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# **Report Name:** Livestock and Products Annual

**Country:** Australia

**Post:** Canberra

**Report Category:** Livestock and Products

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**Report Highlights:**

Australian beef supply is forecast to make a substantial step towards recovery in 2023 after falling to the lowest level in decades in 2021 and generating only a marginal improvement in 2022. The Australian cattle industry is expected to continue its strong herd rebuild in 2023 but with female slaughter rates rising. Most cattle producers have for the third successive season experienced great pasture conditions and the forecast in the coming months is for well above-average rainfall. With the support of increased female slaughter it is expected that overall cattle slaughter, beef production, and beef exports will all also rise in 2023. Australian pork production is forecast to decline slightly in 2023 after a substantial drop in 2022. Pork producers are being challenged by a combination of high feed grain prices, difficulties in sourcing adequate labor to meet their needs, Japanese Encephalitis Virus infecting pig herds and relatively low pork import prices.

## EXECUTIVE SUMMARY

Australian beef supply is forecast to make a substantial step towards recovery in 2023 after falling to the lowest level in decades in 2021 and generating only a marginal improvement in 2022. Female slaughter rates have fallen even further in 2022, from the already very low level in 2021 at the onset of a herd rebuild following a severe multi-year drought. The Australian cattle industry is expected to continue its strong herd rebuild in 2023 but with female slaughter rates rising. With the support of increased female slaughter, it is expected that overall cattle slaughter, beef production, and beef exports will all also rise in 2023.

Most cattle producers have for the third successive season experienced great pasture conditions since the onset of drought-breaking rains in early 2020, and the forecast in the coming months is for well above-average rainfall. Cattle producers have also had the added benefit of record cattle prices in recent years, which has boosted confidence to continue to push forward with a strong herd rebuild.

Australian pork production is forecast to decline slightly in 2023 after a substantial drop in 2022. Pork producers are being challenged by a combination of high feed grain prices, difficulties in sourcing adequate labor to meet their needs, Japanese Encephalitis Virus infecting pig herds, and low pork import prices. The majority of these impacts are influencing 2022 production, but there will be some flow on effects in 2023.

## CATTLE

### Production

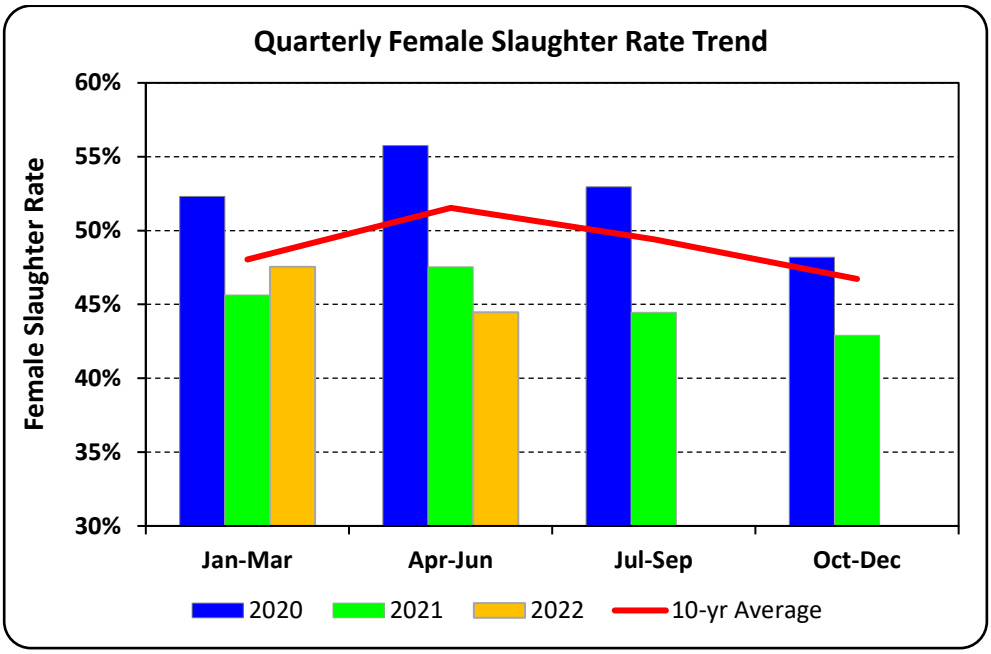
#### 2023

Cattle (calf crop) production in 2022 is forecast to increase by six percent from the prior year. This higher cattle production is due to the continued shift towards increased beef cow breeding stock, following drought-breaking rains that commenced in early 2020 across a large part of the beef producing regions in Australia.

The female slaughter rate has remained low in the first half of 2022, and this was particularly the case in the second quarter of 2022 at 45 percent, far below the 10-year average for that quarter of 52 percent (see Figure 1). The Apr-Jun quarter is seasonally the highest as it is when a larger proportion of pregnancy testing occurs and subsequent cow culls. This very low slaughter rate indicates that the industry is strongly continuing to rebuild the herd. In part this is because of improved rainfalls in northern Queensland in 2022, which had not benefited from drought-breaking rains from early 2020 like much of the rest of Australia's beef producing regions. Another important contributor is that the high beef prices along with labor shortages have resulted in some farms (particularly dairy farms in the southern states) entirely or partially converting to beef production.

The increased retention of female calves since 2020 and the continued low female slaughter rates in 2022 is indicative of a strong ongoing herd rebuild momentum and also industry confidence. The degree and extent of the low female slaughter is likely to push the herd size in the coming years to well above the pre-drought level (note: major drought impacts in 2018 and 2019 caused major destocking).

**Figure 1 – Quarterly Female Slaughter Rate Trend**




*Source:* *Australian Bureau of Statistics*

**2022**

FAS/Canberra's cattle (calf crop) production for 2022 is unchanged and remains in line with the USDA official estimate.

**Slaughter**

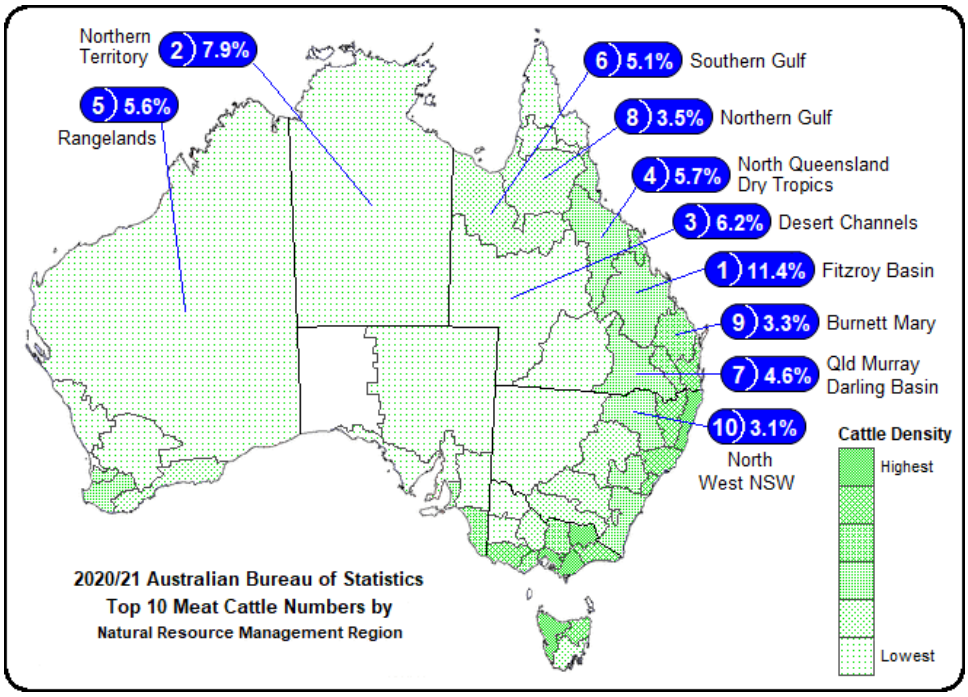
**2023**

FAS/Canberra forecasts an increase in cattle slaughter in 2023 to 7.2 million head, an 890,000-head increase over the downward revised 2022 estimate of 6.31 million head. As part of the herd rebuild, young cattle numbers have built up to an extent that, in conjunction with good pasture production conditions so far in 2022 and great forecast rainfalls in the coming months, the number of cattle ready for slaughter will increase considerably in 2023.

Seven of the top ten beef producing regions are located in Queensland (see Figure 2) and rainfall in the first seven months of 2022 for Queensland has broadly been at or above average (see Figure 3). This is a positive scenario in relation to cattle production, particularly for north Queensland which has not fared as well as central and southern Queensland and the southern states over the last two years. The only significant cattle producing region that has had poor rainfalls in the first seven months of 2022 is the

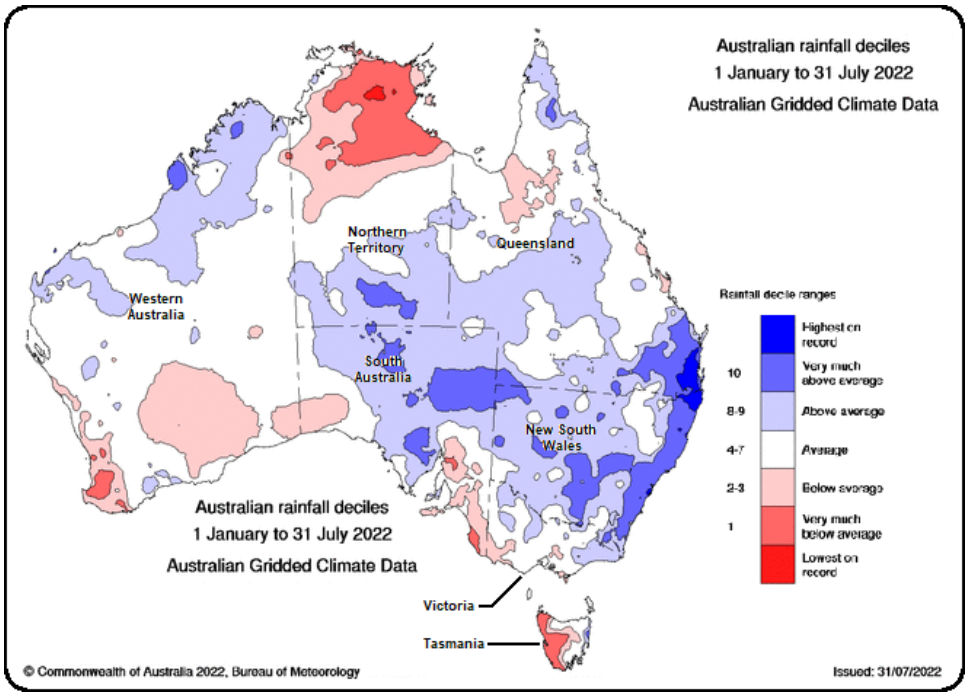
northern part of the Northern Territory. However, this region is almost exclusively focused on the live cattle trade with little impact on the national slaughter numbers.

**Figure 2 – Top 10 Livestock Cattle Numbers by Natural Resource Management Region**




*Source:* *Australian Bureau of Statistics*

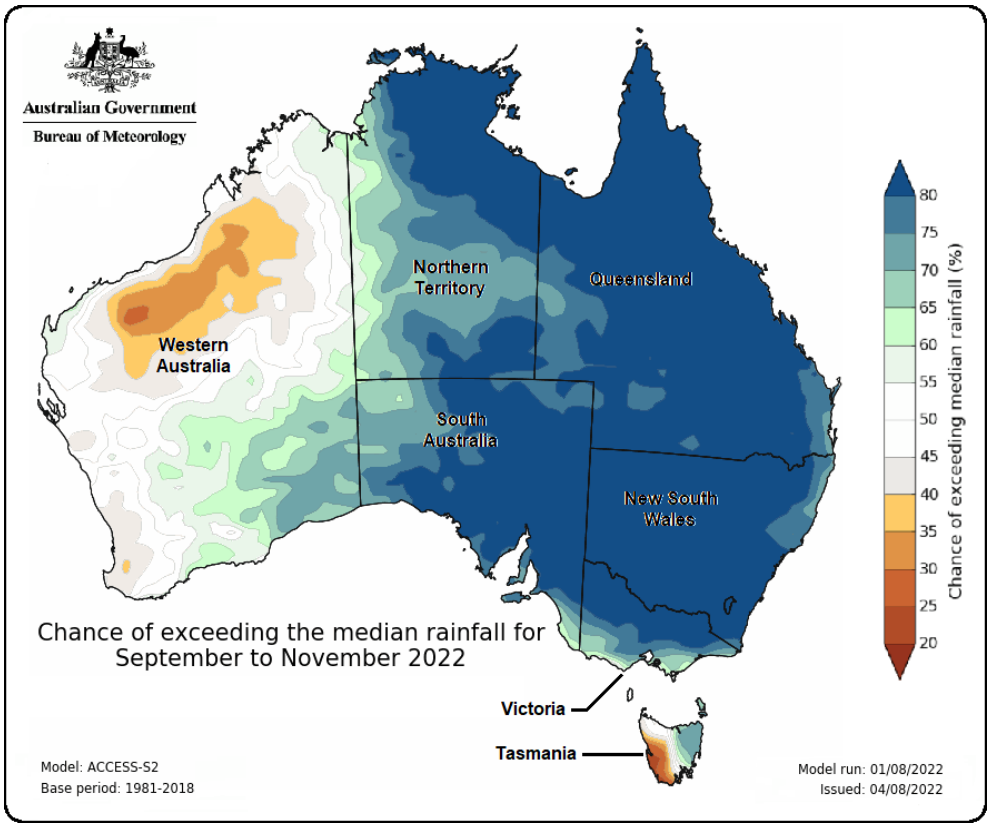
**Figure 3 – Rainfall Decile Map Jan-Jul 2022**




*Source:* *Bureau of Meteorology*

The Bureau of Meteorology forecasts a high chance of above-average rainfall across the country (other than Western Australia - which only accounts for eight percent of the herd) for September to November 2022 (see Figure 4). This along with the advancing stage of the overall herd rebuild, and good rains in the first half of 2022, is encouraging pasture production and cattle growth to support the forecast increase in slaughter numbers for 2023.

**Figure 4 – Rainfall Forecast – September to November 2022**




*Source: Bureau of Meteorology*

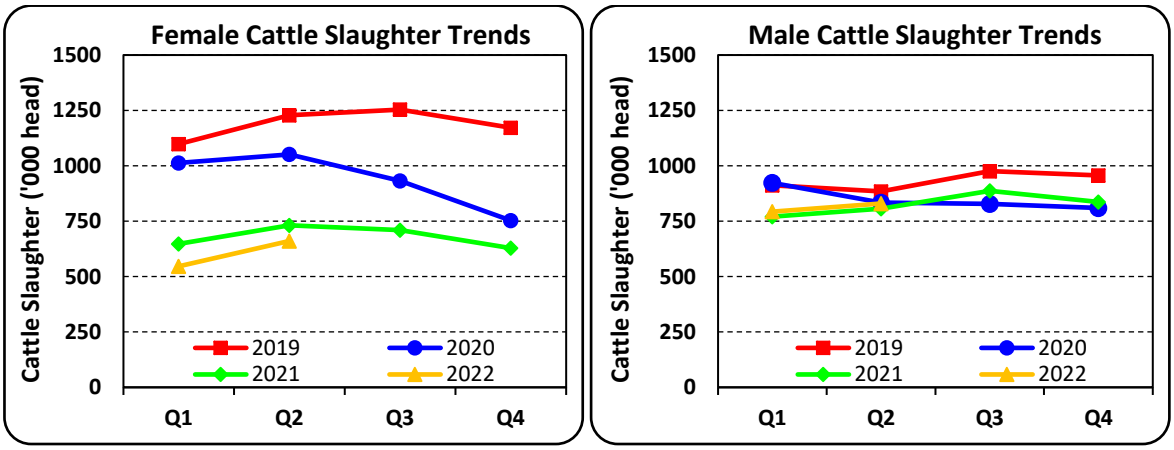
**2022**

FAS/Canberra has revised down the 2022 slaughter number estimate to 6.31 million head from the official USDA estimate of 6.69 million head. This decline is mainly due to lower-than-expected female slaughter in the first half of the year, which is continuing to drive the national herd rebuild. In addition, labor shortages at processing facilities impacted slaughter capacity. The total slaughter number for the first half of 2022 is 2.92 million head, down even from last year's low number of 3.08 million head. However, an increase in slaughter number is expected in the second half of 2022 as the spring pastures promote the volume of finished grass-fed cattle for slaughter.

Of particular interest is the major influence that female slaughter numbers have on the overall slaughter. In 2019 during the drought, female slaughter numbers were very high at an average of 1,188,000 head

per quarter which was 22 percent higher than the male slaughter of around 932,000 head per quarter (see Figure 5). After the drought ended in early 2020 female slaughter rates remained high in the first half of the year before diving in the second half of the year and on average being only nine percent higher than the male slaughter. In 2021, the average female slaughter fell to 679,000 head and 22 percent lower than the male slaughter of 825,000 head. This gap has further exacerbated in the first half of 2022, but surprisingly despite female slaughter falling, male slaughter increased by three percent compared to the first half of 2021. This growth in male slaughter will mainly be associated with the calf crop in the spring of 2020 which had been channeled through the faster growth-rate feedlot pathway rather than finished grass-fed males. There is an expectation that male slaughter in 2022 will continue to improve in the second half of 2022 as cattle are able to be finished from the expected plentiful spring pastures.

**Figure 5 – Australian Cattle Slaughter Trends**




*Source:* *Australian Bureau of Statistics*

The processing industry has reported that although the volume of cattle supply in the first half of 2022 has been an issue, labor shortages have also impeded their capacity to process greater volumes. With the unemployment rate in Australia reaching a 48-year low there is very strong economy-wide competition for labor.

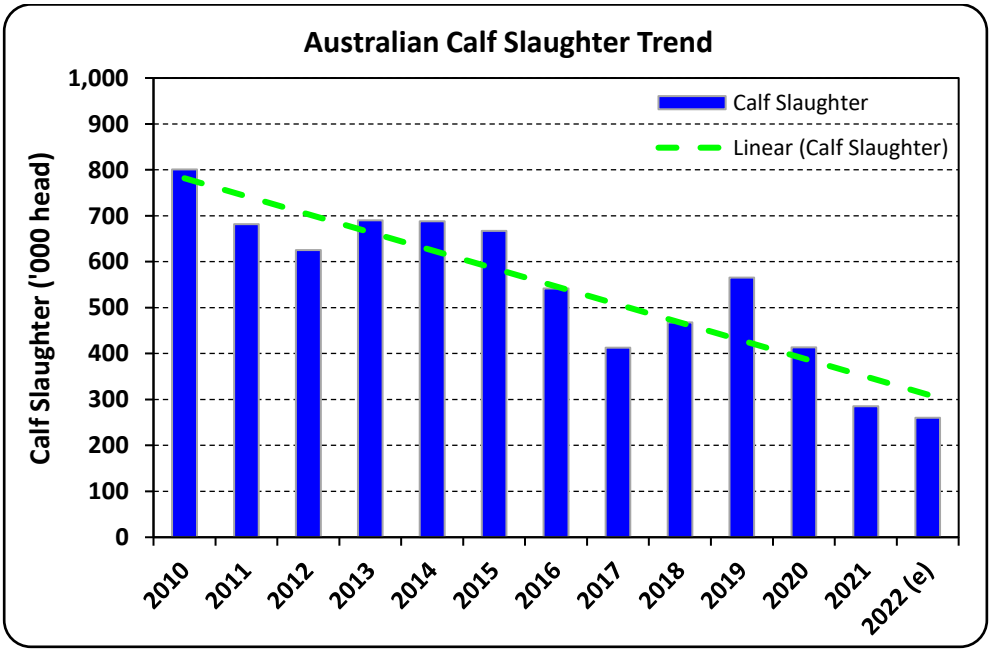
Processors are reporting that although they are attracting some labor to the sector, labor retention is a major issue due the strong competition from other sectors. The majority of labor in the meat processing sector is from overseas sources, and during the COVID-19 pandemic period of travel restrictions there has been an increase of labor via the Pacific Australia Labor Mobility (PALM) scheme. This has continued since international border restrictions eased in early 2022 as the volume of migrants entering Australia remains low. A key issue for the meat processing sector is that those on the PALM scheme have short term visas and are required to return home for a period before they are permitted to re-enter Australia. So, after spending considerable time and resources training PALM scheme workers, many are subsequently lost.

The industry reports that it requires a more suitable solution to address the labor shortage issues. One such solution called for by the agriculture sector for many years and established by the previous federal government in the lead up to the May 2022 election is a specific Agriculture visa. This visa is structured to be a transition towards permanent residency and targets semi-skilled and skilled labor unlike the PALM scheme which is targeted to unskilled labor. However, the current federal government is not supportive of the agriculture visa, although it has stated that it will honor the bilateral agreement already established with Vietnam, and its solution at this point is to further expand the PALM scheme.

A further emerging trend that is serving to support beef production in Australia has been a strong trend towards declining calf slaughter in Australia (see Figure 6). This is expected to continue in 2022 with calf slaughter for the first half of 2022 at 94,500 head, a 24 percent decline from 2021 at 123,600 head. This declining calf slaughter trend has little direct impact on the amount of beef produced due to very low carcass weights, but it has a significant indirect impact. The Australian calf slaughter is mainly from the dairy industry and there has been a growth in both heifers reared for the live dairy cattle trade, mainly to China, but also an increasing number of male dairy calves retained and grown out for beef production.

With the increasing adoption of sexed semen usage by dairy farmers, they are better able to target their artificial insemination programs for both the live heifer export trade and males for beef production. The Holstein Friesian, which makes up the majority of the Australian dairy herd, is known for its meat marbling capacity and in addition to grass-fed dairy beef production expanding, feedlots are also now showing some interest in growing out dairy cattle for beef.

**Figure 6 – Australian Calf Slaughter Trend**




*Source:* *Australian Bureau of Statistics*

**Trade**

**2023**

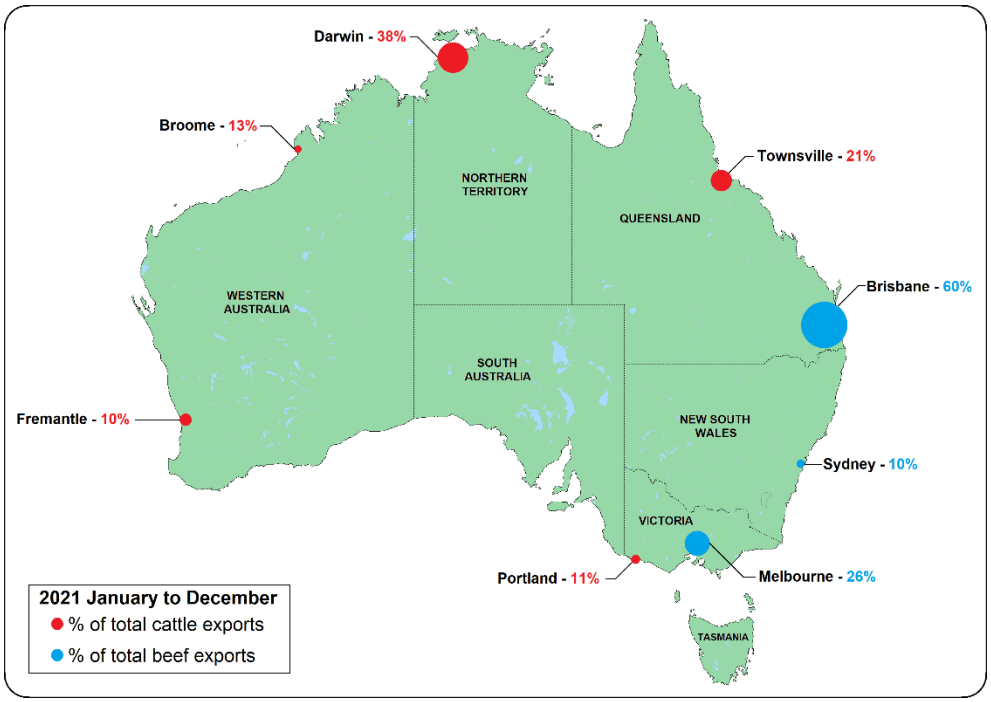
FAS/Canberra forecasts cattle exports in 2023 to increase moderately to 650,000 head from a downward revised estimate of 525,000 head in 2022. Despite the dry conditions in the first half of the year and in 2021 in the northern part of the Northern Territory, which typically supplies to the biggest live export port in Darwin, there is an improving availability of stock for the live trade from the Townsville port in Queensland. This is due to the herd rebuild advances made, particularly from central Queensland but less so from far north Queensland. However, the live export trade has been hindered by very high livestock prices, and in May 2022, Indonesia - Australia's main live export trade partner - announced that there had been an incursion of foot and mouth disease (FMD). Since then, the live export trade had diminished considerably, and this is expected to continue to have a negative impact on the trade in 2023.

Most of the beef cattle sourced for the live export trade are from the northern part of the Northern Territory, north Queensland and Western Australia. These regions represent over three-quarters of all live cattle exports from Australia (see Figure 7). The other key live export port is Portland in Victoria which is more focused on the live dairy cattle trade due to its proximity to a major dairy farming region.

The dry conditions in the northern part of Northern Territory (see Figure 3), as previously mentioned, have hindered the rebuild of the breeding herd in that region. The region has had mixed rainfall results over recent years and has not had any great wet season rains to establish a good pasture base and encourage a strong herd rebuild program. Due to the isolation of this region, the only viable market option is the live export trade.

The region supplying the next largest live export port of Townsville has broadly fared better in regard to rainfall over the last two years and has been able to initiate a herd rebuild phase, although to a lesser extent than more southern regions of Queensland and the southern states. So, supply of cattle that could go to the live cattle trade is improving in this region and greater numbers are expected to be available for 2023. However, many suppliers to the Townsville port have alternate options of selling their cattle to restockers and feedlots. The demand and price differences between the live export and domestic market options will influence producer decision making and consequently volume of cattle sold for the live export trade. It is anticipated that domestic market options will remain strong, albeit likely to soften from current very strong prices. Also analysts believe FMD in Indonesia is not expected to be brought under control for the most part in 2023, so will remain a significant risk for importers of Australian live cattle and result in only a small improvement in forecast trade.

**Figure 7 – Livestock and Beef Export Ports**




*Source: Australian Bureau of Statistics*

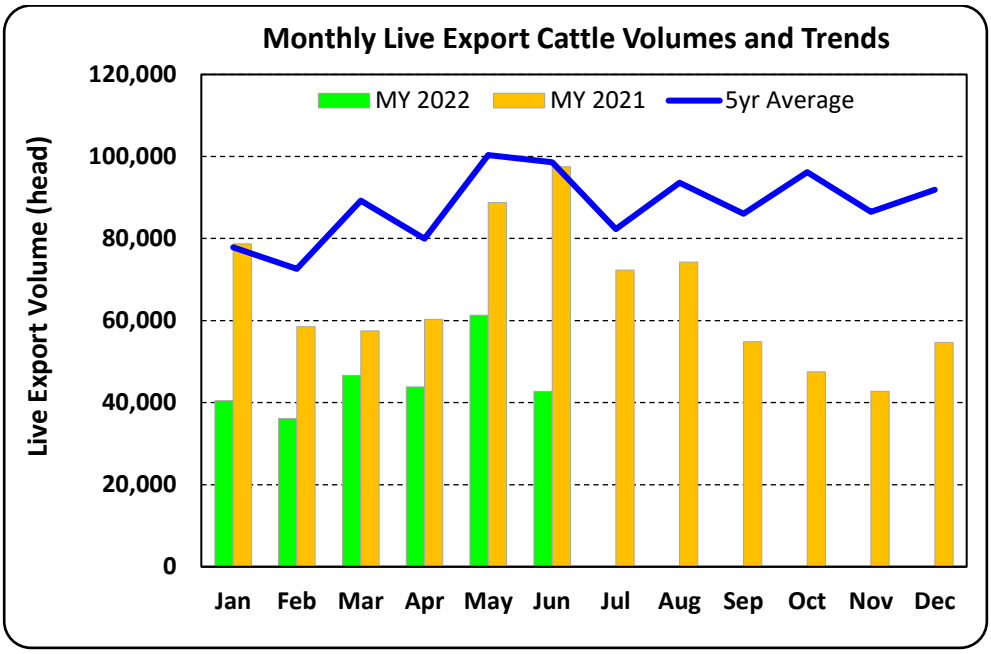
**2022**

The estimate for 2022 live cattle exports is 525,000 head, and in line with the official USDA estimate, but down by one-third from the 2021 result. If realized, this will be the lowest volume of live cattle trade since 1995. Shipments for the first six months of 2022 are at 271,154 head, 39 percent lower than the same period in 2021 (see Figure 8). A particularly large drop was evident in June 2022, a month that would normally see a similar volume of trade to May, following Indonesia announcing that FMD had entered their cattle industry.

The majority of the decline in live cattle exports in the first half of 2022 relative to the prior year is unrelated to the incursion of FMD in Indonesia. Exceptionally high live export cattle prices in early 2022 has hindered export volumes and although export prices have eased, they are still high (see Figure 9). This is in part due to the dry conditions in the northern part of Northern Territory which has hindered the rebuild of the breeding herd in that region which is very dependent upon the live export trade.

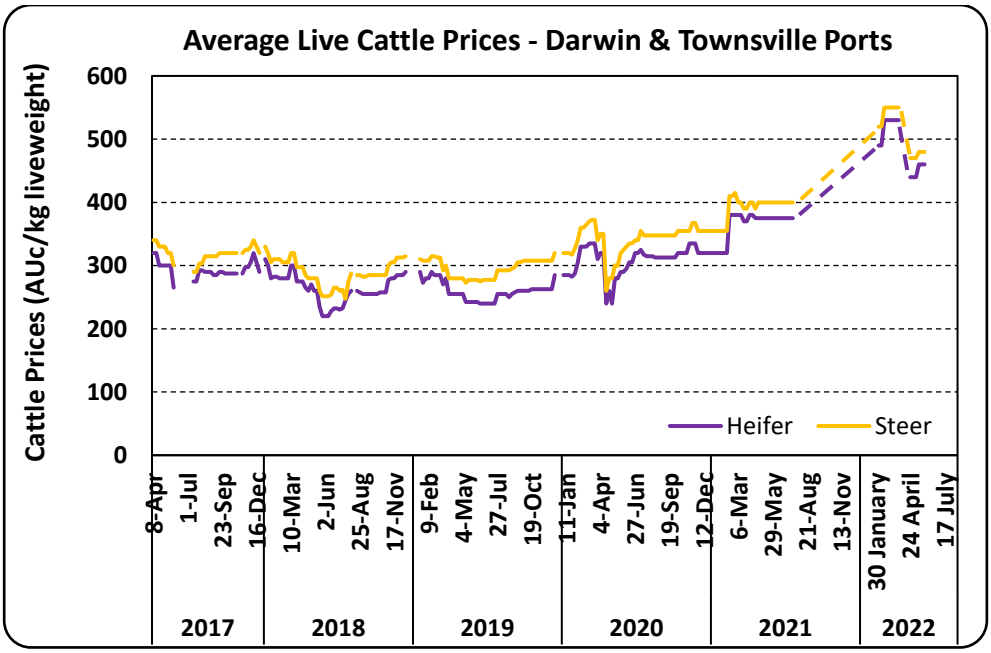
The Eastern Young Cattle Indicator (EYCI) has ridden a wave of increasing prices during 2020 and 2021, driven by a concerted national herd rebuild phase (see Figure 10). But in 2022 there has been an incremental decline in prices before a significant drop from mid-June 2022 and then a partial rebound. Nevertheless, this current EYCI price in 2022 remains almost double that of prices in 2019 and still very attractive relative to live export cattle prices.

**Figure 8 – Live Export Monthly Trend**



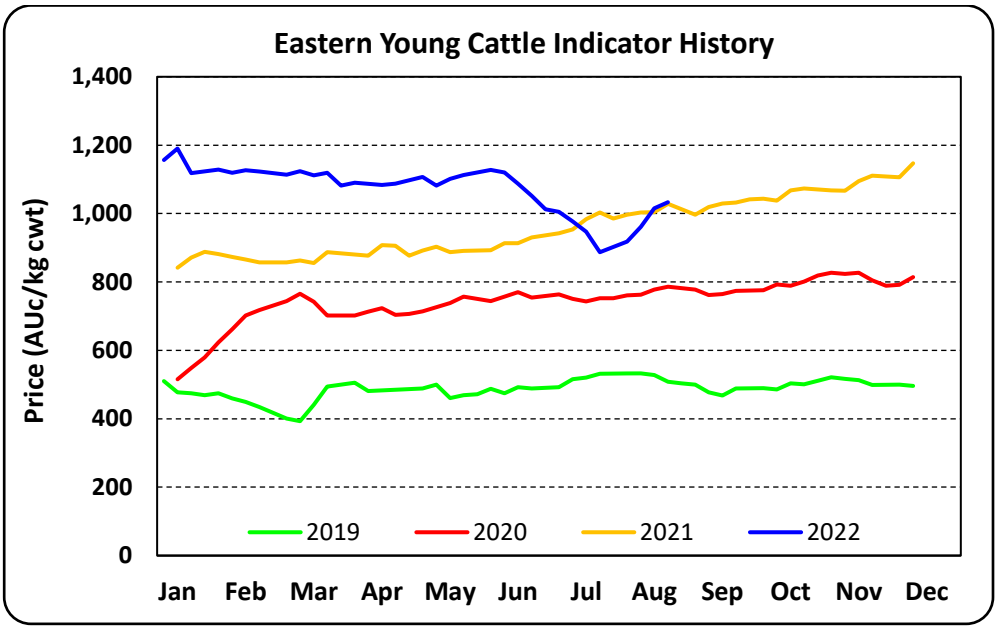

*Source:* *Australian Bureau of Statistics*

**Figure 9 – Average Live Cattle Export Prices - Darwin & Townsville Ports**




*Source:* *Meat and Livestock Australia*

**Figure 10 – Eastern Young Cattle Indicator**




*Source:* *Meat and Livestock Australia*

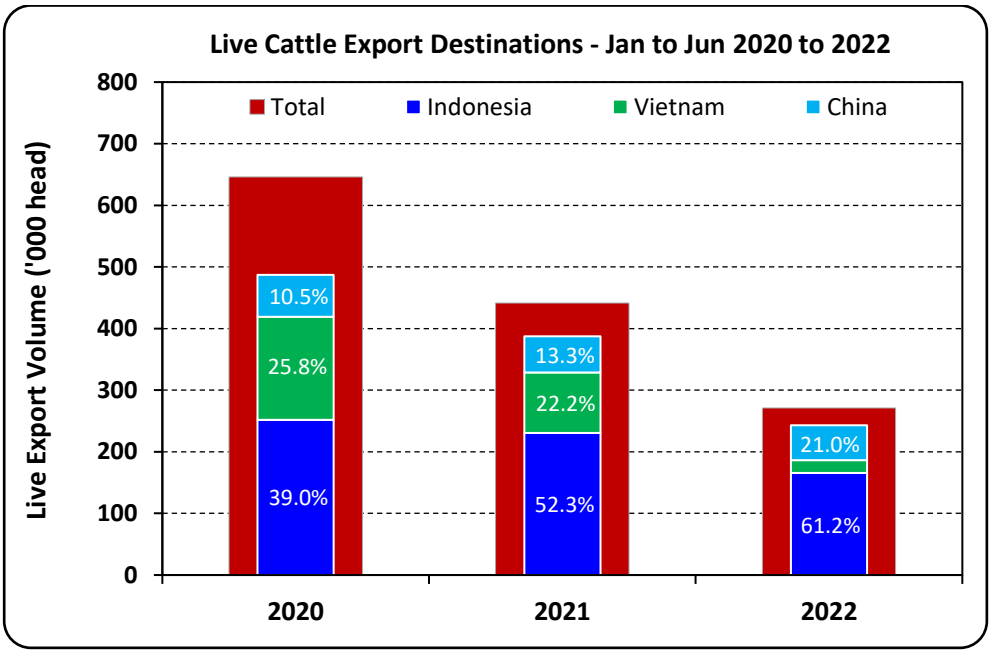
The major live export destinations for beef cattle are Indonesia and Vietnam, which have a preference for Bos Indicus (tropical breed) cattle to suit their conditions. There is also a significant trade to China, but this is driven by the dairy heifer trade rather than beef cattle. Interestingly, the live cattle trade to Vietnam, although significantly smaller than to Indonesia, has fallen by a far greater degree than that to Indonesia in the first half of 2022 relative to the previous two years (see Figure 11).

Vietnam sources mainly slaughter-weight cattle from Australia, which typically go into their feedlots for only a short period. In feedlots, typically when cattle are kept for an extended period of time the high price of cattle at entry can be averaged down (on a cost per kilogram basis) if feed costs are low, enabling finished cattle to be sold at a lower unit cost (price per kilogram) than the original purchase price while still maintaining profitability in the feedlot. However, in Vietnam where the feedlot period is short, there is little scope to average down the unit cost of the cattle with low feed costs. So, the live export market to Vietnam is very dependent upon the cattle purchase price and shipping costs.

In Indonesia, live cattle from Australia are typically in feedlots for around 100 days providing scope to average down the cost of the cattle with low-cost feed. It has been reported that food processors have been increasingly extracting more from feeds leaving less byproducts which are of lower nutritional value for feedlots. With this, overall feed costs have also been increasing for Indonesian feedlots.

With strong domestic prices for cattle and tight supply due to dry conditions from the northern parts of the Northern Territory, along with the incursion of FMD in Indonesia, there is no expectation of any significant rebound in trade in the second half of 2022.

**Figure 11 – Live cattle Export Destinations – Jan to Jun 2020 to 2022**




*Source:* *Australian Bureau of Statistics*

**National Biosecurity Strategy**

Australia for the first time produced a National Biosecurity Strategy which was launched on August 9, 2022 by the new Federal Agriculture Minister, Murray Watt. Work on the new biosecurity strategy commenced in October 2021 under the previous government and was largely completed prior to the May 21, 2022 federal election. The associated expenses were also accounted for in the federal budget handed down in April 2022. An important aspect of the strategy is that it was established in consultation with and support from the states and territories and stakeholders.

Australia is well known for its strong stance on biosecurity and the new strategy builds on this through a range of actions such as:

- Improve coordination between state and federal governments and associated authorities.
- Expand offshore partnerships and assurance arrangements to reduce the risk of biosecurity incursions into Australia.
- Invest in further upskilling of the workforce and improved responsiveness.
- Increase the focus on exploring and adopting new technologies and systems to achieve best practice in mitigating biosecurity risks.
- Establish a biosecurity taskforce, improving the preparedness to manage incursions.

In conjunction with the national biosecurity strategy, Australia also has an existing Emergency Animal Disease Response Agreement (EADRA) in place. This is an agreement between the federal, state and territory governments and livestock industry organizations to protect Australia's biosecurity system and

respond to emergency disease outbreaks. The agreement has an established cost sharing arrangement mutually agreed between all parties enabling response decisions to be made quickly. Further to the EADRA, Australia has in place veterinary emergency plans which are known as AUSVETPLAN's. These are nationally agreed guidelines developed for specific diseases by technical experts. These plans are continually updated and tested. Avian influenza occurred in Victoria in 2020 during COVID-19 lockdowns for which the EADRA and AUSVETPLAN's were activated with a successful outcome of eradication within a few months.

**Foot and Mouth Disease (FMD)**

Foot-and-mouth disease is a serious and highly contagious animal disease that affects all cloven-hoofed animals including cattle, sheep, goats, camelids, deer and pigs. It does not affect single hoofed animals such as horses, and also does not affect dogs or cats. FMD is an animal disease that does not affect humans and is not transmitted to people by consuming FMD-affected meat.

FMD virus is carried by live animals and in meat and dairy products, as well as in soil, bones, untreated hides, vehicles and equipment used with these animals. It can also be carried on people's clothing and footwear and survive in frozen, chilled and freeze-dried foods.

Australia has an FMD disease free status and has managed to maintain this since the last incursion 150 years ago in 1872 in Victoria. At that time there appears to have been very limited spread of the disease and impact in the livestock industries.

In May 2022, an outbreak of FMD was reported in cattle in Indonesia and has since spread to Bali. Additional *Biosecurity (Foot and Mouth Disease Biosecurity Response Zone) Determination 2022* powers have been established for a three-month period from July 22, 2022 after reports that the disease had spread to Bali, a popular destination for Australian tourists. This determination essentially provides powers for government authorities to act where there is a risk that FMD may be present in or on goods with particular focus on footwear worn by travelers entering Australia's major state and territory airports from Indonesia. There is an expectation that these powers will be extended if deemed necessary. A key measure implemented at these airports for travelers from Indonesia is sanitary footbaths and detector dogs.

The Department of Agriculture Forestry and Fishing (DAFF) in Australia had prior to the FMD incursion into Indonesia, assessed that the risk of an FMD entering Australia over the next five years was nine percent. Since then and accounting for the additional security border measures implemented the risk has been raised only slightly in June 2022 to 11.6 percent. It was reported by DAFF at a senate update on the adequacy of Australia's biosecurity measures and response preparedness, held on August 10, 2022, that the key risk area of imported foods was constantly under review. According to the head of the DAFF biosecurity animal division, all airline food arriving in Australia is disposed of as quarantine

waste, and the only meat products permitted entry to Australia were “a few very highly processed meat products”, and also some pork crackling and meat jerky from FMD-free countries.

In addition to the newly announced National Biosecurity Strategy the federal government has provided a further AU$10 million (m) (US$6.9m) support package for Indonesia to fight FMD and Lumpy Skin Disease (LSD) including one million FMD vaccines. This is on top of AU$14m (US$9.7m) committed by the federal government in July 2022 to bolster the defense against the spread of livestock disease in Indonesia, Timor-Leste and Papua New Guinea.

Animals infected with FMD develop blisters in their mouths and soft tissue immediately above their hooves and between their toes. These blisters produce ulcers, and the lesions are very painful. The larger animals in particular tend to stop walking, lay down and stop eating, drinking and drool. Because of its highly contagious nature, within an infected herd or flock, nearly all animals become infected and sick, but few will die from the disease. However, the economic impacts are huge as experienced in the last major outbreak in the UK in 2001 which resulted in more than 6.5 million livestock being destroyed.

Although Australia is reported to have response plans in place should an FMD incursion occur, if it were to transmit to the wild pig, goat and deer populations, control or eradication of the disease would become extremely difficult. Modelling by the Australian Bureau of Agriculture and Resource Economics indicates that depending on the location and scale of an FMD incursion the cost of control and revenue losses could range from AU$5 billion to AU$50 billion over a ten-year period.

The Australian government and livestock industries recognize that the best way to reduce the risk of FMD entering Australia is to support Indonesia to manage its outbreak and bring it under control as promptly as possible.

**Lumpy Skin Disease (LSD)**

Lumpy skin disease is a virus that affects cattle and buffalo. The disease can cause significant production losses but causes relatively low mortality. The disease is spread primarily by biting insects such as flies and mosquitoes, and ticks may also be a vector. It can also be carried and spread through clothing, equipment and from animal to animal. The general health impact on cows and buffalo are fever, loss of appetite, emaciation and painful skin lesions. There is typically a decline in milk yield and pregnant animals may abort.

LSD was officially confirmed in Indonesia in the Riau province in east-central Sumatra on March 22, 2022 and after the initial rapid spread it has not moved further south where a large number of feedlots are in south Sumatra. The disease originated in southern Africa but since 2019 has been spreading through Asia including India, Taiwan and Vietnam. In 2021 it was reported in Myanmar, Thailand, Laos, Cambodia and Malaysia. The current vaccines against LSD are reportedly not particularly effective which makes the management of the disease difficult and limiting the spread even more

challenging. Given the rate of spread of the disease through Asian countries there is a significant risk of the disease reaching Australia.

Given that the primary mode of disease transmission is via insects, typical quarantine and border control measures are essentially ineffective. There are some thoughts that the spread of LSD is primarily driven by seasonal changes in prevailing winds shifting insect vector populations. It is considered that there is a higher chance that LSD will enter Australia than FMD.

| Animal Numbers, Cattle | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| Market Year Begins | Jan 2021 | | Jan 2022 | | Jan 2023 | |
| Australia | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| **Total Cattle Beg. Stks** (1000 HEAD) | 23021 | 23021 | 23944 | 23944 | 0 | 25709 |
| **Dairy Cows Beg. Stocks** (1000 HEAD) | 1410 | 1410 | 1420 | 1420 | 0 | 1420 |
| **Beef Cows Beg. Stocks** (1000 HEAD) | 10000 | 10000 | 10600 | 10600 | 0 | 11500 |
| **Production (Calf Crop)** (1000 HEAD) | 8200 | 8200 | 8800 | 8800 | 0 | 9300 |
| **Total Imports** (1000 HEAD) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Supply** (1000 HEAD) | 31221 | 31221 | 32744 | 32744 | 0 | 35009 |
| **Total Exports** (1000 HEAD) | 788 | 788 | 525 | 525 | 0 | 650 |
| **Cow Slaughter** (1000 HEAD) | 2717 | 2717 | 2800 | 2600 | 0 | 3100 |
| **Calf Slaughter** (1000 HEAD) | 285 | 285 | 290 | 260 | 0 | 300 |
| **Other Slaughter** (1000 HEAD) | 3301 | 3301 | 3600 | 3450 | 0 | 3800 |
| **Total Slaughter** (1000 HEAD) | 6303 | 6303 | 6690 | 6310 | 0 | 7200 |
| **Loss and Residual** (1000 HEAD) | 186 | 186 | 200 | 200 | 0 | 200 |
| **Ending Inventories** (1000 HEAD) | 23944 | 23944 | 25329 | 25709 | 0 | 26959 |
| **Total Distribution** (1000 HEAD) | 31221 | 31221 | 32744 | 32744 | 0 | 35009 |
| | | | | | | |
| (1000 HEAD) | | | | | | |

**BEEF**

**Production**

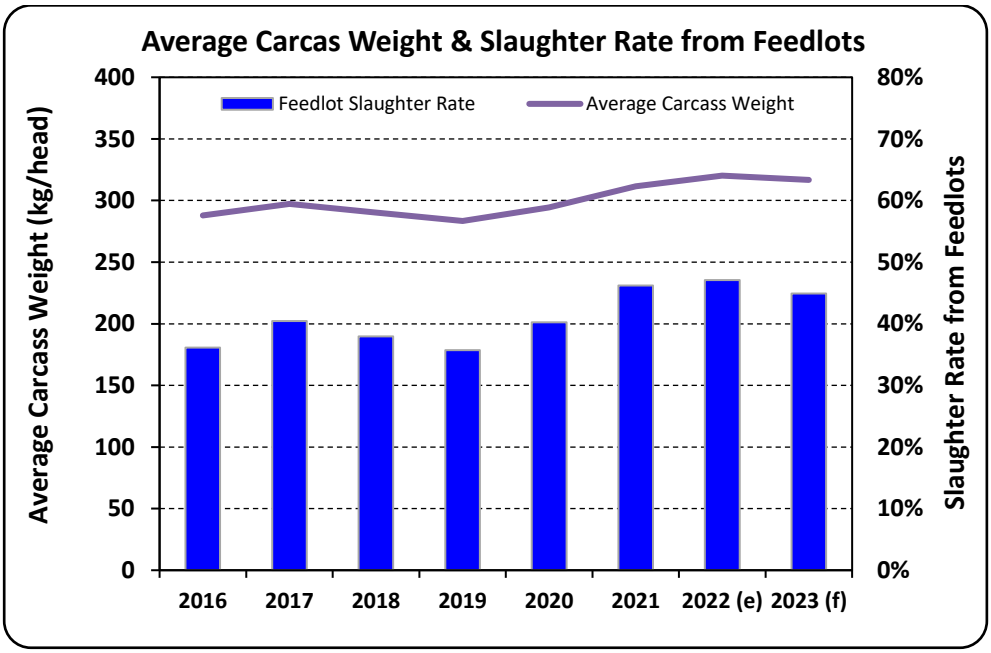
**2023**

FAS/Canberra forecasts beef production in 2023 to increase by 13 percent to 2.2 million metric tons (MMT) Carcass Weight Equivalent (CWE) relative to the revised 2022 estimate of 1.95 MMT (CWE). This forecast increase correlates with an expected 14 percent increase in the cattle slaughter volume, but carcass weights are expected to decline slightly with an anticipated lower proportion of total slaughter from feedlot cattle but also a higher rate of female slaughter.

For 2023 there is an expectation that overall slaughter numbers will increase, but the proportion of feedlot cattle will decrease. This is despite numbers of feedlot cattle to continue to rise, as slaughter of grass-fed animals is expected to increase even more. Based on past trends the average carcass weight for adult cattle slaughtered (excludes calves) is expected to decline in the forecast year to almost 317 kg/head compared to an estimated 320 kg/head for 2020 (see Figure 12).

Typically, grass-fed finished cattle on average have lower slaughter weights than cattle finished in feedlots. There is not an absolute direct correlation between the two but there is a strong influence. Other factors, such as droughts or strong pasture production years (which impact female slaughter numbers and the proportion of overall slaughter from feedlots), and the number of high carcass weight wagyu animals produced from feedlots are influences over average carcass weight that warrant consideration.

**Figure 12 – Average Carcass Weight and Feedlot Slaughter Rate Trend**




*Source:* *Australian Bureau of Statistics*
*Note:* *(e) = estimate, (f) = forecast*
*Slaughter Rate from Feedlots is the percentage of national slaughter from feedlot cattle*

**2022**

The FAS/Canberra beef production estimate for 2022 is revised down by five percent to 1.95 MMT (CWE) from the official USDA estimate of 2.05 MMT (CWE). For the first half of 2022 beef production is 907,569 MT (CWE), almost two percent lower than the 922,439 MT (CWE) for the first half of 2021. However, as previously mentioned slaughter numbers are expected to improve in the second half of 2022 enabling the industry to exceed the 2021 production of 1.888 MMT (CWE). The other key factor is that the estimated average adult carcass weight is expected to reach 320 kg/head for 2022, a new record level, up from 311 kg/head in 2021.

Part of the industry capacity to claw back beef production in the second half of 2022 is the higher male slaughter rates, compared to 2021, which generally have higher carcass weights than females. The total slaughter number estimated for 2022 is almost the same as for 2021, but a five percent increase in male slaughter anticipated in 2022 and a four percent decline in female slaughter. The balance of one percent

relates to a decline in calf slaughter expected in 2022 and due to their very low carcass weights this has little impact on beef production. Furthermore, with generally very good pasture production conditions for over the last two years the feedlot cattle and finished grass-fed cattle during 2022 will have had little impediment in their growth rates compared to the 2021 finished cattle which were born during drought conditions. In addition, there is expected to be less of an impact of COVID-19 on staffing at processing facilities during the second half of the year.

**Consumption**

**2023**

FAS/Canberra forecasts an eight percent increase in domestic beef consumption to 720,000 MT (CWE) in 2023 from the downward revised 2022 estimate of 667,000 MT (CWE). This increase is primarily related to the forecast rise in beef production. If realized, this would be the highest level of consumption since 2018 when for many years consumption was substantially higher. With higher beef production expected in 2023 the competitiveness of beef compared to other meats is anticipated to improve which will support higher consumption. However, the rising cost of living during 2022 is expected to flow through to 2023 impacting consumers level of disposable income which is expected to have a dampening effect on beef purchases, hindering an even greater rise in forecast beef consumption.

**2022**

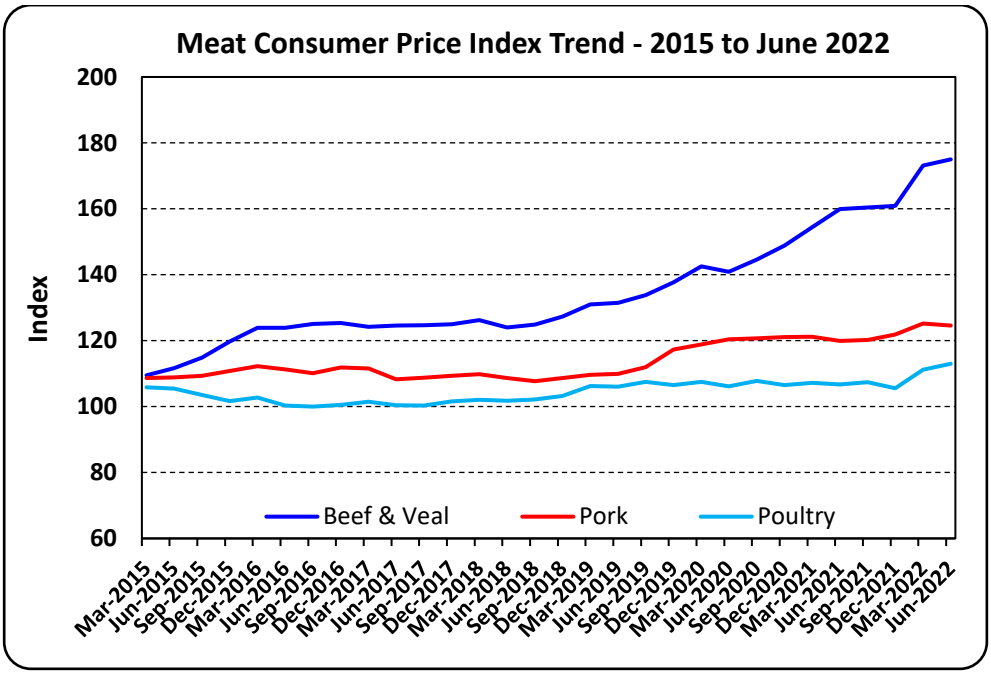
The FAS/Canberra beef consumption estimate for 2022 has been revised down to 667,000 MT (CWE) from the official USDA estimate of 717,000 MT (CWE). This is due to the downward revised production estimate along with continued strong demand for limited export supply, placing continued pressure on the domestic supply and propping up the price of beef. A further factor has been the increasing disparity in the price of beef compared to other meats coupled with the rising cost of living in Australia brought on by inflationary pressures.

Beef prices in Australia have increased strongly since 2019 and the trend has continued in the first half of 2022 whilst pork prices had flattened. Although poultry prices have increased in the first half of 2022, along with pork, is still a much lower cost for consumers (see Figure 13).

The Australian Reserve Bank has an inflationary target band of 2.0 to 3.0 percent. Prior to the COVID-19 pandemic and during the early phases of the pandemic the consumer price index (CPI) was tracking below the target band. But in the first half of 2022 inflation in Australia has rocketed up well past the target band hitting 6.1 percent for the second quarter of 2022 (see Figure 14). The Reserve Bank of Australia has rapidly lifted interest rates from 0.1 percent in April 2022 to 1.85 percent in August 2022. These impacts have significantly increased costs to consumers and from all reports the rate of salary increases have not kept pace with rising costs leaving consumers with less disposable income and adjusting their spending habits, including food. Consumers are reportedly reducing their expenditure on meats by reducing higher value meat consumption for lower value meats and cuts.

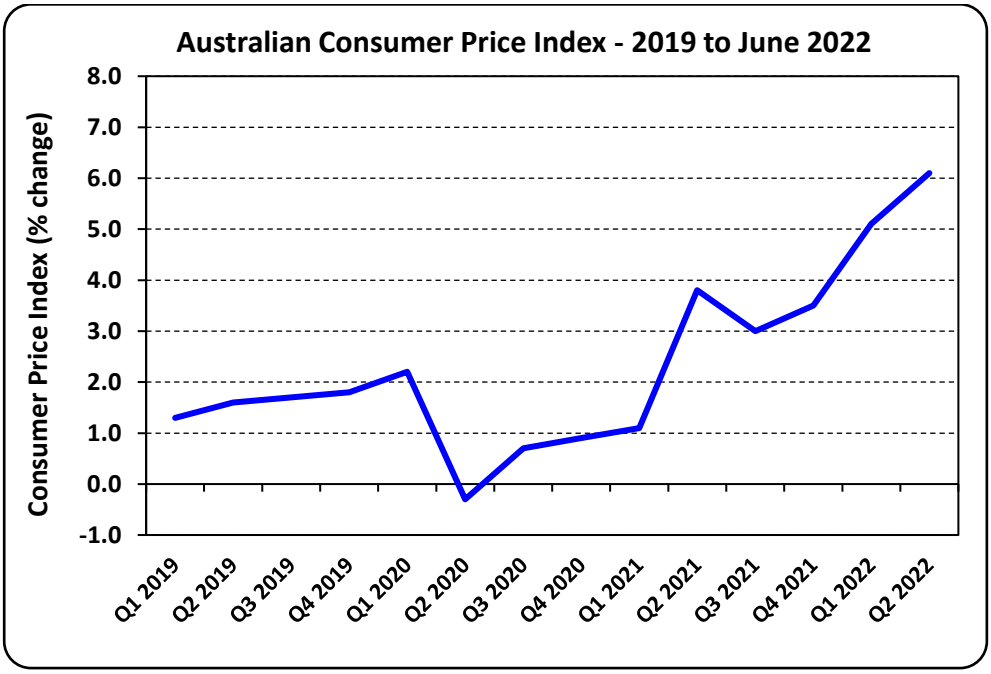
With inflation yet to be curbed, expectations are that the Reserve Bank interest rates will increase further in 2022 which will have some impact in the second half of 2022.

**Figure 13 – Meat Consumer Price Index Trend 2015 to June 2022**




*Source:* *Australian Bureau of Statistics*

**Figure 14 – Australian Consumer Price Index Trend 2019 to June 2022**




*Source:* *Australian Bureau of Statistics*

**The "Fake Meat" Labeling Inquiry**

A federal government senate inquiry into the 'definitions of meat and other animal products' associated with the labelling of meat replacement products such as beef patties and sausages has commenced in August 2021. The inquiry was initiated in response to meat industry belief that current labelling laws allow non-meat products to be sold in a misleading way by utilizing the decades of investment by meat industries in building consumer understanding of meat products. At total of 177 submissions were made which closed on August 13, 2021. In February 2022 the inquiry concluded its inquiry and handed down its recommendations.

The core recommendation was that "the Australian Government develops a mandatory regulatory framework for the labelling of plant-based protein products, in consultation with representatives from the traditional plant-based protein sectors, food service industry and retailers." There were other recommendations to support the enactment of the core recommendation. But the inquiry was also supportive of the plant based protein industry and recommended that the Department of Agriculture, Water and the Environment (now the Department of Agriculture, Fisheries and Forestry) in conjunction with the Commonwealth Scientific and Industrial Research Organization (CSIRO) examines measures to support the plant based protein sectors capacity to source products from Australian grown produce and support investment opportunities for manufacturing infrastructure to improve its competitiveness and market opportunities internationally.

**Trade**

**2023**

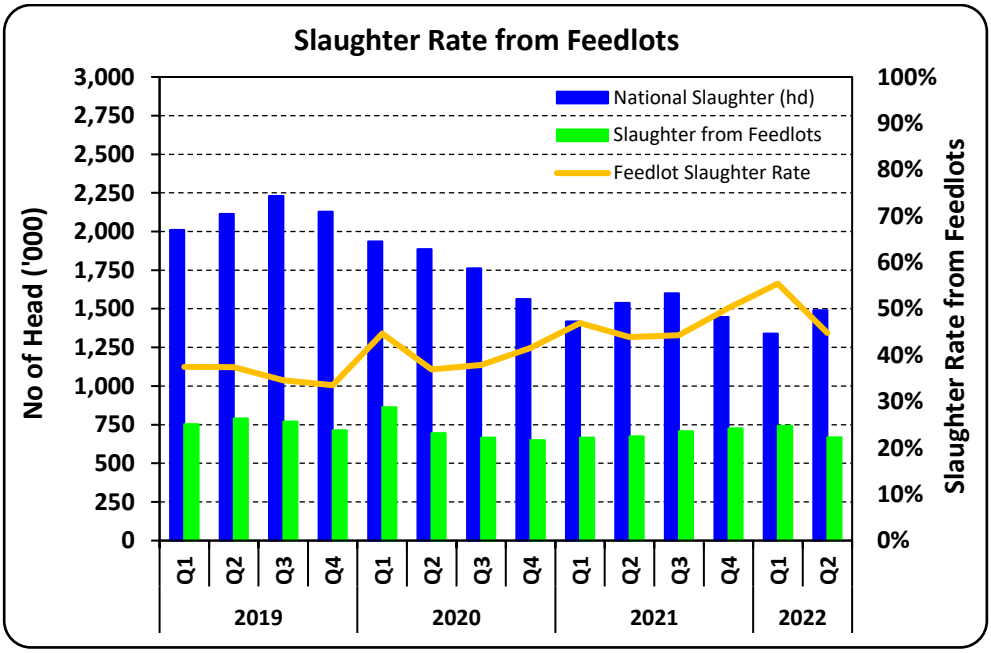
FAS/Canberra forecasts beef exports in 2023 to rise to 1.5 MMT (CWE), up 200,000 MT (CWE) from the slightly downward revised 2022 estimate. However, exports will still be far below the most recent pre-drought peak of 1.77 MMT (CWE) in 2015. The forecast increase of beef exports mainly relates to the expected increase in beef production in 2023.

In Australia there has been a general trend towards an increasing proportion of the national cattle slaughter being from feedlots (see Figure 15). Once the drought ended and the onset of the herd rebuild commenced in early 2020, the national slaughter declined substantially but the slaughter numbers from feedlots has only slightly declined, despite fierce competition for young cattle from restockers looking to grow-out grass-fed beef cattle. Feedlots have managed to maintain high numbers and meet export demand for beef and supply somewhat lower domestic demand in part by passing on the higher cost of beef.

For 2023, there is an expectation that now at a more advanced stage of the herd rebuild phase, that there will be less competition for young cattle from restockers (who have generally paid a premium over

feedlots during the national herd rebuild) resulting in more supply available for feedlots. This is expected to enable feedlots to produce more grain-fed cattle (which is preferred by the export markets, especially in North Asian markets) at more competitive prices, supporting the forecast increase in beef exports.

**Figure 15 –Slaughter Rate from Feedlots**




*Source: Meat & Livestock Australia / Australian Bureau of Statistics*

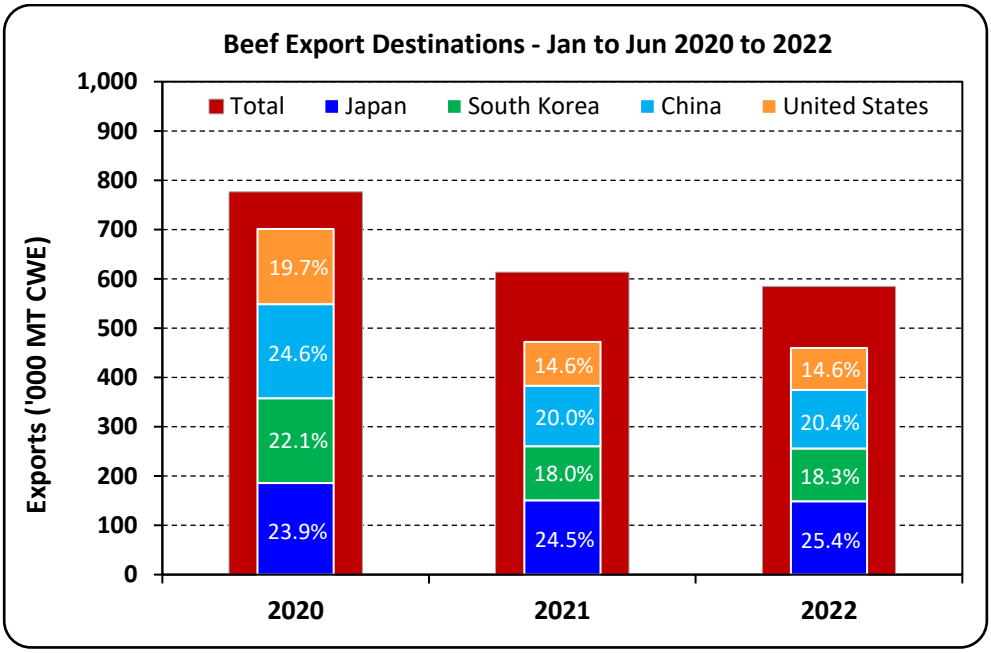
**2022**

FAS/Canberra has revised down the beef export estimate for 2022 to 1.30 MMT (CWE) from the official USDA estimate of 1.35 MMT (CWE). If realized this would only be fractionally above the 2021 result of 1.291 MMT (CWE), which was the lowest since 2003. Exports for the first half of 2022 are at 584,313 MT (CWE) compared to 613,841 MT (CWE) in the first half of 2021. Seasonally, January and February are low export months, resulting in the first half of the year typically accounting for 47 percent of annual exports. With the anticipation of increasing supply of finished grass-fed cattle in the second half of the year from very good spring pastures and the expectation of continued high average carcass weights, the export pace is expected to pick up in the second half of the year.

The four major export destinations for Australian beef - Japan, China, United States and South Korea - have in recent years accounted for over three-quarters of Australian beef exports (see Figure 16). In the first half of 2022, even though there has been a slight decline on overall exports, the proportion of exports to these four key destinations is almost identical to the first half of 2021.

Despite the severe drought conditions in the United States triggering a large increase in cattle slaughter numbers and beef production, the export volume of beef from Australia so far in 2022 to the United States is unchanged. Australia has so far in 2022 managed to maintain its export volumes to Japan, South Korea and China compared to the first half of 2021, although there are reports of strengthening U.S. competition in these markets.

**Figure 16 – Change in Australian Beef Exports – Jan-Jun 2020 to 2022**




*Source: Australian Bureau of Statistics*

| Meat, Beef and Veal | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| Market Year Begins | Jan 2021 | | Jan 2022 | | Jan 2023 | |
| Australia | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| **Slaughter (Reference)** (1000 HEAD) | 6303 | 6303 | 6690 | 6310 | 0 | 7200 |
| **Beginning Stocks** (1000 MT CWE) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Production** (1000 MT CWE) | 1888 | 1888 | 2050 | 1950 | 0 | 2200 |
| **Total Imports** (1000 MT CWE) | 24 | 24 | 17 | 17 | 0 | 20 |
| **Total Supply** (1000 MT CWE) | 1912 | 1912 | 2067 | 1967 | 0 | 2220 |
| **Total Exports** (1000 MT CWE) | 1291 | 1291 | 1350 | 1300 | 0 | 1500 |
| **Human Dom. Consumption** (1000 MT CWE) | 621 | 621 | 717 | 667 | 0 | 720 |
| **Other Use, Losses** (1000 MT CWE) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Dom. Consumption** (1000 MT CWE) | 621 | 621 | 717 | 667 | 0 | 720 |
| **Ending Stocks** (1000 MT CWE) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Distribution** (1000 MT CWE) | 1912 | 1912 | 2067 | 1967 | 0 | 2220 |
| | | | | | | |
| (1000 HEAD) ,(1000 MT CWE) | | | | | | |

**PORK**

**Production**

FAS/Canberra forecasts Australia's pork production in 2023 to decline to 415,000 MT (CWE), from the downward revised 2022 estimate of 425,000 MT (CWE). The two key factors influencing the forecast reduction in pork production is the impact of Japanese Encephalitis Virus (JEV) in Australian piggeries and some pork producers exiting the pork industry due to the challenges of labor shortages and high feed grain prices.

A key factor impacting the forecast pork production in 2023 is Japanese Encephalitis Virus (JEV) which was first identified in multiple Australian piggeries in February 2022. It affects the fertility of sows and boars until the animals establish immunity to the disease. The disease is having a negative impact on the average number of pigs weaned per sow at piggeries that have contracted JEV and the productivity impacts last for many months. Although some impact on pork production is evident from the second quarter of 2022 pig slaughter data it is expected to become more evident in the second half of 2022 and into the forecast year. In addition, it is anticipated that further piggeries are progressively likely to become infected with JEV in the second half or 2022 and in 2023 which will have a production impact in the forecast year. Although the impacts of JEV on individual piggeries can be substantial, they are for a relatively short period of time as the pigs develop immunity, so some pig herds fully recover before others become affected resulting in a lesser impact from a national production perspective.

There are industry reports that some piggeries are in the process of shutting down. These appear to be piggeries established as a diversification to grain production and there are reportedly two major influencing factors in their decision. Like industries economy-wide in Australia, sourcing enough suitable labor to meet the needs of piggeries has been very difficult and is continuing to be the case and many have been running under-staffed over the last two years. For those piggeries in more remote regional areas the extent of the labor shortage issue is further exacerbated. An additional factor is that with feed grain prices high over recent years and with the sentiment that they will remain elevated for some time, not only is the cost of pork production high but also for those with diversified interests their attention is now better placed focusing on their own grain production. This will have an impact on Australia's overall pork production capacity in the coming years.

The FAS/Canberra pork production estimate for 2022 has been revised down to 425,000 MT (CWE) from the official USDA estimate of 450,000 MT (CWE). Pork production for the first half of 2022 is at 216,873 MT (CWE) compared to 221,472 MT (CWE) in the first half of 2021. Although past trends typically indicate production evenly split between the first and second six month of the year, there is an anticipation that production will be lower in the second half due to the impacts of JEV and the winding back of production of producers in the process of exiting the industry.

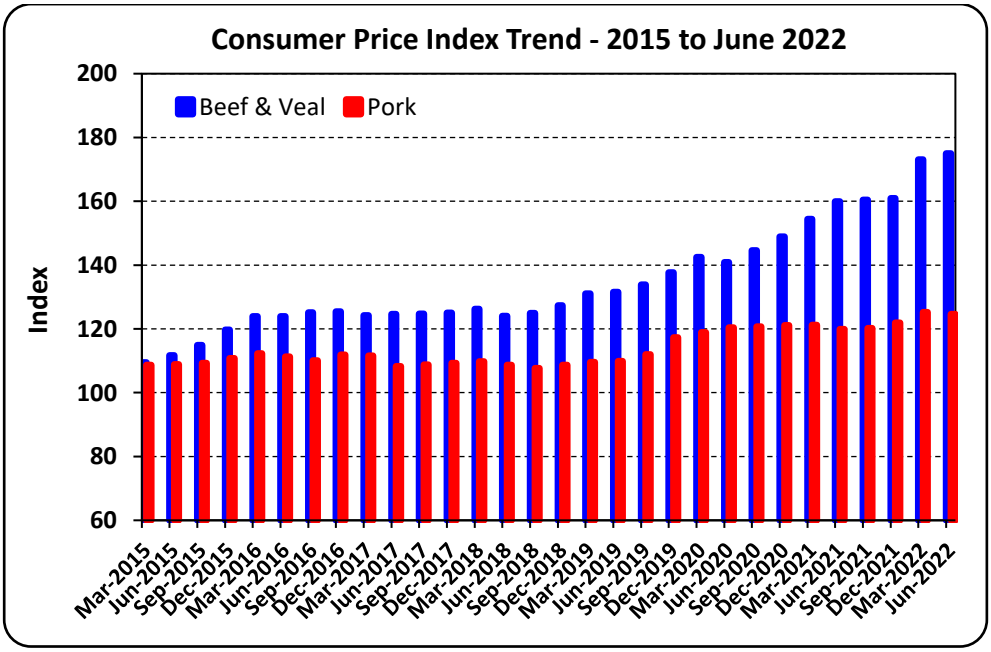
**Japanese Encephalitis Virus (JEV)**

JEV is a mosquito-borne viral disease that results in reproductive losses in pigs. The virus is spread by mosquitoes feeding on infected animals and is not typically spread from animal-to-animal contact. Adult sows do not show overt signs of the disease, but if infected prior to around 60-70 days of pregnancy, they often abort or give birth to mummified and stillborn or weak piglets which may have neurological issues. Infected boars may experience infertility and swollen, congested testicles. Sows develop immunity to JEV and generally no reproductive impacts for their following litter. For boars, the impact of JEV can last a little longer but they also typically fully recover.

The virus was first identified in multiple piggeries located in the eastern states of Australia in February 2022, however, it is likely that pigs were first infected as early as late November 2021. It is believed to have arrived via the movement of infected mosquitos or migratory waterbirds.

Industry reports that some piggeries in Australia have JEV incursions and the impacts on pigs weaned per sow per litter vary from around 10 to 30 percent. The degree of infection has an impact on the sow reproductive performance, and this is impacted by the load of infected mosquitos at the piggery and the management practices applied at the piggery. This includes geographical areas less prone to having mosquitoes in their area, the degree of management of potential mosquito breeding sites around the piggery, and how promptly after the initial JEV incursion is identified and subsequently applying control measures such as mosquito repellant treatment on the sows and boars.

**Figure 17 – Consumer Price index Trend – 2015 to June 2022**




*Source:* *Australian Bureau of Statistics*

**Consumption**

Pork consumption is forecast to decline slightly in 2023 to 620,000 MT (CWE) from an estimated 623,000 MT (CWE) in 2022. Despite the high inflationary pressures which are expected to impact consumer discretionary spending choices well into 2023, and the declining beef cattle prices (since late June 2022), pork prices remain well below that of beef (see Figure 17), which is expected to support a relatively stable consumption of pork in 2023.

Consumption of pork in 2022 has been revised down slightly to 623,000 MT (CWE) from the official USDA estimate of 625,000 MT (CWE).

**Trade**

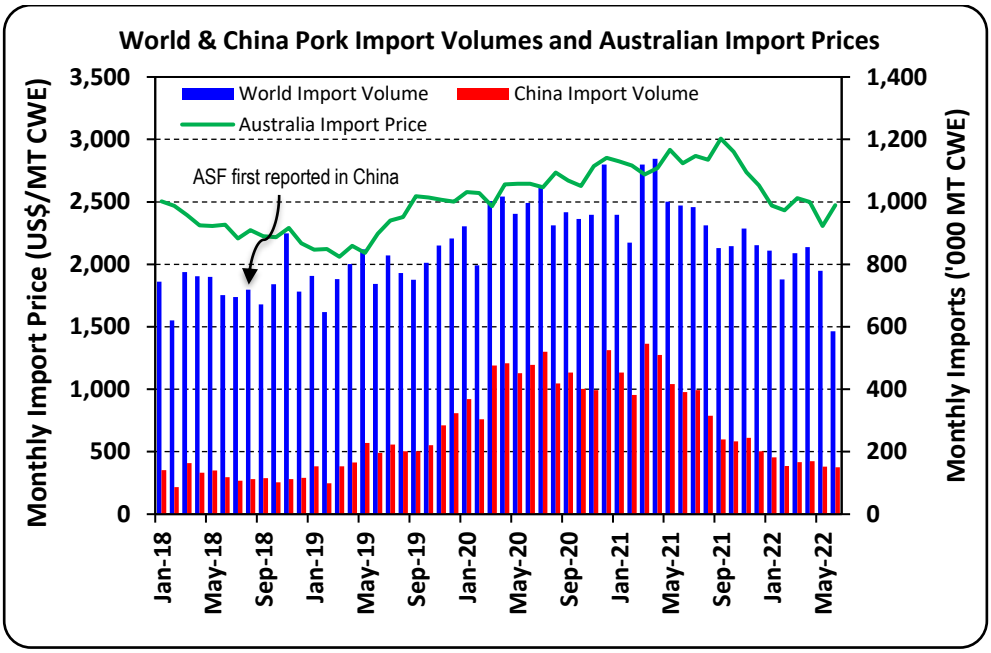
Imports

FAS/Canberra forecasts Australia's pork imports to remain steady at 230,000 MT (CWE) in 2023, from an upward revised 2022 estimate. On the one hand, lower domestic pork production in 2023 is expected to support pork import volumes. On the other hand, there is anticipated to be reduced import availability of low-priced EU pork next year. This is associated with an expectation that EU pork production will adjust downwards to meet the reduced export demand from China, as this is what pressured EU prices and encouraged higher Australian pork imports in the EU in 2022.

FAS/Canberra has revised pork imports for 2022 up to 230,000 MT (CWE) from the official USDA estimate of 215,000 MT due to lower domestic production and attractive import prices. Imports for the first half of 2022 are at 129,984 MT (CWE) up 27 percent (27,797 MT (CWE)) from the same period in 2021. This big rise of pork imports as mentioned relates to a substantial drop in pork import price for Australia which is related to a major shift in world import demand.

There has been a huge drop in pork import demand from China during 2021 which has brought their 2022 pork imports to near pre-African Swine Fever demand levels. This huge shift in pork demand from China has had a corresponding effect on overall world import demand (see Figure 18). By far the biggest suppliers of pork to China were from the European Union (EU) and this rapid drop in pork demand has reportedly resulted in over production of pork in the EU resulting in the EU having to seek t other markets. With this oversupply of pork in the EU the price of pork imports into Australia since late 2021 has also declined significantly (see Figure 19), encouraging the high volume of pork imports by Australia in 2022. World pork import prices have stabilized in recent months at well below peak levels seen in 2021 and no major shift is expected until production adjustments occur, particularly from the EU, well into 2023.

**Figure 18 – World & China Pork Import Trend**

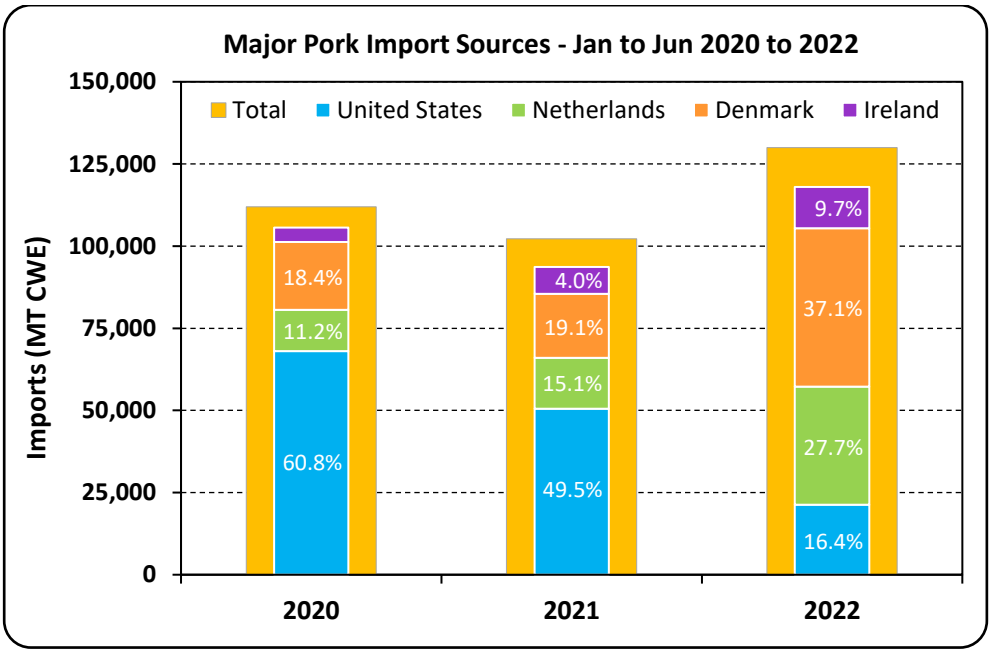



*Source:* *Trade Data Monitor*

The fresh pork market in Australia is supplied by local producers as biosecurity regulations prevent imports of fresh and chilled pork. Processed pork, which includes ham, bacon and small goods, is mainly supplied from frozen pork imports. Local manufacturers are typically less competitive in producing processed pork than other major pork producing nations so large variances in imports from year to year are generally not expected. However, the average price of pork imports for the first half of 2022 is 13 percent lower than the first half of 2021 which has contributed to the higher-than-expected volume of imports.

Over recent years the top four suppliers of pork to Australia have accounted for almost 95 percent of overall imports. The United States has supplied around half of Australia's pork import needs in recent years. However, in the first half of 2022, there has been a substantial shift in the source of Australian pork imports towards Denmark, Netherlands and to a lesser extent Ireland (see Figure 19). With the rapid drop in pork imports by China from the EU resulting in a drop in world pork prices it is not surprising to see Australian pork imports focus shifting to the EU.

**Figure 19 – Major Pork Import Sources – Jan to Jun 2020 to 2022**




*Source:* *Australian Bureau of Statistics*

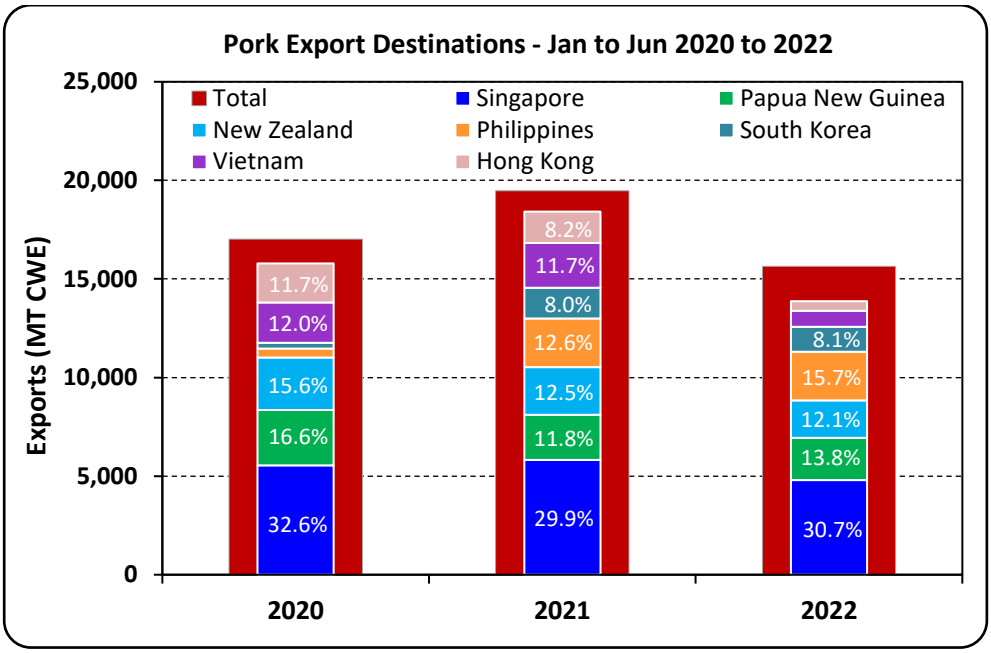
Exports

FAS/Canberra forecasts exports in 2023 decline to 25,000 MT (CWE) from a downward revised 2022 estimate. This is mainly driven by lower production in part due to the impacts of JEV which are expected to continue into 2023 in Australia. It is also due to the lower world price for pork and the continued high feed grain prices which are discouraging exports.

FAS/Canberra has revised pork exports for 2022 down to 32,000 MT (CWE) from the official USDA estimate of 40,000 MT. Exports for the first half of 2022 are at 15,635 MT (CWE) and in past trends exports are typically marginally below 50 percent in the first half year. World pork prices appear to have stabilized in recent months and feed grain prices remain firm and there are no other disruptors anticipated to this trend for the remaining six months of the year and the estimate has been revised on this basis.

Australian pork exports are relatively low at around eight percent of production and around 90 percent is to seven countries in Asia. Singapore is the most important destination with around 30 percent of overall exports and Philippines, Papua New Guinea, and New Zealand are all of similar importance ranging from 12 to 15 percent (see Figure 20). Exports to Vietnam and Hong Kong have declined in the first half of 2022 which may relate to China's pork production rebound from ASF.

**Figure 20 – Pork Export Destinations – Jan to Jun 2020 to 2022**




*Source:* *Australian Bureau of Statistics*

| Meat, Swine | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| Market Year Begins | Jan 2021 | | Jan 2022 | | Jan 2023 | |
| Australia | USDA Official | New Post | USDA Official | New Post | USDA Official | New Post |
| **Slaughter (Reference)** (1000 HEAD) | 5580 | 5580 | 5650 | 5335 | 0 | 5215 |
| **Beginning Stocks** (1000 MT CWE) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Production** (1000 MT CWE) | 444 | 444 | 450 | 425 | 0 | 415 |
| **Total Imports** (1000 MT CWE) | 210 | 210 | 215 | 230 | 0 | 230 |
| **Total Supply** (1000 MT CWE) | 654 | 654 | 665 | 655 | 0 | 645 |
| **Total Exports** (1000 MT CWE) | 38 | 38 | 40 | 32 | 0 | 25 |
| **Human Dom. Consumption** (1000 MT CWE) | 616 | 616 | 625 | 623 | 0 | 620 |
| **Other Use, Losses** (1000 MT CWE) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Dom. Consumption** (1000 MT CWE) | 616 | 616 | 625 | 623 | 0 | 620 |
| **Ending Stocks** (1000 MT CWE) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Distribution** (1000 MT CWE) | 654 | 654 | 665 | 655 | 0 | 645 |
| | | | | | | |
| (1000 HEAD) ,(1000 MT CWE) | | | | | | |

## Attachments:

No Attachments