

ANZ RESEARCH
AGRI FOCUS

OCTOBER 2021

**SCALING NEW
HEIGHTS**



This is not personal advice nor financial advice about any product or service. It does not take into account your financial situation or goals. Please refer to the Important Notice.

INSIDE

Economic overview	1
Dairy	3
Lamb & wool	6
Beef	9
Deer	11
Grain	13
Forestry	15
Horticulture	17
Rural property market	19

CONTRIBUTORS

Susan Kilsby

Agriculture Economist

Telephone: +64 21 633 469

Susan.Kilsby@anz.com

Sharon Zollner

Chief Economist NZ

Telephone: +64 27 664 3554

Sharon.Zollner@anz.com

Publication date: 11 October 2021

Global food prices are on the rise, which bodes well for our export returns.

An energy crisis is manifesting in both Europe and China, with consumers nervous that they may face electricity shortages during the Northern Hemisphere winter.

Inflationary pressures globally are massive and this is impacting the cost of production. With many commodities in relatively tight supply, and ongoing strong demand for food, we could see commodity prices reach new heights this year.

We are forecasting average farmgate returns for beef and for sheep meat to be at record levels this season.

Dairy markets are also being supported by relatively tight global supplies, but demand is a tad soft. At present prices are holding at relatively high levels.

Returns for logs have lifted again, but this sector is highly exposed to high shipping costs due to logs being such a bulky commodity. China's property development sector is plagued with financial issues, which is expected to slow future developments considerably, and with it, potentially demand for our logs.

Monetary policy tightening has commenced in NZ, with the RBNZ lifting the OCR 25bp to 0.50%, in addition to halting asset purchases back in July. How quickly further rate rises are implemented and how long this tightening cycle lasts are highly dependent on the performance of our economy.

Labour markets are very tight and this is one of the major issues plaguing our primary industries.

The other major issue is getting produce to our international consumers. The extension of government-subsidised cargo freight will certainly be welcomed by our exporters.

Prices at farm/orchard level relative to 10yr average

Dairy	Dairy prices are trending higher and our farmgate milk price forecast has been revised to \$8.20/kg MS for this season.	<p>Milk price</p>
Sheep	Lamb returns look set to hit record levels this season as global returns improve further.	<p>19kg lamb</p>
Beef	Beef prices are benefiting from tight global supply, which is expected to support prices throughout this year.	<p>Prime steer</p>
Forestry	Log prices are clawing their way back up after a sharp drop a few months ago, but excessively high shipping costs are limiting returns at the wharf gate.	<p>A-grade log</p>



ECONOMIC OVERVIEW

OCR HIKING CYCLE COMMENCES

New Zealand's economy looks strong by some measures, but fragile by others. Economic growth, measured by GDP, lifted sharply in the first half of the year. However, lockdowns during Q3 are a drag on activity. Capacity pressures, labour market tightness, and underlying inflation are all very strong – which is why the Reserve Bank (RBNZ) has started to remove monetary stimulus. The widely expected lift in interest rates has had minimal impact on the NZ dollar thus far.

The RBNZ was one of the first central banks to start tightening monetary policy since the pandemic commenced. In early October the RBNZ lifted the Official Cash Rate (OCR) by 25bp to 0.50%.

The RBNZ was one of the first central banks to start tightening monetary policy since the pandemic commenced. In early October the RBNZ lifted the Official Cash Rate (OCR) by 25bp to 0.50%.

The economic impacts of the pandemic in New Zealand have not been nearly as great as first feared. We have been able to keep COVID-19 at bay for most of the past 18 months and have spent much shorter periods in lockdowns than most other countries.

MORE HIKES PROBABLE

We anticipate the RBNZ will lift the OCR further as it attempts to rein in inflation. At this stage we anticipate another 25bp hike in November, then a further three hikes next year, which would take the OCR to 1.5%. However, further lifts in the OCR are highly conditional on the NZ economy shaking off the impact of the latest lockdowns and recovering its momentum.

There are massive uncertainties at present, with the Government abandoning the elimination strategy and moving towards living with endemic COVID by gradually easing restrictions, starting with outdoor picnics in

Auckland. But with just half of the eligible population fully vaccinated, and Delta managing to seep through the cracks of our regional lockdowns, there are risks that this outbreak will get worse before it gets better, requiring heightened restrictions to continue for some time while vaccination efforts continue. And that could be a real hand-brake on the economy.

LABOUR SHORTAGE NOT GOING AWAY

The current labour shortage shows little sign of abating. There simply is not sufficient labour available to fill the vacancies on offer.

Changes to MIQ policies, including isolating at home, are expected to gradually increase the flow of people into NZ. But this is not likely to cause a meaningful change in the amount of labour available until border restrictions can be fully lifted.

Investment in technology will help alleviate some staff shortages, and in some cases is prompting a rethink about how systems can be improved to reduce labour requirements.

INFLATION HERE TO STAY?

The New Zealand economy is also outperforming on the RBNZ's other mandate: inflation. Inflation pressure is evident right across the economy and it can't all be attributed to short-term pandemic-related factors.

Headline inflation is expected to lift to 4.2% y/y in Q3, having already hit 3.3% y/y in Q2. Inflation is evident in nearly all major cost categories. Costs of operating a farm are expected to continue to lift, particularly as the impact of environmental costs start to be priced in.

The upside to inflation is that the price of our export commodities are also rising. The question really is whether commodity prices, and therefore incomes, will rise more quickly than costs. Domestically, we're anticipating pretty



ECONOMIC OVERVIEW

anaemic real wage growth as wage adjustments lag behind rapidly rising prices.

The RBNZ is [in a tough spot](#) – inflation risks are to the upside, but growth risks are to the downside. They may end up facing the difficult trade-off between keeping inflation pressure contained or supporting growth and employment.

GLOBAL ECONOMIC RECOVERY SLOWING

The economic recovery in many other parts of the world is starting to run into headwinds. This is particularly the case in China, where economic growth forecasts are being revised down – albeit to levels that most other countries can only dream about.

Concerns about a global energy crisis have also dominated headlines recently. This is particularly evident in Europe. Natural gas prices are now six times higher than they were last year. Natural gas tends to be the energy source used to plug gaps when there is a shortage of electricity production from more sustainable measures such as wind. In recent days the possibility of increased supply from Russia has seen markets calm a little.

The UK is experiencing a crisis due to a damaged cable that feeds electricity from France. Gas supplies are short due to high usage last winter. The lack of power supply has forced some factories to shut down in order to reduce pressure on the network.

China is also facing an electricity shortage due to a lack of coal. Government objectives to move to cleaner energy sources plus a trade spat with Australia have resulted in a run-down in coal stocks, and now the country faces going into winter with limited resources to produce electricity.

The electricity shortage, and desire to reduce emissions, has resulted in numerous factories being shut down, which will also have economic consequences. At this stage Beijing is saying it is easier to create economic growth than it is to reduce GHG pollution, and is therefore sticking with its policies – for now.

China's construction industry has been a large contributor of economic growth over the past decade. However, this industry is now struggling due to an oversupply of housing and funding problems for developers. A lot of the demand for apartments has come from speculators, meaning many apartments in Chinese cities have never been lived in. They have just been purchased as an investment. There are now fears that this speculative bubble may pop, causing a downwards spiral similar to the financial collapse that triggered the global financial

crisis. But unlike the US, the Chinese Government controls the financial sector, so is more likely to be able to engineer a softer landing.

Slower growth in the property sector will reduce demand for steel, and therefore iron ore, and could also reduce demand for our logs, which tend to be used in the construction process.

NZD FACING OPPOSING FORCES

The recent 25bp lift in the OCR was well expected by financial markets and thus far has had little impact on the value of the NZD. Lifting interest rates generally encourage more overseas investors to invest funds here, which in turn puts upwards pressure on our exchange rate – but that was largely already priced in before the decision.

Global risk sentiment also has a massive bearing on the value of the NZD. There is a lot of uncertainty at present and in this type of environment we tend to see less investment in risky assets. The NZD falls into this category.

So while our domestic market is providing some impetus to the NZD, global markets are doing the opposite. Hence the NZD continues to bounce around the USD 0.70 level for now.

We expect the NZD will continue to firm, trading up to USD 0.72 by the end of the year. The higher NZD will curb returns at the farmgate level. That said, exchange rate forecasting is a highly uncertain business and the NZD will also be influenced by commodity prices and not least the global risk mood, which is all but impossible to predict.

NZD BUYS USD



Source: Bloomberg, ANZ Research

Click [here](#) to access our latest forecasts.



DAIRY

MARKETS STABLE

Markets are relatively stable at present. Demand is slightly subdued, but this is being matched by limited growth in global milk supplies. So long as these two factors remain in balance then dairy products should continue to trade near current levels.

It has been a relatively slow start to the new milk production season as excessive wet weather, combined with short cold periods, has kept pasture production in check. Some regions have been using more supplementary feed than normal to get through the spring feed pinch.

Dairy commodity prices have improved in the past few months and supply and demand now appear relatively balanced.

If markets remain in balance, then prices shouldn't stray too far from current levels, which bodes well for the milk price. About two-thirds of NZ's milk is produced prior to Christmas and the sales profile tends to follow the milk supply curve, although slightly smoother and slightly delayed.

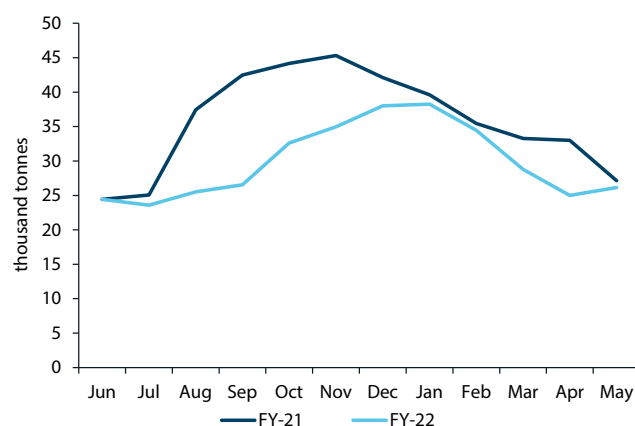
The quantity of whole milk powder (WMP) traded on GlobalDairyTrade (GDT) typically peaks near October. This year the peak is further out as Fonterra have advised strong sales outside of GDT, which we assume is the reason for the reduced offering earlier in the season.

There has been less demand on GDT from North Asian buyers (ie China) than normal, with most of the demand at the latest event coming from South East Asia.

This latent demand from South East Asia is good to see, as demand from this region has been more modest recently.

If commodity prices can be maintained near current levels through to January then this will considerably increase the probability of delivering a higher milk price that we currently have forecast.

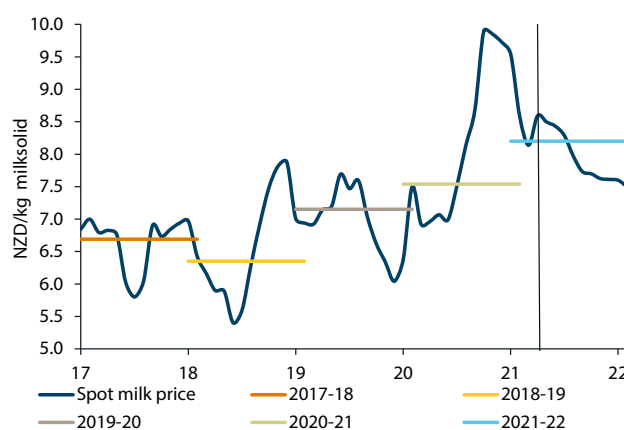
FONTERRA FORECAST GDT MONTHLY OFFERINGS OF WMP



Source: Fonterra, NZX

Our milk price forecast has been increased by 50c to \$8.20/kg MS as dairy commodity prices have now increased while the NZ dollar has appreciated less than expected.

MILK PRICE - HISTORIC AND FORECAST



Source: Fonterra, NZX, ANZ Research



DAIRY

FONTERRA OUTLINES STRATEGIC DIRECTION

Fonterra recently released its annual results, its long-term strategy, and updated its proposed changes to its capital structure. Its final milk price for the 2020/21 season was \$7.54/kg MS. This was very close to its previous forecast. It was about 20c lower than we had previously forecast.

Fonterra continues to divest its offshore businesses that are not related to NZ's milk supply. Its Chilean business is now on the market and it plans to reduce its shareholding in its Australian business to 51%.

Within its long-term plan Fonterra is forecasting an average farmgate milk price of \$6.50 - \$7.50/kg MS for the decade commencing next season. This doesn't mean the milk price won't go above or below that range, but it does provide some guidance.

The changes that have been made to the proposed capital structure tend to provide increased flexibility relating to shareholdings: increased time for suppliers to buy and sell shares, and expanding who can own shares. Overall the market reaction to these changes was positive, with Fonterra's share price lifting following the announcement.

The Fonterra Shareholders' Fund (FSF) will also be retained but will be capped, and will not be able to be transferred into Fonterra shares (FCG).

CLEAR DIRECTION FOR JOURNEY AHEAD

Fonterra recently released more details about its Co-operative Difference payment system. The system will allow suppliers to achieve an extra 7c/kg MS if they meet a range of criteria aimed at aligning on-farm practices with customer expectations. For those that achieve these standards a further 3c/kg MS payment can be achieved, depending on the quality of the milk supplied.

Several other dairy companies already have similar on-farm standards in place, so the majority of NZ dairy farmers now have clear guidance as to expected on-farm practises and some incentive to achieve these.

While there remains some ambiguity as to exactly how these standards will be measured and audited by Fonterra, it does provide suppliers with [clear direction as to where the Co-operative is heading](#).

The environmental standard, where three out of four targets must be achieved, currently provides flexibility for a range of farming systems to be used and still attain these standards.

No doubt the standards will also evolve over time, as will customer expectations and regulatory standards.

CHALLENGING SPRING

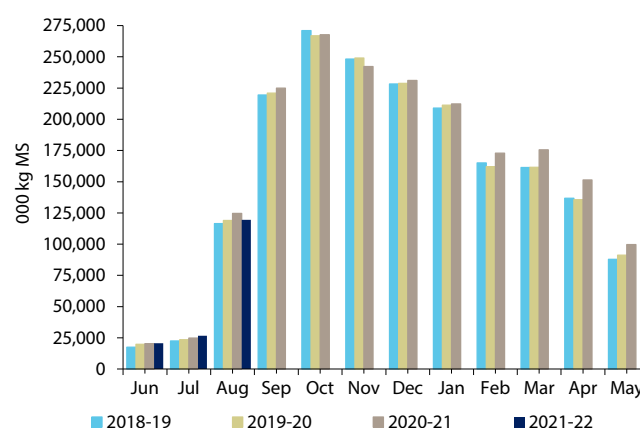
It has been a challenging spring for many farmers – particularly those on the western regions, which have experienced persistent rainfall and cooler temperatures. This has slowed pasture production, reduced pasture cover levels, and resulted in more damage to pastures.

This means it has been a real balancing act for farmers trying to keep cows fully fed. Some farmers have turned to more supplementary feed to plug the feed shortage, in order to keep milk production levels up and ensure cows are in good condition ahead of mating.

Overall milk production is expected to be compromised up until the peak of the season, which typically occurs in late October.

August milk production was down 4.2% y/y on a milksolid basis. Whilst not too much can be read into this figure, due to August production being highly variable depending on calving dates, it certainly wasn't a surprise to see output slow. The weather was a lot more favourable last August, which resulted in higher production. The quantity of milk collected this August was more similar to August 2019.

NZ MILK PRODUCTION



Source: Fonterra, ANZ Research

Across the full season milk production is anticipated to be about 1% lower than last season. A small number of farms formerly used for dairying have now been converted to other uses, including being subdivided for housing/lifestyle blocks, put to horticultural uses, or now being farmed as beef or dairy support blocks. Whilst the change in land use is still relatively small, it does mean it is becoming much harder to increase milk production.



DAIRY

The weather was generally very favourable for milk production last season – particularly through the autumn, which is unlikely to be repeated this season. Additionally some farmers are also looking to ease back both stocking rates and use of artificial fertilisers to meet regulatory standards. The combined impact of these changes will be partially offset by increased productivity per cow due to ongoing genetic gains and continual improvement in management practices. But overall milk output is expected to steadily fall away over the next decade – a 1% per annum reduction is highly probable.

GLOBAL MILK SUPPLY STEADY

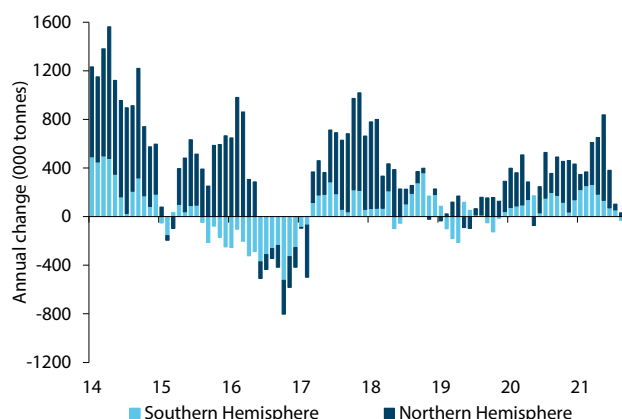
Global milk supply is growing at a modest pace. The majority of the growth in the coming years is expected to occur in the large milk-producing countries that have a shortage of milk. These countries include India, Russia and possibly China. Any growth in their domestic milk supply is expected to be absorbed by the faster growth in domestic consumption, meaning these countries will still need to import dairy products.

We are currently seeing very modest growth in milk supply in the United States and Europe. Like New Zealand, these countries are somewhat constrained by environmental regulations and available labour. Feed costs are also high so there is little financial incentive to expand production.

In New Zealand milk supply is expected to gradually decline over the next decade, while Australia's production may stabilise after declining considerably over the past decade.

Overall the slow growth bodes well for higher commodity prices and strong farmgate returns.

MILK PRODUCTION – MAJOR DAIRY EXPORTING COUNTRIES



Source: DCANZ, Dairy Australia, Eurostat, USDA, CLAL, ANZ Research



LAMB & WOOL

STRONG FARMGATE RETURNS

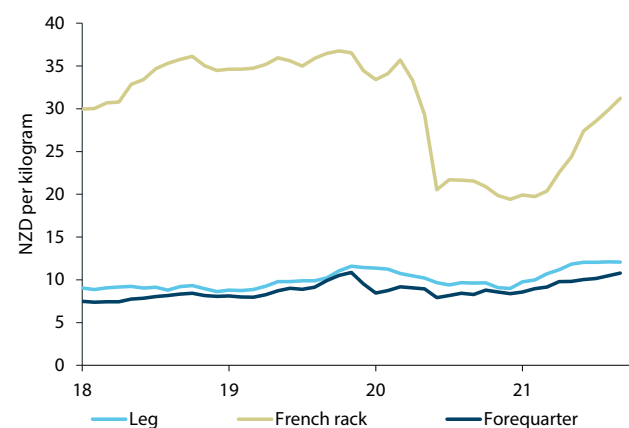
Farmgate returns for lamb are expected to reach record levels when averaged across the season, assuming the strength we are currently seeing in global markets holds up. Returns from international markets have improved but will remain vulnerable until the pandemic is under control.

INTERNATIONAL PRICES LIFT

Lamb products have continued to lift in price in our international markets, with the majority of cuts now returning as much as they did prior to the pandemic.

Some of the cheaper cuts such as lamb flaps and forequarters, which are typically sold to China, are now worth more than before the pandemic hit. Some of the higher-value cuts such as Frenched Racks still have some way to go to get back to previous levels, but demand for these higher-value products is gradually improving as vaccination rates lift, particularly in the developed world, and confidence to dine out grows.

LAMB CUT PRICES

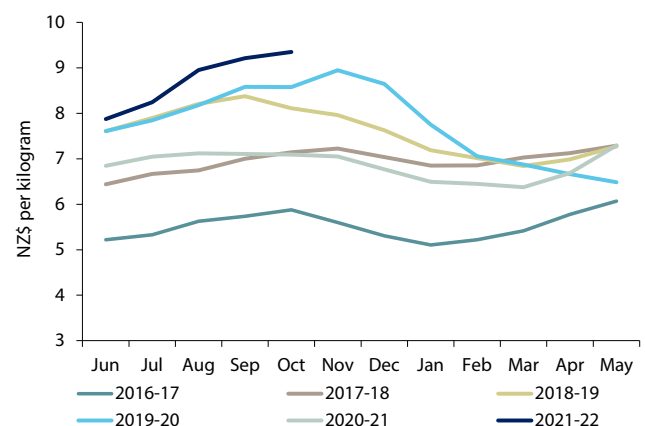


Source: AgriHQ

FARMGATE PRICES ON THE RISE

Farmgate prices are high at present but as there are few lambs being processed at this time of the season it is of little relevance for most farmers. Exactly how many tail-end lambs from last season are still out there remains unknown. The number of lambs processed recently has been even lower than normal for this time of the season. But given pasture growth rates are now improving – at least in the warmer northern regions – those who still have lambs on hand will be looking to add as much weight as possible prior to processing.

LAMB FARMGATE RETURNS (19 KG LAMB)



Source: AgriHQ

The strength in the international markets may not quite justify present farmgate prices, but with so few lambs available processors will be looking to secure what they can.

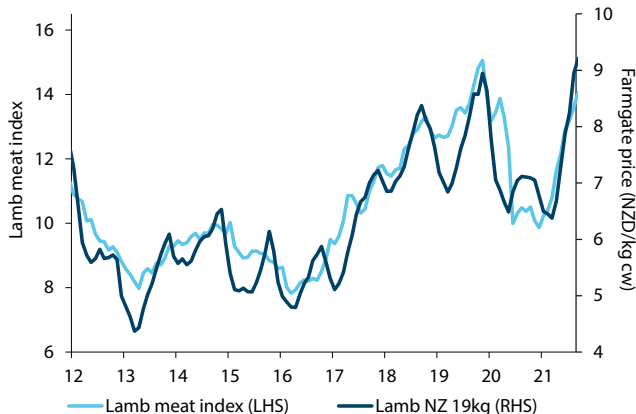
The graph of farmgate prices versus international prices takes a very simplistic look at the relationship between several main meat cuts and the price being paid at the farmgate. There are many more factors that influence farmgate prices, including prices for other cuts, portion



LAMB & WOOL

of product being sold chilled, actual returns for other markets, processing costs, freight and freight availability, as well as procurement factors.

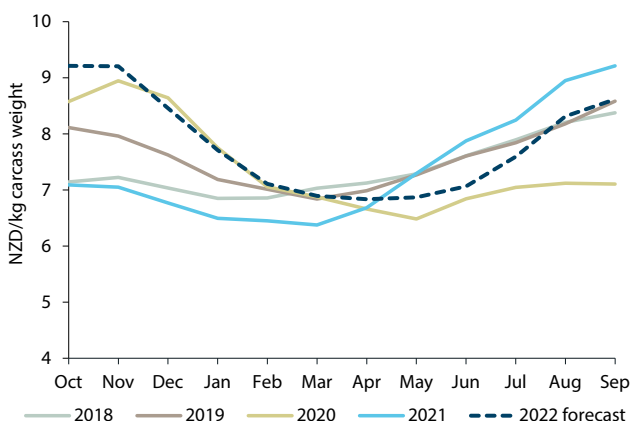
FARMGATE PRICES VS INTERNATIONAL MARKET PRICES



Source: AgriHQ, ANZ Research

Looking ahead to the main processing season, we do expect to see farmgate prices retreat from their current lofty levels, but at this point it looks like peak season prices will be stronger than last season and match, or even exceed, prices achieved in 2018 and 2019.

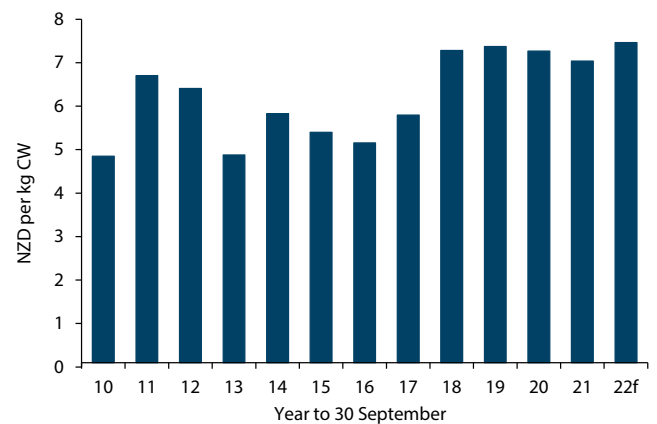
FARMGATE LAMB PRICE TREND AND FORECAST



Source: AgriHQ, ANZ Research

At this point it appears farmgate prices for the season ahead may be even a tad stronger than those achieved in recent years. We are certainly at a stronger starting point, but through the peak processing months prices are expected to be similar to previous years.

AVERAGE FARMGATE LAMB PRICE



Source: AgriHQ, ANZ Research

This would put the weighted average price for the 2022 season (to September) at about \$7.40/kg CW, which, if achieved, would be a record price.

MARKET RISKS

We have become increasingly reliant on China as the main buyer of our mutton and lamb. This increased exposure does mean more concentrated market risk, but it is also exposure to a market that has an insatiable appetite for safe, healthy, natural food - which is what NZ delivers.

Demand from other markets such as the US and Europe is improving and this is reflected in the higher price of Frenched Racks, primarily consumed at restaurants. The ongoing outbreaks of the highly contagious Delta variant mean restaurant demand is a little patchy, but is generally improving.

The bigger challenge is actually getting product to market, and this is particularly applicable to the higher-value chilled cuts, which have a shorter shelf life than frozen product.

MORE LAMB, LESS MUTTON

Beef & Lamb NZ (B&LNZ) are forecasting an increase in lamb production and exports this season and a decrease in mutton production.

Lamb exports are expected to increase by 0.4% in volume terms, with an increase in export prices expected to lift total export returns by 2.1%. They are forecasting a 0.5% lift in average farmgate returns to \$137 per head or \$7.24/kg CW. This forecast is slightly more conservative than our own.



LAMB & WOOL

B&LNZ have forecast an 8.9% reduction in mutton exports, following elevated culling last season. They also expect export prices to ease by 2.5%, resulting in an 11.2% reduction in mutton export returns.

Breeding ewe numbers are expected to be down 0.5% this season, while 22.8 million lambs are expected to be docked (tailed) this spring, 0.9% more than last season. This lift is driven by a lift in the national average lambing percentage to 131.4%.

MUTTON HITS NEW HIGHS

Mutton prices are at record levels. Looking back, it wasn't that long ago that mutton was worth just \$1/kg CW. It was sold mainly to the Pacific Islands and to the Middle East. Now virtually all the mutton produced in NZ goes straight to China – at more than six times the price.

This market values stronger-tasting meat, which is what you get from an older animal. This lift in the price of mutton has really provided a boost to farm incomes and has offset the reduction in wool returns.

FARMGATE MUTTON PRICE



Source: AgriHQ

THE WAITING GAME

The recent surge in coarse wool prices was relatively short, with prices now trending down again. Wool sales were disrupted during the lockdowns, but when selling started up again it was at lower prices.

Congestion in supply chains caused by shipping delays is one of the reasons given for the reduction in immediate demand. Asian buyer appetite is certainly a little weaker than it was a few months ago.

The finer grades of wool being offered at the South Island sales are still in relatively high demand. European buyers have been keen to pick up quality offerings of fine wools. This has pushed the price of low-micron wools back towards the high levels last seen about three years ago.

Looking forward there are plenty of initiatives on the go that aim to boost returns for coarse wool. So for now it is just a waiting game for one or other of these initiatives to really start to deliver.

STRONG WOOL (>35MM)



Source: NZWSI, PGG Wrightson, ANZ Research



BEEF

BEEFED-UP RETURNS

Beef prices are on the rise as tight global beef supplies are not meeting consumer demand. This situation is unlikely to change, meaning average farmgate returns for the year ahead are likely to be higher than normal.

China's demand for beef has grown massively in recent years. This demand may ease a little over the next six months due to increased pork supply, but Chinese consumption of beef is certainly increasing.

This trend is also present in other parts of Asia where consumption on a per-head basis is still relatively low. Meanwhile consumption of beef in developed markets is expected to be relatively stable.

LIMITED SUPPLY AVAILABLE

The main driver of international prices at present is simply a lack of supply. Brazil and Australia are the world's largest exporters of beef.

Brazil exported extremely high volumes of beef in the first half of the year – most likely more than could be sustained over the longer term. Recently its exports were severely curtailed due to two cows testing positive for Bovine Spongy Encephalopathy (BSE), which prompted China to place a two-week ban on exports. Several other countries then followed suit, refusing to take the risk of importing this highly contagious disease. However, the ban period is now over and it appears exports will recommence.

Supply of beef from Argentina has also been severely curtailed in recent months due to a self-imposed ban on exports. This was done to try to increase domestic supplies of beef in order to curtail food price inflation. This ban has now been extended to the end of October.

AUSSIE SUPPLY DOWN

Australia has also been exporting less beef than normal as the number of cattle being slaughtered remains low as herds rebuild. Good levels of feed mean farmers are also holding onto stock a little longer. This does mean they are being killed at heavier weights, but the additional weight isn't enough to offset the smaller numbers.

Low stock numbers combined with good feedstocks also mean store cattle markets in Australia have gone ballistic. Top quality weaner Angus steers were recently selling for AUD2400/head (~AUD6/kg LW) with yearling steers making over AUD3000/head (~AUD4.90/kg LW) at the yards.

Australia has four relatively large markets for its beef, these being Japan, China, South Korea and the United States. It has favourable access into South Korea and Japan but Australian beef competes with NZ beef in China and the United States. In the year to July 2021 Australia exported 21% less beef, with exports to China down 37%, mainly due to the trade tensions, while exports to the US fell 25%. This has increased demand for NZ beef in our main markets.

SUPPLY CHAIN CHALLENGES IN US

Cattle numbers in the US are steadily falling, with high feed prices impacting profits. However, the liquidation of some herds does mean the supply of stock for slaughter remains plentiful for the time being.

Bottlenecks getting stock processed are occurring due to processing plants being short-staffed, which means some stock are being killed at heavier weights than normal.

But heavier stock mean more fat, which just increases the demand for lean pasture-produced meat (such as New Zealand provides) to combine with the fattier locally produced meat to get the perfect combination for a meat patty.



BEEF

At the end of July there was 9% less beef in cold storage facilities in the US than the same time last year. This means supplies are likely to remain tight in the coming months, putting further upward pressure on prices.

BEEF DEMAND GROWING IN ASIA

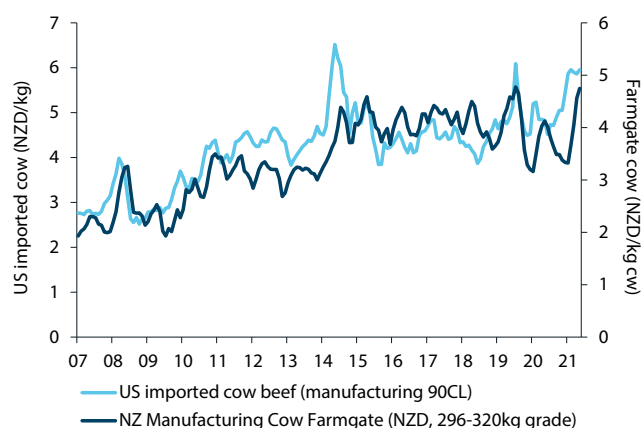
Demand for beef in Asia is rapidly growing, and this region is poised to increase its beef consumption ever further as consumption of beef is still quite low on a per head basis.

Research by Meat and Livestock Australia (MLA) shows the key motivating factors for Asians to purchase beef are safety and freshness, as well as Halal certification amongst Muslim communities.

At this stage China is by far the largest Asian market for NZ beef. In this market demand for beef really took off when pork supplies were compromised by outbreaks of African Swine Flu (ASF) and pork prices skyrocketed.

Pork prices have now declined to similar levels to early 2019, ie pre-ASF levels, due to more pork being available. This is partially due to pork herds being rebuilt, but further outbreaks of ASF, and much higher costs of production, have again prompted the liquidation of some pig herds. Costs such as feed and servicing additional debt taken on to rebuild herds have severely impacted profits. China's Government is trying to stabilise the situation by providing support to pork producers.

FARMGATE BULL BEEF PRICE VS OVERSEAS MARKET PRICE

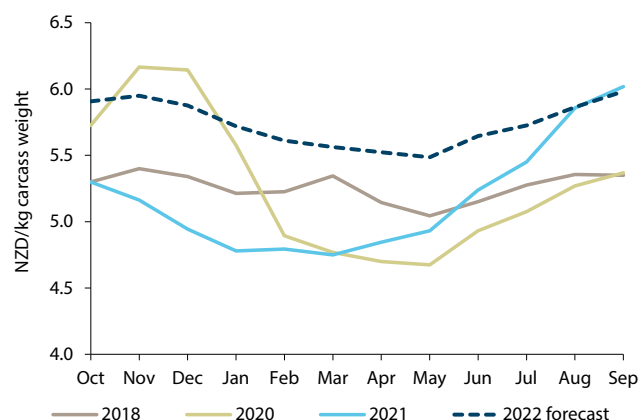


Source: AgriHQ, ANZ Research

The recent strength in the international market means the current schedule price for bull and steers of about \$6.15-6.25 (in the North Island) and just shy of \$6 in the South Island is easily justified. In fact, the graph above indicates there may be room for prices to lift a little further yet. That said, there is not a lot of stock being processed at present, so this won't have much of an impact on income at the farm level.

We anticipate beef prices will remain elevated in the year ahead, as the tight global supply situation looks unlikely to change anytime soon.

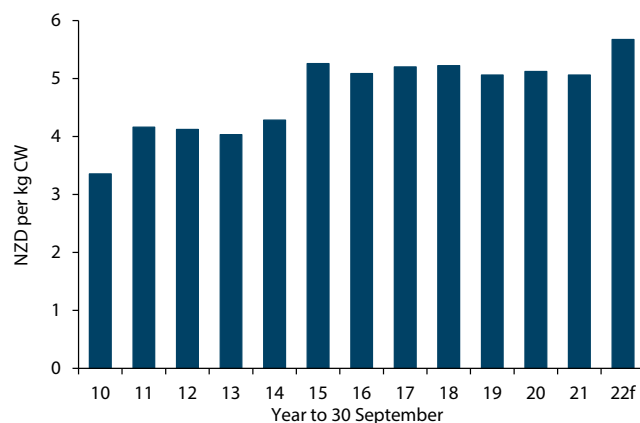
FARMGATE BULL BEEF PRICE TREND AND FORECAST



Source: AgriHQ, ANZ Research

If farmgate prices for steers and bulls don't fall below \$5.50/kg CW, we could see record average farmgate returns for beef this year.

AVERAGE FARMGATE BULL PRICE



Source: AgriHQ, ANZ Research



DEER

HEADING IN THE RIGHT DIRECTION

Venison returns have improved, but remain much too low to provide a sustainable return to producers. Market demand has been severely hampered by reduced demand from the food service sector. Hopefully this demand may improve a little this year, but economies remain fragile in our major European markets.

CHILLED SEASON COMMENCES

Sales of chilled venison to our major European markets have kicked off for the new season. This market typically provides the most lucrative returns to producers, and exporters have their fingers crossed for a successful season.

European economies are facing high inflationary pressures as energy costs spiral upward, well before the winter peak demand has hit. This will put pressure on households and the economy in general. As a larger proportion of discretionary incomes is used up on heating bills, this will leave less money for high-end dining. Therefore it may continue to be a very challenging market for high-value products such as venison.

RETAIL JOURNEY NOT PLAIN SAILING

Some NZ venison exporters have been increasing their sales direct to consumers to offset the loss of sales via the food service channel. More restaurants are opening globally as vaccination rates lift, but the threat of further outbreaks of COVID-19 can't be ruled out, so diversifying sales channels reduces market risk.

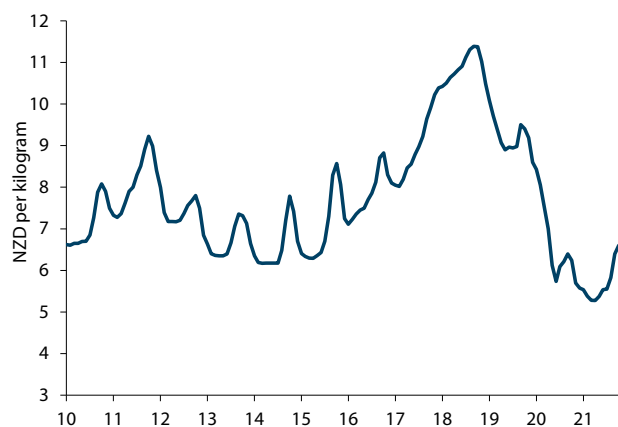
Selling direct to consumers via retail outlets and online brings its own set of challenges. It is difficult to consistently supply fresh product to overseas markets when the global shipping delivery dates are so unreliable.

Despite these challenges, several companies are making inroads in to the US market.

FARMGATE RETURNS IMPROVING

Farmgate returns are trending up. Schedule prices near \$6.60/kg CW are being paid in both islands for young stags. In the North Island, schedule prices are 11% higher than they were at the same time last season. But in the South Island prices were at similar levels last year, before retreating rapidly by November.

FARMGATE VENISON PRICE (60KG STAG)



Source: AgriHQ

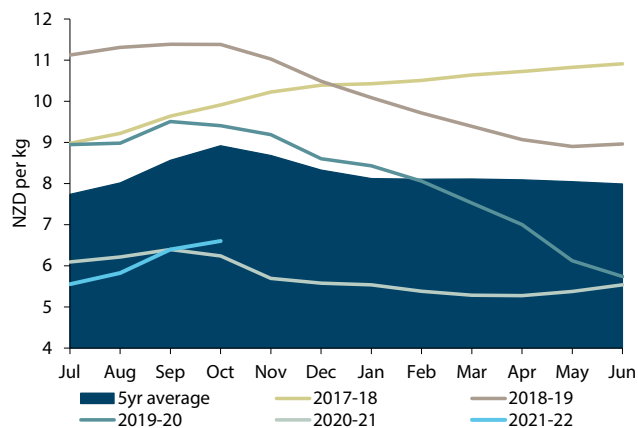
Farmgate prices are currently about 21% lower than the 5-year average.

The question now is where prices head from here. Returns at the farmgate level typically peak in October.



DEER

VENISON FARMGATE PRICES



Source: AgriHQ, ANZ Research

VELVET MAKES BOTH QUALITY AND QUANTITY GAINS

The quantity of velvet produced in New Zealand has grown rapidly over the past couple of decades. In 2021 it is estimated that about 900 tonnes of velvet was produced. Output has increased by over 70% since 2002.

The quality of the velvet being produced has also improved immensely. This has partially been a function of improved genetics.

Linking velvet weights back to individual animals will be able to be partially automated when velvet is tagged for export. These new tags are expected to provide a real advantage in-market in terms of proof of provenance. This will be the first season in which the new VelTrak system has been in place.

There is now considerable demand for velvet as a high-value ingredient used in functional and healthy foods, in addition to its use as a traditional Chinese medicine.

The venison industry remains committed to growing demand from the functional food sector in order to improve farmgate prices. Prices eased a little last season but are still at good levels. Exporters are hopeful they may be able to improve returns this season.



GRAIN

FEED GRAINS FIRM

Locally produced feed grains are in very short supply, with very little grain being traded. Strong prices are being achieved for any grain that is trading. Contracted prices for new-season grain are trending up.

Global grain supplies are expected to increase this season but demand is also increasing.

Australia is expected to harvest a large wheat crop. Both the US Department of Agriculture (USDA) and the Australian Bureau Agricultural and Resource Economics and Sciences (ABARES) have recently revised up their estimates of the new-season crop. While they don't agree on the exact size of the crop, favourable weather means it is likely to be Australia's third-largest wheat crop on record.

The USDA has also revised up its wheat forecasts for India and China, but output for the United States, Canada and Argentina is expected to be down a little.

Strong production in Australia isn't resulting any cheap wheat available for New Zealand importers, as strong global demand for wheat is keeping prices elevated.

The corn harvest in the US is now underway. Yields appear to be better than initially anticipated. Corn production in China and Argentina is also better than expected, which has more than offset reduced output from Russia.

More global production is expected to result in increased global trade and some rebuilding of stocks.

China's demand for soy may ease as Beijing recently ordered a temporary shutdown of the soy-crushing plant located in Tianjin, the coastal city near Beijing, as it tries to reduce emissions and pollution and reduce electricity usage.

WET SPRING PUSHES UP FEED DEMAND

High milk prices and less than favourable spring growth have resulted in strong demand for supplementary feed.

During spring, feed shortages often occur and pastures typically lack the nutritional value required to fully meet the needs of lactating cows. This means short-term demand for grains and palm kernel has been strong.

CHANGES AHEAD

Looking further ahead, Fonterra has provided some clear direction with its Co-operative Difference programme, which seeks to limit dependence on imported feeds. This includes not only feed imported into New Zealand, but also locally grown grains. The programme seeks to limit use of feed being imported onto farms to 20%. Although it isn't 100% clear how this will be measured and audited, what is obvious is the need to align on-farm practices with consumer expectations. Consumers are looking for products from pasture-fed cows and ingredient buyers are increasingly looking to source product where these attributes can be proven.

Exactly what this means for New Zealand arable growers remains to be seen. The allowable target of 20% of imported feed (basically feed grown off farm, excluding silage) is still a relatively high quantity. The majority of NZ dairy farms would not exceed this level, but high-input farms such as those classified as System 4 and 5 farms may need to make some changes in order to comply with this new guidance. Additionally we may also see a switch towards locally produced grains and away from lower-quality feeds such as PKE.

The feed guidance principles fall under the environmental section of the Co-operative Difference framework, where farms must comply with three out of four criteria. Therefore if farms are meeting the other environmental criteria they may choose to continue feeding high levels of inputs. Some farms may also find the incentive of 7c/MS (plus another 3c for the milk quality payment) is not sufficient to offset the cost of giving up the additional production they are able to achieve from operating a high-input system.



GRAINS

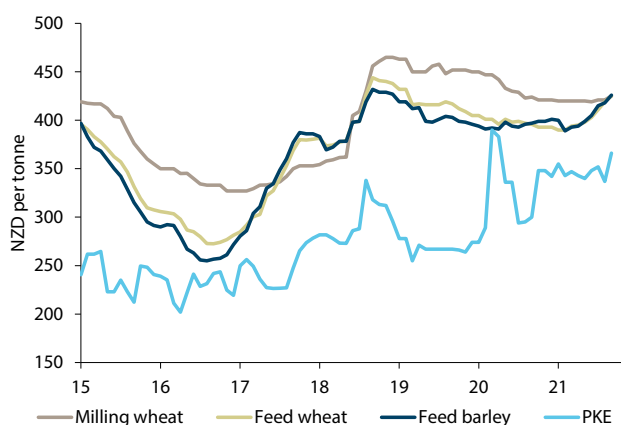
LOCAL GRAIN PRICES

Prices for locally produced feed grains have firmed. Spot sales of grain that is already in the silo are achieving attractive prices. Wheat and barley are both priced near \$450/t.

But prices in the spot market are pretty arbitrary at the moment, as there really isn't much grain that isn't already accounted for.

The cold weather and slower pasture growth combined with a strong milk price are boosting demand from the dairy industry. Contracted feed wheat is now priced slightly higher than milling wheat in Canterbury. This is due to the lack of certainty in the milling wheat market.

NEW ZEALAND GRAIN PRICES



Source: NZX

Imported product continues to increase in price, whether this is PKE from Malaysia or distillers grain from the US. The overall tightness in world markets, combined with strong local demand, does provide some upside for prices in the short term.

Over the longer term, more arable crops are expected to be produced for food as a means of mitigating methane emissions. Demand for plant-based foods is increasing and processing capacity is being developed locally to manufacture oat milk. Further developments like this are expected to provide new opportunities for arable farmers, which hopefully will also deliver higher returns.

Costs of production are rising with strong increases in many of the main operating costs such as fuel, fertiliser and labour, so higher grain prices are key.

FORESTRY

EXPORT PRICES RECOVER

In-market log prices dropped sharply in August as demand from China eased, but prices have since improved somewhat. Excessively high shipping costs now account for a substantial part of the total value of the logs.

It is not unusual for log prices to ease in the middle of the year, as China's building activity slows during the extremely hot summer months. This year various outbreaks of the Delta variant of COVID-19 have resulted in a number of China's ports being closed or operating below capacity, with flow-on impacts resulting in ongoing delays getting ships unloaded.

Stocks of logs on wharves in China are now reported to be high, which puts downward pressure on prices. A sharp drop in prices was recorded in August, but prior to this, prices were very elevated. Prices have now started to recover with in-market prices still about 33% higher than the 5-year average.

UNPRUNED A-GRADE IN-MARKET PRICE



Source: AgriHQ

HIGH SHIPPING ERODES RETURNS

Unfortunately, excessively high shipping costs continue to eat into returns. The cost to ship logs to China is now in the vicinity of US\$65-\$75/JASm³. This means the freight component now makes up about 40% of the cost of importing a log from New Zealand to China.

But it is costing China importers even more to get logs from further afield such as Uruguay. A lack of logs available means China has become increasingly reliant on New Zealand logs, and likewise we have become increasingly reliant on this market.

There has been a slowing in the quantity of European-sourced logs heading to China, following heavier than normal volumes earlier this year.

New Zealand is currently the largest supplier of logs to China, accounting for about 30% of all the logs purchased by China in recent months. Europe has supplied about 25%, while Russia, North America, and South America each account for approximately 10% of supply.

WHARF GATE RETURNS IMPROVING SLIGHTLY

Returns at the wharf gate in New Zealand have improved slightly. The brief shutdown in forestry production whilst the whole country was in Level 4 allowed the backlog of logs stored at some NZ wharves to clear.

In some regions this has allowed for some improvement in wharf gate returns, but overall prices are relatively stable.

Wharf gate prices reported by AgriHQ improved slightly in September to about NZ\$130/JAS m³ for A-grade logs (the type we tend to export to China) while the higher-quality pruned logs were fetching about NZ\$170/JASm³.



TIMBER DEMAND FOR HOUSING SLOWING

Ironically, domestic demand for timber for construction has actually slowed recently despite the booming housing market. Construction projects are being delayed due to problems sourcing imported components, which means demand for locally sourced timber has also eased as construction projects are stalled.

Laminated products such as beams and plywood are in short supply because our local processors are not able to source the glue required to manufacture these products.

Other building products in short supply include Pink Batts, GIB, doors, glass, and paint, as these products tend to be distributed through Auckland.

MILLS NEGOTIATE LOWER PRICES

Local timber mills have been able to negotiate down the prices they are paying for raw logs due to the softening of export prices. It seems unlikely these savings will be passed down the supply chain, but it may provide an opportunity for mills to recover from the recent period of high input costs.

LOOKING AHEAD

Shipping costs are expected to remain elevated until either demand eases or supply improves – either through reduced congestion or more ships being deployed. Typically, high prices result in reduced demand but thus far the demand to ship goods across the globe shows no signs of letting up.

But in some markets we are seeing manufacturers investigating the use of more locally produced goods. An example of this is India, where much of their locally produced timber is processed and exported, while at the same time they are importing softwoods such as *pinus radiata* for use in building structures and pallets etc. Due to high shipping costs resulting in low returns for export products, some manufacturers are now looking for ways to use more locally produced timber for construction rather than importing logs from elsewhere.

HIGH RELIANCE ON CHINA

New Zealand exporters of logs are highly reliant on China. This relationship has developed as China has consistently outbid other markets for our logs.

However, construction activity in China is now slowing, meaning their demand for our logs could also ease. While our logs are not typically used in the actual structure, they are used for boxing for concrete structures.

China's supply of housing (typically in the form of apartments) has been growing much more quickly than demand for these homes for many years. Many of these apartments have been purchased simply as investments due to the rapid rise of property prices, and are not actually being lived in.

Construction of housing in China has been a large contributor to their economic growth. But now property prices in the major cities are eye-wateringly high. Apartment prices now exceed 40x the average income, whereas elsewhere in the world prices 10x the average income are considered excessive. Income inequality in China is considerably greater than in New Zealand, meaning only a small portion of their population actually have any hope of owning these apartments.

If China's construction industry does slow, then we could see some reduction in demand for logs. But with supply from other nations relatively tight at present, this may take some time to play out.

China is gradually strengthening its economic ties with Russia. A long-planned rail bridge crossing the river bordering Tongjiang in the Heilongjiang province of north-east China with Nizhneleninskoye in Russia will soon be fully operational. While the main cargo carried on this line is expected to be Russian-sourced iron ore, lumber from Russia is also expected to enter China this way.

Russia is gradually trying to increase milling of timber within the country, and exporting more sawn timber than logs. This should reduce the availability of raw logs in China, which will be supportive of demand for raw logs from NZ while China is still in expansionary mode.



HORTICULTURE

LABOUR SHORTAGE CURB EXPORT VOLUMES

International prices are relatively strong but earnings are generally down due to reduced export volumes. Inclement weather severely curbed the quantity of grapes produced, while labour shortages, both at the orchard and pack-house level, have taken their toll on kiwifruit and apple exports. Cool storage capacity is also a limiting factor.

This year there were only about half the usual number of seasonal workers entering New Zealand under the RSE scheme and there were very few backpackers in the country. Additionally, the labour utilisation rate is extremely high at present, which has made it even harder to attract kiwis to these seasonal roles.

KIWIFRUIT: INDUSTRY CAPACITY TESTED

Export returns for kiwifruit have been maintained largely due to the increase in the volume of SunGold being produced as new plantings start to come on stream. Export volumes for green fruit are marginally ahead of last season.

Demand for fruit remains robust in-market and this has been supported by various advertising initiatives. The challenge lies in getting fruit to market, but the combination of using charter ships and holding stocks in-market has limited potential product shortages.

The labour shortage means it makes more sense to focus on the higher-value gold fruit. Additionally, the green varieties have a longer shelf life, so where shipping capacity is limited the gold varieties are likely to get priority.

FORECAST ORCHARD GATE RETURNS

Fruit type	2021/22 per tray	2021/22 per ha	2020/21 per tray (final)	2020/21 per ha (final)
Green	\$6.34	\$75,564	\$7.51	\$76,722
Organic Green	\$9.80	\$68,256	\$10.53	\$66,453
Sungold	\$10.92	\$167,167	\$12.46	\$177,846
Organic Sungold	\$12.86	\$146,682	\$15.36	\$158,599
Green14	\$8.27	\$57,739	\$10.14	\$56,853

2021/22 guidance released in August

Source: Zespri

Forecast returns for the current season's fruit have firmed up as the season has progressed. Zespri updated their forecasts in August to a single price, as previously they provided a range for their indicative pricing.

Indicative returns for all grades are within previous guidance range, but towards the lower end. Forecast prices for Green fruit are now 15% down on last season, but per hectare returns are expected to be only slightly lower than last season. Sungold pricing is also back by 12% on the previous season, but this variety is still expected to deliver favourable per hectare returns of \$167,167.

Labour remains one of the largest constraints for the industry in the short to medium term. Zespri estimates the kiwifruit industry will have a labour shortage of 6,500 workers next year – and that already takes into account the planned increase in RSE workers.

The workforce was short 13% this year and this number could grow to 23% in 2022. If this does occur then there will be some tough decisions to be made as to what fruit gets picked, packed and processed.



To try to mitigate these labour shortages Zespri is working hard to figure out how it can adjust the timing of harvest of some fruit to ensure that the available labour is fully utilised throughout the season. They are also reviewing how they pack fruit to gain operational efficiencies, and looking to export fruit earlier to relieve pressure on cool-store capacity.

WINE: QUALITY NOT QUANTITY

The 2022 vintage will be remembered for years to come for the quality of wine delivered. Whether this will make up for the economic pain from the lack of quantity of wine produced will vary across the industry.

Data compiled from the 2021 Vintage Survey shows the volume of grapes harvested this year was down 19%, which is aligned with previous industry forecasts.

The Sauvignon Blanc harvest was down 18% and Chardonnay down 15%. Pinot Gris was down 27% while the Pinot Noir harvest was 35% smaller.

Marlborough produced 75% of the total 2021 harvest – a slightly smaller share than in previous years. There were 21% fewer grapes harvested in Marlborough in 2021 than the previous season. Wairarapa vineyards were hit particularly hard by frost last year, resulting in a 30% reduction in the 2021 harvest.

Frost is a concern again for the 2022 harvest as many regions have experienced sharp frosts recently, which may reduce next season's harvest.

France is also experiencing a smaller 2021 harvest due to frost damage. Wine production in France is expected to fall by 29% this year, making it the smallest vintage in decades.

France is the world's second-largest wine producing nation behind Italy, but is the world's most famous producer. New Zealand is the 15th largest wine producer in the world.

Export returns dipped sharply earlier this year but have since started to recover. Export returns for the calendar year to date have now caught back up to 2019 levels but still remain well behind 2020 levels.

Recently there has been an increase in the volume of wine being exported to the United States. Exports to the UK are well down on previous years, although this does not tend to be a high-returning market. Wine exported to the US and Canada tends to return a lot more than product exported to Europe. The format the wine is exported in influences these figures; a lot of bulk wine is exported to the UK.

APPLES: FOCUS ON HIGHER-VALUE VARIETIES

Labour shortages continue to be the number one issue for apple producers. The labour shortage put considerable pressure on orchardists during the harvest period and has constrained industry growth.

It is very difficult to think about expansion when you are struggling with day-to-day tasks.

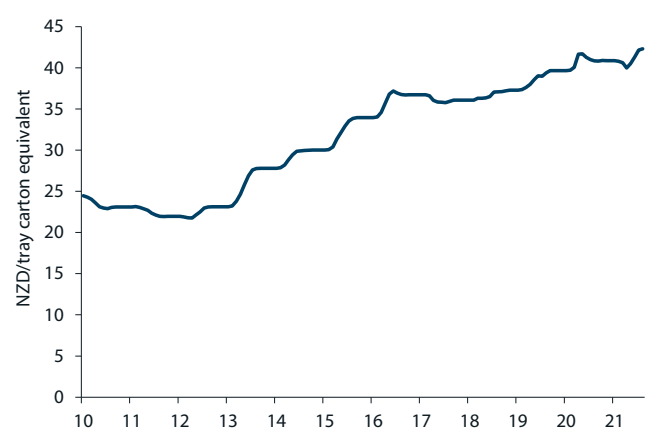
Labour shortages also meant some apples were not picked – generally the lower-returning varieties.

The quantity of apples exported in the year to August was 9% lower than the preceding year, but export returns fell only 5%. There was a big swing away from low-value varieties as orchardists focussed their limited resources on their higher-value fruit.

The quantity of Braeburn exported fell by 32%, exports of Jazz apples fell 20%, Royal Gala fell 14% and no Cox were exported. These sharp reductions in export volumes were partially offset by very strong growth in some of the higher-value categories including Dazzle and Rockit, although the volume of these varieties being grown is still small compared with the other major varieties such as Royal Gala, Pink Lady, Envy, Jazz, and Pacific Queen.

The trend towards the higher-returning varieties resulted in slightly higher average selling prices, although the smaller volumes still mean total export returns are less than last year.

APPLE EXPORT VOLUMES (12 MONTH ROLLING AVERAGE)



Source: Statistics NZ

RURAL PROPERTY MARKET

MIXED MESSAGES

The rural property sector tends to be relatively quiet at this time of the season, particularly for dairy and livestock properties, due to how busy these farmers are.

The latest REINZ data provides really mixed messages. The REINZ All-Farm Price Index fell, whilst the Dairy Price Index lifted.

DAIRY VALUES STABLE

Dairy farm values are starting to stabilise. The median price paid in the past 12 months for dairy and dairy support blocks was \$32,290 per hectare, just slightly less than the median price for the previous year of \$33,840/ha.

There has certainly been plenty of interest in dairy farms in the last 12 months, although that has eased a little in recent months, which is not usual for this time of the season. But the increased number of farms changing hands and high milk prices are not really putting any upward pressure on prices.

DAIRY FARM PRICE INDEX

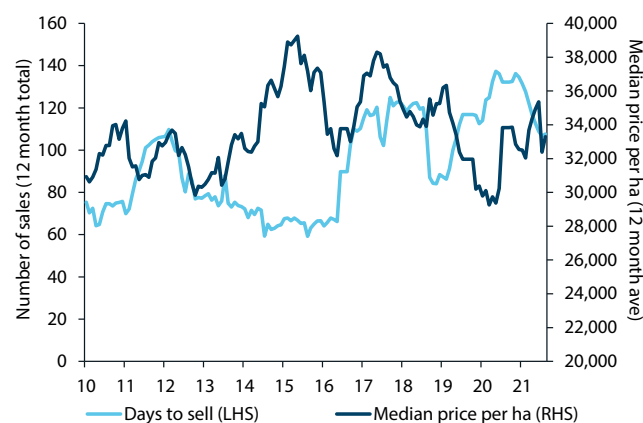


Source: REINZ

On-farm costs are also rising rapidly and there is still plenty of uncertainty as to what it will cost the industry to mitigate greenhouse gas emissions. And in some regions, tighter rules relating to nutrient emissions are also putting pressure on profits.

The renewed enthusiasm for investing in dairy farms is evident in the reduction in the number of days it is taking to sell a dairy farm. This has been consistently above 100 days for the past couple of years but is now easing.

DAIRY FARM SALES (12 MONTH ROLLING AVERAGE)



Source: Statistics NZ

LIVESTOCK PROPERTIES CHANGING HANDS RAPIDLY

The number of livestock properties changing hands remains elevated. Confidence has been spurred on by strong returns from both the sheep and beef industries.

Additionally there is also strong demand to buy properties to plant in trees for carbon farming, or a combination of carbon and harvesting of the trees.



RURAL PROPERTY MARKET

Additionally the average age of farmers on livestock farms continues to creep up, and some of these farmers are keen to exit the industry before additional compliance obligations are imposed. It is not that they don't want to look after the environment – they are just not interested in doing the paperwork required to prove they are being good custodians of the land.

In the past year 997 livestock properties were traded at a median price of \$20,420/ha. This was a 10% premium on the median price from the prior 12 months.

HORTICULTURE DEMAND STRONG

Strong demand continues for horticultural properties. Both the number of horticultural properties changing hands and the median sales price have lifted

considerably in the past year. However, there are a large range of properties in the horticultural space, with varying types of infrastructure and plantings, so the median price doesn't mean a lot for this sector.

There is also strong interest in converting parts of dairy and livestock farms to horticultural uses, and in these instances you don't always see a change of ownership occurring. While this has been common practice in regions like Bay of Plenty, Waikato, and Nelson/Tasman/Marlborough, we are also now seeing more land use change toward horticulture occurring in Canterbury and Taranaki as well. Kiwifruit and avocados are being planted in parts of Taranaki which have the right micro-climate to produce these fruits.

FARM SALES BY FARM TYPE

Annual average/total		Past 12 months	Previous 12 months	10-Year Avg.	Chg. Y/Y	Chg. P/10yr
Dairy	Number of Sales	263	106	211	↑	↑
	Median Price (\$ per ha)	33,291	33,838	33,907	↓	↓
Livestock	Number of Sales	997	730	995	↑	↑
	Median Price (\$ per ha)	20,417	18,483	17,890	↑	↑
Horticulture	Number of Sales	190	146	183	↑	↑
	Median Price (\$ per ha)	304,750	230,818	192,300	↑	↑
Arable	Number of Sales	45	84	95	↓	↓
	Median Price (\$ per ha)	35,560	27,744	35,543	↑	↑
Forestry	Number of Sales	59	51	51	↑	↑
	Median Price (\$ per ha)	9,830	10,736	7,486	↓	↑
All Farms	Number of Sales	1,658	1,221	1,551	↑	↑
	Median Price (\$ per ha)	27,100	23,300	24,018	↑	↑

Source: REINZ

IMPORTANT NOTICE

Last updated: 3 September 2021

This document is intended for ANZ's Institutional, Markets and Private Banking clients. It should not be forwarded, copied or distributed. The opinions and research contained in this document are (a) not personal advice nor financial advice about any product or service; (b) provided for information only; and (c) intended to be general in nature and does not take into account your financial situation or goals.

This document may be restricted by law in certain jurisdictions. Persons who receive this document must inform themselves about and observe all relevant restrictions.

Disclaimer for all jurisdictions: This document is prepared and distributed in your country/region by either: Australia and New Zealand Banking Group Limited (ABN11 005 357 522) (**ANZ**); or its relevant subsidiary or branch (each, an **Affiliate**), as appropriate or as set out below.

This document is distributed on the basis that it is only for the information of the specified recipient or permitted user of the relevant website (recipients).

This document is solely for informational purposes and nothing contained within is intended to be an invitation, solicitation or offer by ANZ to sell, or buy, receive or provide any product or service, or to participate in a particular trading strategy.

Distribution of this document to you is only as may be permissible by the laws of your jurisdiction, and is not directed to or intended for distribution or use by recipients resident or located in jurisdictions where its use or distribution would be contrary to those laws or regulations, or in jurisdictions where ANZ would be subject to additional licensing or registration requirements. Further, the products and services mentioned in this document may not be available in all countries.

ANZ in no way provides any financial, legal, taxation or investment advice to you in connection with any product or service discussed in this document. Before making any investment decision, recipients should seek independent financial, legal, tax and other relevant advice having regard to their particular circumstances.

Whilst care has been taken in the preparation of this document and the information contained within is believed to be accurate, ANZ does not represent or warrant the accuracy or completeness of the information. Further, ANZ does not accept any responsibility to inform you of any matter that subsequently comes to its notice, which may affect the accuracy of the information in this document.

Preparation of this document and the opinions expressed in it may involve material elements of subjective judgement and analysis. Unless specifically stated otherwise: they are current on the date of this document and are subject to change without notice; and, all price information is indicative only. Any opinions expressed in this document are subject to change at any time without notice.

ANZ does not guarantee the performance of any product mentioned in this document. All investments entail a risk and may result in both profits and losses. Past performance is not necessarily an indicator of future performance. The products and services described in this document may not be suitable for all investors, and transacting in these products or services may be considered risky.

ANZ expressly disclaims any responsibility and shall not be liable for any loss, damage, claim, liability, proceedings, cost or expense (Liability) arising directly or indirectly and whether in tort (including negligence), contract, equity or otherwise out of or in connection with this document to the extent permissible under relevant law. Please note, the contents of this document have not been reviewed by any regulatory body or authority in any jurisdiction.

ANZ and its Affiliates may have an interest in the subject matter of this document. They may receive fees from customers for dealing in the products or services described in this document, and their staff and introducers of business may share in such fees or remuneration that may be influenced by total sales, at all times received and/or apportioned in accordance with local regulatory requirements. Further, they or their customers may have or have had interests or long or short positions in the products or services described in this document, and may at any time make purchases and/or sales in them as principal or agent, as well as act (or have acted) as a market maker in such products. This document is published in accordance with ANZ's policies on conflicts of interest and ANZ maintains appropriate information barriers to control the flow of information between businesses within it and its Affiliates.

Your ANZ point of contact can assist with any questions about this document including for further information on these disclosures of interest.

Country/region specific information: Unless stated otherwise, this document is distributed by Australia and New Zealand Banking Group Limited (ANZ).

Australia. ANZ holds an Australian Financial Services licence no. 234527. For a copy of ANZ's Financial Services Guide please click [here](#) or request from your ANZ point of contact.

Brazil, Brunei, India, Japan, Kuwait, Malaysia, Switzerland, Taiwan. This document is distributed in each of these jurisdictions by ANZ on a cross-border basis.

Cambodia. The information contained in this document is confidential and is provided solely for your use upon your request. This does not constitute or form part of an offer or solicitation of any offer to engage services, nor should it or any part of it form the basis of, or be relied in any connection with, any contract or commitment whatsoever. ANZ does not have a licence to undertake banking operations or securities business or similar business, in Cambodia. By requesting financial services from ANZ, you agree, represent and warrant that you are engaging our services wholly outside of Cambodia and subject to the laws of the contract governing the terms of our engagement.

Chile. You understand and agree that ANZ Banking Group Limited is not regulated by Chilean Authorities and that the provision of ANZ Research is not subject to any Chilean supervision and is not guaranteed by any regulatory or governmental agency in Chile.

European Economic Area (EEA): United Kingdom. ANZ is authorised in the United Kingdom by the Prudential Regulation Authority (**PRA**) and is subject to regulation by the Financial Conduct Authority (**FCA**) and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request. This document is distributed in the United Kingdom by Australia and New Zealand Banking Group Limited ANZ solely for the information of persons who would come within the FCA definition of "eligible counterparty" or "professional client". It is not intended for and must not be distributed to any person who would come within the FCA definition of "retail client". Nothing here excludes or restricts any duty or liability to a customer which ANZ may have under the UK Financial Services and Markets Act 2000 or under the regulatory system as defined in the Rules of the Prudential Regulation Authority (PRA) and the FCA. ANZ is authorised in the United Kingdom by the PRA and is subject to regulation by the FCA and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request.

Fiji. For Fiji regulatory purposes, this document and any views and recommendations are not to be deemed as investment advice. Fiji investors must seek licensed professional advice should they wish to make any investment in relation to this document.

Hong Kong. This publication is issued or distributed in Hong Kong by the Hong Kong branch of ANZ, which is registered at the Hong Kong Monetary Authority to conduct Type 1 (dealing in securities), Type 4 (advising on securities) and Type 6 (advising on corporate finance) regulated activities. The contents of this publication have not been reviewed by any regulatory authority in Hong Kong.

India. If this document is received in India, only you (the specified recipient) may print it provided that before doing so, you specify on it your name and place of printing.

Myanmar. This publication is intended to be general and part of ANZ's customer service and marketing activities when implementing its functions as a licensed bank. This publication is not Securities Investment Advice (as that term is defined in the Myanmar Securities Transaction Law 2013).

New Zealand. This material is for information purposes only and is not financial advice about any product or service. We recommend seeking financial advice about your financial situation and goals before acquiring or disposing of (or not acquiring or disposing of) a financial product.

Oman. ANZ neither has a registered business presence nor a representative office in Oman and does not undertake banking business or provide financial services in Oman. Consequently ANZ is not regulated by either the Central Bank of Oman or Oman's Capital Market Authority. The information contained in this document is for discussion purposes only and neither constitutes an offer of securities in Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy non-Omani securities in Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued vide CMA Decision 1/2009). ANZ does not solicit business in Oman and the only circumstances in which ANZ sends information or material describing financial products or financial services to recipients in Oman, is where such information or material has been requested from ANZ and the recipient understands, acknowledges and agrees that this document has not been approved by the CBO, the CMA or any other regulatory body or authority in Oman. ANZ does not market, offer, sell or distribute any financial or investment products or services in Oman and no subscription to any securities, products or financial services may or will be consummated within Oman. Nothing contained in this document is intended to constitute Omani investment, legal, tax, accounting or other professional advice.

People's Republic of China (PRC). This document may be distributed by either ANZ or Australia and New Zealand Bank (China) Company Limited (**ANZ China**). Recipients must comply with all applicable laws and regulations of PRC, including any prohibitions on speculative transactions and CNY/CNH arbitrage trading. If this document is distributed by ANZ or an Affiliate (other than ANZ China), the following statement and the text below is applicable: No action has been taken by ANZ or any affiliate which would permit a public offering of any products or services of such an entity or distribution or re-distribution of this document in the PRC. Accordingly, the products and services of such entities are not being offered or sold within the PRC by means of this document or any other document. This document may not be distributed, re-distributed or published in the PRC, except under circumstances that will result in compliance with any applicable laws and regulations. If and when the material accompanying this document relates to the products and/or services of ANZ China, the following statement and the text below is applicable: This document is distributed by ANZ China in the Mainland of the PRC.

Qatar. This document has not been, and will not be:

- lodged or registered with, or reviewed or approved by, the Qatar Central Bank (QCB), the Qatar Financial Centre (QFC) Authority, QFC Regulatory Authority or any other authority in the State of Qatar (Qatar); or
- authorised or licensed for distribution in Qatar,

and the information contained in this document does not, and is not intended to, constitute a public offer or other invitation in respect of securities in Qatar or the QFC. The financial products or services described in this document have not been, and will not be:

- registered with the QCB, QFC Authority, QFC Regulatory Authority or any other governmental authority in Qatar; or
- authorised or licensed for offering, marketing, issue or sale, directly or indirectly, in Qatar.

Accordingly, the financial products or services described in this document are not being, and will not be, offered, issued or sold in Qatar, and this document is not being, and will not be, distributed in Qatar. The offering, marketing, issue and sale of the financial products or services described in this document and distribution of this document is being made in, and is subject to the laws, regulations and rules of, jurisdictions outside of Qatar and the QFC. Recipients of this document must abide by this restriction and not distribute this document in breach of this restriction. This document is being sent/issued to a limited number of institutional and/or sophisticated investors (i) upon their request and confirmation that they understand the statements above; and (ii) on the condition that it will not be provided to any person other than the original recipient, and is not for general circulation and may not be reproduced or used for any other purpose.

Singapore. This document is distributed in Singapore by the Singapore branch of ANZ solely for the information of "accredited investors", "expert investors" or (as the case may be) "institutional investors" (each term as defined in the Securities and Futures Act Cap. 289 of Singapore). ANZ is licensed in Singapore under the Banking Act Cap. 19 of Singapore and is exempted from holding a financial adviser's licence under Section 23(1)(a) of the Financial Advisers Act Cap. 100 of Singapore.

United Arab Emirates (UAE). This document is distributed in the UAE or the Dubai International Financial Centre (DIFC) (as applicable) by ANZ. This document does not, and is not intended to constitute: (a) an offer of securities anywhere in the UAE; (b) the carrying on or engagement in banking, financial and/or investment consultation business in the UAE under the rules and regulations made by the Central Bank of the UAE, the Emirates Securities and Commodities Authority or the UAE Ministry of Economy; (c) an offer of securities within the meaning of the Dubai International Financial Centre Markets Law (DIFCML) No. 12 of 2004; and (d) a financial promotion, as defined under the DIFCML No. 1 of 200. ANZ DIFC Branch is regulated by the Dubai Financial Services Authority (DFSA). ANZ DIFC Branch is regulated by the Dubai Financial Services Authority (DFSA). The financial products or services described in this document are only available to persons who qualify as "Professional Clients" or "Market Counterparty" in accordance with the provisions of the DFSA rules.

United States. Except where this is a FX-related document, this document is distributed in the United States by ANZ Securities, Inc. (ANZ SI) which is a member of the Financial Regulatory Authority (FINRA) (www.finra.org) and registered with the SEC. ANZSI's address is 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 9160 Fax: +1 212 801 9163). ANZSI accepts responsibility for its content. Information on any securities referred to in this document may be obtained from ANZSI upon request. This document or material is intended for institutional use only – not retail. If you are an institutional customer wishing to effect transactions in any securities referred to in this document you must contact ANZSI, not its affiliates. ANZSI is authorised as a broker-dealer only for institutional customers, not for US Persons (as "US person" is defined in Regulation S under the US Securities Act of 1933, as amended) who are individuals. If you have registered to use this website or have otherwise received this document and are a US Person who is an individual: to avoid loss, you should cease to use this website by unsubscribing or should notify the sender and you should not act on the contents of this document in any way. Non-U.S. analysts: Non-U.S. analysts may not be associated persons of ANZSI and therefore may not be subject to FINRA Rule 2242 restrictions on communications with the subject company, public appearances and trading securities held by the analysts. Where this is an FX-related document, it is distributed in the United States by ANZ's New York Branch, which is also located at 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 9160 Fax: +1 212 801 9163).

Vietnam. This document is distributed in Vietnam by ANZ or ANZ Bank (Vietnam) Limited, a subsidiary of ANZ.

This document has been prepared by ANZ Bank New Zealand Limited, Level 10, 171 Featherston Street, Wellington 6011, New Zealand, Ph 64-4-382 1992, e-mail nzeconomics@anz.com, <http://www.anz.co.nz>