

Log Market Analysis

July 2021



Photo 1: A hopeful sunrise in Emerald Hills Forest, Gisborne.

The content of this Log Market Analysis is produced quarterly as part of a suite of documents that comprise the regular reporting to forest owners during harvest. This standalone document is made available to other forest owners approaching harvest to keep them informed on market conditions.

We have included log price series separately for Wairarapa and Gisborne forests, as the price series differ for reasons including different customers, log specifications and locations.

Forest Enterprises (FE) is currently harvesting approximately 600,000 tonnes of logs per annum for Wairarapa and Gisborne forest owners, plus a further 450,000 tonnes for a private impact investment fund manager in the same regions.

IMPORTANT

Every effort has been made to provide current accurate information in this document, which is for information purposes only. Any opinions and views expressed are those currently held by Forest Enterprises; however, the reader accepts that where they are opinions and views in respect of future prices, they may subsequently be proven incorrect. The nature of the international log market is that of price fluctuations, and these fluctuations can be material, and material changes can arise due to factors not previously able to be foreseen.

Overview

Quarter 2 (Q2) is the winter report, and we are well into the mud season now.

We have had the rain which we hoped for, so planting is looking very healthy, but logging has become harder. There were some spectacular rains, not matching the 350mm plus seen in Marlborough, but certainly getting things wet and the rivers up.

Production levels have fallen as expected, although the logistics systems are still at full capacity and we are slowly wearing down some persistent high stocks of logs at several sites.

There has been a lot of road repair and maintenance recently, as well as a lot of effort put in to load planning for shipping.

Our export shipping operations have been hit hard in Gisborne, by lost time and with additional cost arising from very long delays to ships queued up awaiting the opportunity to load.

Export log prices appear to be in the beginning of what may be a major downward correction, which we are preparing for as best we can. Some good which can come out of log supply reductions are that we can increase our share of supply chain capacity and sawmill supply in the longer term.



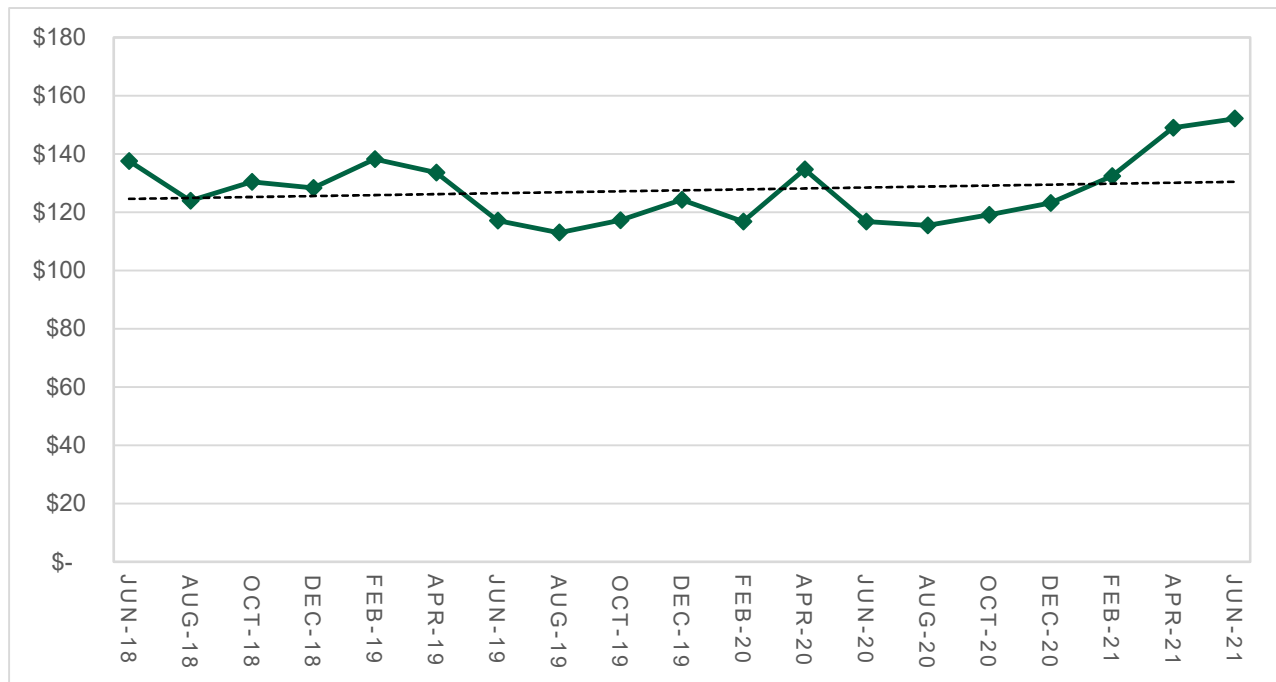
Photo 2: Signs of recent rain in Te Puhi Forest, Wairarapa.



Wairarapa Log Prices Per Tonne

Grade	Forest Enterprises Jun-21	Forest Enterprises 36 Month Average	Current vs 36 Month Average	Percentage of 36 Month Average
Export P40	\$204.30	\$179.90	\$24.40	114%
Export P30	\$183.65	\$151.45	\$32.20	121%
Export A	\$165.90	\$132.95	\$32.95	125%
Export K	\$143.30	\$117.80	\$25.50	122%
Export KI	\$137.90	\$109.75	\$28.15	126%
Export Pulp	\$124.10	\$94.55	\$29.55	131%
Domestic P35	\$180.00	\$175.35	\$4.65	103%
Domestic S30	\$147.00	\$121.30	\$25.70	121%
Domestic S20	\$132.00	\$106.30	\$25.70	124%
Domestic Pulp	\$31.00	\$31.00	\$0.00	100%
Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. Refer to page 5 for more detail on the JAS to Tonne Conversion.				
Index Log Price	\$152.11	\$127.00	\$25.11	120%
Index Log Price is calculated using inventory measurements from our Wairarapa forest crops and establishing an average log grade recovery for our typical Wairarapa Forest. Applying these estimates to our long run prices per grade has derived an Index Log Price. This index price helps to estimate the average logs sales predicted for a typical forest.				

Index Log Price for our typical Wairarapa Forests



Gisborne Log Prices Per Tonne

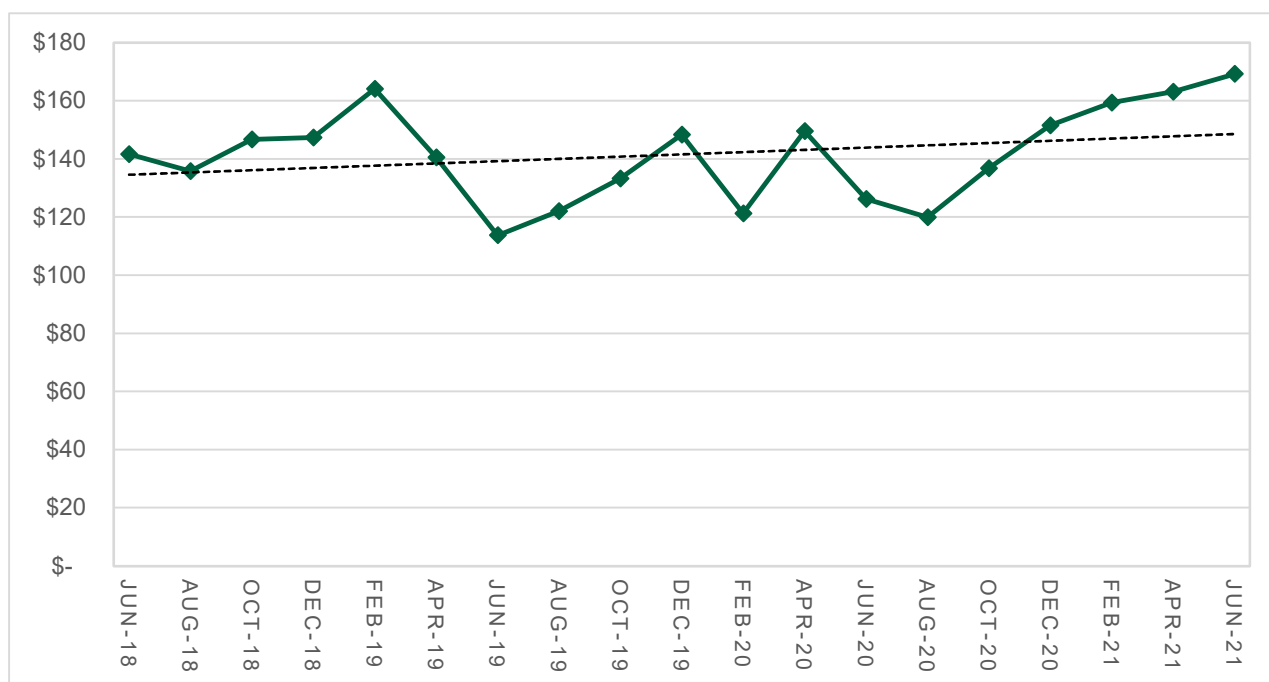
Grade	Forest Enterprises Jun-21	Forest Enterprises 36 Month Average	Current vs 36 Month Average	Percentage of 36 Month Average
Export P40	\$218.95	\$181.50	\$37.45	121%
Export P30	\$185.30	\$148.35	\$36.95	125%
Export A	\$168.45	\$139.85	\$28.60	120%
Export K	\$140.35	\$124.85	\$15.50	112%
Export KI	\$137.95	\$115.75	\$22.20	119%
Export Pulp	\$122.55	\$105.35	\$17.20	116%
Domestic P35	\$184.75	\$186.40	(\$1.65)	99%
Domestic S30	\$150.00	\$137.00	\$13.00	109%

Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. Refer to page 5 for more detail on the JAS to Tonne Conversion.

Index Log Price	\$169.20	\$141.95	\$27.25	119%
-----------------	----------	----------	---------	------

Index Log Price is calculated using inventory measurements from our Gisborne forest crops and establishing an average log grade recovery for our typical Gisborne Forest. Applying these estimates to our long run prices per grade has derived an Index Log Price. This index price helps to estimate the average logs sales predicted for a typical forest.

Index Log Price for our typical Gisborne Forests



Factors Influencing Current Log Price

Key:

↑ More Benefit to the Investor

↓ Less Benefit to the Investor

↔ Neutral

Price, Costs and Logistics



Foreign Exchange (Forex)

Export logs are priced in USD. Exchange rates have moved around as usual over the last quarter, and this has been generally favourable to NZD payment terms with an improvement of \$0.01 cents from \$0.71 to \$0.70 in this period. This exchange rate level is normal and continues to fluctuate.

FE takes no forward position or hedge in currency trading. Hedging imposes transaction costs without giving certainty of improved outcomes.



Shipping

Shipping has been a very difficult operation in Q2, especially in Gisborne. There is a general expectation of higher price for shipping due to scarcity and high demand. Fuel costs for bunker fuel are also relatively high which raises operational costs. On top of that, the delays in waiting for a berth at the Port have led to high additional delay time charges with 10 or more vessels queued up out of Eastland Port.

Other ports also report delays including Napier and Wellington where we operate too, plus Tauranga which has received some overflow volume from Gisborne. A compounding factor in shipping is the shortage of skilled labour for loading ships (stevedoring). Stevedores now are required to be Covid-19 vaccinated, and we are unsure on the level of anti-vaxer hesitation in the industry which could add further labour issues. Reports suggest that naturopaths have sold out of healing crystals recently.



JAS to Tonne Conversion

JAS-to-tonne conversion rates were relatively steady from 102% in March 2021 to 97% in June 2021. This reduces revenues from JAS sales units vs. fixed cost incurred by weight in tonnes. Gisborne conversion is higher (100%) than Wellington (94%), however a large proportion of the better-quality Wellington logs are sold to sawmills by the tonne (not in JAS measurements).

Export logs are sold in Japanese Agricultural Standard cubic metres (JAS). JAS is a measure of useable log volume rather than weight. Payments to most contractors are made based on weight, which is appropriate for handling heavy material. This means the return to the forest owner is affected strongly by the conversion of weight to volume in the logs.

Conversion has seasonal trends and varies between log grades, length and log quality. Accounting for conversion is necessary to report comparable values from different sales options. Our convention is to report all prices converted to the 'per tonne basis', which would appear different if compared with a per cubic metre (JAS) series. Hence why our harvest reports show monthly JAS/tonne conversion per forest.



Log Price, Export CFR

CFR (Cost and Freight) is the price in USD paid by the end user/buyer.

China Wholesale log price fell rapidly earlier but may have now stabilised at lower rates.

South Korea Price remains low.

India Price follows China.

Japan Low.

Log Demand



Export Log Inventory in Market

China Inventory of logs in China is a leading supply/price indicator. Inventory levels in China rose sharply to about 4.7 million JAS. Log supply is about 67 days of supply with current usage at about 70,000 JAS per day. The speed that logs turn to lumber and lumber turns to cash drives market sentiment. We are into the hot season in China with declining construction timber usage. European log supply has risen despite the tight transport situation. Log price is said to be above the level that sawmillers judge profitable for lumber trade.



<u>South Korea</u>	Korean sawmills are in a slow period. Lumber inventories are falling.
<u>India</u>	India covid situation a train wreck, most log imports from Australia and South America rather than NZ.
<u>Japan</u>	Lumber demand is low and sawmillers not profitable at current levels.



Pruned Log Grades

Demand remains strong at domestic pruned mills although the US sawn lumber trade is seeing declining prices. Sawmillers will see increased log volumes offered as traders exit export positions in wood lot logging operations.



New Zealand Domestic

Demand has been strong, and price rose this period. Usually export market conditions flow through into the sawmill price as some log traders exit the export business, before eventually shutting down production as returns fall. Expect declines into August.



Housing and Business

Consents for housing are rising rapidly across New Zealand, but this can take some time to turn into new home construction. The heralded increase in Government housing stocks has erroneously included purchase of existing houses which reduces the claim of additional public housing provision by half. The building trades remain very busy.



Domestic Construction

Housing starts looking healthy and this year continues as being the biggest start since 2000. Lumber price rises are a healthy sign that the product of logs is being valued highly. The US sawn lumber prices quadrupled then returned to normal over several months recently with an irrational trading pattern based on fear of missing out, or mis reading of fundamental supply and demand balances.

Log Agency

We saw big returns to investors from wash up price increases in Q2, however the forecast is for the positions to decline rapidly in Q3.

Log Supply

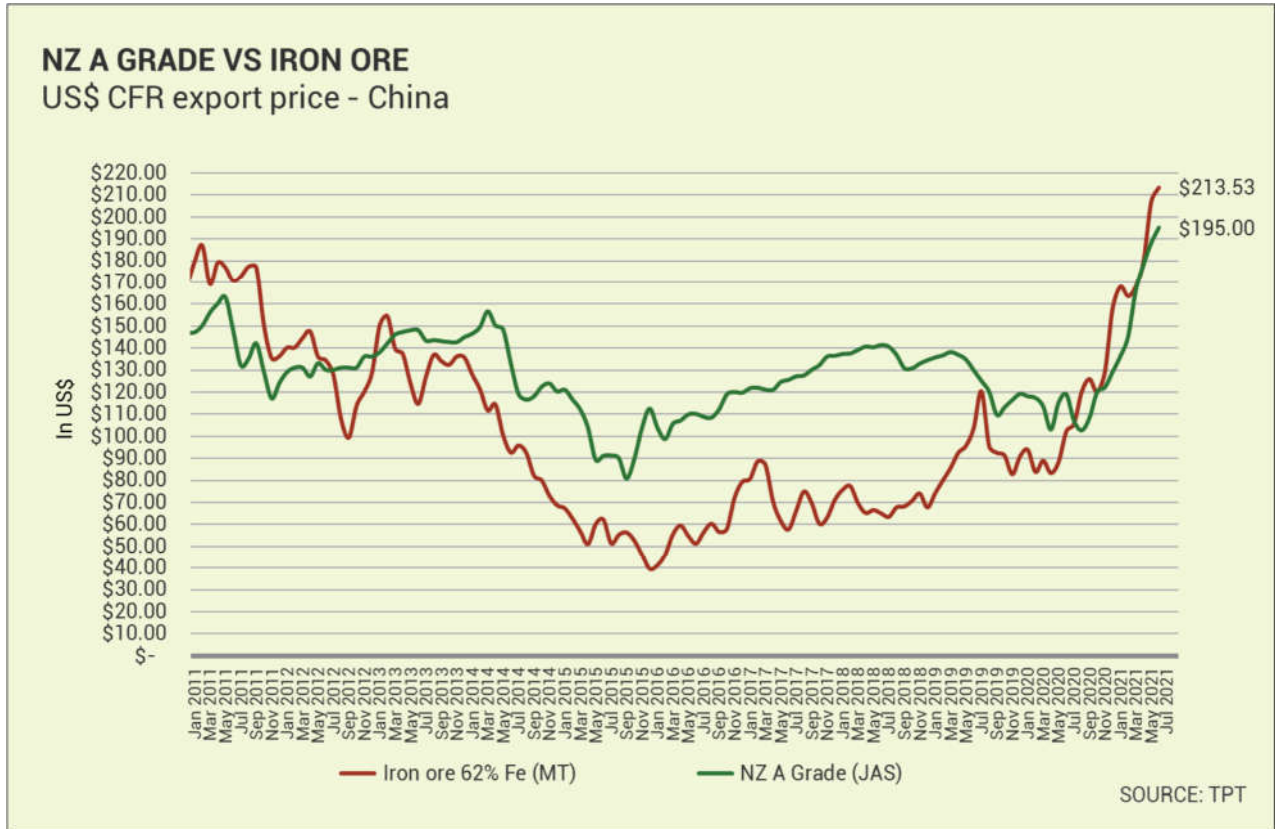
<u>New Zealand</u>	Q2 was very busy but we are expecting quite a slowdown in Q3 as price falls and logging sites get too wet for wood lotters and small forest owners.
<u>Australia</u>	Most of the salvage of burnt wood is completed and the plantation harvest industry is shrinking. Australia remains locked out of the China export log market.
<u>Europe and Russia</u>	Europe production surprised analysts on the upside as more was delivered than forecast in June.
<u>Pacific Northwest (PNW)</u>	Slow in the export markets. High US sawn lumber prices have sharply corrected downwards as supply is rebalanced. Price and demand have reverted to trend.
<u>Other</u>	Uruguay logs will not cover production costs and other high-cost suppliers are expected to quit the export markets or print red ink.



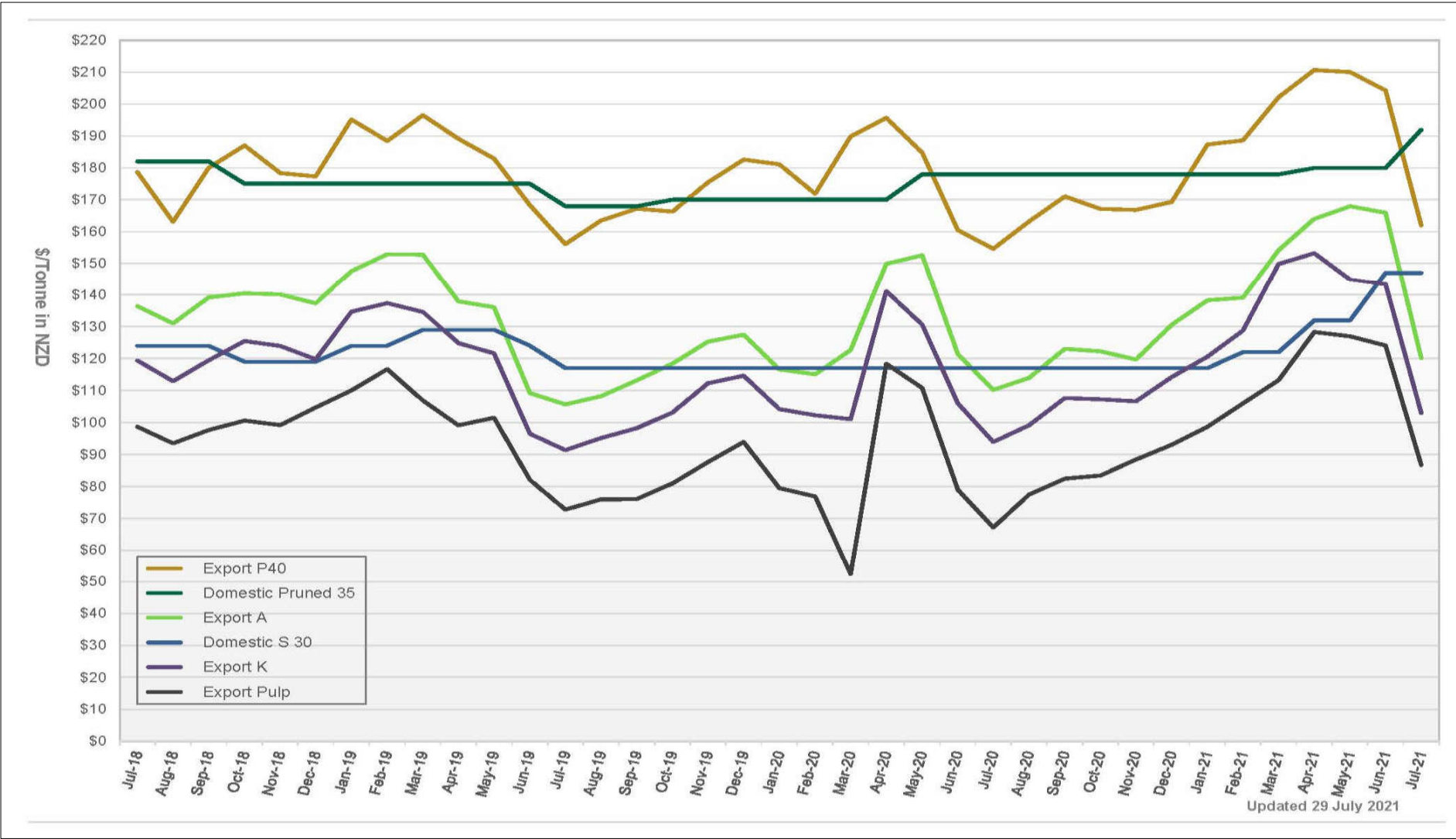
Point of Interest

The Chinese Government is making a point about the increased pricing of commodities and calling for the reduction in costs.

The graph below is over quite a long period so the rapid increase in commodity cost has been dramatic to Chinese industrial users. It is interesting to note the convergence of iron ore and log price as well, which is more correlation than causation, but an interesting coincidence.



Lower North Island Log Price Graph per Tonne



Log Price Graph: Tracks the key log prices for a 37-month period. The first 36 months are the months which comprise the average referred to under Log Prices per Tonne above. The 37th month shows the indicative prices scheduled for the current month. Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. These log price averages do not reflect any price adjustments that may occur following washups with our log export partners.

