New Season Outlook 2022-23

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Contents

Executive Summary – Outlook 2022-23

Overview

The outlook for global sheepmeat and beef demand is positive for the 2022-23 season. Simply put, demand is exceeding supply, although this applies more to beef than lamb, which is more uncertain than usual because of cost-of-living issues in major markets in the EU-27 and UK. In addition, the direction of the NZD is variable – weaker against the USD than it was in 2021-22 but stronger against European currencies.

Demand from China and the US underpinned strong export returns in the 2021-22 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 throughout first quarter of 2021-22, however shaky economic conditions and inflation have hampered consumer and business confidence. However, demand from China for imported meat will continue to be supported by growing consumer incomes and urbanisation in the medium and long term.

Global demand for sheepmeat and beef is well exceeding supply. For this season, Australia and Brazil are expected to increase their supply for both beef and sheepmeat exports due to favourable weather conditions and herd rebuilding efforts over the past few years. In the beef market, following a strong 2021-22 will be challenging from other markets like Brazil and others in the Americas as they gain more trade access into the US.

Inflation, spurred by COVID-19 financial stimulus packages and supply-chain disruptions, has become a feature of all economies – some that New Zealand sells to, e.g. the UK and EU-27, and some that New Zealand competes with, e.g. Brazil and Argentina, where high inflation will have an impact on domestic consumption and those countries' currencies.

Economic Conditions

Overall, the outlook for global economic conditions is moderately weak, and uncertainty is high due to energy costs and inflation. Positively, many of New Zealand's key red meat markets are wealthy countries that will weather the difficulties better than others. China, which continues to adhere to its zero COVID policy that periodically results in widespread lockdowns affecting tens of millions of people, may be benefiting from access to cheap energy from Russia, so its economic growth may not be as affected as some.

Europe has benefitted from cheap Russian gas in the past, but since the invasion of Ukraine and subsequent sanctions imposed on Russia, tight gas supplies have heavily impact populations, especially in Germany, the world's fourth largest economy. There are multiple indicators that expensive energy prices are affecting the wider economy, for example, inflation was pushed higher and sustained in 2022. Also, export orders for top economies have been pushed below pre-COVID levels, and shipping freight costs have been plummeting, both indicators for weakening global demand and potential signs for a recession looming.

Global demand for New Zealand's primary sector exports has been robust. Red meat and dairy have performed solidly in 2022. However, slowing economic recovery in key global markets, particularly the easing in demand from the Chinese market due to rolling lockdowns, has the potential to slow New Zealand's own recovery given our export reliance.

The New Zealand economy performed modestly throughout the first nine months of 2022 but was mired with inflation. Consumers have been facing high fuel costs and grocery costs. The Reserve Bank of New Zealand is trying to manage inflation by increasing the Official Cash Rate (OCR) and pursue monetary tightening, while attempting to not create an economic downturn.

The exchange rate is the major benefitting factor to NZ red meat export returns in the 2022-23 season. The NZD/USD rate is forecast to drop just over three per cent for the 2022-23 season to average 0.64 – the lowest since the start of the COVID-19 pandemic.

Lamb and Mutton

Market fundamentals for New Zealand lamb and mutton exports are moderately-positive for 2022-23. Total lamb export receipts are forecast at $3.66 billion FOB, down 5.7 per cent on a strong 2021-22.

Demand in all key markets for New Zealand lamb is moderate. There is a slightly growing global demand of lamb, but growing doubts associated with cost-of-living in key markets are causing prices to teeter. The average in-market price across all markets for lamb is forecast to decrease six per cent on 2021-22. However, this decrease is partially outweighed by the forecast of a weaker NZD.

The average NZD FOB value per tonne for lamb exports is forecast to drop 5.5 per cent on 2021-22, up 13.7 per cent on the five-year average.

Lamb exports are forecast to be flat on 2021-22 at 280,000 tonnes shipped weight.

At an exchange rate of USD0.64, the average lamb price is forecast at 815 cents per kg for 2022-23, down 3.9 per cent on the previous season and nine per cent up on the five-year average.

The outlook for mutton in 2022-23 is moderately-strong, driven by demand from China. The weakening NZD is an important factor to mutton returns. The average export value is expected to decline 3.1 per cent. This price,

however, remains very high at second place on the record 2021-22 season – eight per cent higher than the five-year average.

Mutton export production is forecast to increase 4.6 per cent, following a lower number of adult sheep processed in 2021-22. However, with a lower average export value, total mutton export receipts are expected to increase slightly at 1.8 per cent.

The annual average mutton price for the 2022-23 season is forecast at 519 cents per kg, down 6.2 per cent on 2021-22, but still 9 per cent up on the five-year average.

Beef

The outlook for the global beef market is buoyant, fuelled by strong demand and relative tightening global beef supplies. The imbalance of supply and demand has the potential to offset economic stress and inflationary disruption.

The projected weakening of the NZD is a major contributing factor for export returns in the 2022-23 season, offsetting slight negative in-market drops.

Export revenue from beef and veal in the 2022-23 season is forecast to be $4.7 billion FOB, little change on 2021-22.

Beef and veal exports are forecast to be 0.7 per cent up on 2021-22 at 468,000 tonnes shipped weight.

At USD0.64, the estimated 2022-23 average annual price for P steer/heifer (270-295kg) is 664 cents per kg. It is forecast to average 463 cents per kg for M cow (170-195kg), which includes a large component of cull dairy cows, and 644 cents per kg for M bull (270-295kg).

Livestock Numbers

The total number of sheep at 30 June 2022 is estimated at 25.78 million, steady on the previous June and less than half the size of the flock in 1990. Within this, the number of breeding ewes decreased by 1.4 per cent and the number of hoggets increased 3.2 per cent. Lambing in spring 2022 is likely down for regions impacted by drought in autumn 2022. For South Island High and Hill country farms, a snowstorm in early October will also have taken its toll on lambing for some farms.

The number of beef cattle at 30 June 2022 is estimated at 3.93 million, down 0.9 per cent on the previous June. Total beef cattle increased slightly for the South Island, driven by Marlborough-Canterbury, while decreasing in the North Island. However, the number of breeding cows and heifers decreased across all regions except for the East Coast of the North Island where farms rebuilt breeding cows after two seasons of drought.

The number of dairy cattle at 30 June 2022 is estimated to have decreased slightly (-0.8%) to 6.13 million. The number of dairy cows in milk is also estimated to decrease (-0.6%) to 4.78 million head while the number of weaners is steady at an estimated 854,000.

Wool[1]

There has been a small shift in price direction for all wool types in recent months. Global economic recovery post COVID-19 is underpinning the recent lift in prices, as demand for wool is income-sensitive. This has been particularly notable in the merino and fine wool categories.

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

Average export receipts at FOB are expected to lift 0.7 per cent to $5,073 per tonne. Total wool receipts are forecast to lift 1.1 per cent on the previous year to an estimated at $442 million.

The estimate for the overall auction wool price is up 0.7 per cent on 2021-22.

Sheep and Beef Farms

Gross farm revenue for 2022-23 is forecast to average $716,100 per farm, similar to 2021-22. Revenue remains steady as decreased sheep revenue is balanced by an increase in revenue from cattle.

Sheep and cattle revenue combined account for three-quarters of gross farm revenue, while wool revenue is less than 5 per cent on average.

Sheep revenue remains the key driver for gross farm revenue in 2022-23, at a forecast $346,400 average per farm despite decreasing 5.8 per cent from 2021-22 with fewer sales and an easing of farm-gate prices.

Cattle revenue is forecast to increase 4.1 per cent to average $196,400 per farm driven by strong farm-gate pricing for all classes of cattle.

Wool revenue is forecast to increase 2.3 per cent to $31,800 per farm. For North Island farmers revenue barely covers associated shearing costs and this is also the case for South Island strong wool farmers.

Dairy grazing revenue is forecast to increase 9.0 per cent, to $37,400 per farm, comprising 5.2 per cent of gross farm revenue in 2022-23.

Expenditure is estimated to increase 3.4 per cent to average $535,000 per farm for 2022-23. Major areas of expenditure such as fertiliser, lime and seeds, interest payments, repairs, maintenance, vehicles and fuel are forecast to increase, even as farmers work to reduce spending, for example, applying reduced volumes of fertiliser.

A large decrease in Farm Profit Before Tax is forecast for 2022-23, down 9.7 per cent to an average $181,100 per

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[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.

farm as margins are squeezed by ever increasing costs.

Confidence within the industry is subdued despite expectations for farm-gate prices for lamb and beef cattle to remain relatively strong. Rising farm expenditure and increasing environmental regulation, including proposed GHG levies, intensive winter grazing requirements, biodiversity legislation and more have dampened spirits and reduced confidence. Land-use change from sheep and beef farms into forestry, fuelled by policy incentives, continues unabated and is viewed negatively by farmers and rural communities. These factors will influence future changes to the breeding ewe flock.

Economic Conditions

The Global Economy

Inflation due to the hangover of the COVID-19 pandemic and the flow-on effects of the Russian invasion of Ukraine are the main features of disruption for the global economy in 2022 and well into 2023.

The coronavirus pandemic is still technically ongoing but due to vaccination rates in most countries, the Omicron variant and its subvariants are proving to be less fatal than earlier variants, and overall COVID fatigue in most populations globally, has led to news outlets and people in general caring less about it.

Table 1 Economic Growth

	Annual Average % Change, March Year					
	2019 %	2020 %	2021 %	2022e %	2023f %	2024f %
US	+2.7	+1.9	-3.4	+6.4	+1.8	+1.0
UK	+1.8	+0.6	-10.0	+11.2	+5.2	+0.8
Euro zone	+1.6	+0.3	-6.1	+7.0	+3.6	+1.3
Japan	+0.2	-0.7	-4.5	+2.3	+1.2	+1.5
China	+6.6	+2.5	+8.0	+5.4	+4.3	+5.1
South Korea	+2.6	+2.1	-0.5	+4.4	+2.6	+2.1
Australia	+2.5	+1.9	-2.2	+5.3	+3.4	+2.6
Trading Partners	+3.9	+1.8	+0.5	+5.5	+3.3	+3.2
New Zealand	**+3.4**	**+2.2**	**-1.4**	**+5.1**	**+2.1**	**+1.4**

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

Health and economic impacts from the pandemic have subsided compared to 2021 and COVID-19-related restrictions have practically dissipated from most economies except for China where a zero-COVID policy is enforced by hard lockdowns in parts of the country.

Throughout 2022, high inflation stemmed from supply limitations due to labour shortages and supply chain constraints combined with a surge in aggregate demand due to unprecedented stimulus and quantitative easing, from the previous two-and-a-half years. This has affected most economies, including New Zealand.

Central banks around the world are attempting to rein in inflation through increasing interest rates and quantitative tightening. They have faced a difficult balancing act of increasing rates enough to cool inflation while not creating a financial crisis or social unrest that might result from increasing unemployment.

In July 2022, the International Monetary Fund (IMF) forecast global economic growth of 3.2 per cent for calendar 2022 and 2.9 per cent for 2023, which was quite a decline from a growth rate of 6.1 per cent in 2021. The forecast is driven by inflation and reduced household purchasing power, continued procedural lockdowns in China, tighter monetary policies in most advanced economies, and the flow-on effects from the invasion in Ukraine.

Inflationary pressure in commodity markets, including agriculture, was even stronger in 2022 compared to a strong 2021. It appears some commodity prices have reached a peak but there is still uncertainty around oil and gas prices and supplies due to the Russian invasion of Ukraine.

Global food prices have increased more in 2022. Adverse climatic events, inflation, and outbreaks of animal diseases such as African Swine Fever (ASF) and Highly-Pathogenic Avian Influenza (HPAI) are still impacting supply from 2021. Surging Chinese demand for protein because of ASF have pushed global meat prices to unprecedented levels this year. The United Nations reported that global food prices in August 2022 were up 8 per cent on 2021 and still well above the five-year average.

Some governments in emerging markets are intervening in the market to release the pressure of rising domestic food prices, while other lower income countries are who are already suffering from malnutrition before the Russian Invasion have those factors exacerbated.

The global trade outlook is forecast to be fragile in 2023, according to the WTO. The forecast is based on the disruption caused by the Ukraine war on merchandise trade growth. The WTO now forecasts the volume of merchandise trade will grow by 3 per cent in 2022, revised down from 4.7 per cent forecast before the invasion, and forecasts 3.4 per cent for 2023. Service trade indicators remain weak as Russia is heavily sanctioned.

Global shipping and airfreight costs seem to have fallen to pre-COVID levels as we near the end of the 2021-22 season and expect to be low into 2024 according to S&P Global Ratings. Congestion at ports due to COVID has seemed to have subsided and the global supply chain has seemed to adapt. But demand worldwide has weakened, which can

be an indicator for heightened risks of a recession.

In 2022, global red meat demand has continued to show strength in the face of COVID-19 disruption, war, and inflation. 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 2022-2031 Agricultural Outlook is projecting the macroeconomic environment for the next ten years with high uncertainty due to the Russian war. Most additional demand for food will continue to originate in low- and middle-income countries. In higher income countries consumption is expected to level off, reflecting changing consumer preferences and slower growing populations.

Overall, the outlook for global economic recovery is fragile, as the downside risk is high because of the Russian invasion impacting commodities and inflation impacting consumers' pockets. The pace of the war and then energy and input prices will determine the health of the global economy going into 2023. The IMF reports that the global outlook is overwhelmingly tilted to the downside and delaying of taming inflation will only exacerbate it.

China

The economic activity in China in 2022 has been shaky. An aggressive strategy to still adhere to Zero-COVID policies and a faltering residential market has made consumer sentiment suffer. However, despite the regional hard lockdowns, importers still increased stocks on meat throughout 2022, which supported prices.

The IMF forecasts the Chinese economy will grow 3.3 per cent in 2022 and a further 4.6 per cent in 2023. This follows growth of 8.1 per cent in 2021.

Economic growth is underpinned by fiscal support and recalibration of the authorities' Zero-COVID strategy to minimise growth trade-offs according to the IMF. Downside risks are another very contagious variant spreading through the population, leading authorities to lock down hard again, and the difficulties in the residential sector causing more financial spillovers into the rest of the economy.

For much of 2021-22, China has been mired with a residential property market being close to collapse. The authorities imposed new policies on property developers in early 2020 to rein in house price inflation in cities. This combined with 75% of new home sales being homes that are about to be built, resulted in large property developers (Evergrande for example) struggling for cashflow and pausing construction, and homebuyers who were unable to get their houses built protesting by not paying their mortgages. This caused consumer sentiment to plunge, and if it worsens, there would be an impact on New Zealand's exports.

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. However, as indicated earlier by a slowing GDP growth due to lockdowns, a teetering residential market and now the Financial Times reports that the population is starting to shrink from 2022 onwards, China could be taken over by India soon as a key growth driver in the Asian region.

The Chinese government has ambitious targets for long term growth. Over the next 15 years, it will focus on

Table 2 Consumer Prices

	Annual Average % Change, March Year					
	2019 %	2020 %	2021 %	2022e %	2023f %	2024f %
US	+2.3	+1.9	+1.2	+6.2	+8.1	+4.5
UK	+2.3	+1.7	+0.6	+4.0	+9.2	+6.8
Euro zone	+1.8	+1.1	+0.2	+3.9	+7.9	+4.6
Japan	+0.7	+0.6	-0.3	+0.1	+2.3	+1.5
China	+2.0	+3.7	+1.3	+1.2	+2.4	+2.5
South Korea	+1.3	+0.5	+0.7	+3.1	+5.2	+3.3
Australia	+1.8	+1.8	+0.6	+3.9	+6.2	+4.4
Trading Partners	+1.7	+1.8	+0.6	+3.2	+5.5	+3.7
New Zealand	**+1.7**	**+1.9**	**+1.5**	**+5.3**	**+5.6**	**+2.2**

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

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.

After the outbreaks of ASF in 2021, domestic pork production has started its recovery throughout 2022. As a result, the country's meat supply will eventually return to normality in terms of pork consumption, which can hinder demand for imported meat. The OECD-FAO Agricultural Outlook assumes that the sector will recover from ASF by 2023.

US

The US has been afflicted with high inflation like most other economies but seems to be performing better than others. The country's position worldwide as the de facto haven for investors has seen the value of the USD increase to multi-decade highs against other currencies despite low consumer sentiment.

The IMF[2] estimates the US economy will expand 2.3 per cent in calendar 2022 and a further 1 per cent in 2023. This follows 5.7 per cent growth in 2021.

The US is now looking at COVID-19 restrictions in the rear-view mirror because they are basically non-existent today. However, the Omicron variant is still spreading through the country, and caused on average 300 deaths per week from May 2022 until now.

Inflation is at 40-year highs with energy prices and the hangover of fiscal stimulus being the main cause. Food prices are still increasing even after a strong 2021. Even though unemployment is very low, consumer sentiment is tracking very low too, which hinders economic prospects and demand. However, there are signs that inflation could turn soon. Job openings are decreasing, and US factory owners are reporting cost pressures are easing rapidly.

The US Federal Reserve has increased interest rates in order to cool demand. A consequence of this is an appreciating USD, which is due to investors moving their funds from elsewhere into the US and the USD always has been the de facto reserve currency of the world. The Federal Reserve is essentially exporting US inflation, which will have profound effects on the world economy, especially emerging economies, as most foreign debt, and traded commodities are denominated in USD. Conversely, companies like Google and Amazon have started to worry about their revenue streams as they and others have exposure to exporting. Some countries are worried they would have to intervene in supporting their currency from going too low. In fact, Japan has because the JPY reached its lowest point in 32 years.

Table 3 Short-term Interest Rates

	% p.a., March Year					
	2019	**2020**	**2021**	**2022e**	**2023f**	**2024f**
	%	**%**	**%**	**%**	**%**	**%**
US	2.5	0.3	0.0	0.5	3.5	3.9
UK	0.8	0.2	0.0	0.6	3.2	4.0
Euro zone	-0.3	-0.4	-0.5	-0.5	0.1	0.5
Japan	-0.2	-0.2	-0.1	-0.1	0.1	0.4
Australia	1.8	0.4	0.0	0.2	3.3	3.8
New Zealand	**1.9**	**1.1**	**0.3**	**1.2**	**4.0**	**4.2**

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

The US has also been affected by a harsh drought during summer 2022 that led corn prices to increase 28 per cent in the year ending September 2022. This also caused hog and cattle feed costs to be 56 per cent and 44 per cent higher than the five-year average, respectively. These conditions – drought and feed costs – contributed to a larger than expected cattle slaughter (particularly breeding cows and heifers), meaning capital livestock numbers were reduced. NZ felt the impact of additional supplies of beef in both the US and in third-country export markets in the latter half of 2022. In 2023, those pressures are expected to ease as there will be less supply from US farmers.

Food prices have not been immune from the inflationary pressure in the US. Some meats, poultry, fish and eggs prices have risen, even when compared with the increases of 2021. Food inflation has mainly been driven by the drought conditions, supply-chain disruptions, labour shortages and discontinuing products due to disruptions from the pandemic.

In the period from December 2021 to August 2022, the retail price of beef remained flat, but pork increased by 4 per cent and poultry by 14.7 per cent.

The lift in consumer demand and a weaker NZD has been the driver of growth in New Zealand export

[2] International Monetary Fund

volumes of red meat to this market in 2022 and will continue into 2023.

Australia

The Australian economy experienced strong economic growth in the first half of 2021, growing 3.9 per cent p.a. However, in the June 2022 quarter, growth was only 0.9 per cent as inflation pressures built across the economy. The Reserve Bank of Australia (RBA) has been aggressively increasing interest rates since May 2022 to combat inflation, from a Cash Rate 0.1 per cent to 2.6 per cent at its meeting in October 2022. The RBA also said t is expecting further increases ‘over the period ahead’ to tame inflation.

Australia’s meat processing industry faced similar COVID-91-related challenges as New Zealand with labour shortages in processing plants throughout 2022, but it is now expecting production to increase as labour becomes more available. Australian farmers are also facing growing input costs on feed and fertiliser due to inflation.

Australia could be a strong competitor in the new season, as favourable weather conditions and herd rebuilding efforts have been beneficial for farmers there.

New Zealand

As mentioned earlier in this report, the New Zealand economy has been hindered with inflation throughout 2022. Latest June quarter GDP growth is at 1 per cent, annualised, and unemployment is still very low.

The economy has past the post-growth recovery of 2021 after covid downturns, and the housing market has decreased sharply from their all-time peaks of last January. Business sentiment has been pessimistic this year in NZ but has started to see signs of recovery.

NZ is still dealing with the limiting factors from the pandemic which include some border restrictions, labour shortages, global supply chain disruptions – to imports and exports – and the absence of international tourism, but we are seeing these rapidly subside.

COVID-19’s Omicron variant is still spreading in the community, but cases have dropped from their high peaks of the autumn and winter with weekly cases hovering around 1,500 to 3,500 in August and September. COVID-related restrictions have basically all subsided with mask usage only required in some instances.

Global demand for New Zealand’s primary sector exports has been strong. Red meat and dairy have all performed solidly so far in 2022. However, slowing economic recovery in key global markets caused by inflation, has the potential to slow New Zealand’s recovery because of the country’s export reliance.

Dairy prices in Global Dairy Trade auctions reached high peaks back in March and April and have relatively high. In tandem with a strong USD, farm-gate returns for dairy should be strong this season.

Red meat export returns were strong in the 2021-22 season, supported by robust demand from China and the US and tighter global supplies of both beef and sheepmeat.

Due to the US effectively exporting their inflation with increasing their rates, 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 year with strong international demand but have been hindered by higher than usual input prices, labour shortages, and space at processing plants. The exchange rate is expected to be a beneficial factor for the new season. 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 September 2022 quarter lifted 2.2 per cent on June bringing annual inflation to 7.2 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 inflation is continuing, and possibly growing, but we have seen some commodity prices starting to ease worldwide and some inflation signals easing overseas, so we could see the same here, although latest inflation figures from StatsNZ says New Zealand inflation rate is still high.

Interest Rates

New Zealand’s Official Cash Rate (OCR) has been increased from its low of 0.25 per cent in August 2021 to 3.5 percent in October 2022

The RBNZ has said that the New Zealand and global demand are still outstripping supply and that food and oil prices are due to the Ukraine war. It is therefore widely expected that the RBNZ will continue to tighten monetary policy until inflation signals are quelled and gets back to the 1 to 3 per cent per annum target.

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.

Despite the rapidly rising OCR, household net financial wealth and consumer spending are still looking strong due to the border reopening. This will something the RBNZ will be looking at if they want to cool demand.

Exchange Rates

Exchange rate forecasts are challenging even when global markets are stable. The uncertainty from the Ukraine Invasion and the economic impacts from worldwide inflation have created a volatile backdrop for foreign exchange projections and there is associated risk to the report’s forecasts.

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 softer outlook for the NZD has been both inflation fears and a strong USD. The UK and EU are the most affected by the Ukraine war and subsequent inflation and high cost-of-living, leading investors to flock to the USD and so we project the NZD to be slightly stronger against the GBP and EUR.

Monetary tightening by the RBNZ does not seem to push the NZD upwards as tightening is occurring at the same time as other major currencies.

As at writing this report, the USD is sitting at 0.55 compared to the NZD, which is as low as it was when COVID-19 arrived back in 2020. It appears that US economy and the USD are dictating the direction of investors worldwide, as uncertainty grows, and effectively exporting their inflation. The US economy and the Federal Reserve are key to monitor, as they have a profound effect on our export prices and farm-gate returns.

Table 4 New Zealand Dollar Exchange Rates

	Annual Average		
Sep Year	USD	GBP	EUR
2020-21	0.71	0.52	0.59
2021-22e	0.66	0.51	0.61
2022-23f	0.64	0.53	0.62
2022-23f % change	-3.3%	+3.4%	+2.2%

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

The rapid spread of the Omicron variant of COVID-19 around the globe in early 2022 impacted global trade internationally and meat processing locally but looking into 2022-23, assuming there is not another more infectious and fatal variant, should not be as noteworthy as the past two and a half years.

Most economies have vaccinated most of their population and removed most of COVID-19 related restrictions. COVID infections, reinfections and long-COVID will still affect economies into 2023 with absenteeism in the workplace and added aggregate cost on health in economies.

Throughout 2022, most countries have had their foodservice sectors rebound to normal levels due to their relaxation of COVID-19 measures, except China. China is still embarking on their zero-COVID policy and has enacted rolling hard lockdowns in various population centres throughout the majority of 2022. It is expected that authorities are going to analyse the trade-offs associated with their current COVID policies and refit them to their needs, as the economic and social cost is proving to be large on the population.

Inflation and Cost-of-Living

Inflation due to the hangover effects of unprecedented levels of quantitative easing, stimulus packages by governments and central banks, and the indirect effects of the war in Ukraine has become the biggest concern for 2022 and looking into 2023.

Energy prices have been increasing to multi-decade highs that have made consumers' cost of living increase dramatically, especially in Europe, where in some cases, gas for heating homes have increased so much, governments have had to introduce cost caps and windfall taxes.

Central banks around the world are reversing their quantitative easing programs during the pandemic and since the 2008-2009 financial crisis. The main way they do this is through increasing interest rates to attempt to stem inflation and reduce aggregate demand to be in line with supply shortages. This has also increased mortgage repayments on households and reduced disposable incomes.

While food is not a perfect substitute for heating homes, we do expect inflation to have an impact on demand for our red meat exports, especially lamb as it is seen as more of a luxurious good. Increasing mortgage repayments and energy costs for our customers in key markets will impact consumer sentiment. Fortunately, most of New Zealand's key markets are wealthy countries that will weather the inflation difficulties better than poorer countries due to being wealthier and having more robust institutions. Also, consumers in lower income nations are projected to demand less due to inflation as they spend a higher proportion of their income on food compared to higher income nations.

War

The Russian invasion of Ukraine has exacerbated inflation pressures, and heightened tensions diplomatically. It has no direct impact on meat markets but significant impact on crop production markets – for both human consumption and feed crops – so it has had an indirect impact.

Russia supplied the majority of Europe with gas for heating prior to the invasion. Heavy sanctions and limiting supply by the Russians to these countries have sent heating and power bills soaring, adding to inflation.

The end to this invasion is unclear and could go on for years as Russia continues its aggression and Western nations continue to send aid and arms. As global trade starts to ease away from their reliance from Russia, the indirect effects on meat markets and the effects on inflation are here to stay for the medium term.

Labour shortages

Labour shortages because of COVID-19 hangover and an overheated economy became a significant challenge around the globe. Unemployment has remained low in developed economies. COVID restrictions around most of the world has relaxed and international travel has started to normalise, but there are still shortages.

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.

Animal Diseases

In 2022, African Swine Fever (ASF), which is not transmissible to humans but nearly always fatal in pigs, has seem to not be as infectious as previous years in China. China is projecting to have pork production to levels nearly as high as pre ASF pandemic and supplement with imports to match local consumption in 2023. However, as diet patterns and disposable income have changed for Chinese consumers over the past few years, analysts are predicting demand for other imported meats like fish, poultry, sheep, and beef in China should remain stable.

ASF has also now made itself to Central Europe and is spreading west and south, mainly throughout large farms and wild boars. The spreading of ASF has made countries impose import bans from 3rd world countries and intra-EU trade with meat and live animals. Pork farmers, distributors and abattoirs are facing heavy loses and prices distortions due to ASF. If a colder winter is combined with sustaining high feed costs, limited pork production in Europe could be an opportunity for our exports.

Highly Pathogenic Avian Influenza (HPAI) has proven to be the largest epidemic ever in the UK and continental Europe. Cases have been detected in poultry farms, and captive and wild birds. In past years, outbreaks of HPAI declined with warmer weather and the end of migration by wild birds in the autumn and winter. But outbreaks occurring more regularly imply that a highly pathogenic variant is present and now

endemic in birds. Also, it has made its presence known in the US with poultry farmers reporting more than 47 million birds have died due to infections and culling. The tighter supplies are expected to largely benefit chicken exporters in Brazil and red meat exporters in New Zealand.

Foot-and-Mouth Disease (FMD) was detected in dairy cattle in Indonesia in April 2022. This put Australian and New Zealand authorities on high alert as it would be devasting for our economies. At the time of writing, no new cases have been reported for months, but experts on the ground in Bali dispute this as some cattle are clearly showing symptoms.

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 work 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 2022. At the time of writing the FTA has been agreed in principle and is looking like it will be implemented early 2023. The deal entails duty-free quotas that will increase over time until year 15 for both sheep and beef meat, when exports become duty and tariff-free. This agreement will create opportunities for New Zealand beef in this market in time. 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).

Other trade agreements are proving to be effective elsewhere too, for example, in the 2021-22 season, beef exports to South Korea and Japan have been strong compared to the previous season. More trade access has been a main contributor.

In May 2021, Argentina's government suspended beef exports in an attempt to dampen domestic meat prices and ease inflationary pressure. The restrictions on beef exports were initially in place until the end of August 2021 but were extended until the end of 2023. However, this not a ban on all exports as cuts that are generally imported by China are still allowed to be exported. The government is reporting that the measures have successfully reduced domestic meat inflation. Because of these restrictions, beef producing countries like Brazil, Uruguay and Australia have benefited greatly.

In addition, trades flows between Australia and China remain disruptive following the deterioration in political relationships. In 2020, China suspended exports from eight Australian beef plants and two lamb processing plants. In August 2022, there were reports from Chinese media that they had banned imports of meat from Australia and New Zealand, built on a rumour of suspected FMD cases.

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 – 2022-23

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 2022-23, the NZD is expected to weaken against the USD but slightly strengthen against the GBP and EUR, which are the currencies that dominate the trade in New Zealand meat exports. Movement against the USD has the greatest effect. In the 2021-22 season, 75 per cent of New Zealand's red meat exports were traded in this currency. The Chinese yuan accounted for 7.7 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 0.64 to 0.57 – 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 0.64 to 0.70 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 are 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 0.64	
	-10%	-5%	Forecast	+5%	+10%	to USD 0.57	to USD 0.7
USD	0.57	0.61	0.64	0.67	0.70	-10%	+10%
GBP	0.48	0.51	0.53	0.56	0.59	-10%	+10%
EUR	0.56	0.59	0.62	0.65	0.68	-10%	+10%
Farm-Gate Prices Received $ / head							
Lamb	179	166	155	145	135	+15.6%	-12.7%
Mutton	160	147	135	124	115	+18.5%	-15.1%
Steer/Heifer	2,161	2,008	1,871	1,746	1,633	+15.5%	-12.7%
Cow	1,071	996	928	866	810	+15.5%	-12.7%
Bull	2,234	2,076	1,934	1,805	1,688	+15.5%	-12.7%
All Beef	1,773	1,648	1,535	1,433	1,340	+15.5%	-12.7%
c / kg							
Lamb[1]	942	875	815	760	711	+15.6%	-12.7%
Mutton[1]	615	564	519	478	440	+18.5%	-15.1%
Steer/Heifer	768	713	664	620	580	+15.5%	-12.7%
Cow	535	497	463	432	404	+15.5%	-12.7%
Bull	744	692	644	602	563	+15.5%	-12.7%
All Beef	694	645	601	561	525	+15.5%	-12.7%
Fine[2]	1,799	1,658	1,531	1,416	1,312	+17.5%	-14.3%
Medium[2]	457	421	389	360	333	+17.5%	-14.3%
Crossbred[2]	254	234	216	200	185	+17.5%	-14.3%
All Wool[2]	398	367	339	314	291	+17.5%	-14.3%

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

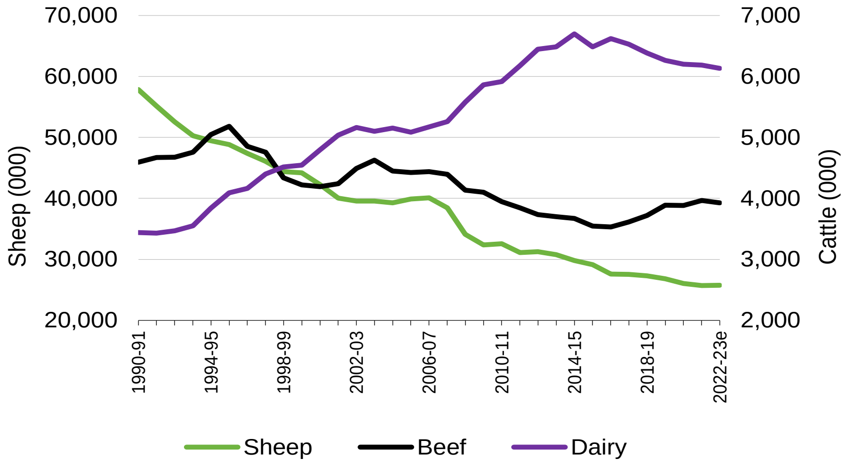
Livestock Numbers

Sheep

The total number of sheep at 30 June 2022 is estimated at 25.78 million, steady on the previous June. Within this, the number of breeding ewes decreased by 1.4 per cent and the number of hoggets increased 3.2 per cent. The largest decreases in breeding ewes occurred in Northland-Waikato-Bay of Plenty and Southland where drought conditions persisted throughout summer and autumn 2022. This resulted in de-stocking of ewes and good pricing for ewes meant greater numbers were culled. Increased hoggets were mostly a result of farms holding more trade hoggets at 30 June than usual due to either not reaching ideal weights in drought-affected areas and/or processing delays due to COVID-19 labour shortages. Other factors include strong mutton and lamb prices and the slow creep of afforestation displacing stock.

In the North Island, the number of sheep decreased 0.5 per cent (-59,300) to 12.63 million at 30 June 2022 and the number of breeding ewes decreased 2.0 per cent. The number of breeding ewes decreased across North Island regions. The number of hoggets in the North Island increased 2.1 per cent to 30 June 2022, with East Coast the biggest mover increasing hoggets by an estimated 6.8 per cent (ewe-hoggets-to-ram estimated to decrease).

Figure 1 Livestock Numbers



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

Table 6 Livestock Numbers (million head)

	Breeding Ewes	Hoggets	Total Sheep	Beef Cattle	Dairy Cattle
30 June 2021	16.33	8.56	25.73	3.97	6.19
30 June 2022e	16.10	8.84	25.78	3.93	6.13
21-22 to 22-23 % change	-1.4%	+3.2%	+0.2%	-0.9%	-0.8%

e estimate

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

In the South Island, the total number of sheep increased slightly by 0.8 per cent. Total sheep increased 5.7 per cent in Marlborough-Canterbury while Otago-Southland decreased 2.7 per cent. Breeding ewe numbers increased 1.6 per cent for Marlborough-Canterbury and decreased in Otago-Southland (-2.2%). The total number of hoggets in the South Island increased to 30 June 2022, up 4.4 per cent on the previous season. Fewer trading hoggets and increased ewe-hoggets-to-ram are expected for the South Island as farms rebuild numbers following drought.

Beef Cattle

The number of beef cattle at 30 June 2022 is estimated at 3.93 million, down 0.9 per cent on the previous June. Total beef cattle increased slightly for the South Island, driven by Marlborough-Canterbury, while decreasing in the North Island. However, the number of breeding cows and heifers decreased across all regions except for the East Coast of the North Island where farms rebuilt breeding cows after two seasons of drought.

In the North Island, the number of beef cattle decreased 1.6 per cent to 2.73 million at 30 June 2022. The number of beef breeding cows decreased by 0.1 per cent in the North Island.

In the South Island, the number of beef cattle slightly increased 0.8 per cent to 1.20 million at 30 June 2022. The number of beef cows decreased 2.7 per cent.

Dairy Cattle

The number of dairy cattle at 30 June 2022 is estimated to have decreased slightly (-0.8%) to 6.13 million. The number of dairy cows in milk is also estimated to decrease (-0.6%) to 4.78 million head while the number of weaners is steady at an estimated 854,000. The North Island contains approximately 59 per cent of dairy cattle.

Sheepmeat Outlook 2022-23 – Opportunities and Challenges

Opportunities

ASF continues to drive import growth for different meat proteins. Despite the forecasted recovery of China's pig herd, China's protein supply will remain in deficit during 2023.

Global economic demand and the foodservice sector have remained strong in 2022, despite an inflationary environment, creating reassurance into 2022-23.

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.

Global freight congestion and costs have eased in the last quarter of 2022, creating opportunities for our chilled trade into 2023.

A weaker NZD will increase the competitiveness of New Zealand exports

Challenges

In-market retail prices for lamb in the UK and Europe has surged causing some customers to substitute.

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.

Australia's competitive presence in global lamb market will increase in 2023 due to favourable weather and pasture conditions.

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

Zero-COVID policies and rolling lockdowns create uncertainty for demand, especially for mutton in China.

Pork production in China is expected to rebound in 2023.

Lamb & Mutton Exports

Lamb

2021-22

The 2021-22 lamb export season delivered above expectations, underpinned predominantly by the swift global economic recovery in the foodservice sector and strong ASF-driven demand from China.

The COVID-19 pandemic disrupted shipping and weighed on export returns in the first half of the export season with shipping rates being at all-time highs.

Demand from the US was exceptional, reflecting a swift foodservice sector recovery as restaurants recovered after the pandemic. Chinese demand was hampered by comparison with a strong previous season, and the rolling lockdowns that hindered the foodservice sector.

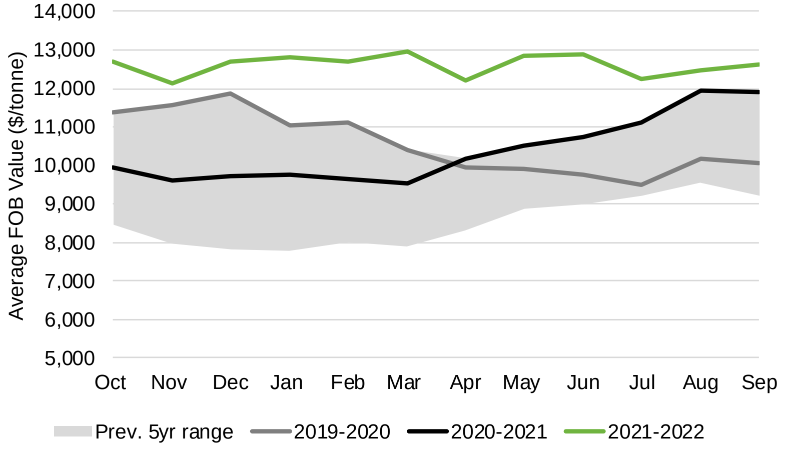
The NZD supported export returns in the 2021-22 season. For the twelve months from October 2021 to September 2022, the NZD averaged USD0.66; down 6.4 per cent on the previous season and 3.6 per cent lower than the five-year average.

The strong second half of the 2020-21 export season continued into 2021-22. Total receipts for lamb (including co-products) in 2021-22 increased 17 per cent on 2020-21. The increase reflects a slight decline in production but a sizable increase in average export value.

Export returns for 2021-22 (excluding co-products) averaged $13,229 per tonne, up 27 per cent on the previous season, and up 31 per cent on the five-year average.

Export lamb production (excluding co-products) for the 2021-22 season was down 4.8 per cent on 2020-21, reflecting a slight decrease in opening ewe numbers and lighter slaughter weights.

Figure 2 New Zealand Lamb Average Export Value



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

China dominated New Zealand lamb exports in 2021-22. In the twelve months from October 2021 to September 2022, China accounted for 41 per cent of total export volume and 28 per cent of total export value, compared to 53 per cent and 43 per cent respectively in 2020-21.

Bone-in breast and flaps were the largest category of lamb cut exported to China at 60 per cent of total volume. Bone-in shoulders and bone-in neck fillets were the next most significant categories, accounting for 15 per cent and 6 per cent respectively.

In 2021-22, exports of carcases to China decreased significantly (-84%) to account for 2 per cent of export volumes. The average export value of carcase exports was flat on last season.

The UK was the second leading destination for New Zealand lamb exports in 2021-22, accounting for 13 per cent of total exports. The volume exported was 10 per cent higher than in 2020-21. The increase can be attributed to less demand from China due to their lockdowns and a revitalised foodservice sector in the UK.

The UK is significant to New Zealand's chilled lamb trade. Chilled volumes to the UK were down 56 per cent compared to 2020-21 as global shipping delays increased the risk and cost of shipping chilled product. Total chilled volumes for the 2021-22 season were down 21 per cent on 2020-21.

Lamb legs account for 56 per cent of export volumes to the UK.

The average value of exports to the UK for 2021-22 was up 30 per cent on 2020-21. This reflects increasing demand for the foodservice sector and comparing from a relatively lower base of 2020-21 mired with COVID disruptions.

The US attracted increasing volumes of New Zealand lamb exports during 2021-22 reflecting higher prices and strong demand. The US, which accounted for 10 per cent of total New Zealand exports, was very strong over 2021-22 as COVID restrictions were lifted, and people returned to restaurants. This, in turn, resulted in export volumes increasing and average values soared – primarily due to a weaker NZD. Exports to Canada were flat compared to previous season but average values were 20 per cent higher.

Lamb racks are the largest category exported to the US, accounting for just below one-third of export volumes for the season. Boneless legs and shoulders were the next most significant categories. The volume of carcases exported to the US was flat in 2021-22 compared to the previous season.

Lamb exports to the EU-27 for the 2021-22 season were up 28 per cent on the previous season, driven by similar upswings as the UK market, and as their foodservice market recovered. Demand from the Netherlands, Germany, Belgium, and France was strong compared to last season, showing that these markets

Table 7 New Zealand Lamb Exports

Sep Year	Lamb meat 000 tonnes	Lamb meat $ / tonne	Lamb meat $m FOB	Co-Products $m FOB	Total Lamb $m FOB	Lamb Meat %*
2018-19	305	10,445	3,186	203	3,389	94%
2019-20	310	10,822	3,353	154	3,508	96%
2020-21	307	10,427	3,202	151	3,353	95%
2021-22p	282	13,229	3,728	155	3,883	96%
2022-23f	280	12,505	3,495	165	3,660	95%
2022-23f % change	-0.8%	-5.5%	-6.3%	+6.5%	-5.7%	

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

For 2021-22, total lamb export receipts (including co-products) are forecast at $3.66 billion FOB, up

for high-value lamb products showed some life again for New Zealand lamb.

In the 2021-22 season, chilled lamb exports accounted for 13 per cent of total volumes. The US overtook the UK as the market for chilled lamb. This was attributed to shipping delays and costs and high cost-of-living gripping UK consumers. France and Germany were third and fourth, respectively. In the 2021-22 season, chilled exports declined 56 per cent to the UK after a 10 per cent decline in 2020-21, showing the effects mentioned before.

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 declined 8.2 per cent in 2021-22.

2022-23 Forecast

Market fundamentals for New Zealand lamb exports are forecast to remain positive in 2022-23. While we are expecting the average value of exports to decrease, it is still 20 per cent higher than the five-year average. While increasing Australian lamb exports may increase global supply, the level of demand is expected to support the lift in volume.

The high cost-of-living (aka inflation) is going to create uncertainty for New Zealand’s high-value chilled lamb markets in the coming year. In-market prices in the UK and EU are reportedly very high for lamb at present. While the recent drop in shipping costs may ameliorate this in the new season, particularly for Christmas and Easter trading, consumers are seemingly being forced to substitute relatively expensive meats (i.e. lamb) for cheaper meats (i.e. chicken). New demand from the US seems to be increasing, which will support prices.

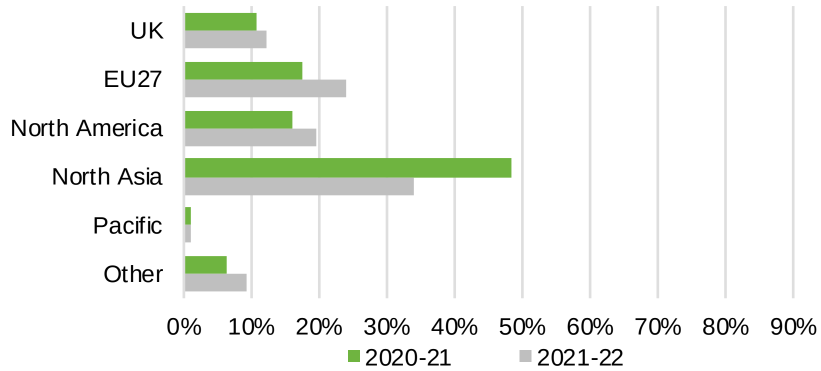
In China, the delayed recovery of domestic pork production because of ASF will remain a positive market fundamental. However, as noted earlier in this report, it is expected China’s production will come back strong into this new season.

The decrease in shipping costs was a welcome sign for distributors late in 2021-22. This will be a positive market fundamental to induce demand.

The projected weakening of the NZD against the USD is a major opportunity increasing export returns in the US for 2022-23. However, because of the worrying signs in the UK and Europe, the forecasted strengthening of the NZD against the GBP and EUR will be a restraining factor for lamb.

Figure 3 New Zealand Lamb Exports

Oct to Sept, $m FOB



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

5.7 per cent on 2021-22, and up 10 per cent on the five-year average. The average value of co-products is forecast to lift 6.5 per cent following three 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 2021-22 at 280,000 tonnes shipped weight. On average, lamb meat export returns for the season are forecast to decrease 5.5 per cent on 2021-22 but be 13 per cent higher than the five-year average.

The average in-market price for lamb is forecast to decrease 5 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

2021-22

2021-22 was a steady season for mutton exports. Export production decreased 8.1 per cent on 2020-21 reflecting lower processing rates after a strong 2020-21. The lower volumes were 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 80 per cent of total volumes for the season, down from 84 per cent in the 2020-21 season.

Average export values increased 5 per cent in 2021-22 to reach a high of $8,171 per tonne, 20 per cent up on the five-year average. Total mutton export receipts (including co-products) decreased 2.7 per cent for the season.

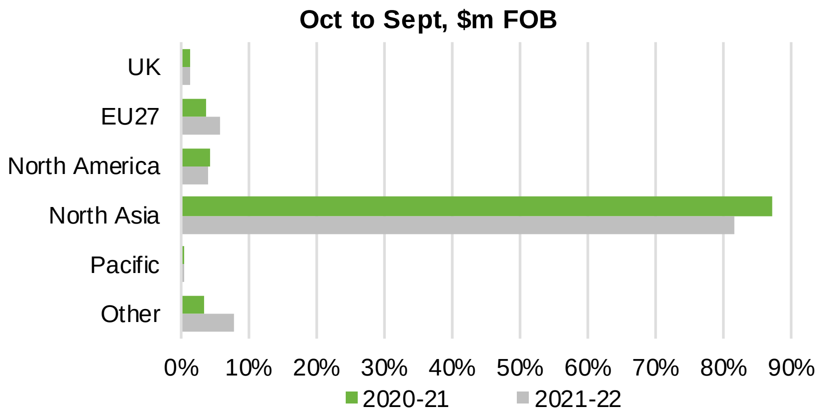
Carcases are the largest category of mutton exports, accounting for 40 per cent of volumes for 2021-22.

Table 8 New Zealand Mutton Exports

	Mutton meat			Co-Products	Total Mutton	Mutton Meat
Sep Year	000 tonnes	$ / tonne	$m FOB	$m FOB	$m FOB	%*
2018-19	84	6,715	564	100	664	85%
2019-20	86	7,523	647	105	752	86%
2020-21	95	7,713	729	110	840	87%
2021-22p	87	8,171	710	106	816	87%
2022-23f	91	7,921	720	110	830	87%
2022-23f % change	+4.6%	-3.1%	+1.4%	+4.1%	+1.8%	

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

Figure 4 New Zealand Mutton Exports



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

Shoulders and forequarters are the next most significant categories.

2022-23 Forecast

Strong demand from China underpins positive market fundamentals for mutton in the 2022-23 season. ASF and economic recovery will be key to import demand patterns. The authorities use of rolling lockdowns and change of policy facing COVID will be the wild card.

In 2022-23, mutton export production is forecast to increase 4.6 per cent following the low production in 2021-22.

In-market prices are forecast to drop 8.1 per cent on 2021-22, however the weaker NZD is expected to offset this decline resulting in a decline of 3.1 per cent in average export returns to New Zealand. While down on 2021-22, at $7,921 per tonne, the average export return for 2022-23 is forecast to be 8.2 per cent above the five-year average.

Total mutton export receipts are forecast to increase 1.4 per cent on 2021-22.

Lamb & Mutton – International Situation

Overview

Sheepmeat has been a strong performer in the global meat protein market in 2022. Demand fundamentals have aligned in favour of exporters, with global demand outstripping supply. This offset disruption that continued to exist because of inflation, shipping costs and hangover effects from COVID-19.

Moderately strong demand for sheepmeat continues to be a theme in the outlook. As mentioned before, despite the decreases in the average value for sheepmeat, they are still strong compared with the five-year averages. In addition, the uncertain recovery of supply for pork driven by ASF will continue to underpin sheepmeat demand in China.

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 2023 as the national flock recovers from drought. The supply of mutton is expected to remain tight.

Strong global demand for lamb and the foodservice sector recovery resulted in a lift in exports from key producers in 2022. Australia and New Zealand both experienced significant lifts in exports compared to a strong 2021. However, the UK is an exception because trade between the UK and EU-27 has been dampened by post-Brexit regulations.

Forecasts from the 2022 OECD-FAO Agricultural Outlook (June 2022) signal a slight increase (+1.6%) in global sheepmeat production in 2023 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 (+1.5%) into 2023. Developing countries account for over three-quarters of global consumption and will underpin future consumption growth.

Disruption to shipping and global supply chain logistics because of COVID-19 and inflation has provided challenges for sheepmeat trade in 2022 in the form of surging freight costs and delays and cancellations to shipping. The situation is expected to subside into 2023.

The ability of the New Zealand government to maintain current geopolitical relations with China will be critical to the performance of sheepmeat trade in 2023. Further outbreaks of COVID-19 variants will also continue to be a source of downside risk.

China

Economic recovery has been shaky in China following the outbreak of the Omicron variant in 2022 and the Chinese administration still pursuing a zero-COVID policy. Foodservice sector sales are expected to be back to near pre-pandemic levels if their policy works or they loosen their restrictions. China is one of the only economies expected to continue a zero-COVID policy.

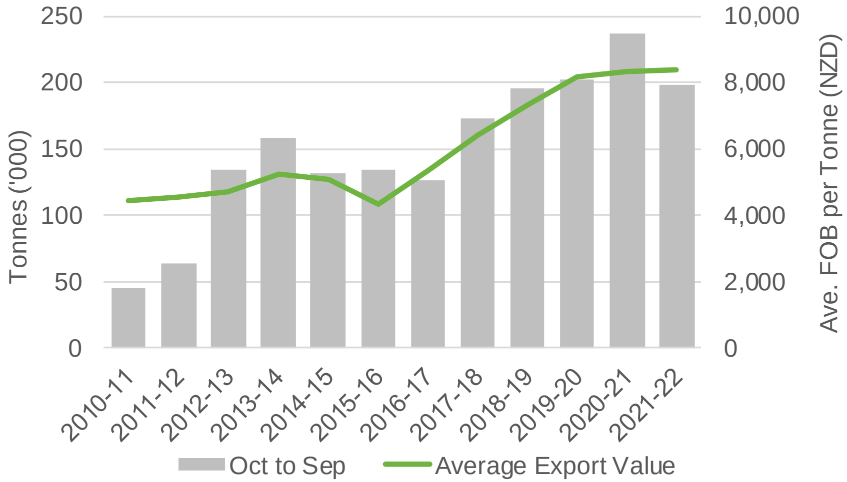
Demand for all red meat has been buoyant in 2022, underpinned by ASF-driven pork shortages and an expanding economy. While the Chinese market is one of uncertainty and unpredictability because of rolling lockdowns, there is expectation that the market fundamentals for red meat demand will continue to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

China is the leading destination for New Zealand sheepmeat, accounting for over 40 per cent of lamb exports and around 80 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 since 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. However, as noted earlier in this report, pork production domestically is expected to rebound into 2023.

Sheepmeat consumption in China is small, accounting for just 6 per cent of total meat consumption in 2021. It is a niche product and while consumption is forecast to expand, it will be at a

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



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, over 90 per cent is domestically produced. The Chinese government has ambitious goals of achieving self-sufficiency in sheepmeat, 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 2022 OECD-FAO publication signals growth in production in this region as sheep and goats are more suited to the extensive landscapes in China, despite urban sprawl.

The risk of further COVID-19 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 further impact supply chains, 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 2023 and beyond. For the outlook period, key factors to watch will be economic impacts of further COVID-19 lockdowns, the rebuilding of the Chinese pig herd and the geopolitical relationship between New Zealand and China.

EU-27 & UK

UK

The UK is New Zealand's second largest export destination, accounting for 13 per cent of total export volume in the 2021-22 season. This market is a key market for lamb legs and chilled product, accounting for 8 per cent and 17 per cent respectively of total New Zealand lamb exports in the 2021-22 season.

The UK lamb market has been teetering under the pressure of inflation. The UK Agriculture and Horticulture Development Board (AHDB) estimated that lamb consumption in 2021 was flat compared with 2020 but consumption in 2022 is projected to drop 18% due to inflation and rising cost-of-living.

Retail is the most significant channel for sales of all lamb in the UK and retail growth has been strong under pandemic restrictions in much of the world. However, due to the inflationary pressures, retail volumes declined 12 per cent to below pre-pandemic levels.

Statistics from the AHDB show that in the 12 months to July 2022, the price of lamb sold at retail in the UK lifted 6 per cent on a sizable increase from the year before. These trends were similar for the average export value of New Zealand's lamb exports into this market. Lamb in takeaways is still climbing in popularity, climbing from 9 per cent in total lamb share to 11 per cent in 2021.

The size of the UK breeding flock is estimated to increase 3 per cent in 2022 – to around 14.5 million breeding ewes.

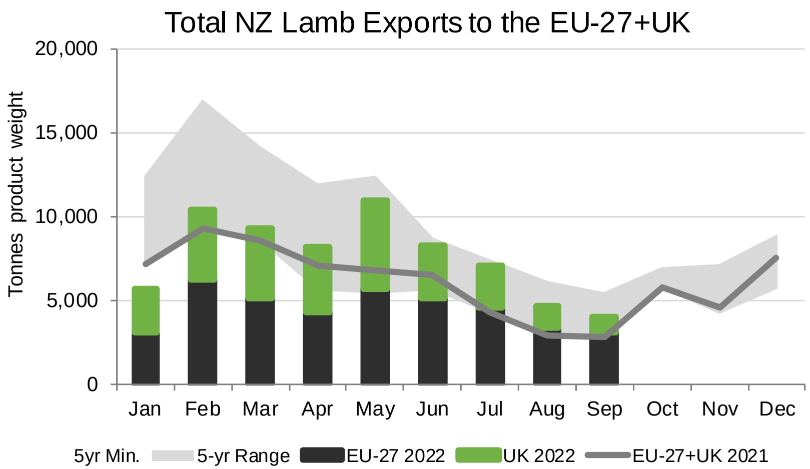
Changes to farm subsidy payments in coming years will create a degree of uncertainty around future breeding flock trends. In 2022, the UK government has introduced one-off grants to intend to help farmers with improving farm productivity, adopt new innovative practices, and improve the environment and animal health and welfare.

The UK 2022 lamb crop is forecast to be 17.9 million. Lamb production is forecast to lift 8 per cent for the first half of 2022 and then 2 per cent in the second half compared to 2021.

The AHDB projects lamb imports to decline in the second half of 2022 after a flat first half. The decline reflects the increasing focus of New Zealand exporters on China, reducing the available supply to the UK. For the nine months of calendar 2022, New Zealand lamb exports were down 66 per cent on the same period in 2021 and 74 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.

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



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

UK lamb exports increased by 22 per cent in the first half of 2022, up from a low base in 2021. AHDB says that Brexit trade friction has been overcome, but still expect staffing issues and shipping delays in the short to medium term.

EU-27

The EU-27 region accounted for 16 per cent of total New Zealand lamb exports in the 2021-22 season.

The region was severely disrupted by COVID-19. Unlike the UK, the foodservice sector is the dominant channel for lamb sales. Relaxed pandemic restrictions resulted in a sharp increase in foodservice activity in 2022, after a poorly performing 2020-21.

Free Trade Agreement negotiations with the EU 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

Sheep and goat meat production in the EU, as reported by the European Commission, is estimated to be stable in 2022. The breeding ewe flock is reportedly in decline, which will limit production in future.

In the first seven months of 2022, EU sheepmeat imports (from all countries) increased 23 per cent compared to the same period last year. For the 2021-22 season, New Zealand lamb exports to the EU-27 increased 30 per cent on the same period in 2021 but was 1 per cent lower than the five-year average. This reflects the increase from a COVID-stricken 2021 in EU-27 markets. The five-year average change shows that demand trends in China will continue to be a major influence on import availability for this market.

Sheepmeat consumption in the EU is expected to decline by 1.6 per cent in 2022 compared to 2021.

United States

The US performed above exporter expectations for the 2021-22 season. Demand for imported lamb, and all meat protein, has been exceptional, underpinned by recovery from COVID-19 and strong consumer demand for meat.

The pace of foodservice performance so far in 2022 has exceeded expectations. Combined with an expanding economy but still gripped with inflation, consumer demand has been strong and outstripped supply of meat protein.

At 1 January 2022, the total number of sheep was down 2 per cent compared to 2021. Drought conditions in the western US have significantly impacted sheep farmers resulting in flock liquidation, as occurred in 2021.

Lower domestic production, strong demand, and high prices for competing meat proteins have underpinned record domestic US lamb prices.

The market fundamentals of the domestic lamb market have pulled imported lamb prices and quatity up. The pace of recovery has been swift for the full 2021-22 season. The average export values for lamb were 40 per cent above last season and 27 per cent above the five-year average.

The surge in demand and prices for imported lamb drew larger volumes of imported lamb into the market, from both New Zealand and Australia. New Zealand lamb exports to the US for the first nine months of 2022 were nearly up 4 per cent up on 2021 and up 24 per cent on the five-year average.

However, much like the UK and European markets, consumers and retailers are handling inflation as well and reducing their expenditure on higher-value meats, leading to uncertainty for the outlook period.

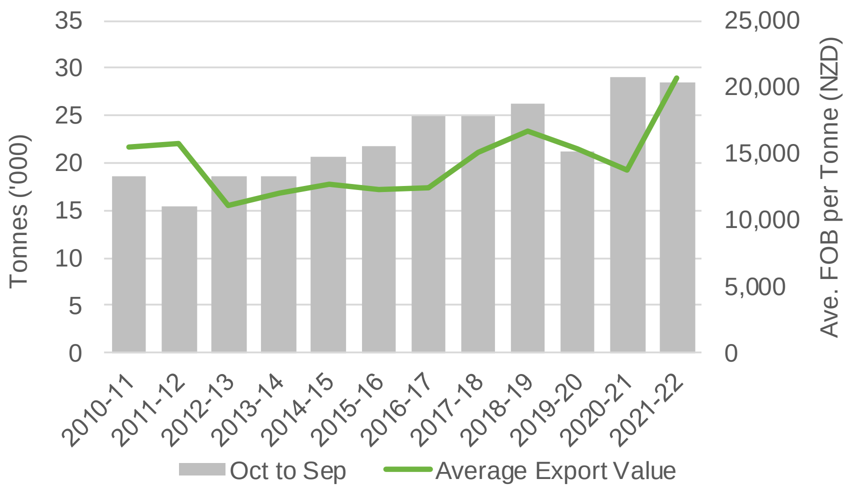
Australia

Australia is New Zealand's primary competitor in global sheepmeat trade. Australian lamb exports surged in 2022 with the US and China continuing strong demand. An increasing presence of Australian lamb in worldwide markets is expected in the 2022-23 season and longer term.

Australia's presence in global sheepmeat trade increased in 2022. Australian sheep producers have been in a rebuilding phase and, paired with favourable weather conditions in most sheep regions of New South Wales and Victoria, the country's national flock is expected to rise 7.2 per cent or 5.1 million in 2022. Meat & Livestock Australia (MLA) predicts the flock will increase to 78.8 million in 2023, 14.8 million head higher than the 100-year low in 2020, which was due to drought conditions.

The number of lambs processed in 2022 is expected to reach 22 million,

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



with average carcass weight at 24.9kg.

Lamb processing throughout the first half of 2022 was high due to a domestic backlog from 2021 and will be the highest level in three years. MLA forecasts a 2 per cent lift in lamb processing numbers into 2022 and a further 6 per cent in 2023.

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 2023, and steady on a record 2022. Exports are forecast to increase by 1 per cent compared to 2022, and for the remainder of 2022; MLA is expecting an increase of 9 per cent compared to 2021. This is expected to result in Australian lamb exports being 18 per cent higher in 2023 than in 2020.

Mutton production for 2022 is expected to be flat on 2021 and then increase by 22 per cent in 2023. Mutton exports in 2022 are expected to be flat on 2021 and increase 22 per cent in 2023. In 2023, mutton exports are expected to be 24 per cent higher than 2020.

Lamb consumption is declining in Australia, causing a higher proportion of production destined for international trade. Traditionally more than a third of lamb production is consumed domestically. In response to inflationary pressures consumers are choosing cheaper cuts like chops, the demand for which increased in 2022.

The US was the leading destination for Australian lamb in the first eight months of 2022, accounting for 27 per cent of total exports. This is followed by China at 17 per cent. China is also the leading destination for mutton exports, accounting for 36 per cent of the total volume.

The volume of lamb exported to the US increased 3 per cent in 2022. In contrast, lamb exports to China and the Middle East have declined. In 2022, Australian mutton exports to China are flat on the previous year.

The UK will become a market of increasing significance for Australian sheepmeat following the signing of the Australia-UK Free Trade Agreement (FTA) in December 2021. The FTA is expected to be in effect in early 2023 like New Zealand's. 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 2023 will be a continued shortage of labour, which could affect the capacity of Australian abattoirs. But processors are expecting this to not be as much of an issue compared to early 2022 and 2021.

Lamb & Sheep Prices – Farm-gate

The 2021-22 season was strong for New Zealand sheep farmers, starting with record farm-gate prices and finishing strong. COVID-19, space issues, and adverse climatic conditions have been challenges and tested farmer resilience.

Farm-gate prices in the early part of the season were at historical highs. Demand, because of reinvigorated foodservice markets worldwide, especially in the US and Europe, and a weaker NZD period were contributing factors. However, farmers struggled to find space at processing plants; at the peak of the processing season in March, there were about one million lambs backlogged.

Prices for lambs and sheep responded swiftly to improving market conditions. This also coincided with the aforementioned backlog in lamb supply, which saw more sustained levels than normal for processor pricing.

The NZD benefitted export returns in the 2021-22 season. For the season, the NZD has averaged USD0.66; down 6.4 per cent on the previous season and 3.6 per cent lower than the five-year average.

Wool prices found some buoyancy from a low 2020-21 but were still historically low for 2021-22 and the outlook period.

The 2021-22 weighted average farm-gate price for lamb is estimated at $161 per head, up 21 per cent on 2020-21.

Farm-gate prices for sheep proved strong through 2021-22, supported by Chinese, Taiwanese, and Malaysian demand. The weighted average farm-gate price for the season lifted 12 per cent on 2020-21 to $142 per head or 553 c/kgCW.

In 2022-23, export fundamentals are expected to remain strong but in-market returns are forecast to decrease for both lamb and mutton. Co-product prices are expected to recover in 2022-23 supported by the recovery from the lull of recent years due to COVID. However, a weaker NZD is expected to partially offset decreases in in-market prices.

The 2022-23 weighted average farm-gate lamb price is forecast to decrease 3.9 per cent to $155 per head (815 c/kgCW), which is 9 per cent above the five-year average.

The 2022-23 weighted average farm-gate prime sheep price is forecast to decline 5.1 per cent to $135 per head (519 c/kgCW).

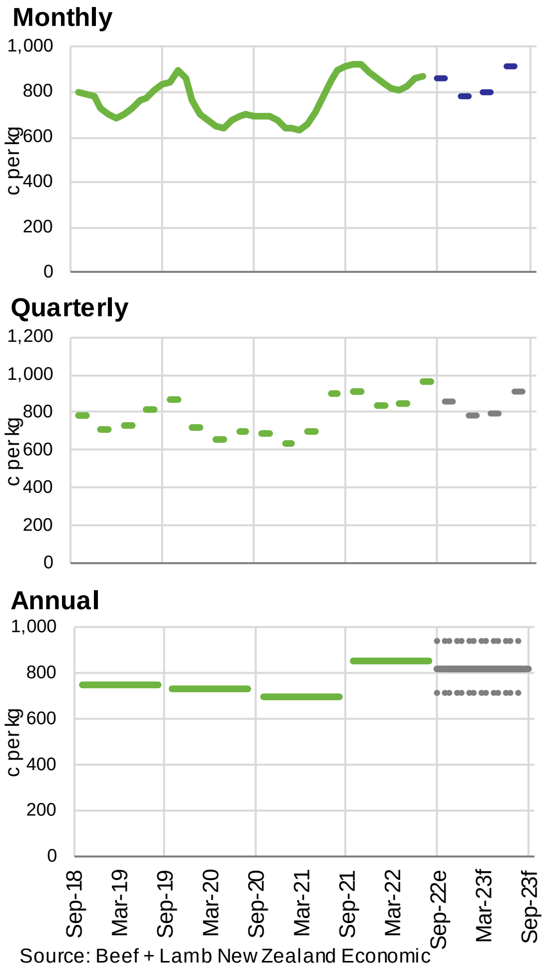
The main factor influencing the decrease in both lamb and mutton prices is the decrease due to inflationary effects. However, the weakening NZD

Table 9 Lamb Price Sensitivity

All Class Lamb Price				
Exchange Rate		**$ per head**	**c per kg**	
Low NZD				
USD	0.57			
GBP	0.48	179	942	**High**
EUR	0.56			
Mid NZD				
USD	0.64			
GBP	0.53	155	815	**Mid**
EUR	0.62			
High NZD				
USD	0.70			
GBP	0.59	135	711	**Low**
EUR	0.68			

Source: Beef + Lamb New Zealand Economic Service

Figure 8 Weighted Average Lamb Farm-Gate Price



Source: Beef + Lamb New Zealand Economic

is expected to offset a decline in in-market prices and support farm-gate prices, since they are still at historical highs compared to the 2021-22 season. The forecast farm-gate price for sheep in 2022-23 remains the second highest on record and is 8 per cent above the five-year average.

The 2022-23 forecasts are also sensitive to changes in currency markets, with changes in the cross-rates between the USD and European currencies (the GBP and EUR) that reflect the relative strengths of the US and European economies being major factors in 2022-23.

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
2018-19	23.8	18.8	19.1	359.0
2019-20	23.2	19.1	19.0	363.5
2020-21	22.9	18.3	19.1	349.9
2021-22e	22.6	17.7	19.1	338.4
2022-23f	22.4	17.6	19.1	335.6
2022-23f % change	-1.0%	-0.8%	-0.0%	-0.8%

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

Table 11 Export Mutton Production

Sep Year	Breeding Ewes million head	Slaughter million head	Carcase Weight kg	Production 000 tonne bone-in
2018-19	17.2	3.4	26.8	90.7
2019-20	16.8	3.5	25.9	91.6
2020-21	16.6	3.8	26.2	100.7
2021-22e	16.3	3.6	25.7	93.3
2022-23f	16.1	3.7	26.1	97.7
2022-23f % change	-1.4%	+3.1%	+1.5%	+4.7%

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 2022 is estimated at 22.4 million head, down 1 per cent on the previous spring.

The drop in lamb crop is driven by fewer breeding ewes and lower pregnancy scanning results for regions impacted by dry conditions at mating.

For the year to June 2022, the number of breeding ewes declined 0.6 per cent to 16.0 million while the number of ewe hoggets mated increased (+7.2%) as some regions replenished stock numbers following drought in autumn 2022. Lambs from ewe hoggets are a small proportion of the total lamb crop – around 5 per cent.

The national average lambing percentage for spring 2022 is estimated at 132.6 per cent, similar to 2021 (132.0%). Climatic conditions through September and October are critical to the outcome of the 2022 lamb crop. For Otago-Southland, snowstorms in early October were ill-timed for many High country and Hill country farms because they occurred during peak lambing. 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 increased 1.3 per cent or 0.24 million head to 18.5 million.

Total lamb export production is expected to be marginally (-0.8%) up on 2022-23 at 355,600 tonnes bone-in.

Mutton

The number of adult sheep processed in 2022-23 is forecast to increase 3.1 per cent to 3.7 million head.

Farm-gate mutton prices continue to be relatively high providing farmers an incentive to sell. Farmers are likely to hold onto younger replacements and sell more older ewes due to high prices.

Farmers are expected to reduce ewe numbers into next season.

The average mutton carcase weight is expected to increase from 2021-22.

Total export mutton production in 2021-22 is estimated to have been 93,300 tonnes bone-in, down 7.3 per cent from 2020-21 and two per cent down on the five-year average.

In 2022-23, total export mutton production is forecast at 97,700 tonnes bone-in, up 4.7 per cent from 2021-22 and up three per cent on the five-year average.

Confidence within the industry is subdued despite farm-gate prices for lamb and beef cattle being expected to remain strong. Rising farm expenditure and increasing and confusing levels of environmental regulation, including proposed GHG levies, intensive winter grazing requirements, biodiversity legislation and more have dampened spirits and reduced confidence. Policy changes have encouraged exotic afforestation of whole sheep and beef farms, which continues unabated and is viewed negatively by farmers and rural communities. These factors will influence the changes to the breeding ewe flock.

Beef Outlook 2022-23 – Opportunities and Challenges

Opportunities

ASF continues to drive import growth for different meat proteins. Despite the reported recovery of China's pig herd, China's protein supply will remain in deficit during 2023.

Tightening beef supply in the US will increase competitiveness for New Zealand beef.

Global economic demand and the foodservice sector have remained strong in 2022, despite an inflationary environment, creating reassurance into 2022-23.

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.

A weaker NZD/USD will increase the competitiveness of New Zealand exports.

Challenges

Ongoing global labour shortages may limit meat processing capacity.

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

Ongoing trade negotiations with EU-27.

Australia and Brazil's competitive presence will increase in late 2022.

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

Foot-and-Mouth Disease (FMD) was discovered in Indonesia in 2022, heightening the risk of it arriving in New Zealand.

China and USA's economic outlook is looking shaky due to inflationary pressures, and they underpin performance for beef

Beef & Veal Exports

2021-22

Global economic demand following the COVID-19 shock, foodservice revitalisation, and ASF shaped the 2021-22 beef export season. COVID-19 disruption to economies and foodservice sector demand weighed on export returns in the first few months of the export season. However, the rebound was swift and strong from December (Figure 9), with tightening supply of global beef and strong demand from China and the US.

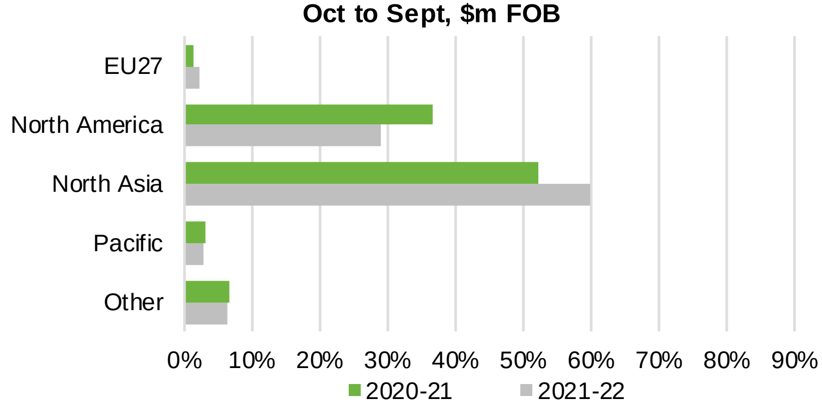
Demand from the US has been exceptional. This reflects a swift foodservice sector recovery, strong retail demand for beef, and new demand for grass-fed beef. A tight supply of imported beef and labour shortages limiting processing capacity also underpinned the strong market fundamentals in the US.

However, widespread drought in major cattle-producing areas of the US, led to cattle herd liquidation, which created some competitiveness for New Zealand's beef exports, but average export values remained strong.

In China, market fundamentals were another example of tightening global beef supply and there was exceptional demand driven by ASF's impact on domestic pork production, despite their rolling lockdowns hampering consumer sentiment.

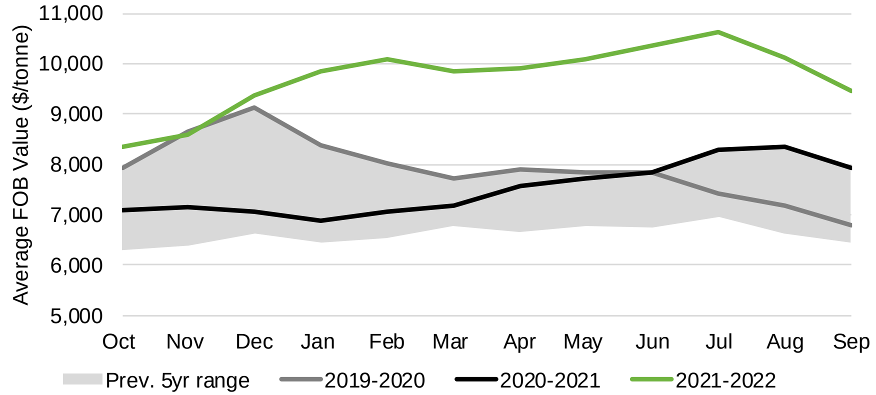
The value of NZD benefitted export returns in 2021-22. For the season, the NZD averaged USD0.66; down 6.4 per cent on the previous season and down 3.6 per cent on the five-year average.

Figure 10 New Zealand Beef & Veal Exports



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

Figure 9 Average Monthly Value of Beef & Veal Exports



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

Total receipts for beef (including co-products) were provisionally up 21 per cent on 2020-21, which itself was a record season. At $5.3 billion FOB, total receipts are the highest on record and 37 per cent above the five-year average.

Average export returns for 2021-22 $10,190 per tonne FOB, were up 35 per cent on 2020-21, and 40 per cent above the five-year average.

For the 2021-22 season, beef and veal meat export volumes decreased 15 per cent on 2020-21 to 465,000 tonnes shipped weight. The decrease is driven by high steer and heifer processing rates during the previous season.

China and the US dominated New Zealand beef exports in 2021-22. Combined, the two markets accounted for almost three-quarters of total export volumes.

Despite the strong presence of the US, China remained the leading market destination, accounting for 45 per cent of total volumes in the 2021-22 season. This share is up from 39 per cent in the 2020-21 season. China's demand for beef imported from New Zealand was strong all season. The weakening NZD against the USD was a major factor for this. The average value of beef exports to China for the 2020-21 season was $9,976 per tonne, 38 per cent higher than in the previous season.

Secondary beef cuts accounted for 47 per cent of exports to China, steady on the previous season. Processing cuts were up strongly on previous season to 39 per cent. There has been strong growth in these two categories over the past few years. The average export value of secondary cuts was $10,252 per tonne. The average export value of Processing beef was $9,942 per tonne. Exports of premium cuts such as loins accounted for 4 per cent, with an average value of $12,269 per tonne.

The US accounted for 27 per cent of total beef exports in the 2021-22 season. The volume of beef exported to the US was down 24 per cent compared with the previous season, but average export value increased 29 per cent. Less volume was due to the liquidation of cow herds in drier states and more competitiveness from Brazil and Argentina. Average export values lifted to a record, supported by a weaker NZD relative to the USD. The average export value of beef exports to the US for the 2021-22 season was at a record high of $10,154 per tonne.

Processing beef accounted for 84 per cent of exports to the US in the 2021-22 season. This is in line with historical trends for this market.

After China and the US, the next most significant markets were Japan (7%), South Korea (5%) and Taiwan (4%). Japan and Korea experienced stronger demand driving up volume and average value. Overall market shares increased due to less volume going to the US compared to 2020-21.

Table 12 New Zealand Beef & Veal Exports

	Beef and Veal Meat			Co-Products	Total Beef	Beef Meat
Sep Year	000 tonne	$ / tonne	$m FOB	$m FOB	$m FOB	%*
2018-19	495	7,233	3,578	531	3,908	92%
2019-20	505	7,950	4,015	512	4,322	93%
2020-21	544	7,557	4,112	545	4,399	93%
2021-22p	465	10,190	4,737	599	5,336	89%
2022-23f	468	10,092	4,725	618	5,344	88%
2022-23f % change	+0.7%	-1.0%	-0.2%	+3.2%	+0.1%	

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

Chilled exports decreased slightly compared to 2020-21. Chilled sales accounted for 12 per cent of export value. This is a strong performance given the logistical disruptions and high shipping costs 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 was in decline in recent years, and COVID-19 placed further pressure on this "fifth quarter" of the meat industry. In 2021-22, the trend was reversed, and the value of co-products increased 10 per cent compared to 2020-21.

2022-23

Market fundamentals for New Zealand beef exports are forecast to remain positive in the 2022-23 season. Demand is expected to remain strong, underpinned by China and the US. Forecasts for global beef supply signal continuing tightening. Australian beef exports are expected to increase strong after a period of herd rebuilding and be very competitive in 2022-23.

Global economic recovery is projected to be shaky in 2023, evident by inflation affecting most economies. 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 affluent Asian consumers 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.

The level of demand from China for that country's celebrations of the New Year, which occurs on 22 January 2023, 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 weakening of the NZD is a major benefitting factor for export returns in the 2022-23 season, supporting 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, 2022-23 beef and veal receipts are expected to be flat at $4.7 billion FOB.

The change reflects a slight increase in export beef volumes combined with a 1 per cent decline in the average FOB value, driven by more competition from Australia, Brazil and Argentina. In-market returns are forecast to decrease 3.9 per cent on 2021-22.

The forecast average export value is up 27 per cent on the five-year average.

Total co-product receipts are forecast to increase 3.2 per cent, which reflects a strong increase in hides after quiet demand during COVID as of recent.

Beef – International Situation

Overview

The outlook for the global beef market is buoyant, fuelled by strong demand. Inflation and uncertainty about consumer sentiment are sources of downside risk; however, the imbalance of supply and demand has the potential to offset this disruption. Beef demand proved resilient during the rough economic periods of the pandemic years and is likely to remain so in the outlook period.

Global demand for beef has been exceptional in 2022. The two dominant factors fuelling this demand are strong demand from China as ASF prevents recovery in domestic pork production, swift foodservice recovery in the US, and new strengthening demand in Korea and Japan. Secondary beef markets are also holding strong after recovering in 2021.

Global beef supply has remained tight in 2022. This reflects tighter supplies in key producing nations including Australia and Brazil as well as trade disruptions to beef exports from Argentina.

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

Global beef production for 2023, as forecast by the USDA is expected to be slightly lower (-1%) than in 2022, but stronger than in 2021. The slight decrease in 2023 reflects lower production in North America and Europe, offsetting the increased supply expected from Brazil and Australia.

Total global beef consumption in 2022 is forecast to be flat on 2021.

Global beef exports are expected to decrease slightly (-1%) in 2023. Declining export volumes from North America and Europe enable Australia and Brazil to compete well in the outlook period.

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 2022. Poor harvests and supply disruptions due to COVID-19 have failed to meet surging demand, particularly from China.

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 2022 and will likely continue into 2023.

Key challenges that the global beef trade will face in 2022-23 include potential constraints on production capacity because of labour shortages, geopolitical relations between governments and the risk of a decline in health and economic outcomes if a new variant of COVID-19 were to spread.

China

China consolidated its position as the world's largest beef importer in 2022. 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.

Chinese beef consumption has increased significantly because of ASF-induced pork shortages. USDA data shows a lift in beef consumption of 28 per cent between 2018 (prior to the discovery of ASF) and 2021. Beef consumption is estimated to increase a further 2.6 per cent in 2022.

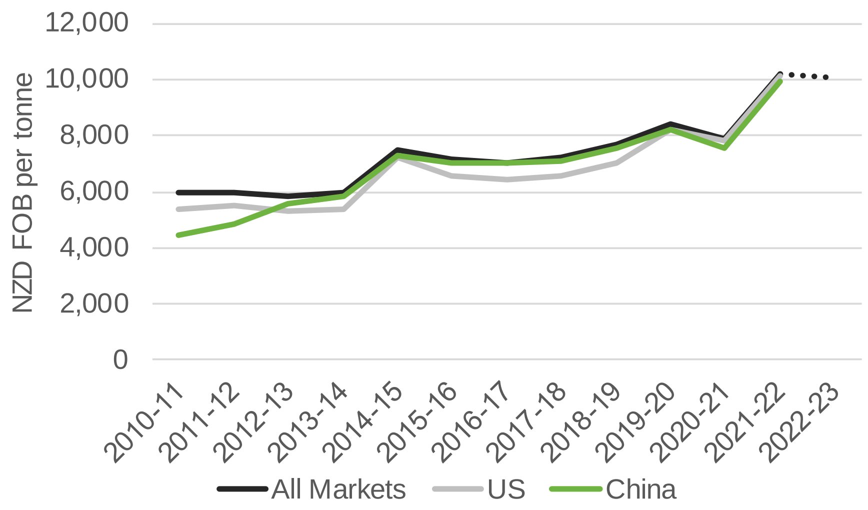
The long-term forecast signals that beef consumption has the potential to maintain market share even as domestic pork production increases following recovery from ASF. Trends in recent months have supported this. Beef consumption has continued to lift even with a sharp fall of pork retail prices and 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 2023), expansion is limited by scarcity of land and water.

China accounted for 30 per cent of global beef imports in 2021, up from just 17 per cent in 2018 (pre-ASF). Import demand increased further in 2022. For the 10 months of calendar 2022, Chinese beef imports lifted 4 per cent on the same period in

Figure 11 Value of New Zealand Beef Exports to China



2021. USDA forecasts signal 2023 consumption will decline 3 per cent on lower imports and a weaker economy. In China, beef is considered a luxurious good so consumers would likely eat beef less often in uncertain times.

South American beef accounted for three-quarters of total Chinese beef imports in the period from January to July 2022. 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 imports. 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 also applied to the second largest beef supplier to China, Argentina, which accounted for 18 per cent of the Chinese imported beef market in the first nine months of 2022. The partial 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.

Argentina still maintains its beef export ban, which covers nearly a quarter of the country's total beef production, but China is still a major importer of what is exported.

Australia's share of the Chinese imported beef market has clawed back from 6 per cent in 2021 to a forecasted 7 per cent in 2022. Low export production has been an important driver in this decrease, as the Australian herd is rebuilt however the reduced trade also reflects Chinese suspension of several Australian beef processing plants. Australian beef exports to China from January to September 2021 were down 37 per cent on the same period in 2020, but in the same period of 2022, were up 8 per cent. While Australian export beef production is projected to increase from late 2022/early 2023, its presence in China will depend on improving political relationships.

US beef exports to China have continued to gain significant momentum during 2022. From January to July, exports lifted over 26 per cent year-on-year. The increase is new demand, driven by the gains secured during the US-China Phase One Agreement, which was established during the Trump Administration. For the first half of 2022, US beef accounted for 7 per cent of the Chinese imported beef market. For perspective, New Zealand's share is 9 per cent. China is expected to increase imports of beef from the US to fill its increasing beef demand.

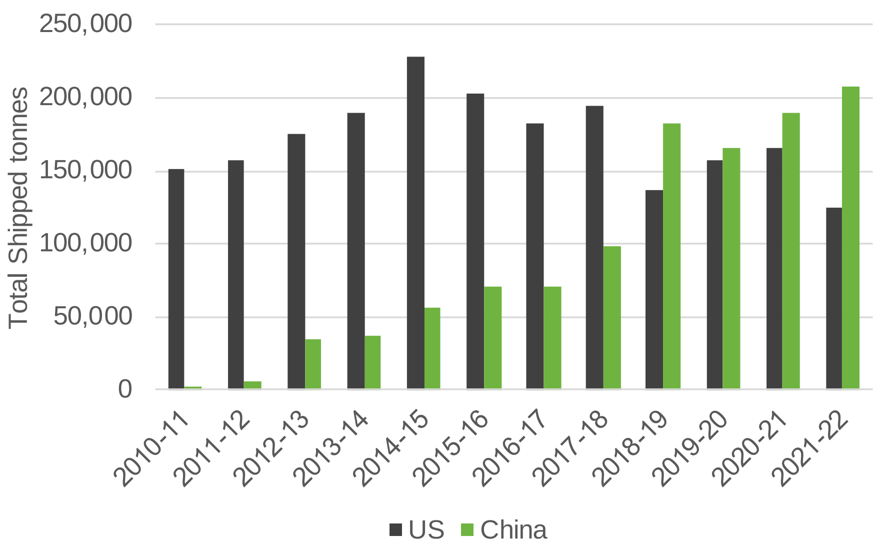
Not all imported suppliers and their beef products are in direct competition will each other in China. Australian and New Zealand beef have historically been sold at higher price points than South American beef. COVID-19 has caused a shift to this trend, however. With the EU market severely disrupted, 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 logistical disruption, competitiveness of Australia and Brazil, 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 high inflation from the hangover of COVID-19. The economic recovery, supported by significant fiscal support provided by the Federal government, has created an

Figure 12 New Zealand Beef Exports to China and the US



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

environment of inflated consumer demand, particularly for meat.

Cattle processing has been high due to tough drought conditions throughout the US summer. For the outlook period, we expect US beef supplies to be tighter with fewer livestock on hand. These factors combined with the demand pull from China will intensify competitive pressure in 2023.

The drought, combined with higher feed costs, has resulted in a decline in the US beef cattle herd. Beef cow slaughter has tracked high for several months, 13 per cent above last year for the first eight months. US beef exports for 2023 are forecast to be 14 per cent lower than 2022's record year, which was due to the offloading of capital stock.

As at 1 July 2022, the total number of all cattle and calves were down 2 per cent compared to a year earlier. While slaughter is high during 2022, average carcass weights were unusually high given drought conditions and costs.

The most recent USDA forecasts (October 2022) signal a slight increase in beef production in calendar 2022 then a sharp decrease in 2023, following the effects of reducing numbers due to drought conditions.

Exports to the end of August 2022 were 6 per cent above the same period of 2021 and 19 per cent above the five-year average. Exports to China increased 30 per cent year-on-year during the same period. The sharp lift reflects improved access as a result of the US-China Phase One Trade Agreement and strong demand from China for beef.

However, despite the higher supply due to drought conditions, retail and import prices are still tracking high. Short supply has increased competitiveness from other beef producing countries like Brazil, Mexico, Canada, and New Zealand. According to the food consultancy GIRA, 2022 is expected to be a record year for beef imports. The US beef market relies on imported lean beef to blend with domestic fat trimmed from feedlot cattle to produce ground beef.

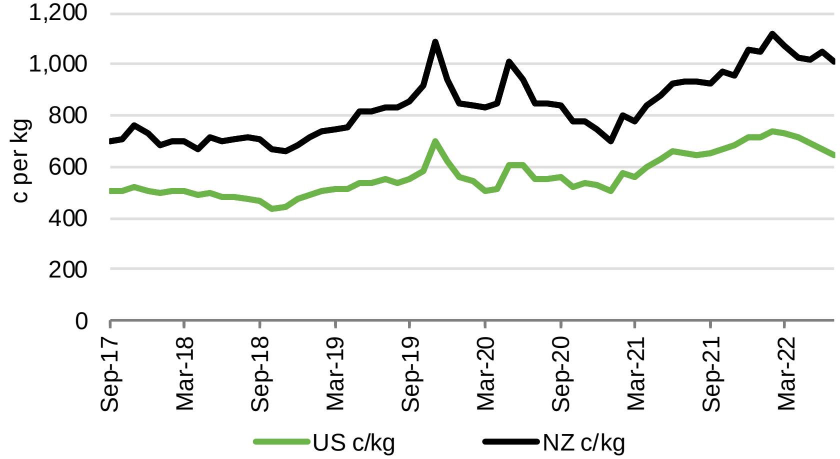
For the first eight months of 2022, US beef imports were 8 per cent above than in the same period of 2021 and 10 per cent above the five-year average. However, there is expected to be a sharp tapering of imports in the last quarter of the year. According to USDA, US imports from New Zealand were 21 per cent lower in 2022 than in 2021.

The USDA estimates that there will be more beef supply available to import in 2023 as China's demand will decrease and Brazilian and Australian supply is projected to increase.

Japan and South Korea are the leading US beef market destinations both accounting for 23 per cent of exports. China is third and, as mentioned before, growing in export share.

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

Figure 13 Indicative Prices US Imported Beef Frozen 95CL



Source: Beef + Lamb New Zealand Economic Service

US market fundamentals support continuing strong demand for beef for the remainder of 2022 and 2023.

The key takeaway for the New Zealand beef industry is that after high domestic cow slaughter, the supply of lean beef is expected to tighten in coming months, but competitive due to Brazilian and 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 2022, supported by favourable climatic and pasture conditions. This has limited the presence of Australian beef in global trade and resulted in somewhat less competition 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.

In 2022, the national cattle herd is estimated by Meat & Livestock Australia (MLA) to reach 27.6 million, up 6 per cent on 2021. By 2024, the herd is expected to grow a further 4.6 per cent.

Beef production in 2022 is forecast to rise 4.5 per cent, despite facing processor capacity issues similar to those experienced in New Zealand in 2022. Record carcase weights offset lower slaughter volumes. Production in 2023 is expected to be strong due to higher herd numbers, but capacity issues need to be alleviated in order to cope. Processors are in a tough

position to invest as there is a high chance for a drought in the medium term.

Australian beef exports are estimated to lift 6 per cent in 2022, 13 per cent in 2023 and a further 7 per cent in 2024.

Grain feed prices have increased 30 per cent in 2022 and are 66 per cent above the five-year average due to the Russian-Ukraine War. Grain-fed beef production is then expected to decrease and profit margins are attractive elsewhere.

Japan is the leading destination for Australian beef, estimated to account for 26 per cent of exported volume year-ending September 2022. Exports to Japan are approximately 50:50 grass-fed and grain-fed. South Korea is the second largest market destination, accounting for 19 per cent of beef exports. China is the third largest market at 18 per cent. The US is forth and is 15 per cent market share, however, exports to the US have been declining over the years, half of what they exported back 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 2022-23 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. However, supply chain issues and inflation have contributed to higher beef prices, as the have increased 12 per cent in July, year-on-year.

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

Australian beef exports will have an increased presence in global beef trade from 2023. 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 increase exports by 1 percent in 2023 and is projected to maintain its position as top exporter, accounting for 25 per cent of world beef exports. For 2022, their beef exports are expected to increase 27 per cent year-on-year, following a year mired with drought in 2021.

Calf crop figures in 2022 are expected to slightly increase by 2 per cent on 2021 and also gradually increase in 2023.

Like most other economies, Brazil had a strong recovery from COVID in the second half of 2021, but into 2022, it has been dealing with inflation, lower economic sentiment for consumers and businesses, and dealing with the flow-on effects of the Russian-Ukraine War.

Brazil has benefited from Argentina's restrictions on beef exports to China. China accounted for 53 per cent of Brazil's January to August exports and a record 58 per cent of August shipments in 2022. Their next biggest importers are the US then Egypt.

Last year the short-lived voluntary suspension by Brazil of its beef exports to China as a result of the discovery of atypical BSE highlighted the reliance China has on Brazilian beef, which is a fortunate position for Brazilian beef producers and exporters. Alongside Australia, Brazil will be a formidable competitor for New Zealand for 2023.

Argentina

Argentina was the world's sixth largest beef exporter in 2021, overtaken by India compared to being fifth in 2020. China accounted for 77 per cent of total Argentinian beef export volumes in the first seven months of 2022, making it the second largest supplier of beef to China, behind Brazil.

Beef export bans from Argentina have been a feature since 2021, which are supposed to last until 2024. These have been discussed earlier in the report; however, but it is worth noting again. As said, this year they have partially alleviated this ban in 2022 and allowed cuts that are more demanded by the Chinese economy to be exported. This has resulted in exports in July being 51 per cent higher in volume and 62 per cent higher in value year-on-year, showing despite the local ban, China's reliance on beef is still large.

Beef production in Argentina, Paraguay and Uruguay as an aggregate is projected to be down 3 per cent on 2023, positioning Brazil to be competitive.

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.

Cattle Prices – Farm-gate

2021-22 was a strong season for cattle farmers, with farm-gate returns being high for most of the season. Strong export demand and a weaker NZD have been contributing factors.

The annual weighted average all classes cattle price for 2021-22 is estimated at 562 c/kgCW, up 19 per cent on 2020-21 and 16 per cent on the five-year average.

Looking forward to 2022-23, export fundamentals remain positive and are forecast to support an increase in in-market returns for beef.

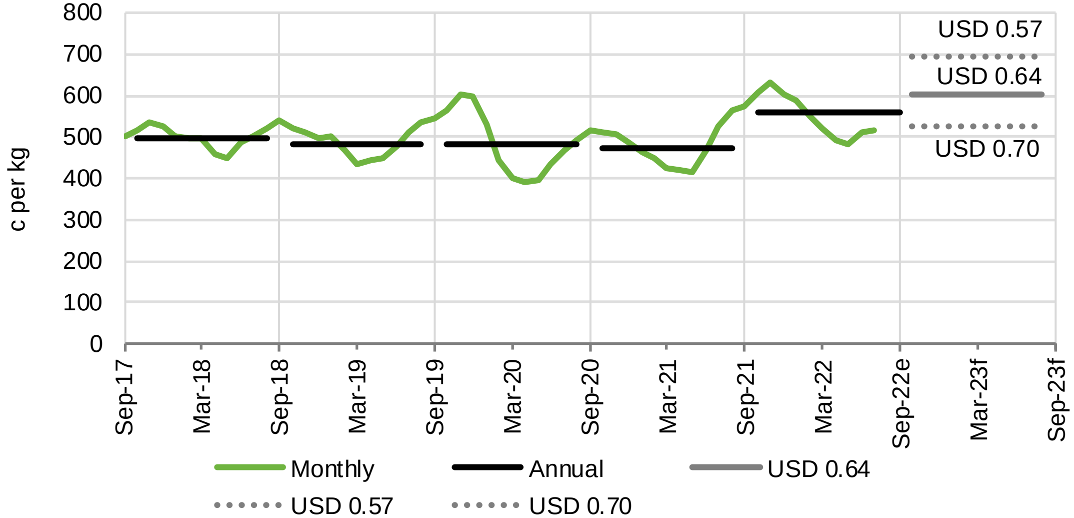
The forecast for the 2022-23 season is for the average farm-gate price for all cattle to increase 7 per cent from 2021-22, to 601 c/kgCW.

Retaining the positive in-market conditions for beef in the new season are supported by the weaker NZD. Beef export returns have a higher exposure to the USD than lamb and mutton exports. The average in-market export value is forecast to be down 4 per cent in the 2022-23 season, however in NZD the average export value is flat. 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 USD0.57, USD0.64 and USD0.70 and the associated cross rates against the GBP and EUR. At USD0.64, the estimated 2022-23 average annual prices are:
664 cents per kg for P steer/heifer (270-295kg);
463 cents per kg for M cow (170-195kg); and
644 cents per kg for M bull (270-295kg).

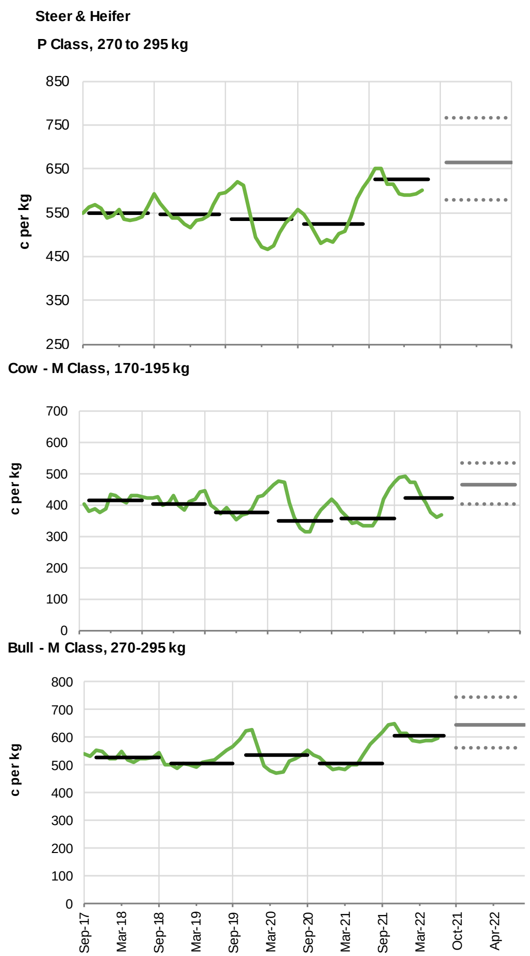
As New Zealand enters the new season, production restrictions on processing capacity will likely carry over from 2021-22 as processors struggle to find skilled staff, and flow into farm-gate prices. Increased freight costs may also weigh on farm-gate prices as production lifts.

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

	000 head				
Sep Year	Steer	Heifer	Cow	Bull	Total
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
2020-21	669	550	1,034	553	2,806
2021-22e	649	516	965	530	2,660
2022-23f	646	514	1,006	525	2,691
2022-23f % change	-0.4%	-0.5%	+4.2%	-0.9%	+1.2%

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

Table 14 Export Cattle Carcase Weights

	kg / head				
Sep Year	Steer	Heifer	Cow	Bull	Total
2017-18	312	241	197	305	253
2018-19	313	243	200	301	251
2019-20	312	243	202	299	254
2020-21	310	244	202	300	256
2021-22e	312	243	200	301	256
2022-23f	312	243	200	300	255
2022-23f % change	-0.1%	+0.1%	+0.1%	-0.3%	-0.4%

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

Table 15 Export Beef Production Composition

	000 tonne bone-in				
Sep Year	Steer	Heifer	Cow	Bull	Total
2017-18	167	110	202	163	642
2018-19	177	115	204	166	662
2019-20	184	120	212	163	679
2020-21	208	134	209	166	717
2021-22e	203	125	193	160	681
2022-23f	202	125	202	158	686
2022-23f % change	-0.5%	-0.4%	+4.3%	-1.2%	+0.7%

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

Cattle Slaughter

For 2022-23, the number of cattle processed for export is forecast to increase 1.2 per cent to 2.7 million head.

Slaughter trends for cows in 2021-22 are a key driver of the forecast. The number of cows processed is estimated to lift 4.2 per cent in 2022-23. The main reason for the decrease in 2021-22 compared to the season before is because dairy farmers held onto animals due to the high prices. This trend is expected to be a one-off, and processing numbers are expected to align more closely with historical trends next season.

The offtake of bull beef is dominated by dairy-beef bulls. The small decrease in slaughter numbers reflects evidence of drought conditions in bull-beef farming regions.

Cattle Weights

On average, export cattle carcase weights are forecast to remain relatively stable in both 2021-22 and 2022-23. This assumes “normal” climatic conditions in the 2022-23 season.

Beef Production

In 2022-23, New Zealand’s export beef production is forecast to increase 0.7 per cent on 2021-22, at 686,000 tonnes bone-in. This follows a record production of 717,000 tonnes bone-in in 2020-21. The size of the increase in cow processing forecast for 2022-23 is a flow-on effect of the low in 2021-22.

Wool

Table 16 Season Average Wool Price Indicators

	cents / kg greasy				
June Year	Fine	Medium	Strong	Lambs	All Wool
2018-19	1,859	714	266	408	381
2019-20	1,447	725	221	230	332
2020-21	1,114	421	170	169	254
2021-22e	1,532	389	213	210	337
2022-23f	1,531	389	216	212	339
2022-23f % change	-0.0%	0.0%	+1.4%	+1.0%	+0.7%

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

Prices

There was a small shift in price direction for all wool types for the 2021-22 wool season. This is positive news for woolgrowers, following the prolonged period of low returns. However, even with the welcomed lift, prices 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 recorded exceptional lifts for 2021-22.

Demand from China has lifted, and the combination of limited supply and lifting prices 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 2022-23 for fine wool prices is no change, following a 37 per cent increase on the previous season. Medium wool prices are forecast to be flat and strong wool prices are forecast to lift 1.4 per cent.[2]

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

Table 17 Auction Prices and Raw Wool Exports

	Auction Price	Wool Exports		
	$ / kg	FOB $ / kg	000 tonne	$m FOB
June Year	clean	clean	clean	
2018-19	5.19	5.86	93.8	548.9
2019-20	4.53	5.63	76.7	432.1
2020-21	3.47	4.15	95.4	395.7
2021-22e	4.60	5.04	86.8	437.4
2022-23f	4.64	5.07	87.1	442.0
2022-23f % change	+0.7%	+0.7%	+0.4%	+1.1%

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

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 2022-23 is for the volume of wool that is exported to be up slightly on 2021-22, reflecting the trend in sheep numbers and build-up of wool in storage. Wool export revenue is forecast to lift 1.1 per cent to $442 million. Average export receipts at FOB are expected to increase 0.7 per cent to $5,073 per tonne clean.

For the 2021-22 season (from July to June), New Zealand wool exports were down 9 per cent to 86,805 tonnes clean. For the 2022-23 season, New Zealand wool exports are projected to increase 0.4 per cent to 87,100 tonnes clean.

China remained New Zealand's largest wool market in 2021-22, accounting for 27 per cent of wool export volumes, down from 35 per cent in 2020-21. Export volumes to the EU for 2020-21 – the next largest market (34%) – were up 5 per cent, driven by an 11 per cent lift in volumes to Italy. The UK continued to be an important market accounting for 8 per cent of exports. There was a 3 per cent increase in exports to India, which accounted for 18 per cent of total exports as a result. Wool exports to the Middle East declined 28 per cent on 2020-21.

Production

For 2022-23, total shorn wool production is forecast to remain steady because sheep numbers are forecast to be stable. Slipe wool production is forecast to increase 3 per cent on the previous season.

Shearing

Shearing expenditure increases 4.4 per cent in 2022-23 to average $28,200 per farm, which is equivalent to $5.98 a head.

In 2016-17 wool revenue fell by around one-third while shearing expenses held. Subsequently, wool revenue continued to decline, and shearing expenses increased.

The net wool account (wool revenue less shearing expenses) for 2022-23 is forecast to average $3,600 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. For High country farms, wool remains an important proportion of revenue, however meat production revenue surpasses wool revenue.

On average, shearing expenditure in 2022-23 accounted for 136 per cent of wool revenue for North Island farmers but 70 per cent for South Island because of the influence of high value fine wools.

Many farmers continued to look for ways to reduce shearing expenses, with reports of fewer shearings per year, changing to non-shedding breeds and, for some, an increase in the ratio of beef cattle on farm. Shearing contractors will be relieved at the lifting of COVID-19 restrictions, which have included mask wearing and social distancing that impacted on shearing times and daily tallies. However, contractors continue to face increased labour costs, high fuel prices and difficulties finding staff. have faced, which limits timing options.

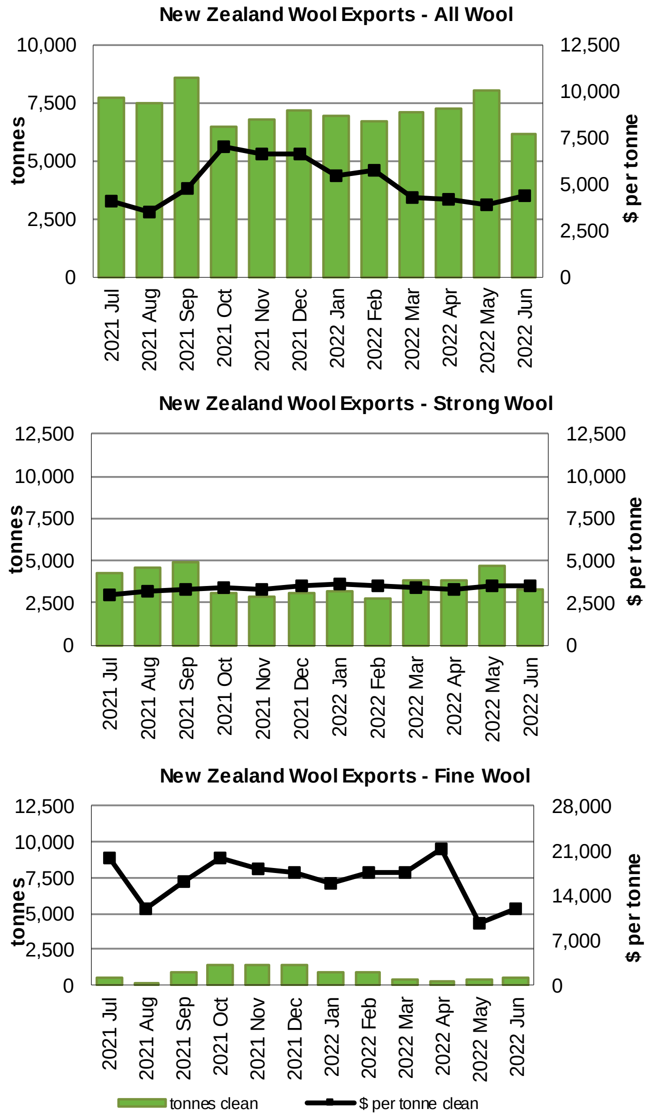
Table 18 Wool Production

June Year	Sheep million head	Shorn 000 tonnes greasy	Slipe 000 tonnes greasy	Total 000 tonnes greasy	Shorn Wool kg / head* greasy
2018-19	27.3	128.9	15.8	144.7	5.30
2019-20	26.8	109.9	16.4	126.2	4.71
2020-21	26.0	118.6	16.0	134.7	5.17
2021-22e	25.7	113.6	15.1	128.7	5.00
2022-23f	25.8	113.7	15.5	129.2	5.01
2022-23f % change	+0.2%	+0.0%	+3.0%	+0.4%	+0.2%

*excludes wool on sheepskins

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

Figure 16 New Zealand Wool Exports



Source: Beef + Lamb New Zealand Economic Service

Climatic Conditions

Autumn 2022 Summary

Autumn 2022 was characterised by warm temperatures and a lack of cold frontal systems. Soil moisture levels were well below normal throughout most of autumn for some key farming areas including Waikato, Southland, and parts of Otago as well as West Coast and Canterbury High country. Rainfall was patchy across autumn with bursts of rain interspaced by long dry spells. Areas impacted by drought felt relief with rains in early May.

Rainfall

Autumn rainfall was above normal (120-149% of normal) for pockets of Hawke's Bay, Gisborne and Northland, with a small area of well above normal (>149% of normal) around eastern Wairoa. Below normal rainfall (50-79% of normal) was observed in parts of Far North, Kaipara, Auckland, Waikato, South Wairarapa, and parts of Canterbury and Otago, while well below normal rainfall (<50% of normal) was observed about Waitaki, Dunedin, Banks Peninsula and Selwyn.

A downpour of rainfall in Maungatapere, west of Whangārei, set a national record for the biggest dump of rainfall in a single hour on 21 March. The deluge triggered floods and slips which caused damage to a small cluster of farms. For East Coast, high rainfall events in March saw road closures, slips and flooding disrupting farming and damaging infrastructure. Rainfall in May broke the drought for South Auckland, Waikato, Southland and parts of Otago.

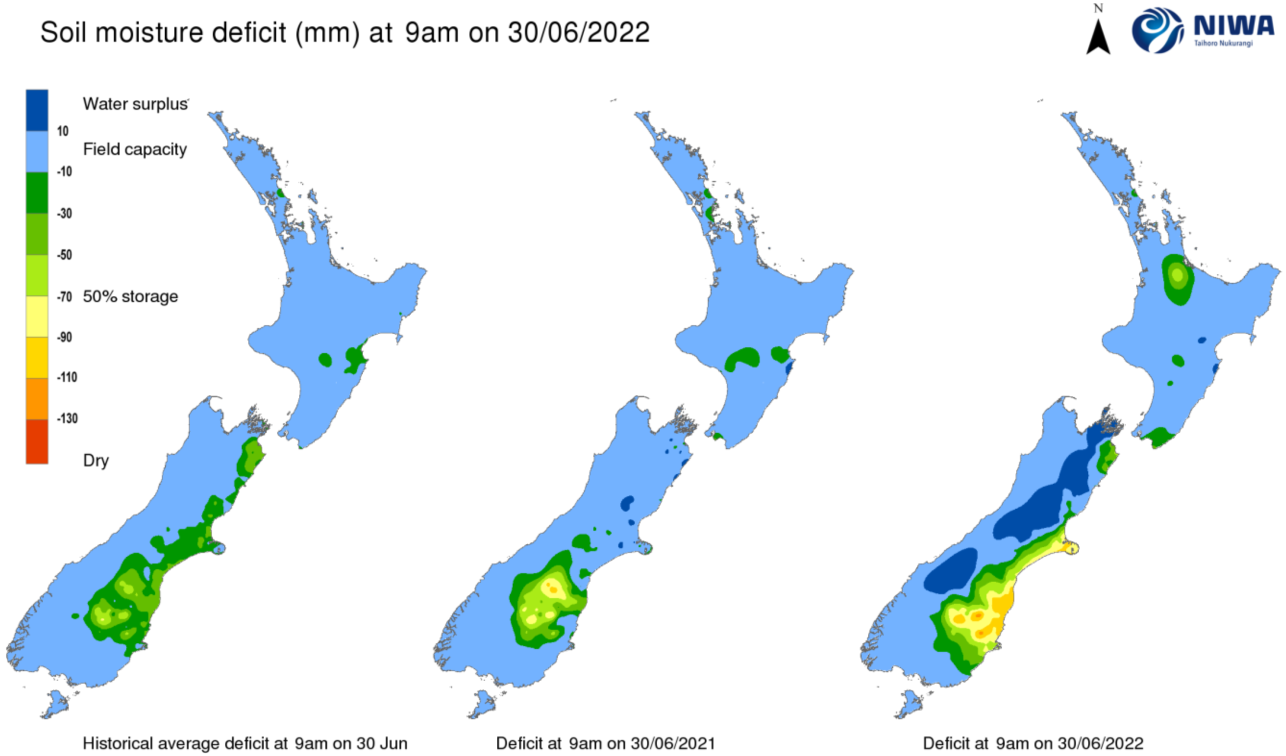
Soil moisture

At the end of May, drier than normal soils were prominent for Otago, eastern and inland Canterbury about and south of Christchurch, southern Wairarapa, northern Waikato, Auckland, and eastern and northern parts of Northland. Soils were wetter than normal for the parts of Manawatū-Whanganui, Hawke's Bay and coastal Gisborne.

Temperature

Autumn 2022 was the second equal warmest autumn on record in New Zealand. Temperatures were well above average (>1.20°C above average) across the West Coast, Southland, Otago and the Canterbury High country, as well as large parts of Auckland, Northland, northern Waikato and eastern Wellington. Temperatures were otherwise above average (by 0.5-1.2°C) elsewhere, except for small pockets of the east coast of both the North and South Islands where temperatures were within 0.5°C of average.

Figure 17 Soil Moisture Deficit



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

Outlook – October to December 2022

Summary

Moderate La Niña conditions and a marine heatwave are expected to influence climate until December 2022. There is potential for more northeasterly winds and longer dry spells in western areas due to higher-than-normal air pressure around New Zealand, especially near the South Island and east of the country.

Rainfall

Rainfall is likely to be near or above normal in the north and east of the North Island, below normal in the west of the South Island and near normal in other regions. There is a risk of heavy rain in the north and east of the North Island due to sub-tropical lows. There is also a risk of early-season tropical cyclone activity in November and December.

Temperature

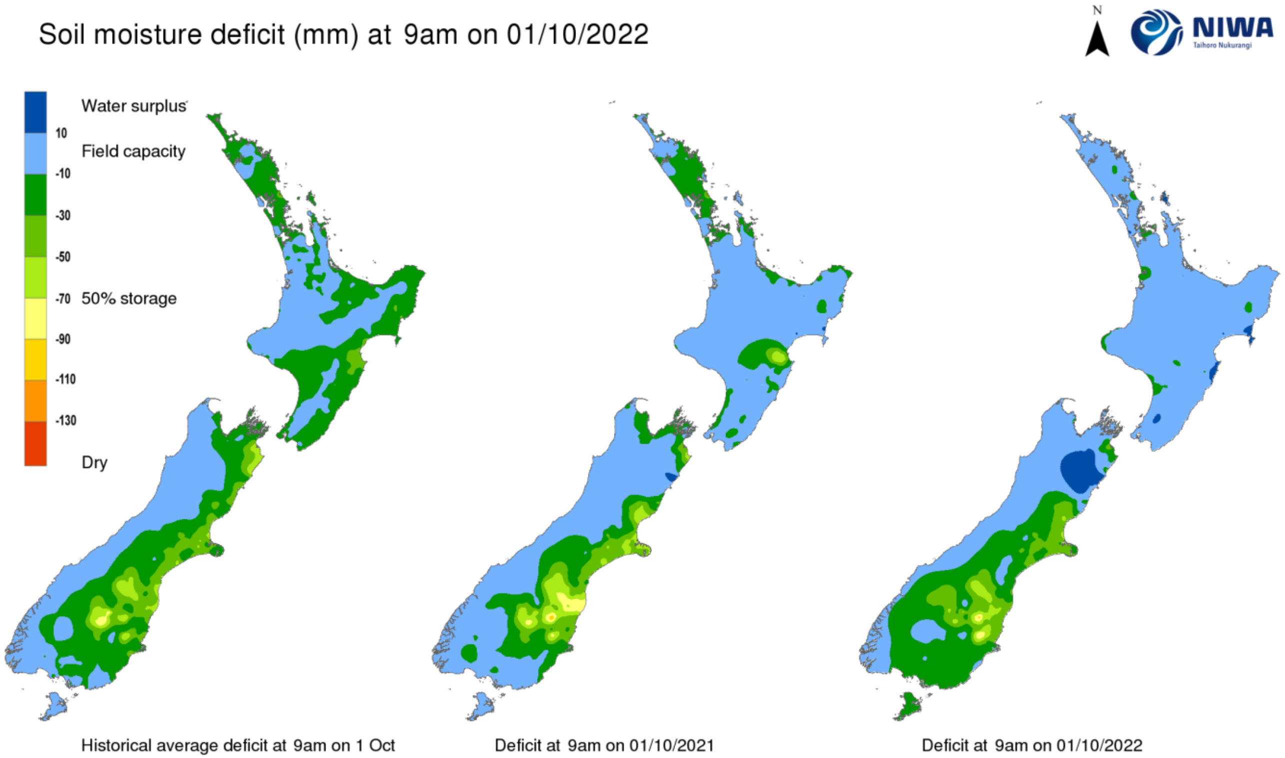
Temperatures are very likely to be above average in the North Island and north and west South Island. November and December will see a more marked rise in temperatures and an increase in humidity.

Soil Moisture

Soil moisture levels and river flows are about equally likely to be near normal or below normal in all regions except the north and east of the North Island, where levels may be higher due to more frequent rainfall events.

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

Figure 18 Soil Moisture Deficit



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

Farm Revenue, Expenditure & Profit – New Zealand

Revenue

Gross farm revenue for the 2022-23 farming year, which ends on 30 June, under an exchange rate scenario of USD0.64, is forecast to average $716,100 per farm, steady on 2021-22 revenue (Table 19).

Sheep and cattle revenue account for three-quarters of gross farm revenue at 48 per cent and 27 per cent respectively on average.

Revenue from sheep meat is forecast to decrease 5.8 per cent (-$21,300) to $346,400 per farm for 2022-23. Expectations are for the lamb crop to be down on 2021 due to fewer breeding ewes and poorer scanning results for regions impacted by drought conditions in autumn 2022. The number of prime lambs sold per farm, on average, is forecast to decrease by 2.1 per cent.

Wool revenue is estimated to increase 4.4 per cent to $31,800 per farm. This reflects a modest increase in wool prices and a small increase in wool sold per farm (+2.1%). 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 is forecast to increase 4.1 per cent to average $196,400 per farm, an increase of $7,700 per farm, driven by strong farm-gate prices for all classes of cattle.

A decrease in cattle revenue is forecast for Northland-Waikato-Bay of Plenty (-0.6%) and Taranaki-Manawatū (-1.7%) in contrast with increased revenue for East Coast (+9.8%). Average per farm cattle revenue is forecast to increase by 2.7 per cent in the North Island.

In the South Island, cattle revenue is forecast to increase 7.5 per cent on average. Marlborough-Canterbury is the main driver of this forecast increase in cattle revenue at 11 per cent up from 2021-22. Drought conditions in summer and autumn 2022 result in cattle revenue for Otago-Southland remaining about the same as in 2022-23 (-0.4%).

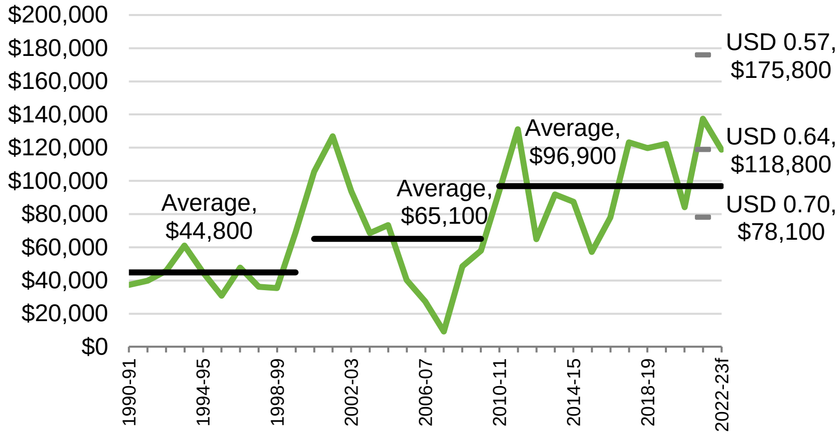
The cash crop account is forecast to increase by 11 per cent in 2022-23. It accounts for 10 per cent of gross farm revenue on average in 2022-23, which is double the contribution from dairy grazing. Unsurprisingly, Marlborough-Canterbury sheep and beef farms have the most significant proportion of gross farm revenue from cash crops, an estimated 26 per cent in 2022-23.

Dairy grazing revenue is forecast to increase by 9.0 per cent averaging $37,400 per farm (5.2 per cent of gross farm revenue) in 2022-23. Regionally, the change in dairy grazing revenue is highly variable and the importance within total gross farm revenue differs by region and island. Dairy grazing revenue is estimated at around 7 per cent of total gross farm revenue for South Island farms, contrasted with around 3 per cent for North Island farms. Sheep and beef farms in East Coast have the least dairy grazing revenue (1.0% of total revenue on average) while for Marlborough-Canterbury, on average, dairy grazing is forecast at 9.4 per cent.

Aggregate Sheep and Beef Farm Revenue for commercial sheep and beef farms is forecast at $6.6 billion in 2022-23, a marginal decrease on 2021-22 (-0.3%).

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.

Figure 19 All Classes Sheep and Beef Farm Inflation-Adjusted[1] Farm Profit Before Tax



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

Expenditure

Total expenditure is estimated to increase 3.4 per cent (+$17,400) to average $535,000 per farm for 2022-23 (Table 19). Inflationary pressure is expected in almost all categories of expenditure in 2022-23.

Major areas of expenditure such as fertiliser, lime and seeds, interest payments and repairs, maintenance, vehicles and fuel are forecast to increase, even as farmers work to reduce spending, for example, applying reduced volumes of fertiliser

and reducing fuel usage where possible.

Interest expenditure, which accounts for around 9 per cent of total farm expenditure, is forecast at $49,400 per farm (+1.8%), with a lagged impact from increasing interest rates in 2022 due to the mix of loans that have fixed and floating interest rates.

Shearing expenditure increases 4.4 per cent to an average $28,200 per farm.

On-farm inflation for input prices used on sheep and beef farms increased 10.2 per cent in the year to March 2022, its highest level in almost 40 years. The underlying inflation rate (i.e., excluding interest) for the same period was 10.7 per cent. Of the 16 categories of inputs, prices increased for all but one (electricity). Expectations for 2022-23 are for a similar level on on-farm inflation.

Fertiliser, lime and seeds expenditure, which is equivalent to 19.6 per cent of total farm expenditure, increases 4.5 per cent to average $104,700 per farm. This follows a large 19.5 per cent estimated increase in the previous season. Farmers have reduced fertiliser volumes applied, per farm and per hectare, each season since 2018-19.

Repairs and maintenance expenditure is forecast to increase slightly (+0.7 per cent) to average $46,400 per farm.

On average, sheep and beef farms in New Zealand carry 4,500 stock units grazing on 700 hectares and have an average stocking rate of 6.4 stock units per hectare. Farms in 2022-23 average 820 ha total area meaning around 85 per cent is used to produce food and fibre, with 15 per cent in other non food-producing uses including carbon-sequestering woody vegetation such as indigenous forest, mānuka, kānuka, exotic forest, shrubland and scrub and other set-aside areas.

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.

With high market prices for sheepmeat and beef globally, and a relatively low NZD, farm-gate prices are relatively strong for sheep and beef farmers with beef cattle pricing in particular driving revenue for 2022-23. However, with increasing farm expenditure and expectations for relatively high on-farm inflation, profit margins will be reduced. For example, from 2021-22 to 2022-23 gross farm revenue is forecast to fall by $2,000 per farm whereas total expenditure increases by $17,400 per farm. Despite favourable market prices for food producers, the squeeze on profitability is apparent. Consumers world-wide are also impacted by inflation within their own economies and reduced purchasing power (See section The Global Economy).

Farm Profit Before Tax is forecast to decrease for 2022-23 by 9.7 per cent to an average $181,100 per farm.

The Farm Profit Before Tax forecast for 2022-23 depends on the value of the NZD relative to other currencies. Currently the NZD is relatively low, which is positive for exporters. Over 88 per cent of beef and over 94 per cent of sheepmeat production is exported. A low NZD does however impact on prices for some farm inputs and therefore farm expenditure is also adjusted to account for changes in the NZD.

To provide some indication of the impact of changes in the exchange rate, three scenarios[3] are shown in Figure 19:

- At the mid exchange rate (USD0.64), ***inflation-adjusted*** Farm Profit Before Tax is $118,800 per farm, a decrease of 14 per cent on $137,500 for 2021-22. In ***nominal*** terms, Farm Profit Before Tax is forecast to average $181,100, down 9.7 per cent on $200,500 for 2021-22.
- If the value of the NZD were to be 10% lower (USD0.57), ***inflation-adjusted*** Farm Profit Before Tax would be $175,800 per farm in 2004-05 terms for 2022-23, nearly 30 per cent higher than 2021-22. In ***nominal*** terms, i.e., without adjusting for inflation, Farm Profit Before Tax would be $268,000, up 26 per cent on $200,500 for 2021-22.
- If the value of the NZD were to average 10% higher (USD0.70), ***inflation-adjusted*** Farm Profit Before Tax would be $78,100 per farm in 2004-05 terms for 2022-23, 43 per cent lower than $137,500 for 2021-22. In nominal terms, Farm Profit Before Tax would be $119,100, down 41 per cent on $200,500 for 2021-22.

[3] Exchange rate scenarios consider increased revenue **and** expenditure given a particular exchange rate. However, they do not account for changes in purchasing behaviour by farmers which would impact profitability.

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

		2018-19	2019-20	2020-21	Provisional 2021-22	Forecast 2022-23 USD 0.57	Forecast 2022-23 USD 0.64	Forecast 2022-23 USD 0.70	Forecast % Change 2021-22 to 2022-23 USD 0.57	Forecast % Change 2021-22 to 2022-23 USD 0.64	Forecast % Change 2021-22 to 2022-23 USD 0.70
Revenue											
Wool		38,693	31,673	26,909	31,100	38,400	31,800	37,400	+23.5%	+2.3%	+20.3%
Sheep		306,786	320,255	292,953	367,700	403,300	346,400	298,100	+9.7%	-5.8%	-18.9%
Cattle		160,025	170,746	157,554	188,700	226,800	196,400	171,500	+20.2%	+4.1%	-9.1%
Dairy Grazing		30,957	34,662	35,229	34,300	37,400	37,400	37,400	+9.0%	+9.0%	+9.0%
Deer + Velvet		7,123	6,203	4,943	5,700	6,400	5,600	4,900	+12.3%	-1.8%	-14.0%
Goat + Fibre		26	72	81	0	0	0	0			
Cash Crop		61,561	64,307	66,272	65,300	72,400	72,400	72,400	+10.9%	+10.9%	+10.9%
Other		24,195	23,617	23,829	25,300	26,100	26,100	26,100	+3.2%	+3.2%	+3.2%
Total Gross Revenue	**$ per farm**	**629,366**	**651,535**	**607,770**	**718,100**	**810,800**	**716,100**	**647,800**	**+12.9%**	**-0.3%**	**-9.8%**
Expenditure											
Fert, Lime & Seeds		79,448	83,544	83,851	100,200	106,200	104,700	103,500	+6.0%	+4.5%	+3.3%
Repairs & Maintenance		41,021	42,540	42,668	46,100	47,100	46,400	45,900	+2.2%	+0.7%	-0.4%
Interest & Rent		76,193	76,597	70,254	66,900	68,000	68,300	68,600	+1.6%	+2.1%	+2.5%
Other Expenses		274,391	284,408	295,575	304,400	321,500	315,600	310,700	+5.6%	+3.7%	+2.1%
Total Expenditure	**$ per farm**	**471,053**	**487,089**	**492,348**	**517,600**	**542,800**	**535,000**	**528,700**	**+4.9%**	**+3.4%**	**+2.1%**
Farm Profit Before Tax[2]	**$ per farm**	**158,313**	**164,446**	**115,422**	**200,500**	**268,000**	**181,100**	**119,100**	**+33.7%**	**-9.7%**	**-40.6%**
EBITRm[3]	**$ per farm**	**239,397**	**246,571**	**190,530**	**272,462**	**341,900**	**254,555**	**192,300**	**+25.5%**	**-6.6%**	**-29.4%**
Real Farm Profit[4]	$ per farm in 2004-05	119,800	122,200	84,100	137,500	175,800	118,800	78,100	+27.9%	-13.6%	-43.2%
Real Farm Profit[4]	**Index (2004-05=1000)**	**1,636**	**1,668**	**1,148**	**1,877**	**2,400**	**1,622**	**1,066**	**+27.9%**	**-13.6%**	**-43.2%**
Fertiliser Use	kg per SU	28.4	26.1	24.8	24.2	20.7	20.4	20.2	-14.5%	-15.7%	-16.7%
Prices											
Wool auction	¢ per kg clean	519	453	347	464	549	467	534	+18.3%	+0.6%	+15.0%
All wool[5]	¢ per kg greasy	299	281	202	246	292	249	284	+18.6%	+1.0%	+15.4%
Lamb	$ per head	142	139	133	161	179	155	135	+11.0%	-3.9%	-16.2%
Mutton	$ per head	122	124	127	142	160	135	115	+12.4%	-5.1%	-19.5%
Prime Steer/Heifer	¢ per kg	541	530	522	621	768	664	580	+23.6%	+7.0%	-6.6%

1. The Weighted Average for All Classes of Sheep and Beef Farm for 1 July 2022 was a grazing area of 698 hectares with 2,877 sheep, 391 cattle and 31 deer, totalling 4,500 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.

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

Farm Revenue, Expenditure & Profit – Regional

EBITRm

EBITRm is the abbreviation for Earnings before Interest, Tax, Rent and any wages paid to a manager (actual or family). It is a key measure of profitability 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 decreases 8.7 per cent to $181,600 per farm for 2022-23 (Table 20).

Gross farm revenue decreases 1.9 per cent to $613,900. Sheep revenue decreases 6.9 per cent on average to $292,300 per farm with a decrease in the number of lambs sold prime combined with softer prime lamb pricing than last season. Sheep revenue accounts for around 48 per cent of total gross farm revenue.

Returns from wool are estimated to improve 3.0 per cent from 2021-22 to average $17,100 per farm.

Cattle revenue is forecast to increase by 2.7 per cent to $249,300 for 2022-23 following a large increase previously (+21.6%) from 2020-21 to 2021-22. Cattle revenue contributes around 40 per cent of gross farm revenue.

Dairy grazing revenue increases 3.7 per cent on average to $19,800 in 2022-23. Deer revenue continues to decline (-17.4%), crop/grain and seeds and other sources of revenue are forecast to increase in 2022-23 (+9.8% and +4.5% respectively).

Total farm expenditure increases 1.2 per cent to average $432,300 per farm for 2022-23 with increased expenditure across most categories.

Fertiliser expenditure is estimated to decrease by 5.5 per cent to $80,600, down from a record high provisional figure of $83,000 in 2021-22. High fertiliser expenditure is against a backdrop of farmers seeking to minimise the impact of high prices by decreasing volumes by 18 per cent. Shearing expenditure is forecast to increase by 1.3 per cent. Interest expenditure is forecast to remain unchanged (-0.2%) for 2022-23 as farm businesses pay higher interest rates on lower borrowings.

South Island Summary

Sheep and Beef Farm Profit before Tax decreases 10.9 per cent to average $180,100 per farm for 2022-23, driven by drought conditions impacting Otago-Southland farms, lower pregnancy scanning results and a large increase in farm expenditure for all regions.

Gross farm revenue increases 1.2 per cent to $839,600 per farm for 2022-23 driven by increased cattle and crop revenue.

Sheep revenue decreases 4.8 per cent to $411,900 per farm from a high level, nominally, in 2021-22 ($432,700). Sheep revenue accounts for almost half of total revenue.

Crop and grains are the second largest source of income (~17%) and increase 11.1 per cent to $145,200.

Cattle revenue increases 7.5 per cent to $132,400 per farm and averages almost 16 per cent of farm revenue. Other revenue increases 7.3 per cent to $96,000 and is twice as high as North Island farms.

Total farm expenditure increases 5.2 per cent to average $659,500 per farm (+$32,400). Most expenditure categories increase for 2022-23

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

	2020-21	2021-22p	2022-23f					
Region	Profit	Profit	Revenue	Expenditure	Profit	EBITRm[1]	Stock Units	Hectares
Northland-Waikato-BoP	84,542	141,400	474,900	350,500	124,400	173,000	3,500	380
East Coast	116,061	222,600	732,200	509,600	222,600	303,900	5,400	620
Taranaki-Manawatu	139,391	269,200	699,500	476,200	223,300	288,900	4,700	530
North Island	**108,543**	**199,000**	**613,900**	**432,300**	**181,600**	**245,400**	**4,400**	**490**
Marlborough-Canterbury[2]	124,112	194,900	1,012,100	827,000	185,100	285,800	4,900	1,020
Otago/Southland[2]	123,098	211,000	654,900	479,700	175,200	245,400	4,400	800
South Island[2]	**123,758**	**202,200**	**839,600**	**659,500**	**180,100**	**265,300**	**4,600**	**950**
New Zealand	**115,422**	**200,500**	**716,100**	**535,000**	**181,100**	**254,600**	**4,500**	**700**

p provisional, f forecast | Exchange rate used in forecast year USD/NZD 0.64
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

despite farmers reducing quantities or volumes of inputs and, for some, deferring maintenance. Fertiliser spending increases 10.6 per cent, while volumes decrease by 13 per cent as farmers respond to sharp increases in fertiliser prices. Repairs and maintenance (-0.9%) and feed and grazing (-2.9%) expenses decrease.

Interest expenditure increases 3.7 per cent as the impact of higher interest rates is felt combined with a slight increase in both term debt and average overdraft.

Regional Comment

Northland–Waikato–Bay of Plenty

Gross farm revenue decreases 3.2 per cent to an average of $474,900 per farm for 2022-23, after a large increase (+16.5%) in 2021-22.

Sheep revenue is forecast to decrease 9.8 per cent to $150,600 and wool revenue is forecast to decrease by 3.1 per cent to average $9,400 per farm. Lower sheep revenue is due to fewer lambs sold both prime and store, and a softening of prices. A difficult mating period due to dry conditions throughout the region meant ewes were not in ideal condition for mating and hence the lamb crop will likely be lower than spring 2021. Average lambing percentages are expected to decrease for all farm classes.

Sheep revenue as a percentage of total gross farm revenue averages 32 per cent for 2022-23.

Cattle revenue is forecast to decrease slightly (-0.6%) to an average $257,500 per farm. Revenue from cattle averages 54 per cent of total gross farm revenue for 2022-23. Hard hill country farms (farm class 3) finish most of their cattle or sell them as store cattle (yearlings or 15-month-old). Drought and feed deficits in 2021-22 led to greater sales of weaner and yearling cattle as farmers held onto capital breeding stock. For 2022-23, the proportion of younger stock is expected to increase as farmers rebuild numbers.

Total farm expenditure increases marginally (+0.4%) to $350,500 per farm for 2022-23.

Fertiliser, lime, and seeds expenditure is forecast to decrease by 3.8 per cent to $73,600 as farmers reduce volumes applied significantly (-17.5%) in the face of high fertiliser prices.

Repairs and maintenance expenditure is forecast to decrease 1.7 per cent to an average $36,500 as farmers reduce spending in line with expectations for lower income.

Feed and grazing expenditure is forecast to remain static at $16,800 per farm.

Shearing expenses are estimated to decrease 4.3 per cent, with fewer prime and store lambs on hand, to an average $12,600 per farm, while wool revenue is estimated at $9,400 per farm – a net loss of $3,200.

Interest expenditure is forecast to increase slightly to $31,500 per farm (+0.6%) as rising interest rates impact some debt facilities and overdraft levels are static (on average).

On average, Farm Profit before Tax decreases by 12 per cent to average $124,400 per farm in 2022-23 (-$17,000) driven by decreased sheep and cattle revenue.

On average, sheep and beef farms in the region carry 3,500 stock units grazing on 380 hectares and have an average stocking rate of 9.2 stock units per hectare. Farms in the region average around 470 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 including forestry and set-aside areas.

Table 21 Regional Summary, Weighted Average All Classes - $ per hectare

	2020-21	2021-22p	2022-23f				
Region	Profit	Profit	Revenue	Expenditure	Profit	EBITRm[1]	Stock Units per ha.
Northland-Waikato-BoP	224	374	1,256	927	329	458	9.2
East Coast	188	360	1,185	825	360	492	8.7
Taranaki-Manawatu	263	508	1,320	898	421	545	8.9
North Island	**221**	**404**	**1,248**	**879**	**369**	**499**	**8.9**
Marlborough-Canterbury[2]	121	190	988	808	181	279	4.8
Otago/Southland[2]	153	262	815	597	218	305	5.5
South Island[2]	**131**	**214**	**887**	**696**	**190**	**280**	**4.9**
New Zealand	**165**	**287**	**1,026**	**766**	**259**	**365**	**6.4**

p provisional, f forecast | Exchange rate used in forecast year USD/NZD 0.64
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 (+1.3%) to average $732,200 per farm for 2022-23.

Sheep revenue decreases 5.0 per cent to $396,900 per farm on average for 2022-23. Sheep numbers decline and fewer ewes mated results in fewer prime lambs sold for 2022-23. Lambing for spring 2022 is expected to improve following good autumn conditions for mating. Sheep revenue contributes 54 per cent of gross farm revenue.

Wool revenue is forecast to increase by 8.6 per cent to $21,500 per farm on average. Wool revenue contributes around 3 per cent of gross farm revenue.

Cattle revenue, which is equivalent to 36 per cent of gross farm revenue, increases 9.8 per cent to average $266,400 per farm for 2022-23. Good feed conditions and/or processing delays resulted in more cattle on hand for the 2022-23 season and therefore greater numbers to sell at high prices. Hard hill country farms (farm class 3) will likely retain more stock but still benefit from high beef cattle pricing.

Total farm expenditure is expected to increase by 1.9 per cent to average $509,600 in 2022-23 with increases across all categories except fertiliser.

Fertiliser expenditure decreases 5.2 per cent as the overall volume applied is forecast to decrease by over 20 per cent in 2022-23. Fertiliser, lime and seeds is forecast at $87,000 per farm on average.

Repairs and maintenance expenditure is estimated to increase by 4.6 per cent to average $60,900 per farm.

Shearing expenditure increases by an estimated 2.7 per cent to average $30,700 per farm.

Animal health increases 6.2 per cent to average $31,700 in 2022-23 with some increases due to attempts to control parasites with more expensive options.

Interest expenditure at an average $54,700 per farm, increases slightly (+0.7%) in 2022-23 with increased overdrafts for all farm classes and a lift in term debt for Finishing farms (farm class 5) to fund replacement of equipment.

Farm Profit before Tax is forecast at $222,600 on average per farm for 2022-23, static on the previous season. It is forecast to increase on average for Hill country farms (farm class 4) due to having more trading cattle on hand combined with strong prices for cattle. The average Farm Profit before Tax for Finishing farms is forecast to increase – slightly – due to increased cattle and crop revenue. However, Hard hill country farms (farm class 3) decrease in profit driven by fewer sheep and lambs to sell and the pressure of increased farm expenditure.

On average, sheep and beef farms in the region run 5,400 stock units. Livestock occupy a grazing area of around 620 hectares, with a stocking rate average around 8.7 stock units per ha. Farms in the region average around 780 ha total area meaning around 79 per cent is used to produce food and fibre, with 21 per cent in other non food-producing uses.

Taranaki–Manawatū

Average gross farm revenue is forecast to decrease 5.2 per cent to $699,500 in 2022-23 following a large lift in revenue in 2021-22 (+25.9% to average $737,700). Decreased revenue is largely driven by lower sheep revenue with fewer head sold and slightly lower pricing than in 2021-22.

Sheep revenue decreases 7.8 per cent to $406,700 per farm on average for 2022-23. Market prices remain strong, down slightly from 2021-22, however fewer lambs will be sold prime. Sheep revenue contributes around 58 per cent of gross farm revenue in 2022-23. Wool revenue increases 2.0 per cent to $25,400.

Cattle revenue decreases 1.7 per cent to $207,900. While strong prices for store and prime cattle markets are forecast for 2022-23 there is a rebuilding of numbers on farms in the region thereby reducing numbers sold compared with 2021-22. Cattle revenue contributes around 30 per cent of gross farm revenue in 2022-23.

Dairy grazing revenue decreases 13 per cent on average to $15,600 per farm. There has been a shift out of dairy grazing on some farms to focus to their own stock. Crop revenue increases to $13,000 (+12%) because strong grain prices have been contracted.

Total farm expenditure increases 1.6 per cent to average $476,200 per farm for 2022-23. Increases are forecast in all major categories of expenditure except for Fertiliser.

Fertiliser expenditure decreases by 0.7 per cent. On average, fertiliser volumes applied decrease 12 per cent as farmers manage expenditure in the face of high fertiliser prices.

Repairs and maintenance expenditure increases by 3.0 per cent to $56,900 per farm due to relatively high levels of revenue and farmers maintaining farm infrastructure.

Interest expenditure decreases 2.5 per cent to $46,900 per farm due to reduced debt levels for some farmers and lower overdraft balances.

Shearing expenditure increases by 3.5 per cent to $32,300 on average in 2022-23, a significant net loss when subtracted from wool revenue of under $7,000. Farmers continue to change shearing policies and reduce the number of sheep shorn where possible, for example selling more sheep woolly and minimising second-shear lambs.

Farm Profit before Tax decreases 17.1 per cent to $223,300 per farm for 2022-23.

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 660 ha, which means 20 per cent of the farm is not grazed because it is woody vegetation, wetlands, forestry or used for non-food producing uses.

Marlborough–Canterbury

Gross farm revenue increases 4.8 per cent to average $1,012,100 per farm for 2022-23.

Sheep revenue decreases 1.5 per cent to $377,700 for 2022-23. The numbers of prime and store lambs sold are expected to increase on average, however prices decrease slightly reducing overall sheep revenue. Sheep revenue contributes around 37 per cent of gross farm revenue.

Wool revenue increases by 4.5 per cent to average $48,700 per farm. Across the region, wool accounts for around 5 per cent of gross farm revenue, however for High country farms wool is more sizeable at 34 per cent at gross farm revenue.

Cattle revenue increases 11.1 per cent to $169,700 for 2022-23 in response to higher cattle prices and more cattle on hand to sell due to COVID-19 impacting processor capacity in 2021-22. Cattle revenue accounts for around 17 per cent of gross farm revenue.

Cash cropping revenue, which accounts for around 26 per cent of gross farm revenue because of the influence of Mixed (cropping) finishing farms, is forecast to increase 9.6 per cent to $264,900 per farm.

Dairy grazing revenue increases 12 per cent to $94,900 per farm on average, which is equivalent to 9 per cent of gross farm revenue.

Total farm expenditure is expected to increase 7.3 per cent to average $827,000 per farm for 2022-23 (+56,600). This is the largest forecast percentage increase in farm expenditure for all regions.

Fertiliser expenditure increases by 17.4 per cent to average $132,600 per farm, despite tonnages applied decreasing 12.2 per cent.

Weed and pest control expenses increase by 6.3 per cent to $58,600 per farm, with the average for farm class 8 Mixed-Finishing forecast to be $137,000 for 2022-23.

Shearing expenses increase by 11 per cent to $29,800 per farm.

Repairs and maintenance increases 1.7 per cent to $46,400.

Interest expenditure increases by 4.8 per cent to $65,400 per farm as interest rate rises impact term debt.

Farm Profit before Tax decreases 5.0 per cent to $185,100 per farm for 2022-23. Overall, increased expenditure outstrips increased gross farm revenue.

On average, sheep and beef farms in the region run about 4,900 stock units on a grazing area of 1,020 hectares (90% of the total farm). The total area averages about 1,140 hectares. High country and foothill farms inflate the average area because High country farms (farm class 1) have around 9,500 grazeable hectares, whereas Finishing Breeding farms (farm class 6) have average around 500 hectares.

Otago–Southland

Gross farm revenue decreases 4.5 per cent to average $654,900 per farm for 2022-23 driven by lower sheep revenue. Sheep are a large part of the revenue and production for the region. Revenue from wool and sheep combined accounts for around 77 per cent of gross farm revenue.

Sheep revenue decreases 7.7 per cent to average $455,600 per farm for 2022-23. The decline in revenue is driven by lower sheep prices, fewer store lambs sold and reduced lambing percentages because of drought conditions in autumn. Snowstorms in early October 2022 are also likely to impact lambing results for many, especially High and Hill country farms.

Wool revenue is estimated to decrease 0.8 per cent to an average $47,300 per farm with slightly fewer sheep to shear (namely trade hoggets).

Cattle revenue decreases marginally (-0.4%) and is forecast to average $91,200 per farm for 2022-23. Cattle prices are forecast to be strong and there is good demand for weaners. Cattle revenue accounts for around 14 per cent of gross farm revenue.

Total farm expenditure increases by 1.0 per cent to $479,400 per farm for 2022-23, following a 4.2 per cent increase the previous season.

Fertiliser expenditure is estimated to decrease by 1.2 per cent to average $74,600 per farm, with the volume applied decreasing by 15 per cent to offset high prices and a switch towards applying lime.

Interest expenditure is estimated to increase by 2.0 per cent to an average $46,700 per farm partly due to increased interest rates and partly a continuation of development and spending on environment on some farms with increased borrowing.

Wages (+3.4%), shearing (+3.7%) and animal health (+0.1%) expenses all increase for 2022-23, while repairs and maintenance spending decreases 1.0 per cent.

Farm Profit before Tax decreases 17 per cent to average $175,200 per farm for 2022-23 due to steadily increasing expenditure in the face of variable gross farm revenue. Between farm classes, High country (farm class 1) farms manage to hold profitability (-1.1%) due to increased returns from dairy grazing in comparison to other farm classes in the region where farm profit decreases by a significantly larger percentage (-16-22%).

On average, sheep and beef farms in the region run 4,400 stock units on a grazing area averaging 800 hectares (total farm area around 940ha). As in other parts of the South Island, the average farm size is inflated by farm class 1 High country farms, which average 6,200 hectares (grazeable), whereas Finishing-Breeding farms average 570 hectares and Finishing farms that are typical in Southland average 260 hectares.