland.

Overall, cattle revenue is forecast to contribute around 27 per cent of gross farm revenue in 2020-21.

Dairy grazing revenue is forecast to be almost unchanged (-0.7%) averaging $28,400 per farm (and five per cent of gross farm revenue) in 2020-21. This reflects competition for pasture from other enterprises – beef, lamb and mutton – and uncertainties about the impacts of environment policy and regulation in some areas. There is a difference between islands. In the North Island, revenue decreases on average, driven by a significant decrease in East Coast, while a small increase is forecast for the South Island. On average dairy grazing revenue contributes around five per cent of gross farm revenue.

Figure 22 All Classes Sheep and Beef Farm Inflation-Adjusted[1] Farm Profit Before Tax



p provisional | f forecast | [1]Adjusted to 2004-05 $ terms
Source: Beef + Lamb New Zealand Economic Service | Sheep and Beef Farm Survey

The cash crop account is forecast to decrease by 4.3 per cent in 2020-21. It accounts for 10 per cent of gross farm revenue on average in 2020-21, which is double the contribution from dairy grazing.

Aggregate Sheep and Beef Farm Revenue for commercial sheep and beef farms is forecast at $5.1 billion in 2020-21, down 10 per cent on 2019-20. Aggregate revenue is forecast to decrease more in the North Island (-13%) than in the South Island (-8%), and particularly in areas like East Coast that were most affected by drought conditions. 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 is estimated to decrease 4.8 per cent to average $444,200 per farm for 2020-21 (Table 19). Expenditure is expected to decrease in most categories as farmers adjust their expenditure in response to expected lower revenue. Continued low interest rates and small reduction in average debt level result in interest expenditure, which accounts for around 11 per cent of total farm expenditure, decreasing by 10 per cent to $47,000 per farm. Shearing expenditure increases for the fourth year in a row.

Inflation in prices for inputs used on sheep and beef farms is estimated at 1.5 per cent in 2020-21, which follows 3.0 per cent for 2018-19 and 0.4 per cent increase in 2019-20.

Fertiliser, lime and seeds expenditure, which is equivalent to 16 per cent of total farm expenditure, decreases 7.6 per cent to average $71,300 per farm. The volume of fertiliser applied per farm and per hectare is forecast to decrease.

Repairs and maintenance decreases 11 per cent, after deferred maintenance and confidence in future returns resulted in double-digit increases in 2017-18 and 2018-19, which were followed by no change in 2019-20.

Farm Profit before Tax

Farm Profit before Tax is used 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.

There was a 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 (Table 19).

After adjusting for inflation, profits for 2017-18 and 2018-19 were among the highest since the early 1970s, so 2019-20 and 2020-21 are a retreat from those recent highs. A large fall in Farm Profit Before Tax is forecast for 2020-21. Further, much will depend on the value of the New Zealand dollar relative to other currencies, which is more uncertain than usual because of impact of the global COVID-19 pandemic. Over 85 per cent of beef and over 90 per cent of sheepmeat production is exported. To provide some indication of the impact of changes in the exchange rate, three scenarios are shown in Figure 22:

- At the mid exchange rate (USD0.66), inflation-adjusted Farm Profit before Tax is $84,500, down 27 per cent on $116,000 for 2019-20. In nominal terms, Farm Profit before Tax is forecast to average $115,100, down 26 per cent on $156,100 for 2019-20.
- At the lower exchange rate (USD0.60), which would boost revenue considerably more than expenditure, inflation-adjusted Farm Profit before Tax is forecast at $132,200 per farm in 2004-05 terms for 2020-21, 14 per cent higher than $116,000 for 2019-20. In nominal terms, i.e. without adjusting for inflation, Farm Profit before Tax would be $180,100, up 15 per cent on $156,100 for 2019-20.
- At the higher exchange rate (USD0.73), inflation-adjusted Farm Profit before Tax would be $45,300 per farm in 2004-05 terms for 2020-21, 61 per cent lower than $116,000 for 2019-20. In nominal terms, Farm Profit before Tax would be $61,700, down 61 per cent on $156,100 for 2019-20.

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

				Provisional	Estimate	Forecast			Forecast % Change		
		2016-17	2017-18	2018-19	2019-20	2020-21	2020-21	2020-21	2019-20 to 2020-21		
						USD 0.60	USD 0.66	USD 0.73	USD 0.60	USD 0.66	USD 0.73
Revenue											
Wool		36,240	35,962	38,600	33,500	28,900	25,500	22,700	-13.7%	-23.9%	-32.2%
Sheep		204,793	280,021	309,500	311,200	310,500	267,500	232,400	-0.2%	-14.0%	-25.3%
Cattle		139,455	158,417	172,200	159,600	182,900	151,600	138,300	+14.6%	-5.0%	-13.3%
Dairy Grazing		27,229	28,389	28,100	28,600	28,400	28,400	28,400	-0.7%	-0.7%	-0.7%
Deer + Velvet		4,588	6,104	5,700	5,300	5,200	4,500	3,900	-1.9%	-15.1%	-26.4%
Goat + Fibre		14	41	0	0	0	0	0			
Cash Crop		46,178	55,520	58,000	60,500	57,900	57,900	57,900	-4.3%	-4.3%	-4.3%
Other		20,702	24,682	23,700	23,800	23,900	23,900	23,900	+0.4%	+0.4%	+0.4%
Total Gross Revenue	**$ per farm**	**479,199**	**589,136**	**635,800**	**622,500**	**637,700**	**559,300**	**507,500**	**+2.4%**	**-10.2%**	**-18.5%**
Expenditure											
Fert, Lime & Seeds		59,738	71,178	79,400	77,200	73,500	71,300	71,600	-4.8%	-7.6%	-7.3%
Repairs & Maintenance		31,234	35,119	39,300	39,400	36,200	35,100	35,200	-8.1%	-10.9%	-10.7%
Interest & Rent		65,754	74,411	74,700	68,400	63,600	63,800	64,000	-7.0%	-6.7%	-6.4%
Other Expenses		222,595	248,432	272,400	281,400	284,300	274,000	275,000	+1.0%	-2.6%	-2.3%
Total Expenditure	**$ per farm**	**379,321**	**429,140**	**465,800**	**466,400**	**457,600**	**444,200**	**445,800**	**-1.9%**	**-4.8%**	**-4.4%**
Farm Profit Before Tax[2]	**$ per farm**	**99,878**	**159,996**	**170,000**	**156,100**	**180,100**	**115,100**	**61,700**	**+15.4%**	**-26.3%**	**-60.5%**
EBITRm[3]	**$ per farm**	**143,678**	**169,276**	**238,478**	**249,403**	**245,900**	**229,149**	**127,500**	**-1.4%**	**-8.1%**	**-48.9%**
Real Farm Profit[4]	$ per farm in 2004-05 $	78,000	123,200	128,700	116,000	132,200	84,500	45,300	+14.0%	-27.2%	-60.9%
Real Farm Profit[4]	**Index (2004-05=1000)**	**1,065**	**1,681**	**1,757**	**1,583**	**1,804**	**1,153**	**618**	**+14.0%**	**-27.2%**	**-60.9%**
Fertiliser Use	kg per SU	23.7	27.0	27.1	25.5	24.8	24.1	24.2	-2.6%	-5.5%	-5.1%
Prices											
Wool auction	¢ per kg clean	519	538	521	437	334	288	251	-23.6%	-34.1%	-42.7%
All wool[5]	¢ per kg greasy	314	289	300	278	232	200	174	-16.6%	-28.0%	-37.4%
Lamb	$ per head	106	134	142	140	146	126	110	+4.0%	-10.0%	-21.4%
Mutton	$ per head	74	108	123	125	137	116	99	+9.2%	-7.6%	-21.3%
Prime Steer/Heifer	¢ per kg	513	531	539	540	596	515	449	+10.4%	-4.6%	-16.8%

1. The Weighted Average for All Classes of Sheep and Beef Farm for 1 July 2020 was a grazing area of 685 hectares with 2,785 sheep, 382 cattle and 26 deer, totalling 4,369 stock units.
2. Farm Profit before Tax is required to meet personal drawings, taxation payments, debt repayments and the purchase of capital items.
3. Earnings before Interest, Tax, Rent and Managers Salary
4. Deflated by June year Consumer Price Index.
5. Net of charges and freight

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 because it places farms on a consistent basis – debt-free, freehold and as if run by an owner-operator. EBITRm per effective hectare is a standardised measure that facilitates benchmarking.

North Island Summary

Sheep and Beef Farm Profit before Tax decreases 25 per cent to $111,700 per farm for 2020-21, heavily influenced by the impact of the drought on East Coast, where average Farm Profit before Tax is estimated to decrease 45 per cent (Table 20).

Gross farm revenue decreases 13 per cent to $461,100. Sheep revenue decreases 19 per cent to $213,200 per farm due to the expected decline in prices for prime livestock. Cattle revenue is forecast to decrease too – by 5.9 per cent. Cattle revenue reached a record high in 2018-19 but is expected to represent a more significant percentage contribution in 2020-21 because of the decreases in sheep and wool revenue. Cattle revenue contributes around 40 per cent of gross farm revenue. Dairy grazing and deer revenue are forecast to decrease (by 3.6% and 33% respectively), while crop/grain and seeds revenue is expected to be almost unchanged (+0.8%), however, combined these three items make up less than ten per cent of gross farm revenue.

Total farm expenditure decreases 8.1 per cent to average $349,800 per farm for 2020-21 with decreases in almost all categories. Shearing expenditure, which is forecast to increase by one per cent, has increased for four years in a row including a 22 per cent increase in 2017-18 as a result of a sharp increase in charges per sheep shorn.

South Island Summary

Sheep and Beef Farm Profit before Tax decreases 27 per cent to average $119,400 per farm for 2020-21, as both gross farm revenue and total farm expenditure decrease (Table 20). Gross farm revenue decreases 7.8 per cent to $677,900 per farm for 2020-21 driven by decreases in wool, sheep, and cattle revenue.

Sheep revenue decreases by 9.6 per cent to $333,200 per farm as livestock prices fall from recent high levels, partly offset by a small increase in the average number of prime lambs sold.

Cattle revenue decreases 2.9 per cent to $109,600 per farm after reaching a record high in 2017-18 and then declining in 2018-19. Some of the change is due to timing differences that resulted in trade cattle, which were on hand at 30 June 2019, being sold in the September 2019 quarter.

Total farm expenditure decreases (-2.1%) to average $558,500 per farm for 2020-21. There are increases and decreases in about equal numbers of expenditure items, which is in contrast to the North Island where decreases are forecast for almost all items. Interest expenditure is expected to decrease by 8.5 per cent due to lower interest rates and reduced debt. There was a decrease of nearly 12 per cent in 2019-20.

Table 20 Regional Summary, Weighted Average All Classes - $ per Farm

	2018-19p	2019-20e	2020-21f					
Region	Profit	Profit	Revenue	Expenditure	Profit	EBITRm[1]	Stock Units	Hectares
Northland-Waikato-BoP	139,400	90,400	410,200	299,000	111,200	158,300	3,600	370
East Coast	232,800	219,100	502,000	381,300	120,700	193,400	4,800	560
Taranaki-Manawatu	137,900	129,700	497,300	404,700	92,600	157,300	4,300	510
North Island	**174,800**	**148,400**	**461,500**	**349,800**	**111,700**	**171,200**	**4,200**	**470**
Marlborough-Canterbury[2]	152,700	149,600	794,300	687,900	106,400	201,000	4,600	1,030
Otago/Southland[2]	172,100	179,000	553,200	422,500	130,700	195,000	4,500	820
South Island[2]	**164,300**	**165,200**	**677,900**	**558,500**	**119,400**	**199,000**	**4,600**	**950**
New Zealand	**170,000**	**156,100**	**559,300**	**444,200**	**115,100**	**183,700**	**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 Grazing 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 is unchanged at an average of $410,200 per farm for 2020-21, after an 11 per cent decrease in 2019-20.

Wool revenue is forecast to decrease by 23 per cent, and sheep revenue is forecast to fall by 12 per cent.

In contrast, cattle revenue is forecast to increase – by 9.2 per cent – after falling sharply in 2019-20 (-15.8%) as a response to dry conditions, which meant sales were made earlier than usual.

Total farm expenditure decreases 6.7 per cent to $299,000 for 2020-21.

Fertiliser expenditure is forecast to decrease by about $5,000 (-8.0%).

Repairs and maintenance expenditure, which is forecast to decrease by a large absolute amount ($7,000 per farm), falls by 22 per cent after falling in 2019-20 following double-digit increases – in 2017-18 and 2018-19 – when deferred maintenance was conducted.

Interest expenditure is forecast to decrease by 9.6 per cent – to $30,100 per farm – due to low interest rates and reduced debt levels.

Feed and grazing expenditure is forecast to fall by 23 per cent, but only after a 35 per cent increase in 2019-20 due to the pressures imposed by drought conditions.

On average, Farm Profit before Tax increases by 23 per cent in 2020-21 to $111,200 per farm. While the increase appears large in percentage terms, it is from a level that was down 35 per cent in 2019-20 as a result of drought conditions and particularly due to a sharp increase in feed and grazing expenditure as discussed earlier.

On average, sheep and beef farms in the region carry 3,600 stock units on grazing on 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, Weighted Average All Classes - $ per hectare

	2018-19p	2019-20e	2020-21f				
Region	Profit	Profit	Revenue	Expenditure	Profit	EBITRm[1]	Stock Units per ha.
Northland-Waikato-BoP	380	246	1,118	815	303	431	9.9
East Coast	416	391	896	681	216	345	8.6
Taranaki-Manawatu	271	255	977	795	182	309	8.5
North Island	**376**	**319**	**992**	**752**	**240**	**368**	**9.0**
Marlborough-Canterbury[2]	149	146	773	669	104	195	4.5
Otago/Southland[2]	210	218	674	515	159	237	5.5
South Island[2]	**173**	**174**	**714**	**588**	**126**	**209**	**4.8**
New Zealand	**249**	**228**	**818**	**649**	**168**	**269**	**6.4**

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 Grazing 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 decreases sharply – by over 20 per cent – to average $502,000 per farm for 2020-21. This is substantially driven by the impact of drought in the region, which affects all major revenue accounts.

Wool revenue is forecast to fall by 32 per cent – to $19,200 per farm on average.

Sheep revenue decreases 25 per cent to $272,000 per farm on average for 2020-21, from a record high in 2019-20. Lamb prices are forecast to fall and significantly fewer lambs – both prime and store – are expected to be sold.

After farmers started 2019-20 with confidence about the future, drought had a significant impact. As a result, production is expected to be depressed in 2020-21.

Sheep revenue contributes 54 per cent of gross farm revenue.

Cattle revenue, which is equivalent to 34 per cent of gross farm revenue, decreases 21 per cent to $172,400 per farm for 2020-21. This follows an increase in sales of cattle as destocking occurred to manage in dry conditions.

Total farm expenditure is expected to fall – by 14 per cent – to reflect the lower revenue. It is expected to average $381,300 per farm in 2020-21. Decreases are expected in all major categories of working expenditure, except shearing, which increases by 3.8 per cent.

Large absolute decreases occur in farm expenditure on Feed and Grazing and Cartage, which reflect the high levels of expenditure on these items (including Feed and Grazing expenditure nearly doubling) in 2019-20 in response to drought. Fertiliser expenditure is reduced – by 16 per cent – in response to reduced revenue.

Interest expenditure decreases by 10 per cent as interest rates continue to be low and term debt is reduced.

Farm Profit before Tax decreases by 45 per cent to $120,700 per farm for 2020-21. On average, sheep and beef farms in the region run 4,800 stock units, which is reduced in response to the dry conditions. Livestock occupy a grazing area of around 560 hectares, so the stocking rate averages around 8.5 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

Average gross farm revenue is forecast to decrease by 11 per cent in 2020-21, with decreased revenue from all accounts.

Wool revenue is forecast to fall 4.5 per cent to $23,500 per farm, which is over 60 per cent lower than just five years earlier.

Sheep revenue decreases 13 per cent to $277,800 due to lower lamb prices and fewer lambs being sold. Sheep revenue contributes around 56 per cent of gross farm revenue in 2020-21.

Cattle revenue decreases 6.1 per cent to $151,200, which is due to a decrease in the average sale price per head and fewer cattle being sold. Cattle revenue contributes around 30 per cent of gross farm revenue in 2020-21.

Dairy grazing revenue decreases 8.2 per cent to $18,000 per farm. While the risk associated with *Mycoplasma bovis* has decreased somewhat, hill country farms that historically were involved in dairy grazing reduced their exposure in 2019-20 by adopting other enterprises.

Total farm expenditure decreases 5.3 per cent to average $404,700 per farm for 2020-21. Decreases are forecast in all major categories of expenditure

Interest expenditure decreases 13 per cent to $45,700 per farm – due to reduced debt levels and lower interest rates.

Fertiliser expenditure – which is equivalent to 13 per cent of total farm expenditure – decreases by 10.4 per cent due to forecast decreases in volume and price.

Shearing expenditure decreases 1.5 per cent to $27,800 following a similar percentage decrease in 2019-20 and a sharp 20 per cent increase in 2018-19.

Farm Profit before Tax decreases 29 per cent to $92,600 per farm for 2020-21 after the decrease in gross farm revenue exceeded the decrease in total expenditure.

On average, sheep and beef farms in the region run 4,300 stock units on a grazing area averaging 510 hectares, which means the stocking rate averages about 8.5 SU per hectare. The total area averages about 620 hectares, which means nearly 20 per cent is not grazed because it is woody vegetation and wetlands.

Regional Comment – South Island

Marlborough–Canterbury

Gross farm revenue decreases 6.8 per cent to average $794,300 per farm for 2020-21.

Sheep revenue decreases 12 per cent to $275,100 for 2020-21. Sheep revenue contributes 35 per cent of gross farm revenue. Wool revenue decreases more significantly – by 25 per cent – because fine wool prices, which are expected to fall, have a more significant impact than in other regions.

Cattle revenue increases 3.0 per cent to $143,300 for 2020-21 in response to more cattle being sold at higher prices.

Dairy grazing revenue increases 3.7 per cent to $73,500 per farm on average, which is equivalent to nine per cent of gross farm revenue. While a mix of arrangements contribute dairy grazing revenue, most is from long-term grazing of young, lighter stock.

Cash cropping revenue, which accounts for 27 per cent of gross farm revenue on average in this region because of the influence of mixed cropping and finishing farms, is forecast to decrease 5.5 per cent to $210,700 per farm for 2020-21.

Total farm expenditure is expected to fall by 2.0 per cent to average $687,900 per farm for 2020-21, as a result of there being a mix of increases and decreases. Decreases in expenditure on fertiliser (-8.1%), irrigation (-6.3%) and interest (-8.8%) are almost offset by increases in a wide range of other expenditure items.

Interest expenditure decreases due to lower interest rates that offset slightly higher debt levels.

Farm Profit before Tax decreases 29 per cent to $106,400 per farm for 2020-21. This reflects the decreases in gross farm revenue and total farm expenditure. The weighted average disguises the prospects of different Farm Classes. For example, Farm Profit before Tax for Farm Class 6 Breeding-Finishing farms, which is the most populous Farm Class in the region, is forecast to decrease by around 30 per cent.

On average, sheep and beef farms in the region run about 4,600 stock units on a grazing area of 1,030 hectares. High Country and foothill farms inflate the average area of farms in the region because Farm Class 1 High Country farms have a grazing effective area around 9,500 hectares for example, whereas Finishing-Breeding farms have a grazing area averaging around 450 hectares.

Otago–Southland

Gross farm revenue decreases 9.5 per cent to average $553,200 per farm for 2020-21. The largest drivers are the decreases in sheep and wool because of the significance of sheep in the region. Revenue from wool and sheep combined accounts for nearly 80 per cent of gross farm revenue.

Sheep revenue decreases 7.7 per cent to average $393,400 per farm for 2020-21. This is due to a decrease in prices, which more than offsets an increase in the number of prime and store lambs sold.

Wool revenue also decreases – by a smaller absolute amount – but a much larger percentage because wool revenue is smaller. The volume of wool sold – including some from on-farm inventories – increases but the average price of wool sold is forecast to remain low.

Cattle revenue decreases 13.8 per cent to $74,000 per farm for 2020-21. The average number of cattle per farm at open decreased and while the number of cattle sold increases this occurs at lower average prices than in the previous season.

Total farm expenditure decreases 2.3 per cent to $422,500 per farm for 2020-21. The most significant absolute decrease in expenditure is on interest (-$4,400 or -8.0%) because interest rates remain low, and debt levels are reduced. Other items of reduced expenditure include fertiliser and feed and grazing. Fertiliser expenditure accounts for 14 per cent of total farm expenditure.

Farm Profit before Tax decreases 27 per cent to average $130,700 per farm for 2020-21.

On average, sheep and beef farms in the region run 4,500 stock units on a grazing 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 Finishing Farms that are typical in Southland average 240 hectares.