



New Season Outlook 2021-22

© Beef + Lamb New Zealand Economic Service | October 2021
P21014 | ISSN 2230-5777



© 2021 Beef + Lamb New Zealand Limited also referred to as B+LNZ, B+LNZ - Economic Service and the Economic Service.

All rights reserved. This work is covered by copyright and may not be stored, reproduced or copied without the prior written permission of Beef + Lamb New Zealand Limited.

Beef + Lamb New Zealand Limited, its employees and Directors shall not be liable for any loss or damage sustained by any person relying on the forecasts contained in this document, whatever the cause of such loss or damage.

Beef + Lamb New Zealand
PO Box 121
Wellington 6140
New Zealand
Phone: 04 473 9150
Fax: 04 474 0800
E-mail: econ@beeflambnz.com

Contact:
Andrew Burt: 027 652 9543
Chief Economist
Rob Davison: 04 471 6034
Executive Director
Rachel Agnew: 027 294 1276
Senior Agricultural Analyst
Angie Fisher: 027 442 0057
Senior Agricultural Analyst

Contents

CONTENTS	1	WOOL	36
EXECUTIVE SUMMARY – OUTLOOK 2021-22	2	PRODUCTION	37
ECONOMIC CONDITIONS	4	SHEARING	37
THE GLOBAL ECONOMY	4	CLIMATIC CONDITIONS	38
NEW ZEALAND	7	AUTUMN 2021 SUMMARY	38
CONSUMER PRICES	7	OUTLOOK – AUGUST TO OCTOBER 2021	39
INTEREST RATES	7	FARM REVENUE, EXPENDITURE & PROFIT – NEW ZEALAND	40
EXCHANGE RATES	8	REVENUE	40
DYNAMICS OF GLOBAL RED MEAT TRADE 2021-22	9	EXPENDITURE	41
COVID-19 AND DELTA	9	FARM PROFIT BEFORE TAX	41
ASF AND THE CHINESE PORK MARKET	9	FARM REVENUE, EXPENDITURE & PROFIT – REGIONAL	43
CLIMATE CHANGE	10	EBITRM	43
TRADE	10	NORTH ISLAND SUMMARY	43
OTHER	11	SOUTH ISLAND SUMMARY	43
EXCHANGE RATE SENSITIVITY – 2021-22	12	REGIONAL COMMENT – NORTH ISLAND	44
LIVESTOCK NUMBERS	13	NORTHLAND–WAIKATO–BAY OF PLENTY	44
SHEEPMEAT OUTLOOK 2021-22 – OPPORTUNITIES AND CHALLENGES	14	EAST COAST	45
LAMB & MUTTON EXPORTS	15	TARANAKI–MANAWATU	45
LAMB & MUTTON – INTERNATIONAL SITUATION	18	REGIONAL COMMENT – SOUTH ISLAND	46
CHINA	18	MARLBOROUGH–CANTERBURY	46
EU-27 & UK	19	OTAGO–SOUTHLAND	46
UNITED STATES	20		
AUSTRALIA	21		
LAMB & SHEEP PRICES – FARM-GATE	22		
LAMB & MUTTON PRODUCTION	24		
BEEF OUTLOOK 2021-22 – OPPORTUNITIES AND CHALLENGES	25		
BEEF & VEAL EXPORTS	26		
BEEF – INTERNATIONAL SITUATION	29		
CHINA	29		
UNITED STATES	31		
AUSTRALIA	32		
SOUTH AMERICA	33		
CATTLE PRICES – FARM-GATE	34		
BEEF PRODUCTION	35		



Executive Summary – Outlook 2021-22

Overview

The outlook for global sheepmeat and beef demand is positive for the 2021-22 season. Fundamentals in key markets are solid, with strong demand and tight supply. In-market returns are forecast to lift for both sheepmeat and beef, however, forecasts for a stronger NZD outweigh some of the buoyancy from in-market conditions.

Demand from China and the US underpinned solid export returns in the latter part of the 2020-21 season. Chinese demand is driven by a continuing meat protein deficit as African Swine Fever remains relevant. Economic recovery in both countries has been rapid and fuels consumer confidence. Demand from China for imported meat also continues to be supported by growing consumer incomes and urbanisation.

Global demand for sheepmeat and beef is well exceeding supply. Limited supplies from Australia as its producers focus on rebuilding is a key driver. In the beef market, supply has also been affected by trade disruptions for Argentina and Brazil.

Major challenges for the new season include global uncertainty regarding the spread of the Delta variant, pandemic-related disruption to supply chains, increased freight costs and a global shortage of labour. The relationship between the governments of New Zealand and China will also be critical to red meat export performance.

Economic Conditions

Overall, the outlook for global economic recovery is positive, but the downside risk is high because of the Delta variant of COVID-19. The pace of vaccination rollout will be a key risk factor. Global inflationary pressure and reassessment of monetary policy in advanced markets could also influence economic outcomes.

Global demand for New Zealand's primary sector exports has been robust. Red meat, dairy and logs have all performed solidly so far in 2021. However, slowing economic recovery in key global markets, particularly the easing in demand from the Chinese market, has the potential to slow New Zealand's own recovery given our export reliance.

The New Zealand economy experienced a swift recovery through the first seven months of 2021. The growth trajectory was severely disrupted by the outbreak of the Delta variant of COVID in August 2021. This created uncertainty for the short-term economic outlook. Accelerating the rate of the country's vaccination programme will be key to both health and economic outcomes.

The exchange rate is the major limiting factor to NZ red meat export returns in the 2021-22 season. The NZD/USD rate is forecast to lift close to six per cent for the 2021-22 season to average 0.75 – the highest seasonal average for seven years.

Lamb and Mutton

Market fundamentals for New Zealand lamb and mutton exports are positive for 2021-22. Total lamb export receipts are forecast at \$3.36 billion FOB, up 2.2 per cent on 2020-21.

Demand in all key markets for New Zealand lamb is strong. There is a limited global supply of lamb and strong consumer demand is supporting higher in-market prices. The average in-market price across all markets for lamb is forecast to lift six per cent on 2020-21. However, this market gain is partially outweighed by the forecast of a stronger NZD.

The average NZD FOB value per tonne for lamb exports is forecast to lift 1.7 per cent on 2020-21, up six per cent on the five-year average.

Lamb exports are forecast to be steady on 2020-21 at 299,000 tonnes shipped weight.

At an exchange rate of USD0.75, the average lamb price is forecast at 724 cents per kg for 2021-22, up 1.4 per cent on the previous season and five per cent up on the five-year average.

The outlook for mutton in 2021-22 is strong, driven by strong demand from China. The high NZD is a limiting factor to mutton returns, and the average export value is expected to decline 2.5 per cent. This price, however, remains historically high – 26 per cent higher than the five-year average.

Mutton export production is forecast to decline 8.9 per cent, following a high number of adult sheep processed in 2020-21. This, combined with a lower average export value, results in a 9.4 per cent decline in total mutton export receipts.

The annual average mutton price for the 2021-22 season is forecast at 494 cents per kg, down 1.7 per cent on 2020-21, but still 16 per cent up on the five-year average.

Challenges for the outlook period include uncertainty around further spread of Delta, and the impact on economic recovery and the foodservice sector. Disruption to shipping timeframes and increases in freight costs also have the potential to weigh on export returns.



Beef

The outlook for the global beef market is buoyant, fuelled by strong demand and tightening global beef supplies. COVID-19 and the Delta variant will continue to be a source of downside risk; however, the imbalance of supply and demand has the potential to offset pandemic disruption.

The projected strengthening of the NZD is a major limiting factor for export returns in the 2021-22 season, offsetting positive in-market gains.

Export revenue from beef and veal in the 2021-22 season is forecast to be \$3.89 billion FOB, down 7 per cent on 2020-21. The decline reflects a 5 per cent decline in cattle slaughter and a 2.4 per cent decline in the average export value.

Beef and veal exports are forecast to be 5.1 per cent down on 2020-21 at 468,000 tonnes shipped weight, still the second highest volume on record.

At USD0.75, the estimated 2021-22 average annual price for P steer/heifer (270-295kg) is 502 cents per kg. It is forecast to average 341 cents per kg for M cow (170-195kg), which includes a large component of cull dairy cows, and 518 cents per kg for M bull (270-295kg).

Livestock Numbers

The total number of sheep at 30 June 2021 is estimated at 25.83 million, down 0.8 per cent on the previous June and nearly 40 per cent lower than in 2000. The decline in sheep numbers was across both breeding ewes, down 0.5 per cent to 16.48 million, and hoggets, which decreased 0.6 per cent to 8.61 million.

The number of beef cattle at 30 June 2021 is estimated at 3.98 million, an increase of 2.5 per cent on the previous June. The increase in the number of beef cattle was driven largely by more rising two-year-old cattle, particularly in the North Island.

The number of dairy cattle at 30 June 2021 is estimated to have increased marginally by 0.2 per cent to 6.22 million. The number of dairy cows in milk is estimated to have decreased by the same percentage (-0.2%), however dairy weaner numbers are estimated to have increased 3.0 per cent to 0.90 million.

Wool¹

Global economic recovery post COVID-19 is underpinning a lift in prices for wool as demand for wool is income sensitive. This has been particularly notable in the merino and fine wool categories. However, even with the welcomed price lift, there remains a long way to go in price recovery before wool becomes profitable again for farmers.

Demand from China has lifted, and the combination of limited supply and lifting prices has stimulated increased activity from Europe and India. The spread of Delta does create downside risk to further improvement in this market.

The outlook for 2021-22 is for wool exports to remain steady on 2020-21.

Average export receipts at FOB are expected to lift 6.9 per cent to \$4,430 per tonne. Total wool receipts are forecast to lift 6.2 per cent on the previous year to an estimated at \$420 million.

The estimate for the overall auction wool price is up 6.7 per cent on 2020-21.

Sheep and Beef Farms

Gross farm revenue for the 2021-22 farming year, which ends on 30 June, is forecast to average \$634,800 per farm – an increase of 4.3 per cent.

Sheep and cattle revenue combined account for three-quarters of gross farm revenue, while wool revenue is just under 5 per cent.

Sheep revenue is the main driver for increased gross farm revenue in 2021-22, increasing by an estimated 7.5 per cent to an average \$317,700 per farm.

Cattle revenue decreases 2.5 per cent to average \$158,900 per farm due to international demand for New Zealand beef being tempered a strong NZD.

Wool revenue is forecast to increase 15 per cent to \$28,500 per farm. Despite this increase in wool revenue, it barely covers associated shearing costs (on average).

Dairy grazing revenue is forecast to be almost unchanged (-0.9%) averaging \$32,700 per farm and five per cent of gross farm revenue in 2021-22.

Total expenditure is estimated to increase 3.0 per cent to average \$491,300 per farm for 2021-22 with increases in most categories and notably fertiliser expenditure.

Farm Profit Before Tax is forecast to increase for 2021-22 by 9.0 per cent to an average \$143,500 per farm.

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.

Economic Conditions

The Global Economy

COVID-19, and the virus's variant forms, has dominated global economic outcomes in 2021 and is forecast to remain dominant in 2022. Global economic recovery has been strong in advanced economies in 2021, however the spread of the Delta variant of COVID-19 around the globe has lifted the level of risk and uncertainty regarding the near-term outlook.

Health and economic outcomes of the virus spread are growing more manageable as vaccination rates increase. During 2021, economic recovery has gained momentum in

countries with high vaccination rates. There is risk around the sustainability of economic recovery in countries with low vaccination rates, particularly as the number of Delta cases increase.

Access to vaccines and fiscal policy are creating a growing divide between advanced and emerging/developing markets. Economic recovery for markets with limited access to both vaccines and fiscal support is expected to be slower.

In July 2021, the International Monetary Fund (IMF) forecast global economic growth of 6 per cent for calendar 2021 and 4.9 per cent for 2022. The forecast is underpinned by

improved health and economic outcomes in advanced countries. The large US fiscal support package announced in 2021 is expected to be a key driver of global economic recovery.

Inflationary pressure in commodity markets, including agriculture, was strong in the first half of the year. However, it appears commodity prices have reached their cyclical peak and early in the second half of the year displayed signs of decline.

Global food prices have skyrocketed in 2021. Adverse climatic events, economic recovery from COVID and animal disease outbreaks such as African Swine Fever (ASF) and highly-pathogenic avian influenza (HPAI) have impacted input supply. Surging Chinese demand for protein because of ASF have pushed global meat prices to unprecedented levels this year. The United Nations reports that global food prices in July 2021 were up 31 per cent on 2020 and are projected to continue to increase in 2022.

Some governments in emerging markets are intervening in the market to release the pressure of the rising prices. The restriction imposed on beef exports by the Argentinian government is an example. The US government recently introduced new measures to address concerns of meat price inflation.

The global trade outlook is forecast to strengthen in 2021. The forecast is

based on steady merchandise trade growth. Consumer demand for goods has exceeded expectations post pandemic. Services trade indicators remain weak following pandemic disruption. World trade volumes are forecast to increase by 8 per cent in 2021 and around 6 per cent in 2022.

The increase in world trade is a contributing factor to the global freight congestion challenging importers and exporters this year. Freight networks have been experiencing disruption and growing backlogs because of the initial pandemic outbreak in early 2020 with ports and networks in lockdown. Global shipping and airfreight costs have surged and are contributing to global inflationary pressure. This will be discussed in more detail later in this report.

In 2021, global red meat demand has continued to show resilience in face of COVID-19 disruption. This has been underpinned by strong import demand from China, the rapid pace of recovery in the US foodservice sector and a tightening of global beef supply. These favourable fundamentals are expected to remain relevant into the outlook period.

The OECD-FAO 2021-2030 Agricultural Outlook is projecting long term global growth in meat consumption, driven by income and population growth in low-income countries. In higher income countries consumption is expected to level off, reflecting changing consumer preferences and slower growing

Table 1 Economic Growth

	Annual Average % Change, March Year					
	2018	2019	2020	2021e	2022f	2023f
	%	%	%	%	%	%
US	+2.5	+2.7	+1.9	-3.4	+7.1	+4.6
UK	+1.6	+1.4	+0.4	-10.9	+3.1	+5.4
Euro zone	+2.8	+1.6	+0.1	-6.2	+6.4	+4.3
Japan	+1.8	+0.2	-0.5	-4.5	+1.3	+2.8
China	+6.9	+6.6	+2.6	+8.1	+13.6	+6.2
South Korea	+3.1	+2.6	+2.1	-0.7	+4.6	+3.3
Australia	+2.7	+2.6	+1.8	-2.4	+3.2	+3.5
Trading Partners	+4.2	+3.9	+1.7	+0.4	+7.7	+4.7
New Zealand	+3.6	+3.3	+1.7	-2.3	+3.7	+3.9

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



populations. There is expected to be a shift towards the consumption of higher valued meat cuts in these markets.

Overall, the outlook for global economic recovery is positive, but the downside risk is high because of COVID and its variant forms. The pace of vaccination rollout will be a key risk factor, with any interruption to this programme increasing the risk of further mutations and resurgence of infection. The IMF also reports that global inflationary pressure and a reassessment of monetary policy in advanced markets could influence economic outcomes.

China

The recovery of economic activity in China following the initial COVID-19 outbreak has been swift. An aggressive strategy to contain the 2020 outbreak of COVID-19 combined with strong stimulus support in 2020 resulted in China being the only market to experience economic expansion in 2020. The return of economic activity to the region played a role in holding up global trade through the pandemic crisis.

The IMF forecasts the Chinese economy will grow 8.1 per cent in 2021 and a further 5.7 per cent in 2022. This follows growth of 2.3 per cent in 2020.

Economic growth is underpinned by export growth and fiscal support. However, fiscal policy is expected to provide less support in 2021 compared to last year, as the recovery is solid in most sectors. However,

some support measures will remain in place.

COVID-19 remains a significant risk for China as the country still has relatively low vaccination rates. While the country has implemented strict measures to keep the virus under control, the huge population has made vaccination rollouts challenging. Until higher vaccination targets are met, borders remained closed, international business will remain restricted and full economic recovery will be delayed.

There is already evidence of the economy hitting shakier ground, as it deals with intermittent outbreak of the Delta variant and the outcomes of severe flooding earlier in the year. There are signals that much of the economic growth may have taken place in the first half of 2021. Economic data from July show evidence of dampening consumer demand, slower investment growth and industrial production.

There is also increasing wariness and uncertainty in the business and finance sector as President Xi Jinping pledges to move towards a goal of “common prosperity”, seeking to narrow the country’s growing wealth gap. The term “common prosperity” is increasingly being used officially and follows a crackdown on excesses in industries such as technology and private tuition. The Chinese government has stated the intention of using taxation and other income distribution methods to expand the size of the middle class and boost low incomes. Some commentators report that this policy has the potential to

cause major disruption in the Chinese and global economies.

Chinese import demand and export growth in the past year have been a critical driver of global economic growth. Any weakening in economic activity will have significant flow-on impacts to global trade, and for New Zealand particularly because of our reliance on this market as a red meat importer.

In the medium and long term, Asia, as a whole region, is projected to drive global consumption growth in meat protein. China is the key growth driver within Asia. Growth is driven by constrained limited resource of land and water to support their own domestic production and income growth against a rising population.

The Chinese government has ambitious targets for long term growth. Over the next 15 years it will be focused on doubling the size of the middle class and supporting the shift of an additional 200 million people into urban areas. These targets support continuing growth in Chinese agricultural imports in the medium and long term.

China is a difficult market to forecast due to lack of transparency in reporting and increasingly tighter government controls on information.

Reporting from within China has delivered messages to the world of swift recovery from ASF and has downplayed reports of failed crops and damage from flooding. It has been the market fundamentals of demand and price that have helped

Table 2 Consumer Prices

	Annual Average % Change, March Year					
	2018	2019	2020	2021e	2022f	2023f
	%	%	%	%	%	%
US	+2.1	+2.3	+1.9	+1.2	+4.6	+3.1
UK	+2.8	+2.3	+1.7	+0.6	+2.3	+2.6
Euro zone	+1.4	+1.8	+1.1	+0.2	+2.1	+1.6
Japan	+0.7	+0.8	+0.6	-0.3	-0.3	+0.5
China	+1.8	+2.0	+3.7	+1.3	+1.4	+2.1
South Korea	+1.7	+1.3	+0.5	+0.5	+2.2	+1.7
Australia	+1.9	+1.8	+1.8	+0.6	+3.2	+2.0
Trading Partners	+1.7	+1.7	+1.8	+0.6	+2.4	+2.0
New Zealand	+1.6	+1.7	+1.9	+1.5	+3.4	+1.8

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

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

Table 3 Short-term Interest Rates

	% p.a., March Year					
	2018	2019	2020	2021e	2022f	2023f
	%	%	%	%	%	%
US	0.5	1.4	2.5	1.6	0.1	0.0
UK	0.0	0.3	0.7	0.7	-0.1	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	0.1	0.1
Australia	1.8	1.8	2.1	0.9	0.0	0.0
New Zealand	1.9	1.9	1.1	0.3	0.8	1.5

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

analysts form a picture of what is happening on the ground in this market.

ASF remains a significant issue for China. There have been further outbreaks of the disease in 2021, delaying the recovery of domestic pork production. As a result, the country's meat supply remains in deficit, which continues to support demand for imported meat. This demand is one of the dominant drivers of global demand for red meat. It will be discussed in greater depth further in this report.

US

The US has made a swift economic recovery in 2021 following the pandemic disruption of 2020. The recovery has been underpinned by the Federal government's fiscal support and the advanced pace of vaccinations.

The IMF estimates the US economy will expand 7 per cent in calendar 2021 and a further 4.9 per cent in 2022. This follows a contraction in 2020.

The US is showing advanced signs of COVID-19 recovery. The economy has re-opened and containment measures relaxed. However, the Delta variant has spread rapidly through the country, and is again challenging health and economic outcomes in the US. At the time of writing this report, there remained a reliance on high vaccination rates to manage the new spread. However, there were growing signals of uncertainty in this strategy and signs of caution regarding the continued pace of economic recovery.

Fiscal stimulus packages have been a key driver of economic growth in 2021. The size of the stimulus packages has been significant. These have driven consumer confidence, increasing

demand and in turn, economic growth. Many of the measures are time-limited and the pace of economic expansion is projected to slow as these expire from 2022.

Government support programmes have also boosted the employment market, with strong job creation and a record low unemployment rate. This has now become a serious constraint to the economy as industries, including the meat processing sector, are experiencing labour shortages, and are forced to operate below optimal capacity.

Inflation has accelerated in the US during 2021. In August 2021, consumer price inflation was reported to be at the highest point since mid-2008. Rising prices are an issue across the economy; however, food inflation has been particularly sharp. Food prices at grocery stores experienced inflationary pressure in 2020 as the pandemic increased food consumed at home. In 2021, with the opening of the economy, there was a sharp increase in the price of food consumed away from home. Food costs at restaurants and foodservice outlets are increasing each month, with the trajectory of increase the highest seen in any month-on-month trend since the early 1980s. The rising cost of inputs, particularly labour, is driving the inflationary pressure.

Meat prices have not been immune from the inflationary pressure. Retail meat prices have risen sharply, even when compared with the increases of 2020, when meat supply was disrupted by the pandemic. Beef and pork have experienced the most

significant increases and have pulled lamb and chicken prices up with them.

In the period from December 2020 to August 2021, the price of beef at retail increased 14 per cent, pork by 12 per cent and poultry by 6.5 per cent.

In an attempt to curb this meat price inflation, the Biden administration has introduced new measures targeting the meat processing sector, which has been accused of price fixing and profiteering as a result of the concentration in the industry. The new measures are designed to introduce more transparency.

It is a testament to the strength of consumer demand that the volume of meat protein sold has increased and prices have increased. When comparing the period from January to June from 2019 to 2021 (disregarding the disruption of 2020) the volume of beef sold at retail increased 4 per cent despite a 12 per cent lift in average price. The volumes of chicken and pork sold at retail remained largely steady, but the average value of both increased 9 per cent.

The sharp lift in meat prices, combined with robust consumer demand has been the driver of growth in New Zealand export volumes of red meat to this market so far in 2021.

It is widely expected that inflationary pressure will reduce in 2022, however it is a downside risk to the economy if inflation is higher than expected and that causes the Federal Reserve to raise interest rates.



The US is currently experiencing historic drought conditions covering nearly of all the West and most of the Northern Plains. Drought is also affecting neighbouring Canada and Mexico. The severely dry conditions will have implications for meat and feed production that have the potential to cause significant disruption to global supply chains. The impact on beef and lamb production will be discussed later in this report.

Australia

The Australian economy experienced strong economic growth in the first half of 2021. GDP lifted by 1.8 per cent in the March quarter and the recovery moved away from relying on government spending towards household and private spending.

This growth was brought to a halt by the extensive spread of the Delta variant of COVID-19 through most of the country, which led to extensive lockdowns since mid-June. The spread of the virus and death rates were continuing to rise at the time of writing in early September.

The impact of lockdowns and restricted economic activity is beginning to be felt. The economy is expected to contract in the September quarter and unemployment is expected to rise. The Reserve Bank of Australia is expected to delay any lifts to interest rates until late 2023 or early 2024.

New Zealand

The New Zealand economy made a stronger than expected recovery through the first seven months of 2021. GDP lifted to pre-pandemic

levels in the first quarter, and unemployment was historically low. The swift recovery is attributed to unprecedented levels of spending from the Government and low interest rates.

The strong recovery reflected a strong housing market with a surge in construction activity and renovation. Increased Government spending on infrastructure increased economic activity and there were signs of increasing investment.

However, the impact of the global disruption from the COVID-19 pandemic remained a constraint on the economy. Limiting factors include border restrictions, subsequent labour shortages, global supply chain disruptions – to imports and exports – and the absence of international tourism.

The growth trajectory was severely disrupted in August 2021 with an outbreak of the Delta variant of COVID-19 in the community. The Government immediately introduced Alert Level 4 lockdown, with Auckland to be locked down for several weeks. This created uncertainty for the short-term economic outlook. However, it was widely agreed that if the outbreak was contained, the economy will prove resilient and recover quickly.

Accelerating the rate of the country's vaccination programme will be key to reducing the risk of future lockdowns. New Zealand is, however, committed to a COVID-19 elimination strategy, which means continued border restrictions and limitations for tourism

and businesses reliant on international travel.

The New Zealand Government again introduced fiscal support for businesses impacted by the recent lockdown. This will increase New Zealand's debt levels but will decrease the impact on private sector businesses.

The New Zealand economy will not be able to rely on growth in construction and the housing market to support the recovery as it did last year, with this sector already at capacity.

Global demand for New Zealand's primary sector exports has been robust. Red meat, dairy and logs have all performed solidly so far in 2021. However, slowing economic recovery in key global markets, particularly the easing in demand from China, has the potential to slow New Zealand's recovery because of the country's export reliance.

Dairy prices eased in Global Dairy Trade auctions in July and August, reflecting the slowing demand in China. However, despite the easing, dairy prices remain at elevated levels and will support a higher farm-gate milk price for both the 2020-21 and 2021-22 seasons.

Red meat export returns were strong in the first eight months of 2021, supported by robust demand from China and the US and tighter global supplies of both beef and sheepmeat.

The disruption to global supply chains and surge in freight costs added cost pressure to importers and exporters. This is expected to flow into the price

for imported goods and decrease margins for exporters. New Zealand's terms of trade is expected to weaken as the price of imported goods rises faster than export prices.

The shortage of labour has been, and will continue to be, a constraint on economic growth. This is relevant for the tourism and hospitality sectors as well as the primary sector.

New Zealand farmers have enjoyed a more profitable year than originally expected, because the global economic recovery has been swifter than expected. The exchange rate is expected to be a limiting factor in future. On-farm challenges include an increased frequency of adverse climatic events and the pace of ongoing environmental regulation.

Consumer Prices

The Consumer Price Index (CPI) for the June 2021 quarter lifted 1.3 per cent on the March quarter – bringing annual inflation to 3.3 per cent.

The main drivers of the increase in June were higher food, fuel and housing-related costs. A shortage of labour, higher global crude oil prices, surging construction costs and rental inflation were contributing factors.

It is expected that continuing, and possibly growing, cost pressures and strong demand will keep inflation relatively high in the coming year.

Interest Rates

New Zealand's Official Cash Rate (OCR) has been at a low 0.25 per cent since the emergency cut in March

2020 following the initial outbreak of COVID-19.

Prior to the New Zealand community outbreak of the Delta variant of COVID-19 in August 2021 the Reserve Bank of New Zealand (RBNZ) was expected to increase the OCR in the August Monetary Policy Statement. The domestic economy was overheated, and inflationary pressures were growing so it was evident that the economy did not require the monetary stimulus provided by the low OCR.

Assuming that the outbreak of Delta is contained, the RBNZ has signalled that the New Zealand economy has the capacity to manage the shock of the sudden lockdown to economic activity.

It is therefore widely expected that the RBNZ will lift the OCR by 0.25 percentage points in early October. Further hikes are also picked quarterly from October until the OCR reaches 1.5 to 2 per cent by the end of 2023.

Short-term interest rates have already lifted in anticipation of an OCR rise. The ANZ bank noted that the high indebtedness in New Zealand, particularly in households, means higher interest rates are likely to a big impact on all sectors of the economy.

Exchange Rates

Exchange rate forecasts are challenging even when global markets are stable. COVID-19-related uncertainty and subsequent economic impacts have created a volatile backdrop for foreign exchange

projections and there is associated risk to the report's forecasts.

The exchange rate forecasts in this report were generated in the week prior to the community outbreak of the Delta variant in New Zealand, which subsequently put the country into Alert Level 4 lockdown.

At the time of writing, there was no clear consensus on where the NZD would land in the outlook period. Several leading banks were still holding firm on the projections as presented in this report.

The key theme that has driven the positive outlook for the NZD has been both the domestic and global economic recovery from COVID-19. The spread of the Delta variant around the world as well as in New Zealand, has disrupted that trajectory.

However, despite the disruption of Delta, the NZD has been supported by strong domestic data and clear signals from the RBNZ that the OCR will be lifted, and possibly significantly.

If the planned hikes become reality, there will be upwards pressure on the NZD, in the range of what has been projected in this report.

It appears that US economic conditions are secondary to the strong domestic economy in influencing the NZD currently. Despite this, they are key to monitor, particularly with the contrasting pull of virus resurgence and economic recovery hanging over the currency markets.

Table 4 New Zealand Dollar Exchange Rates

Sep Year	Annual Average		
	USD	GBP	EUR
2019-20	0.64	0.50	0.57
2020-21e	0.71	0.51	0.59
2021-22f	0.75	0.51	0.60
2021-22f % change	+5.8%	-0.1%	+2.3%

e estimate, f forecast

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

Dynamics of Global Red Meat Trade 2021-22

Covid-19 and the Delta Variant

The rapid spread of the Delta variant of COVID-19 around the globe in 2021 has extended the level of risk this pandemic presents for global trade in the 2021-22 season.

Most advanced economies made swift economic recovery from the initial outbreak of the virus in 2020. Both health and fiscal policy will be better prepared to deal with the outcomes of Delta, however, there are many unknowns about Delta and other variants that may become virulent. These include rates of infection, effectiveness of vaccines and whether lockdown restrictions will need to be implemented to slow infection rates.

The speed of vaccination rollout and continued development of new vaccines will be critical to maintaining global economic growth momentum.

COVID-19 disruption to red meat trade through 2020 and 2021 is driven by several factors including weak global economic conditions, a sharp decline in global foodservice sector demand, congestion and increasing costs in the global supply chain and labour shortages.

Foodservice sector disruption

Foodservice sector demand declined worldwide in 2020 reflecting pandemic lockdowns and restrictions on the hospitality trade. As consumers were locked down in their homes, red meat products destined for the foodservice channel were very difficult to sell and

suffered a decline in average export value.

The impact of weak foodservice sector demand was significant for New Zealand lamb exports, particularly in the EU-27 and US. New Zealand lamb exports to these markets are typically higher-value cuts predominantly destined for the restaurant trade.

The opening up of these economies as vaccination programmes rolled out led to a swift recovery of foodservice sector demand in 2021. China's foodservice sector sales are expected to rebound to pre-pandemic levels by the end of the year, but the recoveries in the US and EU-27 markets will be slower. It is expected that the quick-service restaurant channel will underpin most of the recovery this year, with customers proving more reluctant to rush back to full-service restaurants. Some reports suggest the full-service foodservice sector may struggle to rebound to pre-pandemic levels, particularly in the US.

At the time of writing the rapid spread of the Delta variant was causing growing concern about continued foodservice recovery. Anecdotal evidence from restaurant and fast-food operators in the US signalled expectations for worsening conditions over the next six months.

The COVID-19 pandemic has changed the dynamics of consumer eating behaviour around the globe. Lockdowns forced a shift to online meat purchasing and home cooking. The retail sector and ecommerce sectors experienced significant growth as a result. The uptake suggests both

will be important distribution channels for meat sales in future.

Data emerging from the US as the economy and foodservice sector re-opened shows that consumers are spending more on higher-end items at retail because they are saving money eating at home. This is an opportunity for New Zealand beef and lamb at retail and through ecommerce sites in this market.

Shipping and logistical disruption

Logistical disruption has been a major trade challenge caused by the pandemic. Global trade lifted as consumer demand for goods exceeds expectations. Both shipping and airfreight experienced surging costs, and a shortage of shipping capacity combined with port closures created significant bottlenecks and delays. Analysis of worldwide containerised shipping costs reveal global shipping costs lifted five-fold between 2019 and 2021. This rise in shipping costs is adding to global inflationary pressure as businesses are increasingly being forced to pass the cost onto consumers.

Exporters around the world are facing the challenges. In the US, authorities are attempting to coerce global shipping alliances and resolve freight disruption through regulation. New Zealand exporters have called on the New Zealand Government for assistance, however, there is no clear idea what form assistance may take. Many New Zealand exporters have been proactive in chartering their own ships and working collaboratively to

share costs and form economies of scale for export volumes.

The shipping disruptions have proved challenging for New Zealand's chilled red meat trade. The risk of chilled product being delayed reduces product shelf-life and can result in the loss of chilled premiums. New Zealand lamb exporters will be monitoring this situation closely as the Christmas chilled lamb trade window approaches.

Labour shortages

Labour shortages because of COVID-19 became a significant challenge around the globe. Unemployment is at a low level in developed economies. Combined with this, limitations on travel and inbound immigration, as well as the impact of staff absences due to COVID-19 all resulted in workforce productivity loss.

Labour shortages are acute in meat processing sectors, largely due to the specialist nature of the work. This is significant constraint on processing capacity and is a contributing factor in reduced throughput for some countries. Labour shortages have been noted as a major disruptor in the US, Canada, Australia, Ireland and New Zealand.

ASF and the Chinese pork market

In 2021, African Swine Fever (ASF), which is not transmissible to humans but nearly always fatal in pigs, continues to be a major driver of global red meat demand. China continues to experience outbreaks and the disease has spread further



around the globe. Global pork trade has suffered severe disruption, and global meat protein supplies remain in deficit. Demand for imported meat from China has remained strong.

China has made significant investment into development of an ASF vaccine but is yet to find a commercial outcome. Signs of recovery began to emerge in late 2020. Hog inventories lifted and forecasts from the USDA (July 2021) indicate that Chinese pork production in 2021 is expected to lift 20 per cent on 2020 but remain 20 per cent below pre-ASF levels. Increasing imports of maize and soybeans for feed have been another factor signalling recovery. Sustained recovery is far from being a certainty, however, due to intermittent outbreaks and new strains of ASF.

The Chinese pork industry has entered into a period of disarray in 2021. Chinese hog prices have been in free fall for much of 2021. Reports suggest the sharp decline reflects an oversupply of pork, as both domestic production and imported supply increased in response to ASF-driven high prices. Carcase weights reached record levels, with reports of “obese” pigs. As the price began to fall, panic selling by producers occurred, which further compounded the free fall. Pork producers are facing negative margins and are rapidly liquidating their herds. The market is oversupplied with pork, and even at the low prices, consumer demand is weak and product is not moving.

Chinese pork import data reveals a contraction through May and June after a strong start to 2021, however

July data again surged to record levels, making it difficult to draw conclusions. Future Chinese pork production remains volatile, supporting continuing demand for imported meat.

There is also evidence to suggest that when Chinese pork production does recover from ASF, pork consumption will not regain all the market share that it has lost since 2019. Chinese consumption of fish, poultry, beef and sheepmeat have all lifted in the relative absence of pork. As pork prices tumbled in 2021, consumption did recover and alternative proteins, particularly beef, continued to gain market share, in spite of increasing prices. Analysts are projecting that these alternative meat proteins have found favour with Chinese consumers, and many will not revert to pork.

The spread of ASF has extended in 2021. South-east Asia, Poland, Germany and more recently the Dominican Republic are all fighting outbreaks. The outbreak in the Dominican Republic has resulted in the USDA setting up protection zones in regions that are free from the disease. Pork producers around the world are increasing preventative measures to protect their own pig industries.

Climate Change

Climate change and associated policy will be a key issue facing global agricultural systems in the near, medium and long term. Livestock and cropping systems in key producing countries are expected to be negatively impacted by changing climatic conditions and producers will

face increasing regulation as world leaders attempt to mitigate greenhouse gas emissions.

The scope of this report does not include a detailed analysis of global or domestic climate change policy. Beef + Lamb New Zealand engages extensively in climate change policy, working with government to advocate for the best policy outcomes for the red meat sector. More information on this work can be found on the [Beef + Lamb New Zealand website](#).

This report highlights the increasing global dialogue on climate change and the contribution of agriculture to climate change. Governments around the world are implementing policy measures to achieve global reduction targets in greenhouse gas emissions as set in the Paris Agreement. This includes the implementation of mitigation policies and tools across the agriculture sector.

Global forums such as the UN Food Systems Summit (UNFSS), the Global Roundtable for Sustainable Beef (GRSB), the EU Green Deal and the UK National Food Strategy are all examples of conversations that will impact agricultural production systems in the medium to long term.

Trade

Trade policies remain a major factor affecting the dynamics of world meat markets and are critical to New Zealand red meat given the reliance on exports.

The Free Trade Agreement (FTA) between New Zealand and the UK will be a key development of 2021. At the

time of writing the FTA was still in negotiation and there was no indication of the content around red meat access. New Zealand exporters will be looking for a deal that at least matches the favourable FTA between Australia and the UK that was agreed earlier in 2021. This agreement could potentially create opportunities for New Zealand beef in this market. FTA negotiations are also underway between New Zealand and the EU-27, but conclusion of an agreement is not expected to occur in the short term.

Negotiations also continue between New Zealand, the UK and EU-27 regarding the split of the tariff-rate quotas (TRQ) for sheep and goat meat, and high-quality beef (HQB).

Export suspensions have been a significant disruptor of global beef trade in 2021.

In May 2021, Argentina’s government suspended beef exports in an attempt to dampen domestic meat prices and ease inflationary pressure. Meat price inflation had surged 76 per cent year-on-year in May 2021. A 30-day suspension was put in place to all markets other than those managed by TRQs such as for the US and EU. Following the 30 days, the government implemented a quota system to limit Argentine beef exports to 50 per cent of 2020 volumes and ban the export of some cuts.

The restrictions on beef exports were initially in place until the end of August but were extended until the end of October. The government is reporting that the measures have successfully reduced domestic meat inflation.



China and Israel are Argentina's biggest beef export markets. Argentina is the second largest supplier to China and trade flows have been significantly affected. Brazil and Uruguay have been the major benefactors of these restrictions, as these countries produce beef at a similar quality and export price point as Argentina, whose beef exports to China declined 34 per cent in July because of the restrictions. However, Argentina still accounted for a significant 25 per cent of China's beef imports in July.

In September 2021, Brazil suspended its beef exports to China following the confirmation of two cases of atypical Bovine Spongiform Encephalopathy (BSE). The suspension is expected to be short-lived as the World Organisation for Animal Health (OIE) reported the issue resolved. Trade protocol between China and Brazil states the requirement of a 15-day suspension. However, there is dispute between China and Brazil over product that was on the water at the time the suspension was announced. While the timeframe is only six days, the amount of product is significant.

The confirmation of the atypical BSE cases in Brazil also led other markets to which Brazil exports to impose their own restrictions on Brazilian beef. These markets include Saudi Arabia, Iran, Indonesia, Russia, and Egypt. At the time of writing, it was unknown how long these markets would impose their restrictions for, but there was general consensus that once trade resumed with China, other markets would follow suit.

While this suspension did not cause a major disruption to beef trade, it does highlight the ever-present risk around biosecurity and the potential for significant disruption to trade should BSE or any such disease be confirmed.

In addition, trade flows between Australia and China remain restricted following the deterioration in political relationships. In 2020, China suspended exports from eight Australian beef plants and two lamb processing plants. This had a significant impact on Australian beef exports to China. These suspensions remained in place through 2021.

In the long-term the New Zealand red meat sector may have opportunities for growth in Africa and India. These markets have both growing middle class populations and economies, which both drivers of increased meat consumption. Market access is a limiting factor for trade to these regions currently.

Other

Consumer preference for red meat products is expected to shift in the medium to long term. There is increasing awareness around health, food safety, animal welfare, the environment and climate change. In high-income economies, these factors are expected to limit consumption growth, however the FAO and OECD jointly report that there is potential for a shift to the consumption of higher-value cuts but less frequently.

In middle-income countries, the preference for livestock products and fish is expected to remain strong and

per capita availability of animal protein is projected to lift. In low-income regions, affordability remains a primary concern.

The discussion around plant and laboratory meat alternatives remains relevant. While research signals that many of these products have been slow to gain traction with consumers, there continues to be significant investment into this market. Some estimates have calculated this investment at around USD21 billion in 2020, which shows there is still some confidence in the market and also that product development is being supported. This market remains one to monitor in the medium and long term.

Exchange Rate Sensitivity – 2021-22

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 2021-22, the NZD is expected to strengthen against the three reported currencies, which are the currencies that dominate the trade in New Zealand meat exports. Movement against the USD has the greatest effect. In the eleven months from October 2020 to August 2021, 79 per cent of New Zealand's red meat exports were traded in this currency. The Chinese yuan accounted for 6.3 per cent of red meat trade in the same period.

All other things being equal, a 10 per cent decrease in the NZD against the USD – from 0.75 to 0.68 – and the associated cross rates against the GBP and the EUR, increases the average lamb price received by farmers by 16 per cent. Alternatively, if the NZD appreciates by 10 per cent – from 0.75 to 0.78 against the USD – then the weighted average farm-gate

price for lamb for the season would decrease by 13 per cent.

Meat and wool production is seasonal with most sold from late November 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 0.75	
	-10%	-5%	Forecast	+5%	+10%	to USD 0.68	to USD 0.83
USD	0.68	0.71	0.75	0.79	0.83	-10%	+10%
GBP	0.46	0.49	0.51	0.54	0.57	-10%	+10%
EUR	0.54	0.57	0.60	0.63	0.66	-10%	+10%
Farm-Gate Prices Received							
\$ / head							
Lamb	158	147	137	128	120	+15.5%	-12.7%
Mutton	152	140	129	119	110	+17.9%	-14.7%
Steer/Heifer	1,636	1,519	1,414	1,319	1,232	+15.7%	-12.9%
Cow	788	732	681	636	594	+15.7%	-12.9%
Bull	1,806	1,677	1,561	1,456	1,360	+15.7%	-12.9%
All Beef	1,342	1,246	1,160	1,082	1,011	+15.7%	-12.9%
c / kg							
Lamb¹	836	777	724	676	632	+15.5%	-12.7%
Mutton¹	583	536	494	456	422	+17.9%	-14.7%
Steer/Heifer	581	540	502	468	438	+15.7%	-12.9%
Cow	395	367	341	318	298	+15.7%	-12.9%
Bull	600	557	518	483	452	+15.7%	-12.9%
All Beef	527	490	456	425	397	+15.7%	-12.9%
Fine²	1,442	1,328	1,225	1,132	1,047	+17.7%	-14.5%
Medium²	496	456	421	389	360	+17.7%	-14.5%
Crossbred²	211	194	179	165	153	+17.7%	-14.5%
All Wool²	319	294	271	250	232	+17.7%	-14.5%

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

Livestock Numbers

Sheep

The total number of sheep at 30 June 2021 is estimated at 25.83 million, down 0.8 per cent on the previous June and nearly 40 per cent lower than in 2000. Within this, the number of breeding ewes decreased slightly by 0.5 per cent and the number of hoggets decreased 0.6 per cent, which reflects several factors including strong mutton prices that encouraged greater levels of trading, difficult spring conditions for South Island farmers that resulted in de-stocking prior to Christmas, and drought conditions along eastern parts of the country in summer/autumn that led to tight feed conditions and more livestock sales.

In the North Island, the number of sheep decreased 0.3 per cent (-32,000) to 12.42 million at 30 June 2021 and the number of breeding ewes decreased 0.5 per cent. Decreases in the number of breeding ewes occurred in Northland-Waikato-Bay of Plenty (-2.5%) and East Coast (-0.2%), while there was an increase in Taranaki-Manawatū (+0.9%). The number of hoggets in the North Island increased 0.3 per cent with Taranaki-Manawatū estimated to have increased by 6.9 per cent.

In the South Island, the total number of sheep decreased 1.2 per cent. Total sheep decreased 1.7 per cent in Marlborough-Canterbury and by 0.9 per cent in Otago-Southland.

Table 6 Livestock Numbers (million head)

	Breeding		Total	Beef	Dairy
	Ewes	Hoggets	Sheep	Cattle	Cattle
30 June 2020	16.57	8.67	26.03	3.88	6.20
30 June 2021e	16.48	8.61	25.83	3.98	6.22
20-21 to 21-22 % change	-0.5%	-0.6%	-0.8%	+2.5%	+0.2%

e estimate

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

Mixed cropping farms in Canterbury helped limit the decline in Marlborough-Canterbury because hogget numbers increased and farmers expected good finishing margins, while Southland farmers considerably reduced hoggets (-7.9%). The number of breeding ewes decreased 0.6 per cent after a difficult season, including drought.

The total number of hoggets decreased 1.6 per cent.

Beef Cattle

The number of beef cattle at 30 June 2021 is estimated at 3.98 million, up 2.5 per cent on the previous June. Growth in the North Island was offset by a reduction in the South Island. North Island growth was largely attributed to greater retentions of dairy-beef rising two-year-old cattle (R2).

In the North Island, the number of beef cattle increased 5.4 per cent to 2.78 million at 30 June 2021.

Overall, the number of beef breeding cows was effectively static increasing

by 0.2 per cent in the North Island, with an increase in Northland-Waikato-Bay of Plenty (+1.3%) and Taranaki-Manawatū (+0.9%) offset by a decrease in East Coast (-1.0%) as farmers reduced cow numbers in response to poor pasture growing conditions and tight feed supply.

In the South Island, the number of beef cattle decreased 3.6 per cent to 1.20 million at 30 June 2021.

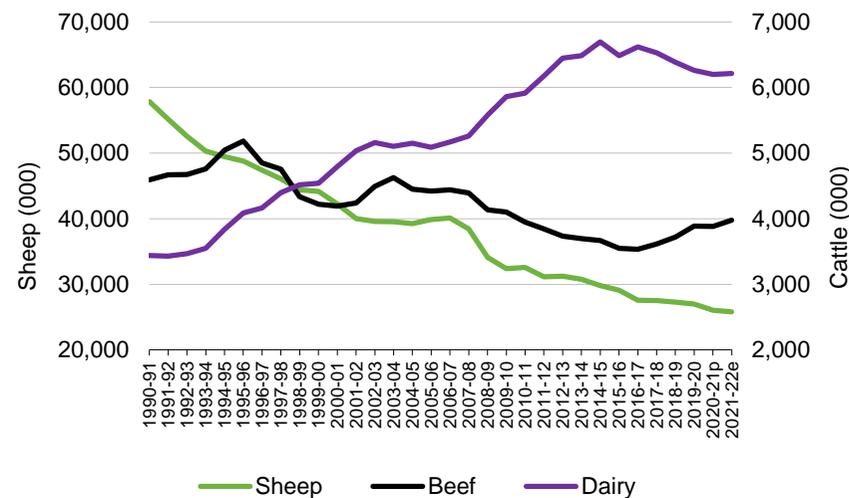
The number of beef cows decreased 2.8 per cent driven by dry conditions in Marlborough-Canterbury (-6.7%).

Dairy Cattle

The number of dairy cattle at 30 June 2021 is estimated to have remained static (+0.2%) at 6.22 million. The number of dairy cows in milk is also estimated to remain static (+0.2%) while the number of weaners is estimated to increase 3.0 per cent.

The South Island contains approximately 42 per cent of total dairy cows, and approximately 29 per cent of the dairy herds in New Zealand.

Figure 1 Livestock Numbers



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

Sheepmeat Outlook 2021-22 – Opportunities and Challenges

Opportunities

- 
- 
- 
-  ASF continues to drive import growth for meat proteins. Despite the reported recovery of China's pig herd, China's protein supply will remain in deficit during 2021 and 2022.
 -  Global economic conditions and the foodservice sector have made a strong recovery in 2021, underpinned by vaccination programmes and fiscal support packages. Consumer demand in key markets is buoyant.
 -  Consumption growth and demand for high quality protein is projected in Asian markets as the size of the middle class increase and a shift of more consumers into urban areas takes place.
 -  There is increased consumer awareness regarding "claims-based" meats. This includes food safety, traceability, sustainability, animal welfare, grass-fed and antibiotic free. New Zealand's reputation as a producer of natural red meat positions our sheepmeat well to capitalise on this opportunity.
 -  Sheepmeat is a niche meat in most developed markets. As such, it has the opportunity demand a price premium.
 -  There has been a shift in consumer behaviour towards in-home dining and e-commerce as a result of the pandemic. Some consumers are willing to pay more for higher quality meat at retail in lieu of dining in restaurants.

Challenges

- 
-  The spread of the Delta variant of COVID-19 is a threat to continued global economic recovery. Continued economic recovery in key markets, particularly China, is critical to supporting demand for New Zealand export.
 -  There is an un-even rollout of COVID-19 vaccination programmes globally, increasing the downside risk to health and economic outcomes.
 -  Global freight congestion and surging shipping and air-freight costs are challenging exporters shipping timeframes and eroding margins. This is significant for New Zealand's chilled lamb trade.
 -  The forecast for a sharply higher NZD/USD will decrease the competitiveness of New Zealand exports.
 -  Deterioration in the political relationship between Chinese and New Zealand governments will be a threat to sheepmeat export performance.
 -  Ongoing trade negotiations with EU-27 and the UK.
 -  Australia's competitive presence in the US lamb market will increase in 2021 and 2022.
 -  Global and domestic climate change policy will introduce challenges for agricultural production systems and potentially trade.

Lamb & Mutton Exports

Lamb 2020-21

The 2020-21 lamb export season has delivered above expectations, underpinned predominantly by the swift global economic recovery and strong ASF-driven demand from China.

COVID-19 disruption of demand weighed on export returns in the first half of the export season. The rebound has been swift from March (Figure 2), with demand from China and the US leading the recovery.

Demand from the US has been exceptional. This reflects a swift foodservice sector recovery as vaccination programmes are rolled out, and fiscal support packages that continued to support consumer incomes. Chinese demand has been underpinned by economic and

foodservice recovery, and also by the continuing shortage of domestic pork as outbreaks of ASF in 2021 delayed the recovery of the domestic pig herd.

The NZD has been a limiting factor for export returns in the 2020-21 season. For the eleven months from October 2020 to August 2021, the NZD averaged USD0.71; up 11 per cent on last season and 5 per cent on the five-year average.

The strong second half of the 2020-21 export season partially offset the slower start due to COVID-19. Total receipts for lamb (including co-products) in 2020-21 are estimated to decline 6 per cent on 2019-20. The decline reflects both declining production and a decline in average export value. It is worth noting that 2019-20 generated the highest export revenue on record.

Export returns for 2020-21 are estimated to average \$10,588 per tonne, down 2.4 per cent on the previous season, but up 10 per cent on the five-year average.

Export data for October 2020 to August 2021 (i.e. eleven months of the export season) 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 \$10,600 per tonne.

Export lamb production for the 2020-21 season is expected to be down 3.8 per cent on 2019-20, reflecting the impact of the 2020 drought.

China has dominated New Zealand lamb exports in the 2020-21 season. In the eleven months from October 2020 to August 2021, China accounted for 52 per cent of total export volume and 43 per cent of total export value, compared to 46 per cent and 34 per cent respectively in the 2019-20 season.

Bone-in breast and flaps are the largest category of lamb cut exported to China. This category accounts for 50 per cent of total volume. Bone-in shoulders and bone-in legs are the next most significant categories, accounting for 12 per cent and 10 per cent respectively.

In 2020-21, exports of carcasses to China increased significantly (+350%) but from a small base and account for 8 per cent of export volumes. The

average export value of carcasse exports has lifted 4 per cent on last season and is higher than the average export value of all exports to China.

The UK was the second leading destination for New Zealand lamb exports in 2020-21, accounting for 11 per cent of total exports. Exported volumes declined 20 per cent for the first eleven months of the 2020-21 season. There were several disruptions to trade in this market, including adjusting to the post-Brexit environment, COVID-19 health and economic outcomes and competition from the strong demand pull from China.

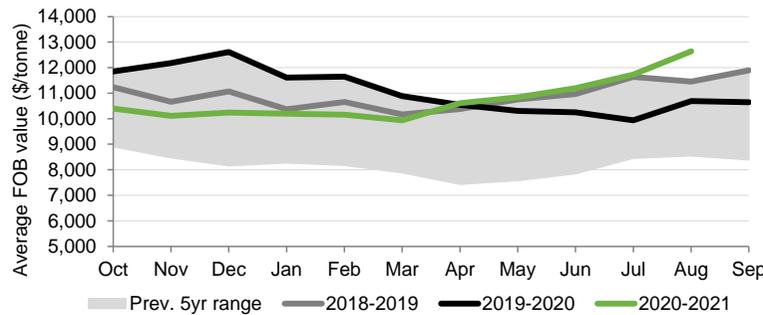
The UK is significant to New Zealand's chilled lamb trade, historically accounting for one-third of chilled trade. Chilled volumes to the UK were 18 per cent down in June, July and August 2021 as global shipping delays increased the risk and cost of shipping chilled product. Total chilled volumes for the first eleven months of the 2020-21 season were 10 per cent down on 2019-20.

Lamb legs account for 60 per cent of export volumes to the UK.

The average value of exports to the UK for 2020-21 was down 4 per cent on 2019-20. This reflects a COVID-disrupted first half and recovery during the second half as economic activity increased.

The US has attracted increasing volumes of New Zealand lamb exports during 2020-21 reflecting high prices

Figure 2 New Zealand Lamb Average Export Value



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

Table 7 New Zealand Lamb Exports

Sep Year	Lamb meat			Co-Products \$m FOB	Total Lamb \$m FOB	Lamb Meat %*
	000 tonnes	\$ / tonne	\$m FOB			
2017-18	313	10,086	3,156	199	3,355	94%
2018-19	305	10,445	3,186	203	3,389	94%
2019-20	310	10,822	3,353	154	3,507	96%
2020-21e	298	10,558	3,146	142	3,288	96%
2021-22f	299	10,735	3,212	148	3,360	96%
2021-22f % change	+0.4%	+1.7%	+2.1%	+4.4%	+2.2%	

* 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

and strong demand and accounted for 9 per cent of total New Zealand exports. This market had a very slow start, as exports and values remained adversely impacted by weak foodservice demand. As the economy reopened, both export volumes and values soared. This was particularly notable from March 2020. Average export values remain off historical levels but are also limited by a higher exchange rate. Exports to Canada have grown (+43%) on the back of the strong performance in the US.

Lamb racks are the largest category exported to the US, accounting for one third of export volumes in the period from October 2020 to August 2021. Boneless legs and shoulders are the next most significant categories. The volume of carcasses exported to the US lifted 40 per cent in the 2020-21 season.

Lamb exports to the EU-27 from October 2020 to August 2021 were down 17 per cent on the previous season, driven by similar disruptions as the UK market. A swift pick-up in demand has been noted in August

and September. Low inventories are expected to support continued recovery should the threat of Delta not stall economic activity. Demand from Belgium and France has been the most resilient, while Germany and Netherlands have been more challenging export markets for New Zealand lamb this season.

In the eleven months to August 2021, chilled lamb exports accounted for 18 per cent of total volumes; steady on 2019-20. The UK, US and France are the largest chilled markets. In the 2020-21 season, chilled exports declined 10 per cent to the UK, lifted 10 per cent to the US and lifted four per cent to France.

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 7.8 per cent in 2020-21.

2021-22 Forecast

Market fundamentals for New Zealand lamb exports are forecast to remain

positive in 2021-22. While increasing Australian lamb exports may increase global supply, the level of demand is expected to support the lift in volume.

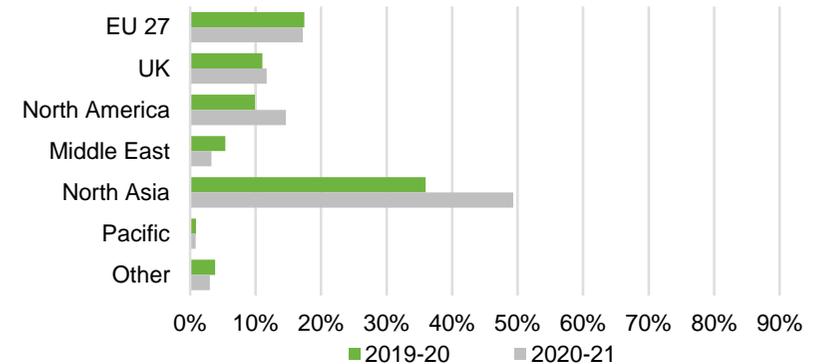
Global economic recovery is expected to progress in calendar 2022 as vaccination rates increase. This will support continued foodservice recovery and robust consumer demand. However, the growing spread of the Delta variant of

COVID-19 and the potential for other variant forms to spread globally is a significant risk to global economic growth. The forecast for the outlook period will be sensitive to any weakening, or even stalling, of economic growth in China and the US.

ASF will continue to support demand from China, despite Delta. The delayed recovery of domestic pork production because of ASF will remain a positive market fundamental. However, the spread of Delta may impact consumer confidence and willingness to pay high prices.

The challenge of higher international freight costs and disruptions to shipping timeframes is expected to continue into 2022. Global trade is forecast to increase further in 2022, which will add to congestion. The spread of Delta may also influence port operations, while increased shipping costs may be a more permanent thorn in exporters’ sides.

Figure 3 New Zealand Lamb Exports
Oct to June, \$m FOB



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

The projected strengthening of the NZD is a major factor limiting export returns in the 2021-22 season.

For 2021-22, total lamb export receipts (including co-products) are forecast at \$3.36 billion FOB, up 2.2 per cent on 2020-21, and up 3 per cent on the five-year average. Co-products are forecast to lift 4.4 per cent following two seasons of decline. Tighter global lamb supplies and economic recovery are the drivers of the improving co-product forecast.

Lamb exports are forecast to be steady on 2020-21 at 299,000 tonnes shipped weight. On average, lamb meat export returns for the season are forecast to lift 1.7 per cent on 2020-21 and be 6 per cent higher than the five-year average.

The average in-market price for lamb is forecast to lift 6 per cent.

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 chilled lamb exports to the UK and

EU-27 for Christmas. Typically, these windows of demand drive high export demand and prices. The current demand pull from China has the potential to outshine Christmas trade this season, however there are questions around just how much higher prices in the Chinese market can go.

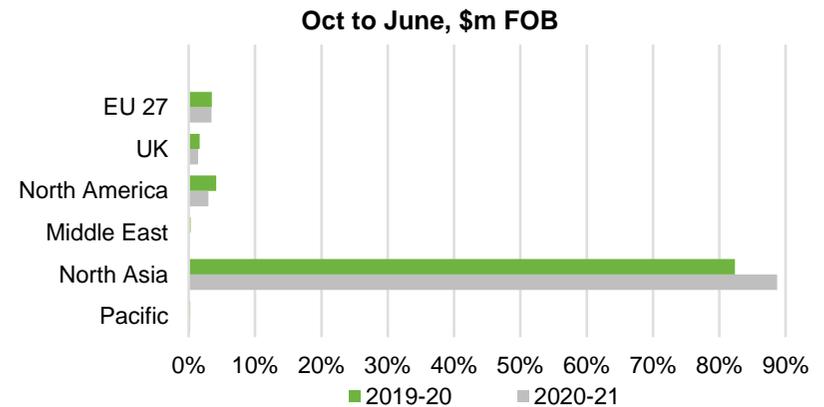
Mutton 2020-21

2020-21 has been a strong season for mutton exports. Export production is estimated to lift 8.6 per cent on 2019-20 reflecting high processing rates. The higher volumes have been easily absorbed in a market underpinned by strong Chinese demand and tight global supply.

China is the key driver of New Zealand mutton export performance, accounting for 85 per cent of total volumes in the period from October 2020 to August 2021, up from 75 per cent in the 2019-20 season.

Average export values for mutton are estimated to lift 2 per cent in 2020-21 to reach a high of \$7,675 per tonne.

Figure 4 New Zealand Mutton Exports



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

This is 26 per cent up on the five-year average. Total mutton export receipts (including co-products) are estimated to lift 8.3 per cent for the season.

Carcases are the largest category of mutton exports, accounting for 40 per cent of volumes in the first eleven months of 2020-21. Forequarters and shoulders are the next most significant categories.

2021-22 Forecast

Strong demand from China underpins positive market fundamentals for mutton in the 2021-22 season. ASF and economic recovery will be key to import demand patterns. The potential impact of Delta will be the wild card.

In 2021-22, mutton export production is forecast to decline 8.9 per cent following the high turn-off in 2020-21.

In-market prices are forecast to lift 3 per cent on 2020-21, however the stronger NZD is expected to more than offset this gain resulting in a decline of 2.5 per cent in average export returns to New Zealand. While down on 2020-21, at \$7,480 per tonne, the average export return for 2021-22 is forecast to be 11 per cent above the five-year average.

Total mutton export receipts are forecast to decline 9.4 per cent on 2020-21.

Table 8 New Zealand Mutton Exports

Sep Year	Mutton meat			Co-Products \$m FOB	Total Mutton \$m FOB	Mutton Meat %*
	000 tonnes	\$ / tonne	\$m FOB			
2017-18	94	6,460	606	154	760	80%
2018-19	84	6,715	564	100	664	85%
2019-20	86	7,523	647	105	752	86%
2020-21e	93	7,675	717	98	815	88%
2021-22f	85	7,481	636	102	739	86%
2021-22f % change	-8.9%	-2.5%	-11.2%	+4.2%	-9.4%	

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

Lamb & Mutton – International Situation

Overview

Sheepmeat has been a strong performer in the global meat protein market in 2021. Demand and supply fundamentals have aligned in favour of exporters, with global demand outstripping supply. This has offset disruption that continues to exist because of COVID-19.

Strong demand for sheepmeat continues to be a theme in the outlook period. Swift vaccination rollouts in key markets for New Zealand lamb are expected to result in further foodservice recovery during 2022. In addition, the continued shortage of pork driven by ASF will continue to underpin sheepmeat demand. Increasing consumer wealth in developing economies will also continue to support demand for high-quality proteins, including sheepmeat.

Global sheepmeat export supply is expected to remain limited, and demand is forecast to continue to outweigh available supply. However, there will be an increased presence of Australian lamb exports in 2022 as the national flock recovers from drought. The supply of mutton is expected to remain tight.

Strong global demand for lamb and COVID-19 recovery resulted in a lift in exports from key producers for the first half of calendar 2021. Australia, New Zealand, and the US have all reported significant lifts in exports compared to 2020. The UK is an exception as trade has been dampened between the UK

and EU-27 because of post-Brexit regulations.

Forecasts from the 2021 OECD-FAO Agricultural Outlook (June 2021) signal a slight increase (+1%) in global sheepmeat production in 2022 and further expansion in the longer term. Most of the expansion in production is forecast to be in low-income countries, led by China.

Global sheepmeat consumption is forecast to increase slightly (+1%) into 2022. Developing countries account for over two-thirds of global consumption and will underpin future consumption growth.

Disruption to shipping and global supply chain logistics because of COVID-19 has provided challenges for sheepmeat trade in 2021 in the form of surging freight costs and delays and cancellations to shipping. The situation is expected to continue into 2022.

The ability of the New Zealand government to maintain current geopolitical relations with China will be critical to the performance of sheepmeat trade in 2022. Further outbreaks of COVID-19 variants will also continue to be a source of downside risk.

Other key factors to monitor during the new season will be the outcome of both the NZ/UK FTA and current negotiations regarding splitting the TRQ for sheepmeat and goatmeat between the UK and EU-27.

China

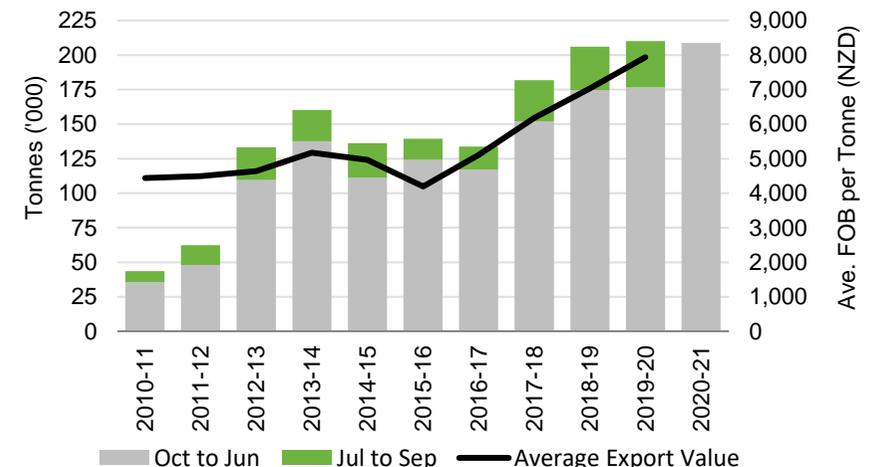
Economic recovery in China following the initial outbreak of COVID-19 in 2020 has been strong. Foodservice sector sales are expected to be back to pre-pandemic levels by the end of 2021. China is the only market expected to achieve this milestone.

Demand for all red meat has been buoyant in 2021, underpinned by ASF-driven pork shortages and an expanding economy. While the Chinese market is one of uncertainty and unpredictability, there is expectation that the current strong market fundamentals for red meat demand will continue into 2022.

China is the leading destination for New Zealand sheepmeat, accounting for over 50 per cent of lamb exports and 85 per cent of mutton exports so market conditions in China are critical to sheepmeat export performance.

The sharp decline in Chinese pork production because of ASF has underpinned sheepmeat consumption growth in this market from 2019. ASF-driven pork shortages have resulted in more consumers trying alternative meat proteins. Supported by increasing consumer affluence, higher quality meat proteins, such as sheepmeat have experienced consumption growth in the absence of the option of pork.

Figure 5 New Zealand Sheepmeat Exports to China (Sep year)



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



Sheepmeat consumption in China is small, accounting for just 6 per cent of total meat consumption in 2020. It is a niche product and while consumption is forecast to expand, it will be at a slower pace than since 2019. The niche market position of sheepmeat, however, is expected to buffer the impact on consumption as pork production increases following recovery from ASF.

China has the world's largest sheep flock, and accounts for one-third of global production. Of China's total sheepmeat consumption, 95 per cent is domestically produced. The Chinese government has ambitious goals of achieving sheepmeat self-sufficiency, however the scarcity of water and land is a major obstacle to this goal, and unlikely to be a threat to demand for imported sheepmeat.

Sheepmeat production in China is expected to lift in 2022 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 an incentive for Chinese sheepmeat producers to increase flocks.

The risk of further COVID-19 variant outbreaks provides risk for this market in the outlook period. While demand is expected to hold up under further outbreaks, logistical disruptions due to virus-related shutdowns and controls have the potential to impact supply chains, further compounding the issues that already exist.

New Zealand's sheepmeat trade with China is dependent on maintaining

current market access. Any deterioration in the political relationship between the Chinese and New Zealand governments has the potential to threaten market access, as is evident in Australia.

The dynamics of meat production, consumption and trade in China will continue to be a leading driver of New Zealand sheepmeat export performance in 2022 and beyond. For the outlook period, key factors to watch will be logistical impacts of further COVID-19 outbreaks, the rebuilding of the Chinese pig herd and the geopolitical relationship between New Zealand and China.

EU-27 & UK

Free Trade Agreement negotiations and the negotiations regarding the sheepmeat and goatmeat tariff-rate quota are critical issues impacting New Zealand trade within this region. This topic has been discussed earlier in this report in the Trade section.

UK

The UK is New Zealand's second largest export destination, accounting for 13 per cent of total export volume in the 2019-20 season. This market is a key market for lamb legs and chilled product, accounting for 38 per cent and 32 per cent respectively of total New Zealand lamb exports in the 2019-20 season.

The UK lamb market has been resilient under the pressure of extended pandemic lockdowns. The UK Agriculture and Horticulture Development Board (AHDB) estimated that lamb consumption in

2020 was higher compared with 2019 and that consumption in 2021 is also projected to surpass pre-pandemic levels.

Retail is the most significant channel for lamb sales in the UK and retail growth has been strong under pandemic restrictions in much of the world. This, combined with an increase in demand for takeaway lamb meals, has been a critical driver of lamb consumption in the UK during the pandemic.

Statistics from the AHDB show that in the 12 months to August 2021, the total volume of lamb sold at retail in the UK lifted 7 per cent, and the total expenditure on lamb at retail lifted 11 per cent. These trends were similar for New Zealand's key product into this market. The volume of leg roasts sold at retail lifted 8 per cent in the

same period and expenditure on lamb legs lifted 11 per cent.

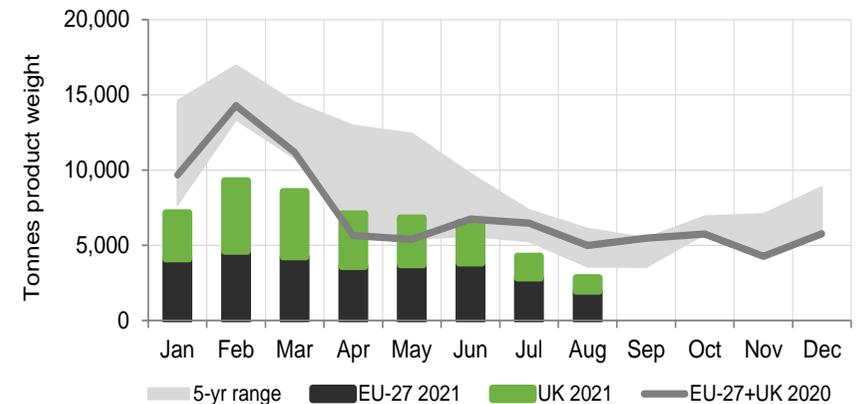
The growth in retail is estimated to have offset the decline in demand from the foodservice sector in this market.

The size of the UK breeding flock is estimated to remain stable in 2021 – at around 13.8 million breeding ewes. The AHDB reports there is anecdotal evidence of flock expansion into 2022, with fewer ewes processed and higher lamb prices this year underpinning the sentiment.

Changes to farm subsidy payments in coming years will create a degree of uncertainty around future breeding flock trends.

The UK 2021 lamb crop is forecast to be similar to 2020 and slightly lower than 2019. Lamb production is

Figure 6 New Zealand Lamb Exports to EU-27 + UK



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

forecast to decline 4 per cent in the second half of 2021 but lift 7 per cent for the first half of 2022, following typical seasonal production patterns.

The AHDB projects 2021 lamb imports to decline 13 per cent on 2020, and then stabilise into 2022. The decline reflects the increasing focus of New Zealand exporters on China, reducing the available supply to the UK. For the first seven months of 2021, New Zealand lamb exports declined 15 per cent on the same period in 2020 and 30 per cent on the five-year average for the period.

The surge in shipping costs between New Zealand and the UK and EU-27 is also expected to reduce the volume of imports.

UK lamb exports declined sharply in 2020 and then again in 2021. Tighter production, strong domestic demand and new trade regulations between the UK and EU-27 following Brexit are all contributing factors to the decline.

The supply of lamb available for consumption on the domestic market, taking production, imports, and exports into account, is forecast to lift 4 per cent in 2022. It is considered unlikely that consumption growth will balance this lift in available supply. This may result in more competitive pressure in the UK domestic market in 2022, notably in the first half of the year, during New Zealand's peak production period.

EU-27

The EU-27 region accounted for 18 per cent of total New Zealand lamb exports in the 2019-20 season.

The region has been severely disrupted by COVID-19. Unlike the UK, the foodservice sector is the dominant channel for lamb sales. Extended pandemic restrictions have resulted in a sharp decline in foodservice activity, and in turn a decline in consumer demand for lamb.

Sheep and goat meat production in the EU, as reported by the EU Commission, is estimated to be stable in 2021. The breeding ewe flock is reportedly in decline, which will limit production in future.

EU sheepmeat imports (from all countries) are expected to fall 8 per cent in 2021. For the first seven months of 2021, New Zealand lamb exports declined 17 per cent on the same period in 2020 and was 34 per cent lower than the five-year average for the period. This reflects the increasing focus of New Zealand exporters on China and the significant lift in shipping costs between New Zealand and the EU-27 markets. Demand trends in China will continue to be a major influence on import availability for this market.

The UK is the other key supplier of lamb to the EU-27 – both lamb meat and live lambs when the UK was a member of the EU. This trade has declined in 2021, impacted by lower consumer demand and trade disruption following Brexit.

Sheepmeat consumption in the EU is expected to decline by 1.5 per cent in 2021 due to COVID-19 impacting foodservice sales and lower meat availability.

United States

The US has performed above exporters expectations so far in 2021. Demand for imported lamb, and all meat protein, has been exceptional, underpinned by recovery from COVID-19 and strong consumer demand for meat.

The US was challenging for New Zealand lamb exports in 2020. A high proportion of New Zealand lamb exports are destined for the foodservice sector, which suffered a sharp decline in demand due to disruption caused by COVID-19.

The pace of recovery in foodservice demand so far in 2021 has exceeded expectations. Combined with an expanding economy and fiscal support packages, consumer demand has been strong and outstripped supply of meat protein. Cold store inventories of lamb are at historic lows, 47 per cent

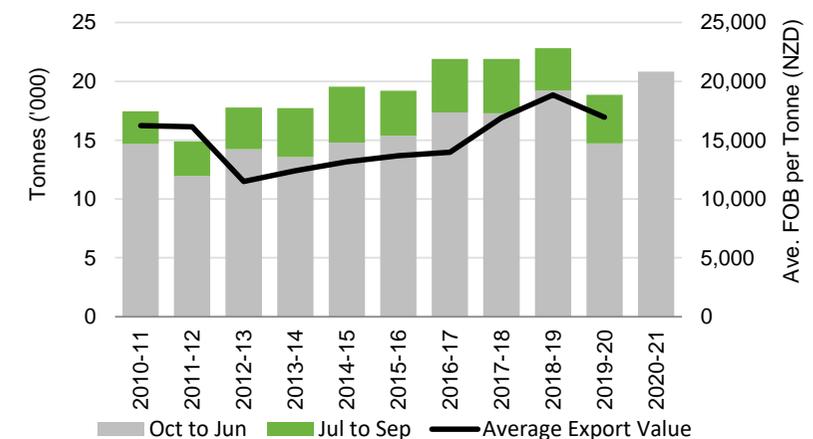
below the five-year average at the end of July 2021.

Drought conditions in the western US have significantly impacted sheep farmers resulting in flock liquidation. This, combined with lighter average carcass weights of both lambs and sheep, resulted in sharp production declines in May, June and July 2021.

Lower domestic production, strong demand, high prices for competing meat proteins and low cold storage inventories have underpinned record domestic US lamb prices. In July 2021, the US domestic lamb cutout, which estimates the value of a carcass based on the wholesale value of its cuts, was 52 per cent higher than a year earlier and 60 per cent higher than the five-year average. This trend extended into September.

The market fundamentals of the domestic lamb market have pulled imported lamb prices up. US imported

Figure 7 New Zealand Lamb Exports to the US (Sep year)



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



lamb prices suffered a sharp decline because of COVID-19 disruption to the foodservice sector. The pace of recovery has been swift from March this year. For August, New Zealand average export values for lamb were above both year-ago and five-year averages.

The surge in demand and imported prices has drawn larger volumes of imported lamb into the market, from both New Zealand and Australia. New Zealand lamb exports to the US for the first seven months of 2021 were nearly 50 per cent up on 2020 and 25 per cent up on the five-year average.



Australian lamb exports have also surged in 2021. The US has become Australia's leading export destination for lamb. Export volumes in the first seven months of 2021 lifted 21 per cent on year-earlier levels and 26 per cent on the five-year average. NZ exporters may expect to see an increasing presence of Australian lamb in the US market in the 2021-22 season and longer term.

Australia

Australia is New Zealand's primary competitor in global sheepmeat trade. In 2020, Australia accounted for 42 per cent of global sheepmeat trade, compared to 39 per cent for New Zealand, while New Zealand leads the global share of lamb trade, accounting for 52 per cent of the total, with Australia making up most of the remainder.

Australia's presence in global sheepmeat trade was reduced in 2020 and the first half of 2021. Australian

sheep producers have been in a rebuilding cycle following heavy drought-induced turn-off in 2018 and 2019.

The national sheep flock reached its lowest level in over 100 years in 2020. Production and exports during 2020 were subsequently well down. Lamb exports declined 6 per cent and mutton exports were down a sharp 24 per cent. As a result, New Zealand enjoyed a less competitive trading environment.

Climatic conditions in Australia have been favourable for flock rebuilding allowing producers to focus on increasing breeding numbers faster than industry anticipated. The results of the rebuilding focus are beginning to be seen in the industry in 2021. As a result, Australia's competitive presence in the global sheepmeat market is expected to regain momentum from late 2021.

In 2021, Meat & Livestock Australia (MLA) expects the Australian sheep flock to expand by 6 per cent. This rapid expansion is expected to continue into 2022 and 2023. Assuming favourable climate conditions, the national flock is expected to reach a ten-year high of 75 million head in 2023, up 18 per cent on 2020.

Lamb processing rates are forecast to lift in 2021 due to the expanding ewe flock, but there will continue to be a focus on flock rebuilding, which will result in more ewe lambs being retained for breeding. MLA forecasts a 2 per cent lift in lamb processing

numbers into 2021 and a further 6 per cent in 2022.

Combined with improving average carcase weights, lamb production is expected to lift 6 per cent in 2022 and reach record levels in 2023.

Export lamb production is forecast to reach record levels in 2022 – increasing by 9 per cent – and increase a further 8 per cent in 2023. This is expected to result in Australian lamb exports being 25 per cent higher in 2023 than in 2020.

Mutton production will continue to be limited in the short term as the focus on rebuilding continues. Mutton exports in 2022 are expected to lift on 2021 but remain below historical averages. By 2023, mutton exports are expected to rebound to 2018 levels, increasing 20 per cent on 2020.

Lamb consumption is declining in Australia, resulting in a higher proportion of production destined for international trade. Traditionally more than a third of lamb production is consumed domestically. This is forecast to decline to under 30 per cent in 2022.

The US was the leading destination for Australian lamb in the first seven months of 2021, accounting for 26 per cent of total exports. This is closely followed by China at 25 per cent. China is the leading destination for mutton exports, accounting for 40 per cent of the total volume.

Lamb exports to the US have experienced significant growth in 2021, driven by strong US demand. In

contrast, lamb exports to China and the Middle East have declined. Australian mutton exports to China have experienced strong growth.

The UK will become a market of increasing significance for Australian sheepmeat following the agreement in principle of an Australia-UK Free Trade Agreement (FTA). As outlined earlier in this report, the deal will improve access of sheepmeat into the UK, with the duty-free volume increasing from 25,000 tonnes to 75,000 tonnes over ten years. While there is potential for this FTA to decrease the demand for New Zealand lamb imports in the UK, much will depend on the demand pull from other markets and the specification and cuts of lamb Australia may choose to export to the UK.

A challenge facing the Australian processing sector in 2021 and 2022 will be a shortage of labour, which could affect the capacity of Australian abattoirs. A flow-on of reduced processor capacity would be lower production.

In July 2021, the Delta variant of COVID-19 forced much of the country into lockdown. There is expected to be minimal impact on Australia's red meat production because processing and manufacturing plants are exempt from lockdowns and sale yards remain open. Similar to trends in the 2020 outbreak, strong growth in retail demand supported domestic sales of red meat, as foodservice sales decline.

Lamb & Sheep Prices – Farm-gate

The 2020-21 season has been one of contrast for New Zealand sheep farmers, starting with low farm-gate prices and finishing at record highs. COVID-19 and adverse climatic conditions have been challenges and tested farmer resilience.

Farm-gate prices in the early part of the season were at historical lows. Market uncertainty because of COVID-19, a higher NZD and high lamb processing numbers in the peak production period were all contributing factors. However, there was a rapid recovery in livestock prices halfway through the season, as export fundamentals improved. Global economic recovery was supporting growing demand, particularly in China and the US. Stronger Chinese demand also reflected new outbreaks of ASF early in 2021.

Prices for lambs and sheep responded swiftly to improving market conditions. This also coincided with the seasonal drop-off in lamb supply, which

saw a procurement element creep into processor pricing.

The NZD has limited export returns in the 2020-21 season. For the eleven months from October 2020 to August 2021, the NZD has averaged USD0.71; up 11 per cent on last season and 5 per cent higher than the five-year average.

Low returns for co-products, particularly wool, also weighed on livestock returns.

The 2020-21 weighted average farm-gate price for lamb is estimated at \$136 per head, down 2.1 per cent on 2019-20.

Farm-gate prices for sheep have proved resilient through 2020-21, supported by Chinese demand. The weighted average farm-gate price for the season lifted 5 per cent on 2019-20 to \$131 per head or 505 c/kgCW.

In 2021-22, export fundamentals are expected to remain positive and are forecast to support an increase in in-market returns for both lamb and mutton. Co-product prices are expected to recover in 2021-22 supported by global economic recovery.

However, a stronger NZD is expected to partially offset the market gains. The NZD/USD rate is forecast to lift close to 6 per cent for the 2020-21 season to average 0.75 – the highest seasonal average for seven years.

The 2021-22 weighted average farm-gate lamb price is forecast to lift 0.5 per cent to \$137 per head (724 c/kgCW), which is 5 per cent above the five-year average.

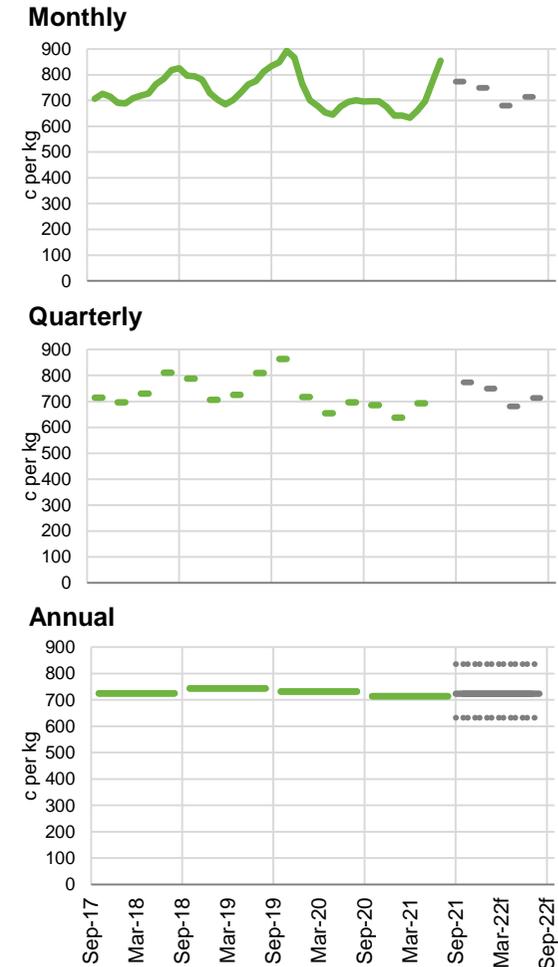
The 2021-22 weighted average farm-gate mutton price is forecast to decline 1.1 per cent to \$129 per head (494 c/kgCW).

Table 9 Lamb Price Sensitivity

All Class Lamb Price			
Exchange Rate	\$ per head	c per kg	
Low NZD			
USD 0.68			
GBP 0.46	158	836	High
EUR 0.54			
Mid NZD			
USD 0.75			
GBP 0.51	137	724	Mid
EUR 0.60			
High NZD			
USD 0.83			
GBP 0.57	120	632	Low
EUR 0.66			

Source: Beef + Lamb New Zealand Economic Service

Figure 8 Weighted Average Lamb Farm-Gate Price



Source: Beef + Lamb New Zealand Economic Service



The decline in the price forecast for mutton contrasts with the lifting forecast for lamb. The main factor influencing this contrast is that lamb export prices suffered a more significant decline due to COVID-19 in comparison to mutton. Subsequently the recovery has been sharper for lamb. The forecast farm-gate price for sheep in 2021-22 remains the second highest on record and is 16 per cent above the five-year average.

COVID-19, the Delta variant and the threat of new variants create uncertainty for the outlook period. At the time of writing there were signs of global economic recovery and foodservice sector recovery stalling as Delta outbreaks spread. In New Zealand, Delta is a threat. A halt to global economic recovery and further lockdowns in New Zealand will both be risk factors for farm-gate price forecasts. As New Zealand enters new season production and hotter summer months, restrictions on processing capacity will have the potential to flow into farm-gate prices. Increased freight costs may also weight on farm-gate prices as production lifts.

The 2021-22 forecasts are also sensitive to changes in currency markets, particularly with the higher forecast for the NZD/USD being the major limiting factor in the new season.

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
2017-18	24.7	19.9	18.6	368.9
2018-19	23.8	18.8	19.1	359.0
2019-20	23.2	19.1	19.0	359.9
2020-21e	22.6	18.3	19.1	349.6
2020-22f	22.8	18.5	18.9	351.0
2020-22f % change	+0.9%	+1.3%	-0.9%	+0.4%

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 2021 is estimated at 22.8 million head, up 0.9 per cent or 0.2 million head on the previous spring.

The lift in lamb crop is driven by an increase in both ewe and hogget lambing percentages on the previous season.

For the year to June 2021, the number of breeding ewes declined 0.5 per cent to 16.5 million and the number of ewe hoggets mated also declined slightly (-0.6%).

The national average lambing percentage for spring 2021 is estimated to increase 0.7 percentage points to 131.4 per cent. Climatic conditions through the months of September and October will be critical to determining the outcome of the 2021 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.

For the year ending September 2022, the number of lambs processed for export is forecast to lift 1.3 per cent or 0.24 million head to 18.5 million.

Total lamb export production is expected to be marginally (+0.4%) up on 2020-21 at 351,000 tonnes bone-in.

Confidence in the industry is mixed. Farm-gate prices for lamb have been at record levels through the season, however, farmers are wary of the volatility of weather events and environmental regulation is weighing on morale. Forestry is also spreading into sheep farming land. These factors will weigh on future expansion of the breeding ewe flock.

Table 11 Export Mutton Production

Sep Year	Breeding Ewes million head	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2017-18	17.8	4.0	25.8	103.8
2018-19	17.2	3.4	26.8	90.7
2019-20	16.8	3.5	25.9	91.6
2020-21e	16.6	3.8	26.0	99.9
2020-22f	16.5	3.5	26.1	91.4
2020-22f % change	-0.5%	-9.5%	+0.6%	-8.5%

e estimate, f forecast

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

Mutton

The number of adult sheep processed in 2021-22 is forecast to decline 9.5 per cent to 3.5 million head.

The large decline follows an estimated 8.3 per cent increase in processing numbers in the 2020-21 season. Dry conditions, high prices and land use change are all contributing factors to the higher numbers processed. Processing rates have been up consistently through the season.

Assuming favourable climatic conditions, farmers are expected to maintain ewe numbers into next season.

The average mutton carcase weight is expected to be largely steady both in 2020-21 and the new season.

Total export mutton production in 2020-21 is estimated to reach just under 100,000 tonnes bone-in, 9 per cent up on 2019-20 and

five per cent up on the five-year average.

In 2021-22, total export mutton production is forecast to be down 8.5 per cent to 91,400 tonnes bone-in, four per cent below the five-year average.

Beef Outlook 2021-22 – Opportunities and Challenges

Opportunities

- 

ASF continues to drive import growth for meat proteins. Despite the reported recovery of China's pig herd, China's protein supply will remain in deficit during 2021 and 2022.
- 

Tightening global beef supply will increase demand for New Zealand beef.
- 

Global economic conditions and the foodservice sector have made a strong recovery in 2021, underpinned by vaccination programmes and fiscal support packages. Consumer demand in key markets is buoyant.
- 

Consumption growth and demand for high quality protein is projected in Asian markets as the size of the middle class increase and a shift of more consumers into urban areas takes place.
- 

There is increased consumer awareness regarding "claims-based" meats. This includes food safety, traceability, sustainability, animal welfare, grass-fed and antibiotic free. New Zealand's reputation as a producer of natural red meat positions our beef well to capitalise on this opportunity.
- 

There has been a shift in consumer behaviour towards in-home dining and e-commerce as a result of the pandemic. Some consumers are willing to pay more for higher quality meat at retail in lieu of dining in restaurants.

Challenges

- 

The spread of the Delta variant of COVID-19 is a threat to continued global economic recovery. Continued economic recovery in key markets, particularly China, is critical to supporting demand for New Zealand exports.
- 

There is an un-even rollout of COVID-19 vaccination programmes globally, increasing the downside risk to health and economic outcomes.
- 

Global freight congestion and surging shipping and air-freight costs are challenging exporters shipping timeframes and eroding margins. This is significant for New Zealand's chilled beef trade.
- 

Ongoing global labour shortages may limit meat processing capacity.
- 

The forecast for a sharply higher NZD/USD will decrease the competitiveness of New Zealand exports.
- 

Deterioration in the political relationship between Chinese and New Zealand governments will be a threat to beef export performance.
- 

Australia's competitive presence will increase in late 2022.
- 

Global and domestic climate change policy will introduce challenges for agricultural production systems and potentially trade.

Beef & Veal Exports

2020-21

Global economic recovery following the COVID-19 shock of 2020 and ASF have shaped the 2020-21 beef export season. COVID-19 disruption to the economy and foodservice sector demand weighed on export returns in the first half of the export season. However, the rebound has been swift from March (Figure 10), with tightening supply of global beef and strong demand from China and the US leading the recovery.

Demand from the US has been exceptional. This reflects a swift foodservice sector recovery as vaccination programmes were rolled out, and Federal fiscal support packages that supported consumer incomes. A tight supply of imported beef and labour shortages limiting

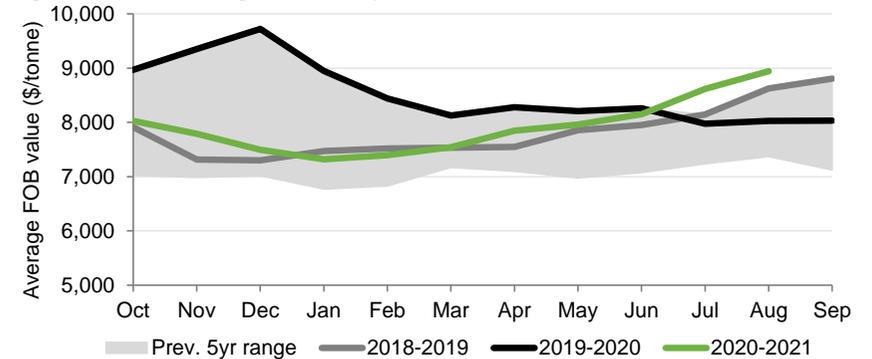
processing capacity have also underpinned the strong market fundamentals in the US.

Market fundamentals for beef exporters in China in the second half of 2021 have been a perfect alignment of tightening global beef supply and exceptional demand driven by ASF's impact on pork production, and economic recovery.

The NZD has been a limiting factor for export returns in 2020-21. For the eleven months from October 2020 to August 2021, the NZD has averaged USD 0.71; up 11 per cent on last season and five per cent on the five-year average.

The strong second half of the 2020-21 export season partially offset the slower start. Total receipts for beef

Figure 10 Average Monthly Value of Beef & Veal Exports



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

(including co-products) are estimated to decline three per cent on 2019-20, noting that 2019-20 was a record season. At \$4.1 billion FOB, total receipts are the second highest on record and are 12 per cent above the five-year average.

Average export returns for 2020-21 are estimated to average \$7,382 per tonne FOB, down 9.8 per cent on the record high of 2019-20, and in-line with the five-year average.

For the 2020-21 season, beef and veal meat export volumes are estimated to lift 5.9 per cent on 2019-20 to a record 493,000 tonnes shipped weight. The lift is driven by high steer and heifer processing rates during the season.

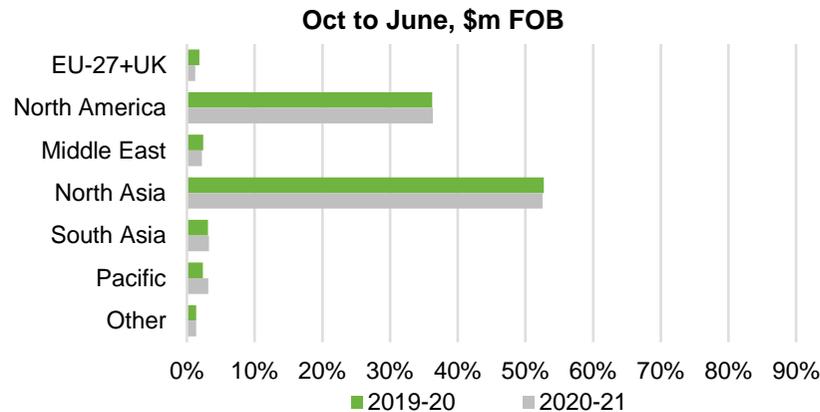
Export data for the first eleven months provides a solid foundation for these estimates. For the season from October 2020 to August 2021, beef

export volumes were up 7 per cent on the same period last season, and the average FOB export value was down 7 per cent.

China and the US have dominated New Zealand beef exports in 2020-21. In the eleven months from October 2020 to August 2021, the two markets combined accounted for three-quarters of total export volumes.

Despite the strong presence of the US, China has remained the leading market destination, accounting for 38 per cent of total volumes in the eleven months to August 2021. This share is relatively steady on the 2019-20 season. China's demand for beef imported from New Zealand has strengthened since March, however the sharp lift in average export values from June reflect the tighter imported beef supply in this market due to the reduction of Argentina's beef exports.

Figure 9 New Zealand Beef & Veal Exports



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

Table 12 New Zealand Beef & Veal Exports

Sep Year	Beef and Veal Meat			Co-Products \$m FOB	Total Beef \$m FOB	Beef Meat %*
	000 tonne	\$ / tonne	\$m FOB			
2017-18	431	7,123	3,073	551	3,624	85%
2018-19	453	7,451	3,377	531	3,908	86%
2019-20	465	8,186	3,810	512	4,322	88%
2020-21e	493	7,382	3,640	544	4,184	87%
2021-22f	468	7,205	3,371	519	3,890	87%
2021-22f % change	-5.1%	-2.4%	-7.4%	-4.6%	-7.0%	

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

The average value of beef exports in the first eleven months of the 2020-21 season was \$7,600 per tonne, 10 per cent down on last season.

Secondary beef cuts account for 57 per cent of exports to China. This category has seen the biggest growth on last season, with processing beef exports remaining steady. The average export value of secondary cuts was \$7,800 per tonne. Processing beef accounted for 37 per cent of beef exports to China with an average export value of \$7,000 per tonne. Exports of premium cuts such as loins accounted for 6 per cent, with an average value of \$10,200 per tonne.

The US accounted for 35 per cent of total beef exports in the eleven months to August 2021. The US has attracted increasing volumes of New Zealand beef during 2020-21. This reflects high beef prices, strong demand, and limited imported supply. This market had a slower start, as exports and values remained adversely impacted by weak foodservice demand. As the economy

reopened, both export volumes and values lifted. This was particularly notable from March 2020. Average export values lifted to record levels in July and August, despite a higher NZD. The average export value of beef exports to the US in the eleven months to August 2021 was down 6 per cent from the record high of \$7,800 per tonne in the same period of 2019-20. It is the second highest average export value for this market, however.

Processing beef accounted for 85 per cent of exports to the US in the eleven months to August 2021. This is in line with historical trends for this market.

After China and the US, the next most significant markets are Japan (6%), Korea (4%) and Taiwan (4%). Japan and Korea have experienced stronger demand in the absence of Australian beef, however overall market shares remain largely steady on 2019-20.

There has been significant growth in chilled beef exports in 2020-21. Chilled sales have lifted in line with the

increase in total beef export volumes, accounting for 13 per cent of exports. This is a strong performance given the logistical disruptions that the chilled trade has faced. China, the US and Japan are New Zealand's largest markets for chilled beef.

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. Despite lower returns for co-products, the lift in export production is estimated to drive a 6.4 per cent increase in the total value of New Zealand's exports of co-products in 2020-21.

2021-22

Market fundamentals for New Zealand beef exports are forecast to remain positive in the 2021-22 season. Demand is expected to remain strong, underpinned by China and the US. Forecasts for global beef supply in 2022 signal continuing tightening. Australian beef exports are expected to re-emerge as a competitive presence later in 2022, with the impact likely to be felt in the 2022-23 season.

Global economic recovery is projected to progress in 2022, supporting continued foodservice recovery and robust consumer demand. However, the growing spread of the Delta variant of COVID-19 and the potential for other variant forms to spread globally is a significant risk to global economic growth. The forecast for the outlook period will be sensitive to any weakening, or even stalling, of economic growth in China and the US.

ASF and the growing demand for quality proteins from the affluent Asian consumer will continue to be key drivers of demand.

Demand from the US and China, and subsequent competitive pressure between these two markets will underpin export price direction in 2021-22.

The challenge of higher international freight costs and disruptions to shipping timeframes is expected to continue into 2022. Global trade is forecast to increase further in 2022, which will add to congestion. The spread of the Delta variant may also influence port operations. Increased shipping costs may be a more permanent thorn in exporters' sides.

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 is positive.

The projected strengthening of the NZD is a major limiting factor for export returns in the 2021-22 season, offsetting positive in-market gains. Beef export returns have a higher



exposure to the NZD/USD than lamb and mutton exports, and peak export volumes coincide with the period of higher currency forecast. It is key to highlight how sensitive this forecast will be to changes in currency markets.

Overall, 2021-22 beef and veal receipts are expected to decline 7.0 per cent to \$3.9 billion FOB.

The decline reflects a 5.1 per cent drop in export beef volumes combined with a 2.4 per cent decline in the average FOB value, driven by the higher NZD. In-market returns are forecast to lift 3 per cent on 2020-21.

The forecast average export value is down 2.7 per cent on the five-year average.

Total co-product receipts are forecast to decline 4.6 per cent, which reflects the decline in production. Global beef co-product prices have lifted during 2021 driven by the tighter supply.

Beef – International Situation

Overview

The outlook for the global beef market is buoyant, fuelled by strong demand and tightening global beef supplies. COVID-19 and the Delta variant will continue to be a source of downside risk; however, the imbalance of supply and demand has the potential to offset pandemic disruption. Beef demand proved resilient during the pandemic in 2020 and is likely to remain so in the outlook period.

Global demand for beef has been exceptional in 2021. The two dominant factors fuelling this demand are strong demand from China as ASF prevents recovery in domestic pork production and swift economic and foodservice recovery in the US following the pandemic, supported by continuing fiscal support in 2021. Economic recovery in secondary beef markets is also a contributing factor.

Global beef supply has tightened in 2021. This reflects tighter supplies in key producing nations including Australia, Brazil and the US as well as trade disruptions to beef exports from Argentina and, more recently, Brazil.

The combination of strong consumer demand and lower supply has reversed the more competitive trading environment that was a feature of global beef trade last year. The current dynamics have resulted in beef-importing nations working hard to secure product for their requirements.

Global beef production for 2021, as estimated by the USDA in July 2021 is expected to be largely steady on 2020, and slightly down on 2019. This has been revised from the start of the

year when production was forecast to lift 1.5 per cent. The revision reflects lower-than-expected production from Australia, and declining production in Argentina and Brazil. Drivers for each country will be explored in the market-specific commentaries.

Total global beef consumption in 2021 is forecast to lift 1 per cent. Increasing consumption in China and Mexico are drivers of this forecasts, offsetting a decline in beef consumption in Brazil.

Global beef imports for 2021 as forecast by the USDA (July 2021) are expected to lift 1 per cent on 2020 and 7 per cent on 2019. Chinese import demand drives the forecast and offsets a decline in US beef imports.

Global beef exports are expected to remain largely steady in 2021. Declining export volumes from Argentina, Australia and Brazil are offset by strong export growth from the US and Canada.

Rising cattle prices and feed costs around the globe will be a serious challenge for meat production margins in key beef producing regions. Feed prices have skyrocketed in the first half of 2021. Poor harvests and supply disruptions due to COVID-19 have failed to meet surging demand, particularly from China and alternative uses such as biodiesel.

Higher feed and input costs combined with a tightening of global cattle supply, has led to rising cattle prices in leading beef-exporting countries in 2021.

Changing dynamics of trade flow due to South American beef export

suspensions to China and other countries have been a feature of 2021. These have been discussed earlier in the report; however, it is worth noting again that trade disruptors can come from various sources. In the case of the South American beef suspensions this year, economic conditions and animal disease have been highlighted as trade disruptors.

Key challenges that the global beef trade will face in the 2021-22 season include logistics and shipping disruption, potential constraints on production capacity because of labour shortages, geopolitical relations between the New Zealand and Chinese governments and the risk of a decline in health and economic outcomes if Delta infection rates increase. These are discussed in previous sections of this report.

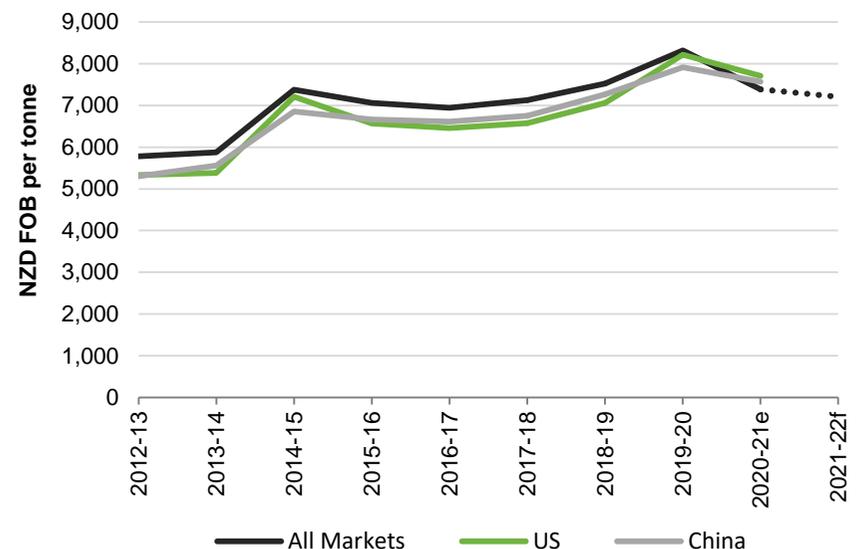
China

China has consolidated its position as the world's largest beef importer this year. Its demand for imported beef has exceeded expectations, underpinned by strong economic recovery following the disruption of COVID-19 in 2020 and continued pork shortages because of ASF. Tightening global beef supply has resulted in an acute imbalance of demand and supply, which suits beef exporters.

China is the leading destination for New Zealand beef, accounting for just under 40 per cent of exports in the first eleven months of the 2020-21 export season (October 2020 to August 2021).

Chinese beef consumption has increased significantly because of ASF-induced pork shortages. USDA data shows a lift in beef consumption of 21 per cent between 2018 (prior to

Figure 11 Value of New Zealand Beef Exports to China



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

the discovery of ASF) and 2020. Beef consumption is estimated to increase a further 6 per cent in 2021 and longer-term projections also signal steady consumption growth, with growth of approximately 10 per cent between 2021 and 2025 (GIRA 2021).

The long-term forecast signals that beef consumption has the potential to maintain market share even as domestic pork production increases following recovery from ASF. Trends in recent months have supported this. Beef consumption has continued to lift even with a free-fall of pork retail prices and an increase in beef retail prices. While still a small contributor to total Chinese meat consumption, beef has become a preferred meat protein source for many consumers, supported by the increasing size of the middle class and urbanisation.

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

Strong consumer demand for beef will underpin continued demand for imported beef. While Chinese beef production is steadily increasing (+5% in 2021), expansion is limited by scarcity of land and water. USDA estimates a deficit of 2.3 million tonnes between production and consumption for 2021.

China accounted for 30 per cent of global beef imports in 2020, up from just 17 per cent in 2018 (pre-ASF). Import demand has only increased in 2021. In the first half of 2021, Chinese

beef imports lifted 14 per cent on the same period in 2020. USDA forecasts signal total 2021 imports to be up 12 per cent and a further 6 per cent growth in 2022.

The number of countries supplying China has grown in recent years. The unprecedented demand growth has enticed all major beef producers to China. In 2020, the increasing number of suppliers increased competitive pressure. Tighter global beef supplies in 2021, combined with turbulent trade conditions from Argentina and Brazil have eliminated the competitive pressure, and has resulted in China stepping up its willingness to pay to draw more product its way, at the expense of other markets.

South American beef accounted for three-quarters of total Chinese beef imports in the period from January to July 2021. Brazil, Argentina, and Uruguay make up the South American market share, and individually are the top three suppliers of beef to China.

Brazil is the largest, accounting for 38 per cent of the Chinese imported beef market. Even as Brazil reports declining beef production, export growth to China is expected to remain a focus due to weak domestic economic conditions and the price competitiveness of its exports. The suspension of Brazilian beef exports to China in September 2021 highlighted China's reliance on Brazil for imported beef. There was much speculation about how the deficit in supply would be met if the suspension was prolonged.

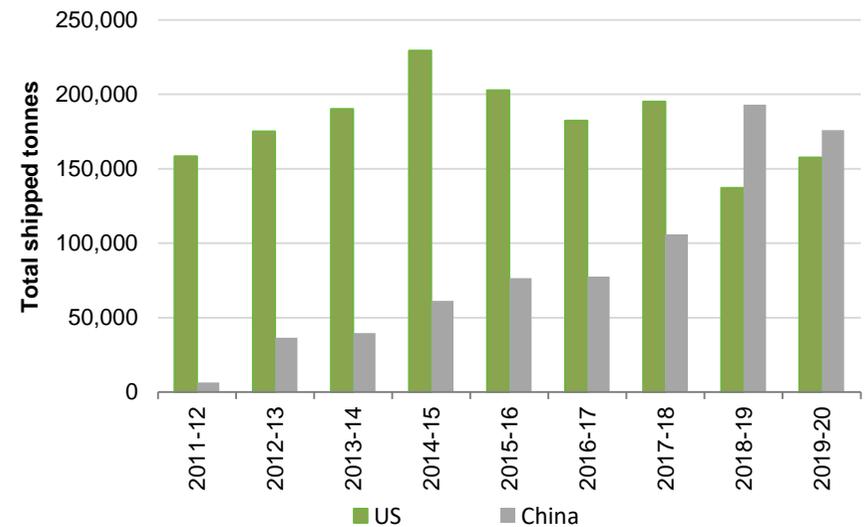
This rang true with the second largest beef supplier to China, Argentina, which accounted for 22 per cent of the Chinese imported beef market in the first seven months of 2021. The suspension of Argentinian beef exports to China, followed by longer term export restriction has caused a reshuffle in the global beef supply chain. The gap left by Argentinian beef has been filled by its neighbours, Brazil and Uruguay. This, however, has shorted beef supply to other markets and intensified the imbalance of beef supply to Chinese demand.

Australia's share of the Chinese imported beef market declined significantly in 2020 and 2021.

Australia accounts for just 6 per cent of the imported beef market, down from 19 per cent in 2019. Low export production has been an important driver in this decrease, as the Australian herd rebuilds, however the reduced trade also reflects Chinese suspension of several Australian beef processing plants. Australian beef exports to China from January to July 2021 were down 37 per cent on the same period in 2020. While Australian export beef production is projected to increase from late 2022, its presence in China will depend on improving political relationships.

US beef exports to China have gained significant momentum during 2021.

Figure 12 New Zealand Beef Exports to China and the US



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

From January to July, exports lifted over 900 per cent year-on-year. Some of the increase is a result of beef now being shipped directly to China rather than through Hong Kong, but most is new demand, driven by the gains secured during the US-China Phase One Agreement. For the first half of 2021, US beef accounted for 7 per cent of the Chinese imported beef market, up from under one per cent for the same period in 2020. In the month of July, Chinese beef imports from the US surpassed Australian beef and its 7 per cent share is similar to New Zealand's 8 per cent for the month. China is expected to look increasingly to US to fill its increasing beef demand.

New Zealand accounted for 9 per cent of the Chinese imported beef market in the first seven months of 2021, compared to 8 per cent in 2020. New Zealand's market share has declined from a high of 13 per cent in 2019, as South American beef has increased its dominance.

Not all imported suppliers and their beef products are in direct competition will each other in China. Australian and New Zealand beef have historically been sold at higher price points than South American beef. COVID-19 has caused a shift to this trend, however. With the EU market severely disrupted, South American countries have diverted more of their higher-quality cuts to China at price points that are cheaper than Australian and New Zealand beef. US beef is also edging into the premium beef market in China, but its grain-fed product positions it separately to New Zealand's grass-fed beef. US beef is

filling the gap in premium grain-fed supply previously filled by Australia.

The dynamics of meat production, consumption and trade in China will continue to be a leading driver of New Zealand beef export performance in 2022 and beyond. Key factors to monitor for the outlook period include the spread of Delta, logistical disruption, resolution of Argentinian trade restrictions, the rebuilding of the Chinese pig herd and the geopolitical relationship between New Zealand and China.

United States

There are many factors at play in the US beef market this year and all of them are leaving their mark on the trading environment. The economy is dealing with strong recovery from the shock of the 2020 COVID-19 outbreak but is now having to consider the risk posed by the spread of the Delta variant. The economic recovery, supported by significant fiscal support provided by the Federal government, has created an environment of inflated consumer demand, particularly for meat.

On the supply side, beef processing capacity is experiencing significant constraints from a shortage of labour. The processing sector is struggling to maintain production to meet the strong demand. Imported supply is also restricted as beef production in key regions has declined, and the demand pull from China has intensified competitive pressure.

Historic drought conditions are a factor of significant concern for US cattle producers. The drought covers nearly

all of the West and Northern Plains, and estimates show that about one-third of all cattle in the US are under drought conditions.

The drought, combined with poor producer returns, has resulted in a decline in the US beef cattle herd. Beef cow slaughter has tracked well above historic levels for several months. August slaughter was up 18 per cent on 2020 and 2019. Dairy cow slaughter is now also picking up (+12% in August) as dairy prices decline.

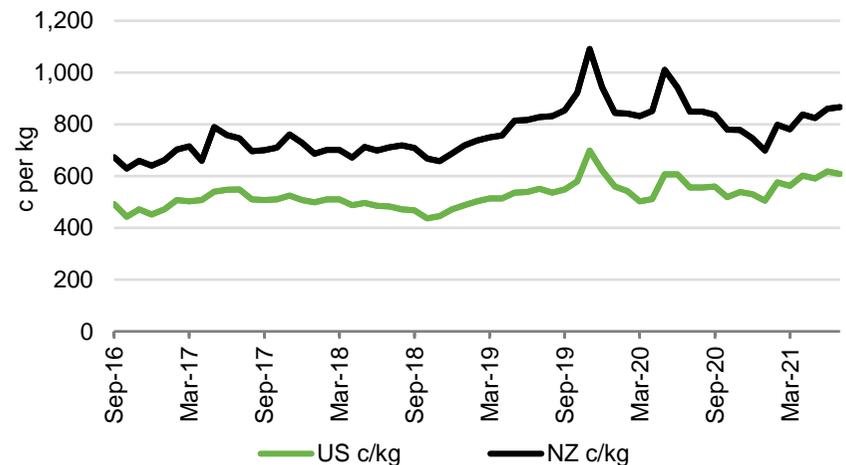
The US beef cattle herd at 1 July 2021 was 2 per cent down on 2020, reflecting the accelerating pace of slaughter and the decline in the US calf crop in the last two years. Producers are also indicating they expect to retain fewer heifers for beef cow herd replacement, signalling an even smaller beef cow herd in 2022.

While cow slaughter is expected to be higher during the second half of 2021, it only partially offsets the decline in steer and heifer slaughter. The supply of cattle on feedlots is down and expected to remain limited in coming months and cattle weights are down 2 per cent on 2020.

The most recent USDA forecasts (September 2021) signal a 2 per cent increase in beef production in calendar 2021. The increase in production is weighted into the first of the year, and beef production is picked to decline for the second half of 2021. US beef production in 2022 is forecast to decline 3 per cent from 2021.

In a period of record demand for beef, supply is currently falling short, and is expected to remain this way. Meat processors have experienced a turbulent period with the pandemic, adverse weather events and severe labour shortages preventing them

Figure 13 Indicative Prices US Imported Beef Frozen 95CL



Source: Beef + Lamb New Zealand Economic Service



from operating at full capacity. The short supply has pushed beef prices at retail to record highs. In the period from December 2020 to August 2021 prices for beef have risen by 14 per cent.

The price inflation has resulted in historically low cold store inventories, with levels at the end of July 2021, 12 per cent down on the five-year average. End users are being forced to use more inventory. This will mean increased demand on the spot market in coming months.

Meat companies have been held responsible for the surge in meat prices by the Biden Administration. New measures have been instigated in an attempt to see greater price transparency in the supply chain. This is discussed in the Economic Conditions section of this report.

A tightening of imported beef supply to the US in 2021 has compounded the imbalance of demand and supply. The US beef market relies on imported lean beef to blend with domestic fat trimmed from feedlot cattle to produce ground beef.

For the first eight months of 2021, US beef imports were 8.4 per cent down on 2020. The sharp decline in Australian beef production is the predominant driver of this decline, with total imports from Australia down 43 per cent from January 2021 to August 2021. US imports from New Zealand also declined – by 7 per cent. There has been an increase in lean beef imports from South and Central America in recent months, but not

enough to offset the decline from Australia.

The USDA estimates that total US beef imports will be down 10 per cent for 2021 and will be relatively steady in 2022, as Australian production remains limited.

In contrast to the shortage of beef in the US relative to demand, is the surge in US beef exports in 2021. This highlights how strong international demand for beef is.

US beef exports for the first seven months of 2021 lifted 22 per cent on 2020. A surge in exports to China is a key driver of the increase. US beef exports to China accounted for 14 per cent of total exports in the period from January to July 2021, up from 1.5 per cent in 2020. The sharp lift reflects improved access as a result of the US-China Phase One Trade Agreement and strong demand from China for beef.

Japan and South Korea are the leading US beef market destinations accounting for 25 per cent and 24 per cent respectively. China is the third most significant.

USDA projects a 16 per cent lift in beef exports in 2021, followed by a slight decline in 2022.

US market fundamentals support continuing strong demand for beef for the remainder of 2021 and 2022. While the rapid spread of the Delta variant is causing some uncertainty in the restaurant trade, it is expected that demand for ground beef will remain resilient.

The key takeaway for the New Zealand beef industry is that despite higher domestic cow slaughter, the supply of lean beef is expected to tighten in coming months, largely driven by the sharp reduction in Australian beef imports. Demand for beef and ground beef is expected to grow, and US importers will be looking to other markets to fill the supply gap. Imported prices are expected to remain firm.

Australia

Herd rebuilding has been a key focus of Australian cattle producers in 2021, supported by favourable climatic conditions. This has limited the presence of Australian beef in global trade and resulted in a less competitive market for New Zealand beef. However, Australian beef exports are projected to lift from the second half of 2022.

Australian beef trade to China has also been limited by continued tension in the relationship between the Chinese and Australian governments, with several beef plants still suspended from exporting to China.

The 2021 national cattle herd is estimated by Meat & Livestock Australia (MLA) to reach 26 million, up 5 per cent on 2020, which was the lowest on record. The 2021 herd will be the second lowest. The herd is projected to expand rapidly in the medium term, with 8 per cent expansion between 2021 and 2023.

Beef production in 2021 is expected to be 7 per cent down on 2020. Higher carcass weights partially offset a 12 per cent decline in slaughter.

Production in 2022 is expected to lift 9 per cent, reflecting higher slaughter, and a further 8 per cent increase is projected for 2023.

Australian beef exports are estimated to be down 10 per cent in 2021 but lift 13 per cent in 2022 and a further 11 per cent in 2023. Export production in 2023 is expected to only just fall short of the record drought-induced slaughter of 2019.

Grain-fed cattle have made up an increasing proportion of cattle slaughter in 2021. This reflects the retention of female cattle while pasture growth rates are high. Feedlot activity has increased to ensure a consistent supply of cattle to processors.

Japan is the leading destination for Australian beef, estimated to account for 42 per cent of exports in 2021. Exports to Japan are approximately 50:50 grass-fed and grain-fed. South Korea is the second largest market destination, accounting for 38 per cent of beef exports. China remains the third largest market, but its market share has dropped from 19 per cent in 2019 to just 7 per cent in 2021. The US has also declined in significance, dropping to 12 per cent in 2021 from 23 per cent in 2019. Manufacturing beef dominates beef exports to Japan, the US and Indonesia.

The UK now presents an opportunity for Australian beef following the agreement in principle of the Australia-UK FTA in June 2021. The agreement will not affect the 2021-22 outlook, however, will provide opportunities for high-value Australian beef in the medium and long term.



The domestic market is a significant market for Australian beef, consuming around 25 per cent of total production in 2021. In July 2021, the Delta variant of COVID-19 forced much of the country into lockdown. There is expected to be minimal impact on Australia's red meat production as processing and manufacturing plans are exempt from lockdowns and sale yards remain open. Similar to trends in the 2020 outbreak, strong growth in retail demand supported domestic sales of red meat, as foodservice sales decline.

As discussed earlier in this report, the shortage of labour is a significant constraint in the Australian meat processing sector.

Australian beef exports will have an increased presence in global beef trade from late 2022. New Zealand exporters are expected to face increasing competition in key markets.

South America

Brazil



Brazil is a significant player in global beef trade and a serious competitor. It has enormous, long-term production potential supported by the opening of new land for grazing and increasing efficiency in beef production.

Brazil is the second largest beef producer, following the US, and is estimated to account for 15 per cent of global production in 2021. Brazil's beef production is estimated to decline 5 per cent in 2021. For the first seven months of 2021, cattle slaughter is estimated to be down 10 per cent on the same period in 2020.

Herd liquidation due to drought and a strong cattle turn-off in 2020 are contributing factors to the decline. The decline in slaughter is expected to leave more cattle in inventory by the end of 2021 and early estimates from the USDA signal 2022 beef production will increase.

Despite declining production, Brazil is picked to remain the leading exporter of beef in 2021. A depressed domestic economy, high domestic meat prices and weak currency have resulted in declining domestic consumption and an increased focus on exports. In 2021, Brazilian beef exports are estimated to lift 3 per cent on 2020, with China accounting for all the increase. Approximately two-thirds of Brazilian beef exports are destined for China and Hong Kong.

Brazil has benefited from Argentina's restrictions on beef exports to China, with a lift in market share in July and August. Brazilian beef export volume and average value reached a record high in August 2021, driven by Chinese demand. While Brazil has increased its share of exports to China, the decline in production has resulted in lower export volumes to other Brazilian beef export markets including Egypt and Russia.

The recent, but short-lived, voluntary suspension by Brazil of its beef exports to China as a result of the discovery of atypical BSE (discussed earlier in this report) highlighted the reliance China has on Brazilian beef, which is a fortunate position for Brazilian beef producers and exporters.

Argentina

Argentina was the world's fifth largest beef exporter in 2020. China accounted for 76 per cent of total Argentinian beef export volumes in 2020, making it the second largest supplier of beef to China, behind Brazil.

Cattle slaughter in 2021 is running well below last year. Beef production is projected to be 4 per cent down on 2020.

Argentina has entered the trade spotlight in 2021 because it first suspended, and then imposed restrictions on beef exports, to attempt to control rising domestic beef prices. This topic is covered in further detail earlier in the report.

The export restrictions did not apply to non-TRQ markets (US and EU). China was the largest casualty with exports to this market down through May, June and July. Exports to Israel, another key market for Argentina, were down 35 per cent.

Argentina is expected to increase its exports to the US and EU in the second half of 2022, or at least until October when the restrictions are expected to be lifted. Argentina currently has low-duty access to the US via its TRQ.

Chile is also an important market for Argentina, accounting for 6 per cent of exports from January to July 2021. The restrictions have not impacted exports to this market, and it may prove another avenue to which Argentina can export beef originally destined for China.

The Argentinian agricultural sector is making moves to protest the restrictions. Industry bodies state the loss of control for processors as a result of these restrictions creates an uncertain environment in which farmers do not want to invest. Such interventionist government policies have the potential to cloud the long-term outlook for Argentine beef exports.

Cattle Prices – Farm-gate

2020-21 has been a challenging season for cattle farmers, with farm-gate returns subdued for most of the season. Weaker export returns, a stronger NZD and a consistently high supply of cattle at processing plants have all been contributing factors.

The annual weighted average all classes cattle price for 2020-21 is estimated at 466 c/kgCW; down 3.3 per cent on 2019-20 and 4.7 per cent on the five-year average.

Looking forward to 2021-22, export fundamentals remain positive and are forecast to support an increase in in-market returns for beef.

The forecast for the 2021-22 season is for the average farm-gate price for all cattle to decline 2.1 per cent from 2020-21, to 456 c/kgCW.

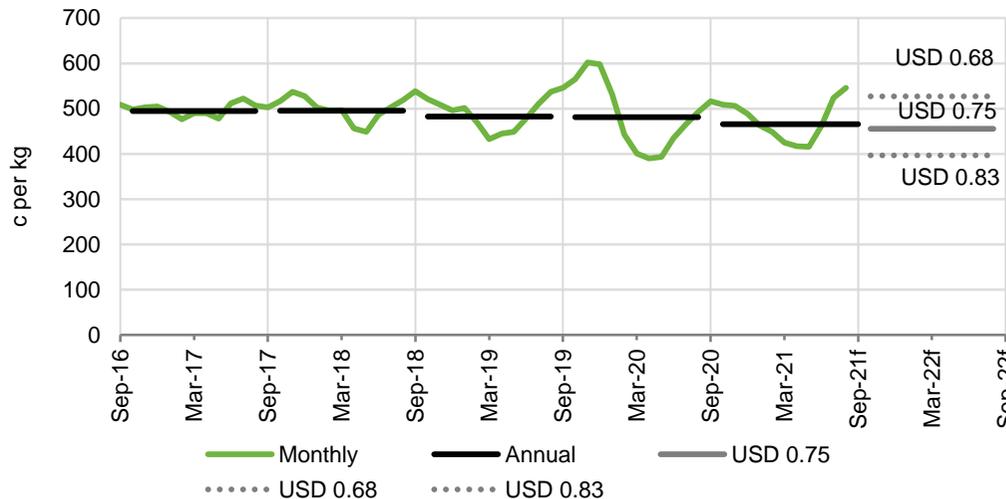
Positive in-market conditions for beef in the new season are outweighed by the relatively stronger NZD. Beef export returns have a higher exposure to the USD than lamb and mutton exports, and peak export volumes coincide with the period of higher currency forecasts. The in-market average export

value is forecast to be up 3 per cent in the 2021-22 season, however in NZD the average export value is down 2 per cent. It is key to highlight how sensitive this forecast will be to changes in currency markets.

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 USD0.68, USD0.75 and USD0.83 and the associated cross rates against the GBP and EUR. At USD0.75, the estimated 2021-22 average annual price for P steer/heifer (270-295kg) is 502 cents per kg, M cow (170-195kg) is forecast to average 341 cents per kg and the forecast for M bull (270-295kg) is 518 cents per kg.

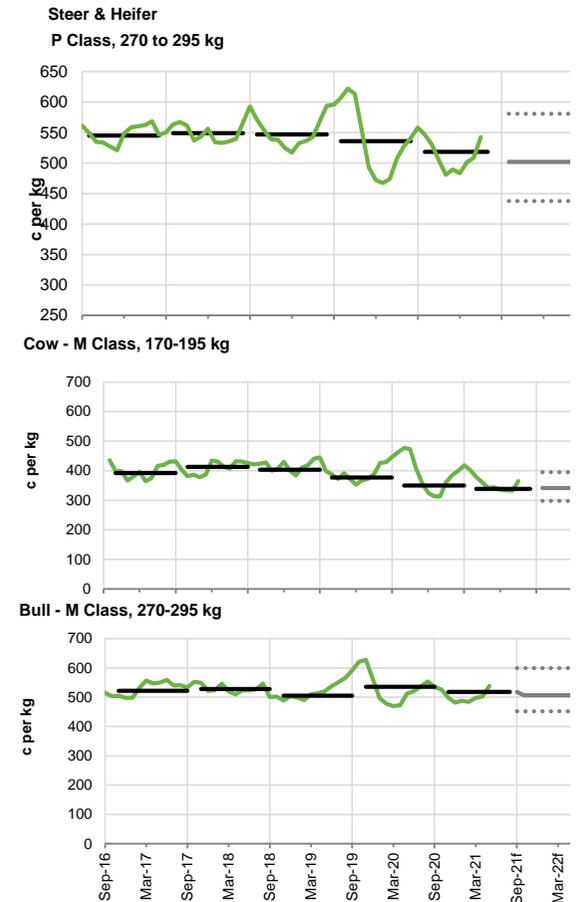
COVID-19, the Delta variant and the threat of new variants create uncertainty for the outlook period. In New Zealand, the Delta variant is a threat. As New Zealand enters new season production, restrictions on processing capacity will have the potential to flow into farm-gate prices. Increased freight costs may also weigh on farm-gate prices as production lifts.

Figure 14 Weighted Average All Classes Cattle Farm-Gate Price



Source: Beef + Lamb New Zealand Economic Service

Figure 15 Weighted Average Cattle Farm-Gate Price



Source: Beef + Lamb New Zealand Economic Service



Beef Production

Table 13 Export Cattle Slaughter Composition

Sep Year	000 head				
	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
2019-20	588	491	1,048	546	2,674
2020-21e	682	559	1,029	553	2,823
2021-22f	613	499	1,010	558	2,680
2021-22f % change	-10.2%	-10.8%	-1.9%	+1.0%	-5.1%

e estimate, f forecast

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

Table 14 Export Cattle Carcase Weights

Sep Year	kg / head				
	Steer	Heifer	Cow	Bull	Total
2016-17	314	243	199	301	243
2017-18	312	241	197	305	253
2018-19	313	243	200	301	251
2019-20	312	243	202	299	254
2020-21e	312	241	199	302	255
2021-22f	313	243	200	301	255
2021-22f % change	+0.3%	+0.6%	+0.3%	-0.1%	-0.0%

e estimate, f forecast

Table 15 Export Beef Production Composition

Sep Year	000 tonne bone-in				
	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
2019-20	184	120	212	163	679
2020-21e	213	135	205	167	719
2021-22f	192	121	202	168	682
2021-22f % change	-9.9%	-10.2%	-1.6%	+0.9%	-5.1%

e estimate, f forecast

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

Cattle Slaughter

For 2021-22, the number of cattle processed for export is forecast to decline 5.1 per cent to 2.7 million head.

Slaughter trends for steers and heifers in 2020-21 are a key driver of the forecast. The number of steers and heifers processed are estimated to lift 15.9 per cent and 13.9 per cent respectively in 2020-21. This trend is expected to be a one-off, and processing numbers for both classes are expected to align more closely with historical trends next season. In 2021-22, steer slaughter is forecast to decline 10.2 per cent and heifer slaughter is forecast to decline 10.8 per cent.

The higher steer and heifer processing of 2020-21 was driven by an increase in beef cow herd in 2019 and a decline in the number of bobby calves processed in 2019. There was a notable increase in the proportion of dairy-beef cattle in the processing mix, and these numbers are expected to remain above the historical trend as the forecasts for 2021-22 signal.

The number of cows processed is forecast to decline 1.9 per cent, reflecting the impact of a higher farm-gate milk price forecast on the dairy cow cull.

The offtake of bull beef is dominated by dairy-beef bulls. The small increase in slaughter numbers reflects evidence of an increase in dairy-bull beef calf retentions in the previous two years.

Cattle Weights

On average, export cattle carcase weights are forecast to remain relatively stable in both 2020-21 and 2021-22. This assumes "normal" climatic conditions in the 2021-22 season.

Beef Production

In 2021-22, New Zealand's export beef production is forecast to be down 5.1 per cent on 2020-21, at 682,000 tonnes bone-in. This follows a record production of 719,000 tonnes bone-in in 2020-21. The 2021-22 forecast is 3 per cent above the five-year average and signals three years of consistent high beef production.

Wool

Table 16 Season Average Wool Price Indicators

June Year	cents / kg greasy				
	Fine	Medium	Strong	Lambs	All Wool
2017-18	1,696	624	271	366	369
2018-19	1,859	714	266	408	381
2019-20	1,447	725	221	230	332
2020-21e	1,114	421	170	169	254
2021-22f	1,225	455	179	178	271
2021-22f % change	+10.0%	+8.0%	+5.1%	+5.0%	+6.9%

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

Prices

There has been a notable shift in price direction for all wool types at the start of the 2021-22 wool season. This is positive news for woolgrowers, following the prolonged period of low returns. However, even with the welcomed price lift, they would have to lift substantially before wool becomes profitable again for farmers.

Global economic recovery post COVID-19 is underpinning the lift in prices, because demand for wool is income-sensitive. The increase has been particularly notable in the merino and fine wool categories, which have recorded exceptional lifts in recent weeks.

Demand from China has lifted, and the combination of limited supply and lifting prices has stimulated increased activity from Europe and India.

There is still considerable risk around the sustainability of this upwards price trend. Outbreaks of COVID-19 in China led to the closure of mills in key wool-buying regions, which will limit activity in the short term. The global risk of COVID-19 to wider economic recovery also remains a threat.

Domestically, the weak market in 2020 resulted in a significant build-up of wool inventories that will add supply and price pressure to the market until they are cleared. On the positive side, there are exciting initiatives in the New Zealand wool sector regarding industry collaboration and product innovation that offer potential to drive higher wool returns in the longer term.

The outlook for 2021-22 is for fine wool prices to lift 10 per cent, following a 23 per cent decline the previous season. Medium wool prices are forecast to lift 8 per cent and strong

Table 17 Auction Prices and Raw Wool Exports

June Year	Auction Price	Wool Exports		
	\$ / kg clean	FOB \$ / kg clean	000 tonne clean	\$m FOB
2017-18	4.93	5.41	100.2	542.5
2018-19	5.19	5.86	93.8	548.9
2019-20	4.53	5.63	76.7	432.1
2020-21e	2.98	4.15	95.3	395.5
2021-22f	3.34	4.43	94.7	419.9
2021-22f % change	+12.0%	+6.9%	-0.7%	+6.2%

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

wool prices are forecast to lift 5 per cent.²

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

Exports

The outlook for 2021-22 is for the volume of wool that is exported to decline largely on 2020-21, reflecting the trend in sheep numbers. Wool export revenue is forecast to lift 6.2 per cent to \$420 million. Average export receipts at FOB are expected to decrease 6.9 per cent to \$4,430 per tonne clean.

For the 2020-21 wool production season (from July to June), New Zealand wool exports were up 24 per cent to 95,346 tonnes clean. The largest lift was in the fine crossbred wool category, which was

up 50 per cent on 2019-20, following a 36 per cent decline. This category accounted for 23 per cent of total wool exports. Strong crossbred wool volumes, which made up 51 per cent of wool exports in 2020-21 have lifted 11 per cent.

China remained New Zealand's largest wool market in 2020-21, accounting for 35 per cent of wool export volumes, down from 38 per cent in 2019-20. Export volumes to the EU for 2019-20 – the next largest market (30%) – were up 25 per cent, driven by a 32 per cent lift in volumes to Italy. The UK continued to be an important market accounting for 7 per cent of exports. There was a 77 per cent increase in exports to India, which accounted for 17 per cent of total exports as a result. Wool exports to the Middle East declined 20 per cent on 2019-20.

² Wool price indicators are for fleece wool, and not an average across the whole clip.

Production

For 2021-22, total wool production is forecast to remain steady as a result of sheep numbers being stable. However, at 132,200 tonnes, this will be the lowest wool production on record and 5 per cent below the five-year average. Slipe wool production is also forecast to remain steady.

Shearing

Shearing expenditure increases 3.8 per cent in 2021-22 to average \$27,200 per farm or \$5.71 a head. Five years earlier, shearing expenses averaged \$20,300 per farm or \$4.22 per head.

The net wool account (wool revenue less shearing expenses) has decreased from 2015-16 onwards and currently averages close to breakeven (\$1,300 per farm). Most farm classes face a deficit in their net wool account. The exceptions are South Island High Country and South Island Hill Country

where wool revenue exceeds shearing expenditure.

Shearing expenditure in 2021-22 accounted for 150 per cent of wool revenue for North Island sheep farmers and 70 per cent for South Island sheep farmers. This is up from 40 per cent in the North Island and 30 per cent in the South Island just 10 years earlier in 2011-12.

Farmers reported reducing the number of shearings per year to reduce shearing expenses. In recent seasons, it has been increasingly difficult to find shearing contractors, which limits timing options. Labour shortages with COVID-19 border restrictions and lockdowns requiring smaller crews and changes to processes and health and safety have exacerbated the situation. Some farmers have changed shearing policies, including less frequent shearing, changing sheep breeds, and changing the cattle to sheep ratio on farm.

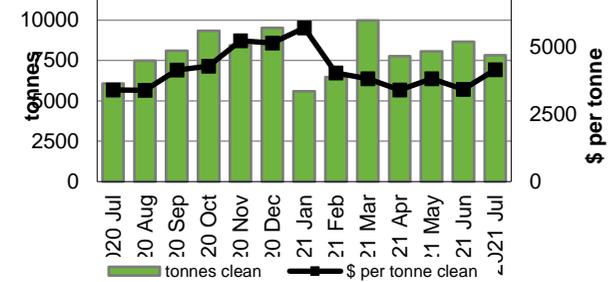
Table 18 Wool Production

June Year	Sheep	Shorn	Slipe	Total Shorn Wool	
	million head	000 tonnes greasy	000 tonnes greasy	000 tonnes greasy	kg / head* greasy
2017-18	27.5	124.4	16.6	141.1	4.52
2018-19	27.3	128.9	15.0	143.9	4.72
2019-20	26.8	120.9	15.5	136.4	4.51
2020-21e	26.0	117.7	15.3	133.1	4.52
2021-22f	25.8	116.9	15.3	132.2	4.53
2021-22f % change	-0.8%	-0.7%	-0.3%	-0.7%	+0.0%

*excludes wool on sheepskins

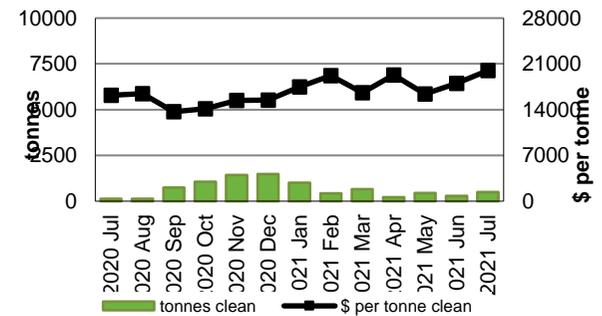
e estimate | Source: Beef + Lamb New Zealand Economic Service, Wrightson Wool,

All Wool
Figure 16 New Zealand Wool Exports



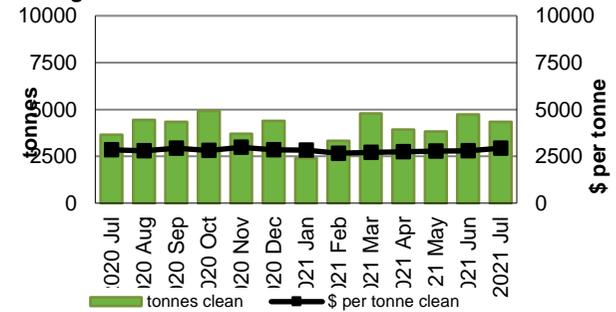
Source: Beef + Lamb New Zealand Economic Service

Fine Wool



Source: Beef + Lamb New Zealand Economic Service

Strong Wool



Source: Beef + Lamb New Zealand Economic

Climatic Conditions

Autumn 2021 Summary

Autumn 2021 was characterised by long dry spells and warmth, interspaced by bursts of heavy rainfall. This was because La Niña began its transition to ENSO-neutral in March and the dominant climate driver became the Madden-Julian Oscillation (an eastward moving "pulse" of cloud and rain in the tropics). The MJO lingered over the western Indian Ocean, leading to higher-than-normal pressures over Aotearoa New Zealand. As a result, much of Aotearoa experienced warm days, but chilly overnight temperatures. However, on the occasions when the MJO quickly pulsed across the Pacific, this led to several notable rain and storm outbreaks, including the Canterbury flood event at the end of May.

Rainfall

Autumn rainfall was below normal (50-79% of normal) across Northland, Auckland, parts of Waikato, parts of Manawatū-Whanganui, Gisborne, Hawke's Bay, Wairarapa, eastern Southland and most of Otago. Above normal rainfall (120-149% of normal) was observed in parts of Taranaki, northern Tasman, Nelson, northern Marlborough, and parts of eastern Canterbury. Pockets of well above normal rainfall (>149% of normal) was observed around Ashburton. Most of the total autumn rainfall that was recorded in the Canterbury region fell in the last two-to-three days of the

season. Near normal rainfall (80-119% of normal) was observed elsewhere.

Soil moisture

At the end of autumn, soil moisture levels were drier than normal for northern Northland, Auckland, parts of Waikato, southern Hawke's Bay, the Tararua district, the Wairarapa, much of the Otago and southern parts of the Canterbury. Soil moisture levels were

wetter than normal spanning from the Nelson/Marlborough region through to much of eastern Canterbury.

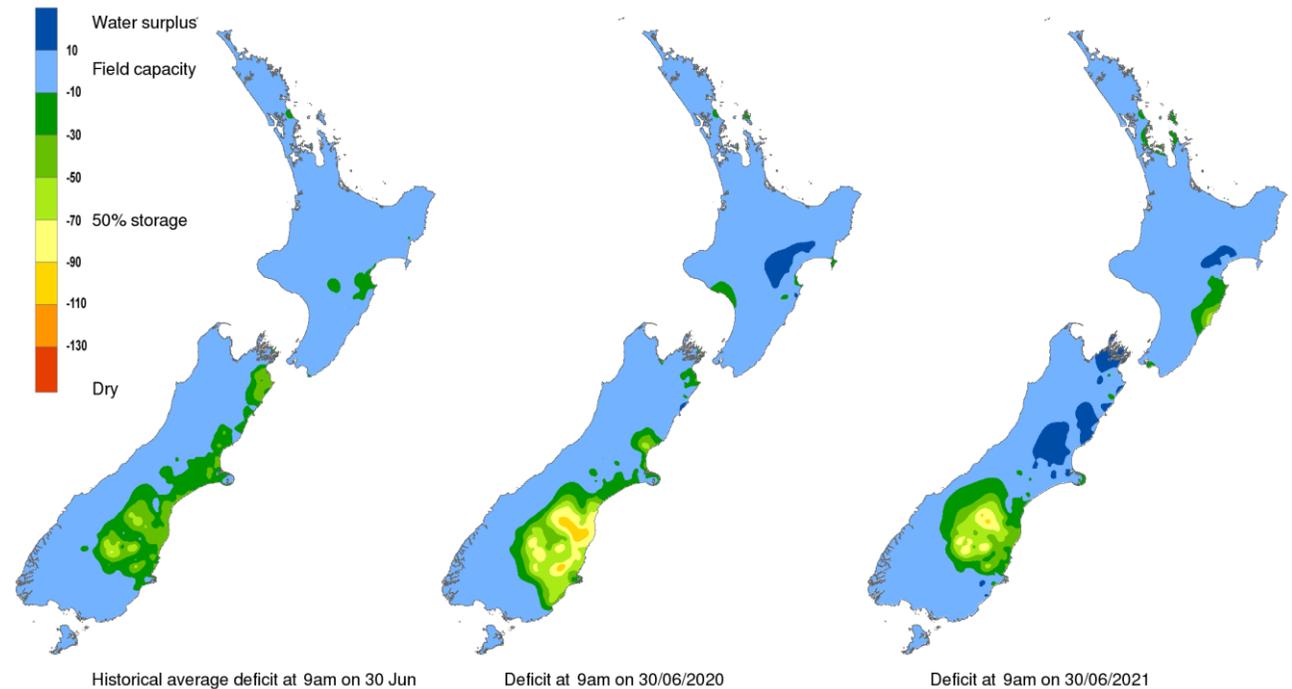
Temperature

Autumn 2021 was the 10th-warmest autumn in 112 years of records. Temperatures were above average (+0.51°C to +1.20°C of average) for most of Aotearoa New Zealand. Pockets of well above average

temperatures (>1.20°C above average) were recorded in eastern Canterbury. Near average (±0.50°C of average) temperatures were recorded in most of Northland, parts of Auckland, parts of Waikato, parts of Bay of Plenty, most of Marlborough and Tasman, and scattered portions of Southland, Otago and West Coast. No areas experienced below average temperatures.

Figure 17 Soil Moisture Deficit

Soil moisture deficit (mm) at 9am on 30/06/2021



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

Outlook – August to October 2021

Rainfall

Rainfall is about equally likely to be near normal or above normal in the west of the South Island, most likely to be near normal in the west of the North Island, and about equally likely to be near normal or below normal in all remaining regions.

Temperature

Temperatures are most likely to be above average in all regions of the country. More north-westerly air flows will likely cause spells of unseasonably warm temperatures in the north and east of both islands in particular.

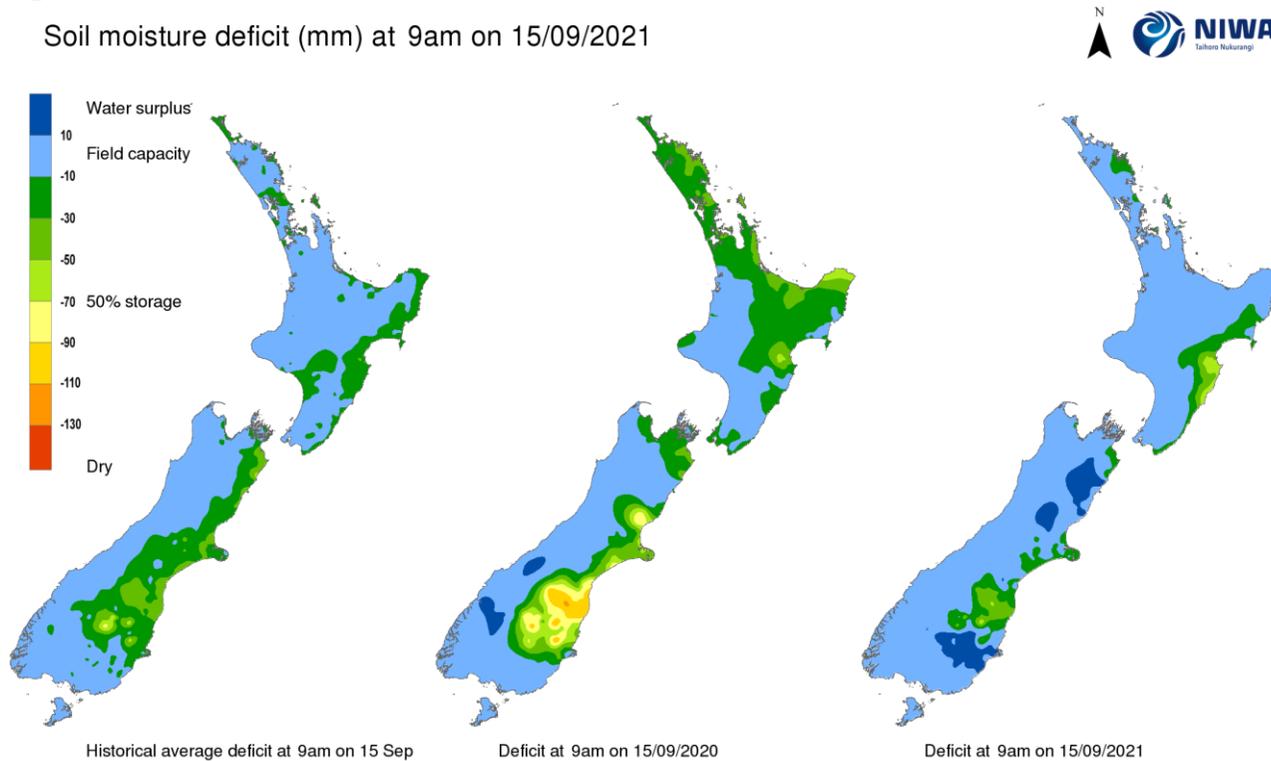
Soil Moisture

Soil moisture levels are about equally likely to be near normal or below normal in the east of the North Island and most likely to be near normal in all other regions.

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

Figure 18 Soil Moisture Deficit

Soil moisture deficit (mm) at 9am on 15/09/2021



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

Farm Revenue, Expenditure & Profit – New Zealand

Revenue

Gross farm revenue for the 2021-22 farming year, which ends on 30 June, under an exchange rate scenario of USD0.75, is forecast to average \$634,800 per farm, an increase of 4.3 per cent (Table 19). This is driven by increased revenue predominantly from sheep, with wool, deer, cash crops and other revenue also estimated to increase by a combined \$8,200 per farm, while cattle revenue is likely to decrease by 2.5 per cent.

Sheep and cattle revenue account for three-quarters of gross farm revenue at 50 per cent and 25 per cent respectively on average.

Sheep revenue is forecast to increase by 7.5 per cent to \$317,700 per farm for 2021-22. Expectations are for the lamb crop to be similar to 2020 – assuming favourable climatic conditions – and lamb prices are supported by market fundamentals and increasing demand, as outlined earlier.

Wool revenue is estimated to increase 15 per cent to \$28,500 per farm. This reflects a modest increase in wool prices across all segments (fine, medium, strong etc.) and a small increase in wool sold per farm (+1.7%). Wool revenue accounts for less than five per cent of gross farm revenue. For most farm classes, on average, shearing costs exceed wool revenue. The exceptions are South Island High Country and Hill Country (Farm Classes 1 and 2).

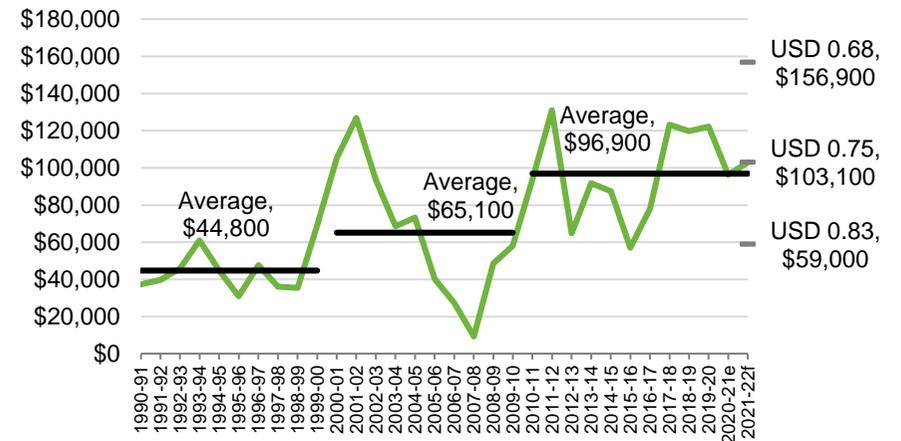
Cattle revenue decreases 2.5 per cent to average \$158,900 per farm, a decrease of \$4,000 per farm on average. Market insecurity has led to some lack of farmer confidence in weaner prices in 2021-22 and prime cattle prices are also forecast to decline leading to an overall decrease in revenue.

A decrease in cattle revenue is forecast for all regions of the North Island with the greatest decrease projected for East Coast (-4.5%) followed by Taranaki-Manawatū (-2.9%) then Northland-Waikato-Bay of Plenty (-2.1%). Overall, average per-farm cattle revenue is forecast to fall by 3.1 per cent in the North Island.

In the South Island, cattle revenue is forecast to decrease by 0.9 per cent on average. In Marlborough-Canterbury, cattle revenue is forecast to decrease by 1.5 per cent partially due to lighter cattle as a result of the drought, while Otago-Southland cattle revenue is forecast to remain almost static (+0.2%) in 2021-22.

Dairy grazing revenue is forecast to decrease by 0.9 per cent averaging \$32,700 per farm (and 5.2 per cent of gross farm revenue) in 2021-22. Regionally, the change in dairy grazing revenue is highly variable and decreased for all regions except Northland-Waikato-Bay of Plenty. Sheep and beef farms on the East Coast reduced the number of dairy grazers for the second season in a row due to concerns about

Figure 19 All Classes Sheep and Beef Farm Inflation-Adjusted¹ Farm Profit Before Tax



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

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

Mycoplasma bovis and *Bovine Tuberculosis*. The 63 per cent decrease in 2021-22 is expected to reduce dairy grazing revenue to 0.5 per cent of total gross revenue. Marlborough-Canterbury Breeding Finishing farms (Farm Class 6), which often sell cash crops to dairy farmers, switched from dairy grazers in favour in longer term heifers. On average, dairy grazing revenue is estimated to decrease 9.8 per cent for these farms.

The cash crop account is forecast to increase by 2.6 per cent in 2021-22. It accounts for 10.5 per cent of gross farm revenue on average in 2021-22, which is double the contribution from dairy grazing.

Aggregate Sheep and Beef Farm Revenue for commercial sheep and beef farms is forecast at \$5.8 billion in 2021-22, an increase of approximately 4 per cent on 2020-21. Aggregate revenue is forecast to increase in both the North Island (+3% to \$2.7b) and South Island (+5% to \$3.1b).

Gross farm revenue is spent on goods and services for running the farm business including wages, shearing contractors, maintenance and agricultural services, then taxation, debt-servicing, debt reduction and personal living expenses.



Expenditure

Total expenditure is estimated to increase 3.0 per cent to average \$491,300 per farm for 2021-22 (Table 19). Expenditure is expected to increase in most categories as farmers face inflationary pressure on farm input prices, including major fertiliser price increases. Interest expenditure, which accounts for around 11 per cent of total farm expenditure, remains relatively static at \$55,600 per farm (+0.2%). Shearing expenditure increases for the fifth year in a row to an average \$27,200 per farm.

On-farm inflation for input prices used on sheep and beef farms decreased 1.1 per cent in the year to March 2021, driven by falling interest rates. The underlying inflation rate (i.e. excluding interest) for the same period was 1.6 per cent. Of the 16 categories of inputs, prices increased for 14 and decreased for two – Interest and Fuel.

Fertiliser, lime and seeds expenditure, which is equivalent to 19 per cent of total farm expenditure, increases 11 per cent to average \$91,100 per farm. The volume of fertiliser applied per farm and per hectare is forecast to decrease.

Repairs and maintenance increase 5.2 per cent to average \$40,500 per farm.

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.

After adjusting for inflation, profits for the period from 2017-18 to 2019-20 were among the highest since the early 1970s. Farm Profit Before Tax then decreased in 2020-21 to average \$131,700 per farm and is forecast to increase for 2021-22 by 9.0 per cent to an average \$143,500 per farm. The strengthening Farm Profit Before Tax forecast for 2021-22 depends on the value of the NZD relative to other currencies. Currently the NZD is relatively high, which is a limiting factor for exports. Further caveats are market prices and uncertainties with the global supply chain and shipping due to the 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 19:

- At the mid exchange rate (USD0.75), inflation-adjusted Farm Profit Before Tax is \$103,100 per farm, an increase of 7.2 per cent on \$96,200 for 2020-21. In nominal terms, Farm Profit Before Tax is forecast to average \$143,500, up 9.0 per cent on \$131,700 for 2020-21.
- At the lower exchange rate (USD0.68), which would boost revenue by an estimated 17.7 per cent, inflation-adjusted Farm Profit Before Tax is forecast at \$156,900 per farm in 2004-05 terms for 2021-22, 63 per cent higher than \$96,200 for 2020-21. In nominal terms, i.e. without adjusting for inflation, Farm Profit Before Tax would be \$218,400, up 66 per cent on \$131,700 for 2020-21.
- At the higher exchange rate (USD0.83), inflation-adjusted Farm Profit Before Tax would be \$59,000 per farm in 2004-05 terms for 2021-22, 39 per cent lower than \$96,200 for 2020-21. In nominal terms, Farm Profit Before Tax would be \$82,100, down 38 per cent on \$131,700 for 2020-21.

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

		2017-18	2018-19	Provisional	Estimate	Forecast			Forecast % Change		
				2019-20	2020-21	2021-22 USD 0.68	2021-22 USD 0.75	2021-22 USD 0.83	2020-21 to 2021-22		
						USD 0.68	USD 0.75	USD 0.83	USD 0.68	USD 0.75	USD 0.83
Revenue											
Wool		35,962	38,693	31,673	24,800	33,600	28,500	24,400	+35.5%	+14.9%	-1.6%
Sheep		280,021	306,786	320,255	295,500	368,900	317,700	275,700	+24.8%	+7.5%	-6.7%
Cattle		158,417	160,025	170,746	162,900	183,600	158,900	138,700	+12.7%	-2.5%	-14.9%
Dairy Grazing		28,389	30,957	34,662	33,000	32,700	32,700	32,700	-0.9%	-0.9%	-0.9%
Deer + Velvet		6,104	7,123	6,203	4,900	6,100	5,200	4,500	+24.5%	+6.1%	-8.2%
Goat + Fibre		41	26	72	0	0	0	0			
Cash Crop		55,520	61,561	64,307	64,900	66,600	66,600	66,600	+2.6%	+2.6%	+2.6%
Other		24,682	24,195	23,617	22,700	25,200	25,200	25,200	+11.0%	+11.0%	+11.0%
Total Gross Revenue	\$ per farm	589,136	629,366	651,535	608,700	716,700	634,800	567,800	+17.7%	+4.3%	-6.7%
Expenditure											
Fert, Lime & Seeds		71,178	79,448	83,544	82,200	92,300	91,000	90,000	+12.3%	+10.7%	+9.5%
Repairs & Maintenance		35,119	41,021	42,540	38,500	41,100	40,500	40,000	+6.8%	+5.2%	+3.9%
Interest & Rent		74,411	76,193	76,597	74,800	74,100	74,400	74,700	-0.9%	-0.5%	-0.1%
Other Expenses		248,432	274,391	284,408	281,500	290,800	285,400	281,000	+3.3%	+1.4%	-0.2%
Total Expenditure	\$ per farm	429,140	471,053	487,089	477,000	498,300	491,300	485,700	+4.5%	+3.0%	+1.8%
Farm Profit Before Tax²	\$ per farm	159,996	158,313	164,446	131,700	218,400	143,500	82,100	+65.8%	+9.0%	-37.7%
EBITRm³	\$ per farm	238,478	239,397	246,571	212,222	299,100	223,718	162,000	+40.9%	+5.4%	-23.7%
Real Farm Profit ⁴	\$ per farm in 2004-05 \$	123,200	119,800	122,200	96,200	156,900	103,100	59,000	+63.1%	+7.2%	-38.7%
Real Farm Profit⁴	Index (2004-05=1000)	1,681	1,636	1,668	1,313	2,141	1,407	805	+63.1%	+7.2%	-38.7%
Fertiliser Use	kg per SU	27.0	28.5	26.1	24.0	23.9	23.6	23.3	-0.3%	-1.7%	-2.7%
Prices											
Wool auction	¢ per kg clean	493	519	453	347	437	371	317	+25.9%	+6.9%	-8.6%
All wool ⁵	¢ per kg greasy	289	299	281	200	262	222	190	+31.1%	+11.3%	-4.8%
Lamb	\$ per head	134	142	139	136	158	137	120	+16.1%	+0.5%	-12.2%
Mutton	\$ per head	108	122	124	131	152	129	110	+16.6%	-1.1%	-15.6%
Prime Steer/Heifer	¢ per kg	540	541	530	513	581	502	438	+13.3%	-2.1%	-14.7%

1. The Weighted Average for All Classes of Sheep and Beef Farm for 1 July 2021 was a grazing area of 698 hectares with 2,830 sheep, 395 cattle and 32 deer, totalling 4,488 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 grazable hectare is a standardised measure that facilitates benchmarking.

North Island Summary

Sheep and Beef Farm Profit before Tax increases 8.9 per cent to \$151,500 per farm for 2021-22 (Table 20).

Gross farm revenue increases 4.0 per cent to \$547,700. Sheep revenue increases 7.1 per cent to \$278,600 per farm due to forecast prices for lambs and hoggets remaining at high levels. Returns from wool are estimated to improve from 2020-21 however this improvement takes wool revenue from the lowest amount received historically to marginally more in dollar terms (+22% to \$15,700). Cattle revenue is forecast to decrease by 3.1 per cent. Cattle revenue reached a record high in 2019-20 (\$209,500 per farm) but has subsequently decreased with lower prices. Cattle revenue, including dairy grazing, contributes around 40 per cent of gross farm revenue. Deer revenue continues to decline (-7.2%), crop/grain and seeds and other sources of revenue are forecast to increase in 2021-22 (+6.5% and

+6.6% respectively). However, these three items combined make up approximately ten per cent of gross farm revenue.

Total farm expenditure increases 1.5 per cent to average \$396,200 per farm for 2021-22 with decreases in around half of the expenditure categories not sufficient to offset increases in fertiliser and repairs and maintenance which are significant areas of spending. Fertiliser expenditure is estimated to increase by 3.5 per cent while fertiliser volumes (tonnes) decrease by 4.1 per cent as farmers seek to minimise the impact of high fertiliser prices. Shearing expenditure, which is forecast to

increase by 3.9 per cent, has increased for five years in a row.

South Island Summary

Sheep and Beef Farm Profit before Tax increases 9.6 per cent to average \$134,200 per farm for 2021-22, as both gross farm revenue and total farm expenditure increase (Table). Gross farm revenue increases 5.2 per cent to \$740,600 per farm for 2021-22 driven largely by increased sheep and wool revenue.

Sheep revenue increases by 7.9 per cent to \$365,100 per farm as livestock prices are estimated to remain strong. Revenue from crop and grains is the second largest source of

income (17.7%) and increases 2.2 per cent to \$131,200.

Cattle revenue decreases 0.9 per cent to \$111,000 per farm and averages 15 per cent of gross farm revenue.

Total farm expenditure increases (+4.2%) to average \$606,400 per farm for 2021-22. All categories of expenses increase except for Feed & Grain (-4.6%). In contrast to the North Island, on average there is a minor increase in fertiliser volumes (+1.4%) in the South Island.

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

Region	2019-20	2020-21e	2021-22f		Profit	EBITRm ¹	Stock Units	Hectares
	Profit	Profit	Revenue	Expenditure				
Northland-Waikato-BoP	136,920	118,100	458,100	330,100	128,000	182,400	3,700	380
East Coast	163,290	159,400	622,000	450,500	171,500	261,500	5,200	590
Taranaki-Manawatu	152,602	143,800	602,600	442,600	160,000	232,300	4,700	530
North Island	149,437	139,100	547,700	396,200	151,500	222,800	4,400	480
Marlborough-Canterbury ²	182,789	121,600	866,500	732,900	133,600	239,800	4,600	1,010
Otago/Southland ²	184,585	123,400	605,900	471,300	134,600	210,300	4,500	850
South Island²	182,628	122,500	740,600	606,400	134,200	225,200	4,600	960
New Zealand	164,446	131,700	634,800	491,300	143,500	223,700	4,500	700

p provisional, f forecast | Exchange rate used in forecast year USD/NZD 0.75

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 increases 4.0 per cent to an average of \$458,100 per farm for 2021-22, after a 5.5 per cent decrease in 2020-21.

Wool revenue is forecast to increase by 29 per cent to an average \$9,900 per farm, and sheep revenue is forecast to increase by 8.1 per cent to \$158,500. The forecast increase in sheep revenue is driven by increased lambs in spring 2021 owing to ewes being in good body condition and favourable climatic conditions in autumn and winter. Lambing percentages are expected to increase for both Hard Hill and Hill Country farms (Farm Classes 3 and 4). Finishing farms (Farm Class 5) are forecast to sell more hoggets in 2021-22. Improved returns for both prime lambs and prime sheep are anticipated.

Sheep revenue as a percentage of total gross farm revenue has averaged 33 per cent since 2005-06 and is estimated to account for around 35 per cent in 2021-22. In contrast, wool as a percentage of gross farm revenue has decreased from 8 per cent in 2005-06 to 2 per cent in 2021-22.

Cattle revenue is forecast to decrease by 2.1 per cent to an average \$226,300 per farm. This follows a 7.1 per cent decrease in 2020-21. While cattle numbers traded are forecast to increase in the region the

expectation is for lower farmgate prices.

Total farm expenditure increases 2.4 per cent to \$330,100 per farm for 2021-22.

Fertiliser, lime and seeds expenditure is forecast to increase by 4.4 per cent as fertiliser prices pinch and volumes applied increase slightly (+1.5%).

Repairs and maintenance expenditure is forecast to increase 9.7 per cent to an average \$29,000 following a decrease in 2020-21 when farmers deferred some maintenance. However, caution is applied with spending on repairs and maintenance as there is uncertainty on market pricing and returns for prime livestock.

Feed and grazing expenditure is forecast to remain static (-0.2%) and has averaged \$16,400 for the past five years.

Shearing expenses are estimated to increase 2.7 per cent in 2021-22 to an average \$13,725 per farm, while wool revenue is estimated at \$9,900 per farm – a net loss of \$3,825.

Interest expenditure is forecast to decrease marginally to \$34,900 per farm (-0.9%) due to low interest rates and reduced debt levels (both term and current liabilities).

On average, Farm Profit before Tax increases by 8.4 per cent to average \$128,000 per farm in 2021-22 (+\$10,000).

On average, sheep and beef farms in the region carry 3,700 stock units grazing on 380 hectares and have an average stocking rate of 9.8 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

Region	2019-20	2020-21e	2021-22f				Stock Units per ha.
	Profit	Profit	Revenue	Expenditure	Profit	EBITRm ¹	
Northland-Waikato-BoP	364	314	1,218	878	340	485	9.8
East Coast	277	270	1,054	764	291	443	8.7
Taranaki-Manawatu	288	272	1,139	837	302	439	9.0
North Island	309	287	1,132	819	313	460	9.1
Marlborough-Canterbury ²	181	120	857	725	132	237	4.6
Otago/Southland ²	218	146	715	556	159	248	5.3
South Island²	191	128	774	634	140	235	4.8
New Zealand	236	189	909	704	206	321	6.4

p provisional, f forecast | Exchange rate used in forecast year USD/NZD 0.75

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 has a small increase, 1.8 per cent, to average \$622,000 per farm for 2021-22. This is driven substantially by increased revenue from sheep and depends on favourable climatic conditions for the region where dry weather and drought has impacted production and finances for the past two seasons.

Wool revenue is forecast to increase by 23 per cent to \$19,400 per farm on average, up from \$15,800 in 2020-21. Wool revenue contributes around 4 per cent of total gross farm income.

Sheep revenue increases 4.3 per cent to \$360,800 per farm on average for 2021-22, which is a record high. The ewe flock has declined over time, exacerbated by recent droughts and farmers needing to de-stock. Good market prices for sheep have been very attractive to farmers who have taken advantage of the high prices, selling ewes and in some instances increasing usage of terminal sires.

Sheep revenue contributes 58 per cent of gross farm revenue.

Cattle revenue, which is equivalent to 31 per cent of gross farm revenue, decreases 4.5 per cent to an average \$193,200 per farm for 2021-22. There is some movement in the sheep-to-cattle ratio especially on Finishing farms (Farm Class 5) as cattle require less handling, therefore less labour, and because shearing expenses continue to exceed wool returns.

Total farm expenditure is expected to remain relatively static, decreasing by

0.2 per cent in 2021-22. It is expected to average \$450,500 per farm.

Fertiliser expenditure increases 3.0 per cent in response to price increases, as overall tonnages applied are forecast to decrease by 13 per cent in 2021-22. Finishing farms (Farm Class 5) are more likely to mine their soil fertility and reduce or swap fertiliser types (e.g. lime replacing other fertiliser options) to restrain overall fertiliser expenditure.

Repairs and maintenance expenditure is estimated to increase by 1.7 per cent to an average \$44,600 per farm.

Shearing expenditure continues to rise, increasing by an estimated 5.4 per cent.

Feed and Grazing expenditure is expected to decrease by 9.8 per cent from higher levels of spending that were necessary during drought.

Interest expenditure at an average \$57,700 per farm, decreases by 0.9 per cent in 2021-22 as interest rates continue to be relatively low and term debt is reduced.

Farm Profit before Tax increases by 7.6 per cent to \$171,500 per farm for 2021-22.

On average, sheep and beef farms in the region run 5,200 stock units, which is reduced in response to the dry conditions. Livestock occupy a grazing area of around 590 hectares, with a stocking rate average around 8.7 stock units per ha. Farms in the region average around 760 ha total area meaning around 78 per cent is used to produce food and fibre, with

22 per cent in other non food-producing uses.

Taranaki-Manawātū

Average gross farm revenue is forecast to increase 4.8 per cent to \$602,600 in 2021-22 driven predominantly from sheep revenue and an improvement in wool revenue, which is forecast to increase 11 per cent to \$20,200 per farm up from an historic low in 2020-21 of \$18,300 but still below shearing expenses.

Sheep revenue increases 9.7 per cent to \$379,100 per farm on average for 2021-22. This is partly due to an excellent season in 2020-21, which positioned the region well for increased lambing percentages, good liveweights and ewe condition, and enables farmers to take advantage of high market prices. Sheep revenue contributes around 63 per cent of gross farm revenue in 2021-22.

Cattle revenue decreases 2.9 per cent to \$155,700, which is due to a decrease in the average sale price per head. Cattle revenue contributes around 26 per cent of gross farm revenue in 2021-22.

Dairy grazing revenue decreases 12 per cent on average to \$17,000 per farm. This is in line with the five-year average for dairy grazing revenue of around \$18,000 per farm. Risks associated with *Mycoplasma bovis* have deterred some farmers from dairy grazing, a trend observed in the East Coast as well.

Total farm expenditure increases 2.7 per cent to average \$442,600 per

farm for 2021-22, up 50 per cent since 2010-11. Increases are forecast in all major categories of expenditure except for Interest.

Interest expenditure decreases 2.0 per cent to \$54,100 per farm due to reduced debt levels and lower interest rates.

Fertiliser expenditure increases by 1.4 per cent, which is due to price increases because the volume applied is forecast to decrease by 4.5 per cent.

Shearing expenditure increases by 1.3 per cent to \$29,600 on average in 2021-22. Farmers report reducing the number of shearings per year to save on shearing expenses. In recent seasons, it has been increasingly difficult to find shearing contractors which limits timing options. Finishing farms (Farm Class 5) are adapting their shearing policies to shear as little as possible.

Farm Profit before Tax increases 11 per cent to \$160,000 per farm for 2021-22 with the increase in gross farm revenue exceeding the increase in total expenditure.

On average, sheep and beef farms in the region run 4,700 stock units on a grazing area averaging 530 hectares, which means the stocking rate averages about 8.9 stock units per hectare. The total area averages about 650 ha, which means nearly 20 per cent is not grazed because it is woody vegetation, wetlands, forestry or used for non-food producing uses.



Regional Comment – South Island

Marlborough–Canterbury

Gross farm revenue increases 5.4 per cent to average \$866,500 per farm for 2021-22.

Sheep revenue increases 12 per cent to \$311,500 for 2021-22. This increase in sheep revenue is driven by strong market prices for store lambs, prime lambs and prime hoggets. High Country and Hill Country farms (Farm Classes 1 and 2) benefit from store lamb pricing while low-lying farms tend to focus on prime lambs or prime hoggets. Sheep revenue contributes around 36 per cent of gross farm revenue.

Wool revenue decreases by 1.5 per cent to average \$135,500 per farm. Across the region wool accounts for around 5 per cent of gross farm revenue, however for High Country farms wool is a sizeable share of gross farm revenue at 31 per cent.

Cattle revenue decreases 1.5 per cent to \$135,500 for 2021-22 in response to lower prices and some lighter weights because of drought in 2021.

Dairy grazing revenue decreases 4.1 per cent to \$79,200 per farm on average, which is equivalent to 9.1 per cent of gross farm revenue. Several factors drove the decline in dairy grazing revenue. For some farmers, it was a choice to finish lambs with good margins for that enterprise, while others switched to heifers for longer-term contracts and lighter animals.

Cash cropping revenue, which accounts for around 28 per cent of gross farm revenue because of the influence of mixed cropping and finishing farms, is forecast to increase 1.8 per cent to \$237,900 per farm.

Total farm expenditure is expected to increase 4.6 per cent to average \$732,900 per farm for 2021-22, with increases in almost every category.

Fertiliser expenditure increases by around 28 per cent to average \$127,700 per farm. Other key increases include weed & pest control (+3.9%), shearing (+5.2%) and repairs and maintenance (+6.6%).

Interest expenditure increases by 0.8 per cent to \$74,500 per farm.

Farm Profit before Tax increases 9.9 per cent to \$133,600 per farm for 2021-22. The weighted average disguises the prospects for different Farm Classes. For example, Mixed Finishing farms (Farm Class 8) face a decrease (-0.6%) due to the increase in expenditure outstripping increased gross farm revenue.

On average, sheep and beef farms in the region run about 4,600 stock units on a grazing area of 1,010 hectares. The total area averages about 1,130 hectares. High Country and foothill farms inflate the average area of farms in the region because High Country farms (Farm Class 1) have around 9,500 grazeable hectares, whereas Breeding-Finishing farms (Farm Class 6) have a grazing area averaging around 470 hectares.

Otago–Southland

Gross farm revenue increases 4.6 per cent to average \$605,900 per farm for 2021-22 dominated by increased sheep revenue. Sheep are a large part of the revenue and production for the region, revenue from wool and sheep combined accounts for nearly 80 per cent of gross farm revenue.

Sheep revenue increases 4.7 per cent to average \$428,600 per farm for 2021-22. This is due to increased prices, however with prime lambs being a large driver for revenue, conditions at lambing have a major bearing on success for the season.

Wool revenue is estimated to increase by 17 per cent to an average \$43,200 per farm and is influenced by pricing for the fine wool segment. Even with increased wool prices, the revenue generated is still insufficient to cover shearing costs.

Cattle revenue is effectively unchanged (-0.2%) and forecast to average \$84,800 per farm for 2021-22 due to expectations for lower farmgate prices and a small reduction in cattle stock units. Cattle revenue accounts for around 14 per cent of gross farm revenue.

Total farm expenditure increases by 3.4 per cent to \$471,300 per farm for 2021-22, which is an increase of around \$15,400 in absolute terms. All categories of expenditure are estimated to increase in 2021-22.

Fertiliser, lime and seeds, which is a large expenditure item (around 19% of total farm expenditure), is estimated to increase by 8.3 per cent to an average \$91,500 per farm. This is despite farmers reducing fertiliser tonnages and switching products to try to reduce expenditure.

Interest expenditure is estimated to increase by 1.7 per cent to an average \$53,900 per farm due to increased current liabilities and interest rates on overdrafts increasing slightly.

Farm Profit before Tax increases 9.1 per cent to average \$134,600 per farm for 2021-22. This is relatively close to the 10-year average for the region of \$127,840 (in nominal terms). While gross farm revenue dipped in 2020-21 and is now forecast to increase, farm expenditure has continually risen thereby decreasing profit margins.

Increased profitability in the region is most impacted by High Country farms and Finishing farms, the former due to substantial increases in sheep, wool, and cattle revenue, and the latter due to improved lambing percentages.

On average, sheep and beef farms in the region run 4,500 stock units on a grazing area averaging 850 hectares. As in other parts of the South Island, the average farm size is inflated by Farm Class 1 High Country farms, which average 6,800 hectares, whereas Finishing-Breeding farms average 590 hectares and Finishing Farms that are typical in Southland average 260 hectares.