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**Report Highlights:**

New Zealand beef production for 2021 is forecast at 681,000 metric tons (MT), six percent less than the 2020 total, which reached a record volume of 727,000 MT. 2020 production was boosted by fourth quarter adult cattle slaughter that was the highest on record for that period, nine percent ahead of the next highest fourth quarter slaughter. This has reduced the potential number of cattle available for slaughter in the first half of 2021. As a result of lower production, beef exports in 2021 are forecast at 600,000 MT carcass weight equivalent (CWE), six percent less than the total for 2020 of 637,000 MT CWE. It is likely that the aggregate volume of beef shipped to China and the United States will continue the trend established over the last two years and account for over 70 percent of all New Zealand beef exports.

## Executive Summary

New Zealand beef production for 2021 is now forecast at 681,000 metric tons (MT), six percent less than the 2020 total, which reached a record volume of 727,000 MT. 2020 production was boosted by fourth quarter adult cattle slaughter that was the highest on record for that period, nine percent ahead of the next highest fourth quarter slaughter. This jump in slaughter was caused by farmer uneasiness about market prospects and concern that another drought could develop in the first half of 2021. As a result, some farmers made the decision to sell cattle early when they felt prices were reasonable. This has reduced the potential numbers of cattle available for slaughter in the first half of 2021.

Because domestic consumption is relatively stable in New Zealand, and at current production levels only accounts for approximately 14 percent of the beef produced, any changes to production translate directly into a corresponding change to exports. As a result, beef exports in 2021 are forecast at 600,000 MT carcass weight equivalent (CWE), six percent less than the total for 2020 of 637,000 MT CWE. The 2020 beef export volume was a record and was driven by the fourth quarter boost in adult cattle slaughter, as much of this beef was shipped quickly before the end of the year.

It is likely that the aggregate volume of beef shipped to China and the United States will continue the trend established over the last two years and account for over 70 percent of the total New Zealand beef exports. The month to month ebb and flow of pricing for different cuts to China versus United States during the year will determine just how much product is shipped to each market. Logistical complications are likely to continue to plague New Zealand exporters for the rest of 2021 for both organizing ships and containers, as well as maintaining efficient supply chains at destination markets.

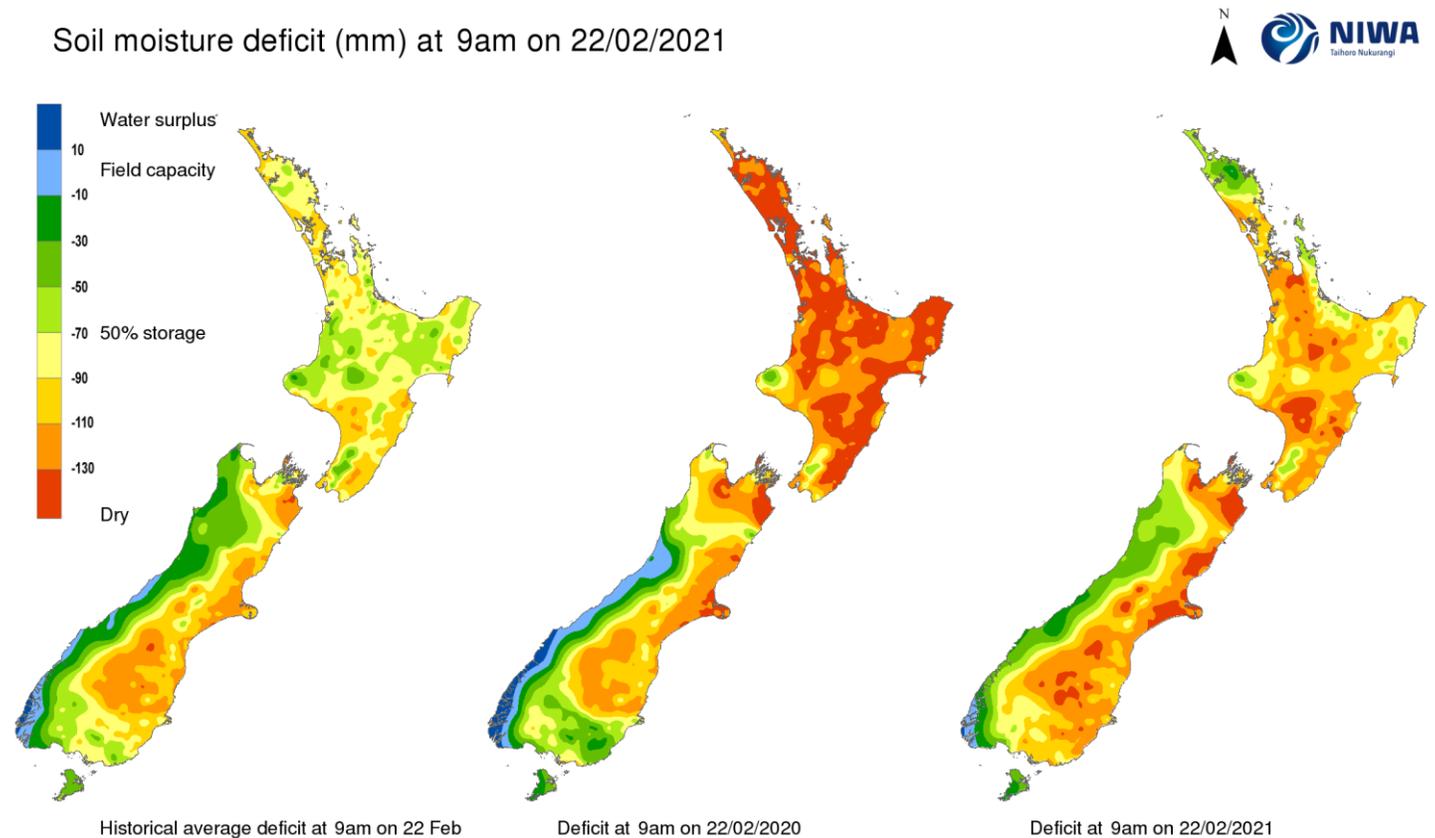
*Note: the Marketing Year (MY) is the calendar year; the MY2021 marketing year is shown as 2021. Data included in this report is not official USDA data. Official USDA data is available at: <https://apps.fas.usda.gov/psdonline>*

## Cattle Situation

### Seasonal Pasture Production

The chart below shows the soil moisture deficit conditions in late February 2021. Compared with 2020, the North Island is in a lot better shape, although still significantly drier than the historical average. The far north of the North Island, which is almost exclusively beef or dairy farms, is considerably wetter than 2020. Most regions began 2021 with good pasture and conserved feed supplies, which should carry the majority of farms through until the Autumn rains and slightly cooler temperatures stimulate pasture growth again. Farmer fears of drought conditions on a par with 2019/2020 have largely not materialized.

### Soil Moisture on February 22<sup>nd</sup> – Historical Average, 2020 and 2021



## Cattle Production and Inventory Changes

### 2021

FAS/Wellington forecasts total cattle slaughter at 4.26 million (m) head in 2021, eight percent below 2020 slaughter levels. Numerically, the largest forecast reduction is for calf slaughter, but more

significant for overall beef production is the forecast slaughter reduction of other adult cattle (steers, bulls and heifers). Key dynamics include:

- Other adult cattle slaughter is forecast at 1.59m head, 6.4 percent less than 2020. The huge fourth quarter 2020 total slaughter for this group, a result of farmers' uneasiness about market prospects and concerns another drought was on the cards, is reducing the number of cattle available for slaughter in the first half of 2021. In addition, an industry survey of farmer intentions around stock inventory and sale plans supports the forecast year-on-year reduction.
- The calf kill is forecast at 1.68m head, eleven percent less than 2020. This is the result of a lower dairy cow inventory producing slightly less calves, and an increased proportion of dairy progeny being retained for either beef production or the live export trade.
- The cow kill is forecast to fall by 4.5 percent from the 2020 total, down to 995,000 head. Both the dairy and beef cow herds are expected to remain relatively stable, which would reduce the annual kill back toward a status quo slaughter number rather than the higher number killed in 2020. Cow slaughter in 2020 was elevated as dairy and beef cow numbers were reduced because of drought conditions. In addition, dairy farmers continued to right-size their herds in advance of new environmental regulations taking affect.
- Live heifer exporting became a major factor during 2020. Even though new animal welfare regulations and shipping delays are likely to have a negative impact on exports in 2021, this trade is still expected to have a more significant effect on slaughter numbers than in the past. Yearling heifers that were exported in 2020 otherwise would have matured in 2021 ready for slaughter. However the extent of the effect on heifer slaughter numbers is still not known. More heifer calves from the dairy sector may have been reared just for this trade.

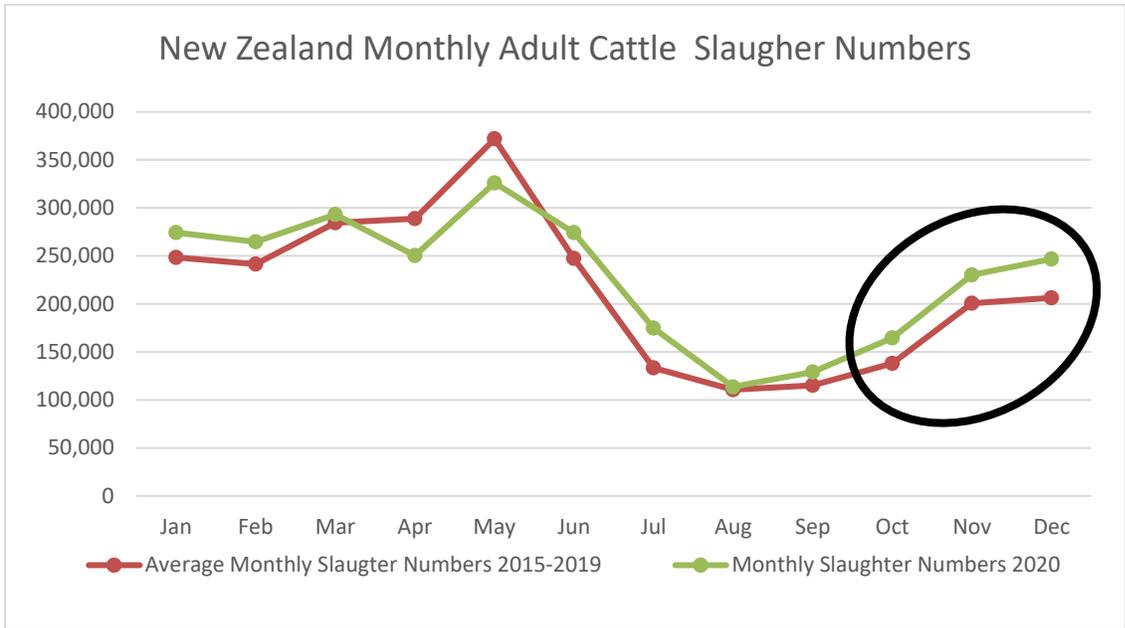
The total 2021 ending cattle inventory is forecast to remain relatively stable with an estimated small 0.4 percent increase to 10.1m head. Industry contacts expect that farmers are most likely to keep the beef herd steady or even grow it slightly in the short term. FAS/Wellington expects the total beef herd to be close to 4m head in 2021. Beef cattle finishing has been favored on the better classes of pasture land not being used for dairy. This is not only because of financial reasons but also because of the lower workload when compared to sheep, which is attractive to older farmers. The dairy cow herd is expected to remain stable, having been reduced by 139,000 head in 2020 during the drought period (January to May 2020). Two years of high dairy prices in 2020 and 2021 are encouraging dairy farmers to maintain cow numbers.

## **2020**

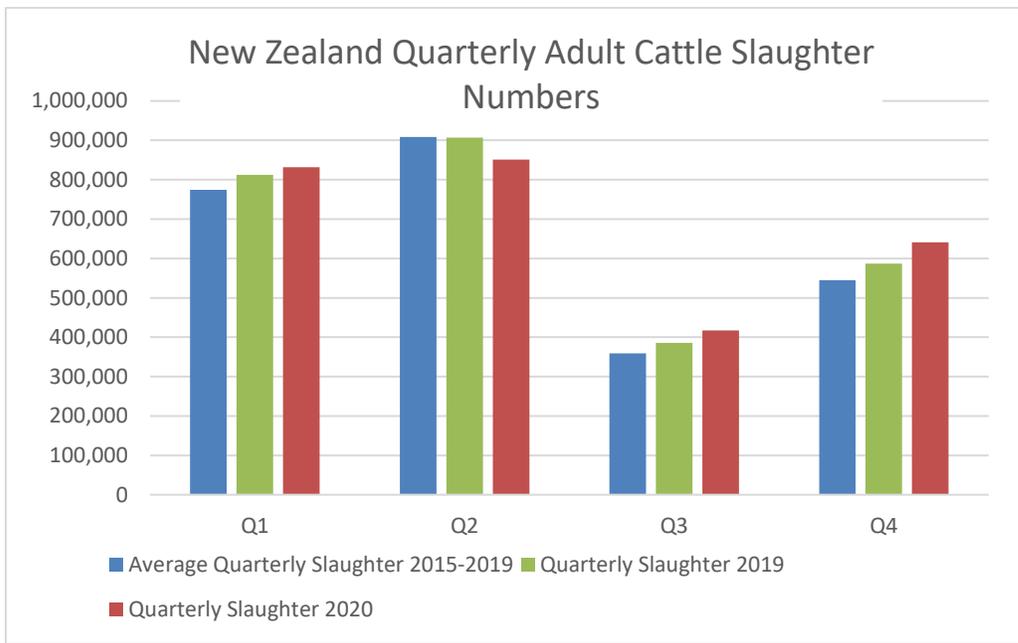
Total cattle slaughter for 2020 was 4.63m head, up 122,000 head (2.7 percent) from 2019. The strong slaughter numbers during the end of 2020 were fairly unexpected. The main drivers behind the

slaughter dynamics in 2020 were:

- A huge October to December 2020 kill total for adult cattle (including cows) at 641,159 head – which was the largest fourth quarter slaughter number on record, and nine percent ahead of the previous highest fourth quarter. This significant bulge in the slaughter rate was brought about by farmers having misgivings about beef market prospects and nervousness another drought might be developing in the first half of 2021. Because of this many farmers made decisions to sell cattle early while they felt prices were reasonable.
- Although it was anticipated that fewer steers, bulls, and heifers in aggregate would be killed in 2020 compared with 2019, after the surge in slaughter numbers in the last quarter of 2020 the opposite was the case. The other adult cattle group slaughter totaled 1.7m head for 2020, which was 20,000 head, or 1.2 percent, greater than 2019. As explained above farmers moved quickly during October to December 2020 to decrease cattle numbers - primarily heifers, steers, and bulls - to prepare in case of drought conditions or significantly lower beef prices in the first few months of 2021.
- The cow kill, at 1.042m head in 2020, was three percent ahead of 2019. This was due to the drought conditions in the first half of the year prompting farmers to decrease numbers, of both dairy and beef cows to save feed and maintain cow condition for the remaining cows. As was mentioned, dairy farmers are continuing to right-size their herds in advance of new environmental regulations affecting the dairy sector. Of lesser significance, forestry planting that encroached on land typically used for beef cow grazing was also a factor.
- The calf kill in 2020 was 1.88m head, four percent greater than 2019. Even though the meat processors were offering lower prices for calves in 2020 (mainly because hides were nearly unsellable and food service options for veal were scarce) there were no other outlets other than slaughter available for those surplus calves that are not going to be reared for either dairy or beef herd replacements.



Source: StatsNZ



Source: StatsNZ

Official Statistics NZ data puts the total ending cattle inventory for 2020 at 10.63m head, which is 0.9 percent less than the 2019 total. The total beef herd has increased to 3.95m head from 3.90m head in 2019 (1.6 percent). However, the beef cow numbers reduced from 1.105m head in 2019 to 1.065m head in 2020, owing to the drought conditions (January to May 2020) forcing some farmers to reduce cow numbers and forestry investors purchasing farmland and taking it out of agricultural production.

## **Live Animal Exporting**

Live heifer exporting has become a significant factor in the overall distribution of the cattle produced each year. There is the potential for live exporting to significantly reduce the total annual heifer kill. In 2020, exports reached a high-water mark of 118,035 head being shipped, with the previous high being 78,548 head in 2014. Over the last five years it has been usual for somewhere between 18,000 to 40,000 head to be shipped annually. Up until 2020, it was typically purebred Holstein heifers of 15 to 24 months old being shipped for the Chinese dairy industry, or in small numbers some purebred Jerseys, Simmental, and Angus heifers. The surge in numbers in 2020, up 200 percent from 39,700 head in 2019, was the result of new demand for Holstein-Hereford cross or Holstein-Angus cross heifers. These cattle are slightly younger, at 12 to 18 months old, and need to be shipped not pregnant. It is expected that they will be used for breeding purposes. New interest in rearing these cattle, being progeny from the New Zealand dairy herd, may well act to limit the numbers of calves being slaughtered.

This live export trade was interrupted during September 2020 when a ship laden with cattle sunk on its way to China. The New Zealand Government reviewed the trade and one significant change was a requirement to increase the space for each animal by 10 percent. This will increase the cost and ultimately reduce the premium paid to farmers for suitable cattle. Reportedly there is still solid demand for the cross bred heifers but the difficulty with scheduling shipping at present is likely to limit the numbers shipped in 2021. FAS/Wellington is forecasting 80,000 head will be exported in 2021.

## **New Freshwater Regulations**

New strict regulations aimed at halting any further declines in the quality of New Zealand's freshwater, and ultimately improving it, are now in place. The two areas most likely to affect the sheep and beef sector are:

- Regulations on low-slope land cattle exclusion from waterways: On low-slope land, waterways wider than approximately one yard and deeper than six inches will be required to have cattle, deer, and pigs excluded from them. Mostly this would require some sort of fence. There is still some debate around waterways which are dry during summer as to whether cattle could roam over them when they are dry. A major area of contention is how the low slope (less than ten percent slope) maps were derived. Many farmers in the hill country upon close inspection of the maps for their properties have found big areas of greater than 10-degree hills included. It will take some time for this issue to be sorted out. Whatever the outcome many farms will face additional costs in order to comply.
- Winter forage crop grazing rule: Winter forage crops destined to be grazed during the winter months will be required to have consents with various environmental conditions attached such as the distance they must be from waterways or lakes and the date by which the bare land must be replanted. In addition, there will be a limit on the steepness of land that may be cropped. This will limit some farmers activities and place increased costs on others.

In the short term (one to two years) these rules are unlikely to affect cattle and beef production. However, in the medium to longer term it is likely (unless there are new technological innovations) that the regulations will have a negative effect on production volumes. These rules and uncertainty on climate change responses will affect the sector. It may also mean continuing encroachment onto sheep and beef land by forestry, which is prompted chiefly by speculation on carbon credits.

## Production Supply & Demand – Cattle Numbers

Animal Numbers, Cattle Market Year Begins New Zealand	2019		2020		2021	
	Jan 2019		Jan 2020		Jan 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Total Cattle Beg. Stocks (1000 HEAD)	10107	10107	10151	10151	10062	10063
Dairy Cows Beg. Stocks (1000 HEAD)	5010	5010	4876	4876	4737	4737
Beef Cows Beg. Stocks (1000 HEAD)	1029	1029	1105	1105	1065	1065
Production (Calf Crop) (1000 HEAD)	5127	5127	5106	5135	4913	4900
Total Imports (1000 HEAD)	0	0	0	0	0	0
Total Supply (1000 HEAD)	15234	15234	15257	15286	14975	14963
Total Exports (1000 HEAD)	40	40	110	118	50	80
Cow Slaughter (1000 HEAD)	1012	1012	1035	1042	995	995
Calf Slaughter (1000 HEAD)	1811	1811	1884	1883	1750	1675
Other Slaughter (1000 HEAD)	1680	1680	1616	1700	1590	1590
Total Slaughter (1000 HEAD)	4503	4503	4535	4625	4335	4260
Loss and Residual (1000 HEAD)	540	540	550	480	525	523
Ending Inventories (1000 HEAD)	10151	10151	10062	10063	10065	10100
Total Distribution (1000 HEAD)	15234	15234	15257	15286	14975	14963
(1000 HEAD)						

Not Official USDA Data

## Beef Production

### 2021

Beef production for 2021, is now forecast at 681,000 metric tons (MT) carcass weight equivalent (CWE), a 6.3-percent decrease from 2020. The main driver behind this reduction are lower slaughter numbers in all categories. However, the negative effect of the total kill reduction on beef production is partially offset because carcass weights should return to levels above the drought-affected weights in 2020. Although soil conditions for February 2021 were drier than long term averages this situation is expected to be relatively short-lived and overall pasture growth in 2021 is expected to return to normal levels.

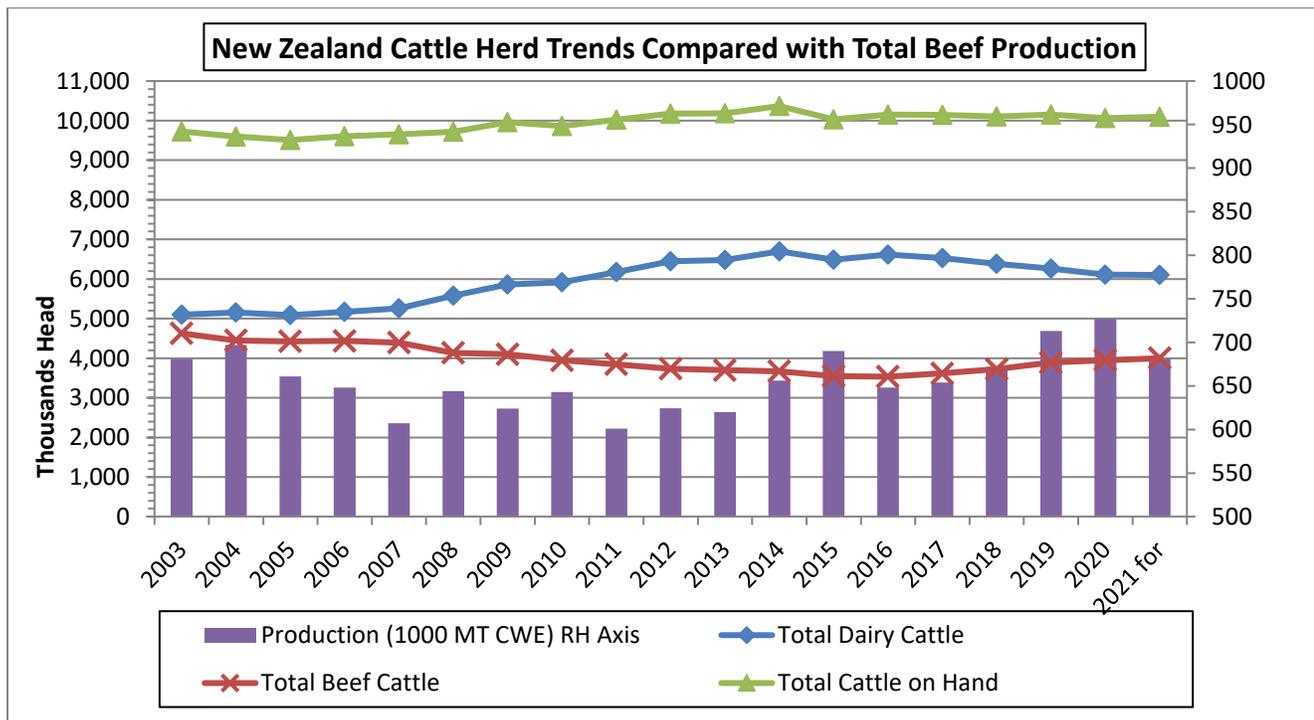
### 2020

For 2020, beef production was a record 726,537 MT CWE, two percent above 2019. The main driver behind this increased production was the spike in slaughter numbers - especially for heifers, steers, and bulls - in the fourth quarter of the year. Cattle average carcass weights were affected by the drought

conditions in the first half of the year, but in the end the fall in weights was less than expected and only down 0.7 percent compared to 2019.

New Zealand Beef Production Table									
Marketing Year	2019 Actual			2020 Estimated			2021 Forecasts		
Category	CW kgs/hd	Numbers to kill (1000's)	Total tons Beef	CW kgs/hd	Numbers to kill (1000's)	Total tons Beef	Est. CW kgs/hd	Numbers to kill (1000's)	Total tons Beef
Cow Slaughter	200.1	1,012	202,452	202.3	1,042	210,813	200	995	199,000
Calf Slaughter	15.9	1,811	28,713	16.0	1,883	30,153	16.0	1,675	26,800
Heifer Slaughter	241.8	513	124,017	243.1	531	129,147	242	490	118,580
Steer slaughter	312.5	591	184,630	311.3	616	191,687	312	575	179,400
Bull Slaughter	300.1	576	172,941	298.1	553	164,736	300	525	157,500
Other Adult Cattle Subtotal	286.6	1,680	481,587	285.7	1,700	485,570	286	1,590	455,480
<b>Total Slaughter</b>	<b>158.3</b>	<b>4,503</b>	<b>712,752</b>	<b>157.1</b>	<b>4,624</b>	<b>726,537</b>	<b>159.9</b>	<b>4,260</b>	<b>681,280</b>
<b>% Change from Previous Year</b>									
Cow Slaughter	0.9%	2.3%	3.0%	1.1%	3.0%	4.1%	-1.1%	-4.5%	-5.6%
Calf Slaughter	0.1%	-0.3%	-2.9%	1.0%	4.0%	5.0%	-0.1%	-11.0%	-11.1%
Heifer Slaughter	0.1%	4.9%	5.2%	0.6%	3.6%	4.1%	-0.5%	-7.8%	-8.2%
Steer slaughter	-0.1%	7.8%	8.3%	-0.4%	4.2%	3.8%	0.2%	-6.6%	-6.4%
Bull Slaughter	-1.8%	10.1%	10.1%	-0.6%	-4.1%	-4.7%	0.6%	-5.0%	-4.4%
Other Adult Cattle Subtotal	-0.5%	7.7%	8.1%	-0.3%	1.2%	0.8%	0.3%	-6.4%	-6.2%
<b>Total Slaughter</b>	<b>1%</b>	<b>3%</b>	<b>6%</b>	<b>-0.7%</b>	<b>2.7%</b>	<b>1.9%</b>	<b>1.8%</b>	<b>-7.9%</b>	<b>-6.23%</b>

Source: StatsNZ, B+LNZ, Post Estimates



Source: StatsNZ, B+LNZ, FAS/Wellington estimates

## Production Supply & Demand – Beef Production

Meat, Beef and Veal Market Year Begins New Zealand	2019		2020		2021	
	Jan 2019		Jan 2020		Jan 2021	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Slaughter (Reference)</b> (1000 HEAD)	4503	4503	4535	4625	4335	4260
<b>Beginning Stocks</b> (1000 MT CWE)	0	0	0	0	0	0
<b>Production</b> (1000 MT CWE)	713	713	695	727	684	681
<b>Total Imports</b> (1000 MT CWE)	14	14	12	12	13	15
<b>Total Supply</b> (1000 MT CWE)	727	727	707	739	697	696
<b>Total Exports</b> (1000 MT CWE)	623	623	622	637	615	600
<b>Human Dom. Consumption</b> (1000 MT CWE)	104	104	85	102	82	96
<b>Other Use, Losses</b> (1000 MT CWE)	0	0	0	0	0	0
<b>Total Dom. Consumption</b> (1000 MT CWE)	104	104	85	102	82	96
<b>Ending Stocks</b> (1000 MT CWE)	0	0	0	0	0	0
<b>Total Distribution</b> (1000 MT CWE)	727	727	707	739	697	696
(1000 HEAD) ,(1000 MT CWE)						

Not Official USDA Data

### Domestic Consumption

Beef consumption in New Zealand for 2021 is forecast to be down six percent at 96,000 MT CWE from 2020. With production down and demand still strong for exports, it is likely domestic prices in the supermarkets will be higher and this may reduce some domestic consumption demand. If the domestic retail prices rise too far during the low cattle supply months (August and September) additional supplies of Australian beef may be imported. For 2020, domestic consumption is estimated at 102,000 MT CWE, two percent below the 2019 volume.

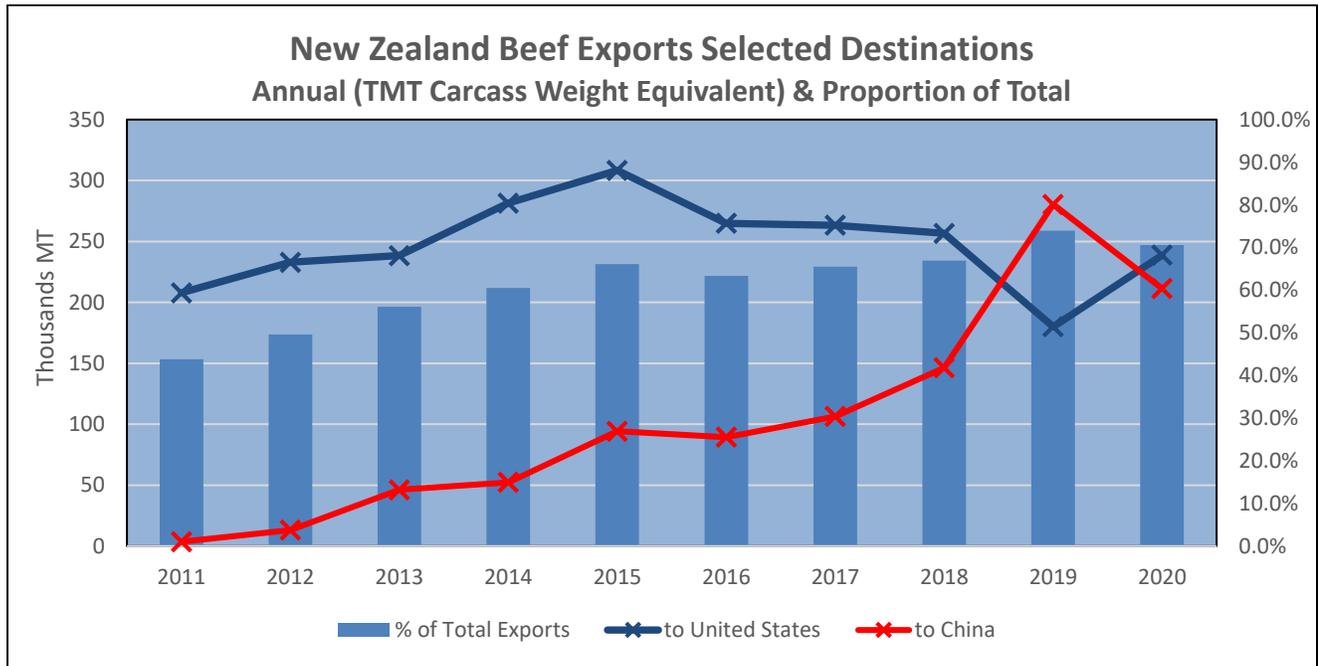
### Exports and Trade

#### Overview - Beef Exports

A major trend during 2018 and 2019 for New Zealand beef exports was the unprecedented increase in exports to China, and in 2019 China surpassed the United States as the largest market for New Zealand beef. However, in 2020 this trend reversed and the United States regained its spot as the top New Zealand market. New Zealand shipments to China waned because the COVID-19 response in China limited imports during February through April 2020. This also coincided with a period of very high manufacturing beef prices in the United States during April and May 2020, and New Zealand exporters were quick to divert shipments of cow and bull beef to the United States to take advantage of this.

Despite this shift, commentators in the processing/exporting sector are still expecting strong demand from China despite the effects of the COVID-19 pandemic and because of the continued impact of African Swine Fever on the Chinese swine herd. New Zealand exporters are also expecting that the supply from Australia will be limited during 2021 which will solidify pricing and volumes for New Zealand. The trend established over the last two years of the aggregate total beef shipped to the China

and U.S. markets being over 70 percent of the total beef shipped is not likely to change in 2021. The month to month ebb and flow of pricing for different cuts in China versus United States during the year will determine just how much product is shipped to each market. Demand from the United States for New Zealand beef is also expected to remain strong due to less competition from Australian lean beef supplies due to the herd rebuild there.



Source: TDM LLB

Logistical complications resulting from changing shipping schedules and availability of containers has made it difficult for the exporters to maintain reliable supply chains. What has frustrated trade the most is however the unloading and clearing at the destination ports especially in North America, Europe, and to an extent Japan.

New Zealand exporters marketing their beef with grass-fed and antibiotic-free claims continue to exploit a profitable niche especially in the United States where there is established demand. Even though nearly all of New Zealand’s cattle have been essentially grass-fed, by emphasizing this aspect to consumers exporters are hoping to be able to upgrade the value of their cuts and increase the amount of product going directly into retail.

<b>New Zealand Beef Export Statistics</b>							
<b>Harmonizing Codes: 0201, 0202, 021020, 160250 by Carcass Weight Equivalent Shipped</b>							
<b>Calendar Year/Marketing Year: 2018 - 2020</b>							
<b>Destination Country</b>	<b>Quantity in Metric Tons CWE</b>			<b>Market Share (%)</b>			<b>%Δ</b>
	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2020/19</b>
United States	256,729	180,011	238,778	42.66	28.91	37.46	32.65
China	146,293	280,469	211,327	24.31	45.04	33.15	-24.65
Japan	24,471	26,131	31,529	4.07	4.20	4.95	20.66
Taiwan	32,615	23,208	27,962	5.42	3.73	4.39	20.49
Canada	24,948	16,124	26,548	4.15	2.59	4.16	64.64
South Korea	27,082	15,780	21,318	4.50	2.53	3.34	35.10
Australia	13,922	13,380	19,567	2.31	2.15	3.07	46.24
Indonesia	8,366	7,776	8,507	1.39	1.25	1.33	9.41
Malaysia	7,584	6,032	6,057	1.26	0.97	0.95	0.42
Philippines	7,710	4,310	4,119	1.28	0.69	0.65	-4.44
Rest of the World	52,094	49,468	41,777	8.66	7.94	6.55	-15.55
<b>Total for World</b>	<b>601,814</b>	<b>622,689</b>	<b>637,489</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>2.38</b>

Source: TDM LLB

## 2021- Beef Exports

FAS/Wellington forecasts beef exports for 2021 at 600,000 MT CWE, a 5.8 percent reduction on the volume shipped in 2020. This is primarily a result of the forecasted lower slaughter number resulting in six percent lower beef production.

## 2020 - Beef Exports

Actual exports for 2020 equated to 637,000 MT CWE in 2020, which is 2.3 percent above 2019. This was a record primarily as a result of the very high slaughter numbers during October to December 2020, which increased beef production significantly. Much of this was shipped before the end of the year, also boosting export shipments during the fourth quarter of 2020.

## Attachments:

No Attachments