Uncovering and minimising the impacts of COVID-19 logistics disruption

Short-term logistics disruption report

May 2021
Project scope and objectives

Project objectives

- Minimise the impact of COVID-19 logistics disruptions on agricultural export supply chains.
- Conduct ongoing analysis of logistics disruption and market impacts to provide timely and accurate information to selected rural industries.
- Improve the resilience of rural industries to logistics disruption, by providing information to support businesses to make strategic decisions.

Project scope

- Develop short-term logistics disruption assessment reports on a monthly basis, including general agriculture logistics information and three industry case studies.
- Develop medium-to-long term logistics assessment reports on a quarterly basis, to investigate longer-term factors such as geopolitical impacts, customs and market access regulations.
Rationale for market selection
Between 2019 and 2021, Australian red meat exports experienced varying degrees of freight and market access disruption. -22% Decline in export volumes 2019-2021

Key disruptions during the past two years include the following:

- Increased freight costs and inconsistent sales order volumes.
- Reduced air freight access for high-value, perishable red meat exports.
- Inability to book vessel space with enough time and certainty to effectively plan the product flows and export supply chain.

China’s first COVID-19 lockdown caused a Global reefer shortage and grounded flights

Varying global impacts attributed to COVID-19 have contributed to export supply and demand planning challenges

Processing plants closed or operated at reduced capacity during the pandemic due to COVID contact threats or market access challenges

Industrial action at Australian ports impacted short-term shipping schedules

The second China container shortage increased the number of cancelled routes and reduced port stops for sea freight
Logistics challenges rationale for inclusion of red meat

Australian red meat exports have declined over the last two years¹

- Total red meat exports declined by 22% from Q4 2019 to Q3 2021.
- Should these trends continue, the forecasted Compound Annual Growth Rate (CAGR) is -5%. Note this forecast is theoretical and does not take into account external factors.
- Disruption to logistics and reduced access to key export markets was a key contributor to the declining shipped volumes.

Global demand is volatile

- Disruptions during key holiday periods created seasonal demand fluctuations.
- Panic buying in key export markets disrupted retail inventories globally.
- Banning of red meat imports sourced from Australian suppliers by key trading markets, due to issues such as labelling and certification, had severe flow-on impacts across the entire supply chain.²
- Australian red meat industry suffered longer delays compared to competing export nations, for reasons unspecified – impacting competitiveness.⁵

*Compound Annual Growth Rate’s have been self-calculated based on DAWE Red meat export data using the standard CAGR formula.
Logistics challenges rationale for inclusion of grains

In contrast to other rural industries, grains were most impacted by the inability to import key production inputs, in high demand during a record growing season.

Key disruptions during the past two years include the following:

- Access to truck drivers and vehicles in WA slowed/reduced bulk exports
- Logistics uncertainty resulted in price volatility, making supply forecasting more challenging
- A surge in Australian demand occurred for fertilisers, chemicals and other inputs, which couldn’t be sourced from China as usual, due to lack of product availability and understaffed ports
- Industrial action at the Port of Botany severely impeded container trade
- Market access instability resulted in cancelled routes and lost export opportunities
- Slowdown in global grain trade drove down prices and caused a build-up of Australian grain at Chinese ports.
- Pivoting to other markets due to market access challenges in key export locations has increased cost and complexity of supply chains.
- Inability to import inputs meant some producers have struggled to plant seeds in the ground.

-20% 2020 reduced export volumes against the ten-year industry average
Logistics challenges rationale for inclusion of grains

Bulk grain exports of barley, oats, sorghum and wheat have declined:3

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume (000 Tonnes)</th>
<th>Value ($M AUD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>486,605</td>
<td>$66,136</td>
</tr>
<tr>
<td>2018</td>
<td>293,376</td>
<td>$42,596</td>
</tr>
<tr>
<td>2019</td>
<td>80,942</td>
<td>$27,362</td>
</tr>
<tr>
<td>2020</td>
<td>42,996</td>
<td>$15,020</td>
</tr>
</tbody>
</table>

Global demand has been variable

- Tariffs of up to 80% on Australian barley were imposed by key markets for the next five years – significantly impacting competitiveness in those locations.
- A decrease in demand for luxury consumer goods (like beer) in key export markets has severely reduced demand for Australian barley, which is a core raw material.
- Longer-term storage of grain exports at overseas ports occurred throughout 2020 – resulting in reduced forward sales in some markets.1
- **Australia has a high dependence on inputs manufactured abroad, increasing exposure of the industry to global logistics.** For example, a particularly cold Chinese winter diverted fertiliser and reduced availability to the global market.

Source: UN Comtrade Database. SITC Rev.2 commodities: (1) 110411 - Cereal grains; rolled or flaked, of barley. (2) 110412 - Cereal grains; rolled or flaked, of oats (3) 1001 - Wheat and meslin. (4) 100700 – Grain sorghum. These graphs are not indented to represent the grains industry as a whole, but show an example of some of the volatility certain exports have experienced.
Logistics challenges rationale for inclusion of citrus

Citrus* export volumes continue to grow, however access to labour and global export competition have exacerbated freight capacity challenges.

Since 2011, Australian citrus exports have approximately doubled in value and quadrupled in volume*

Key disruptions during the past two years include the following:¹

- Border closures limited migration of critical Pacific Island labour supply for harvest periods
- Increased competition from Chile reduced price points in certain export market segments, and increased pressure on logistics costs
- Australian citrus was held at ports in key export markets for extended inspections in recent months, giving rise to fears of future market access³
- There was a surge in domestic and global demand due to perceived health benefits during COVID-19
- Industrial action at Port of Botany severely impacted access to container freight

* Pressure on logistics costs has grown, due to rising export competition and input availability such as domestic labour.

* Freight availability fell during a period of increased demand – forming a supply-demand imbalance.

**Citrus* includes oranges, mandarins, lemons, limes, and grapefruit.
Logistics challenges rationale for inclusion of citrus

Australian citrus exports experienced significant export growth over the past decade\(^2\)

- Continued growth of citrus exports may be affected going forward, if the logistics disruption over the last 18 months are to continue.
- Citrus Australia has indicated that the industry faces major logistics challenges due to global container access throughout the pandemic.
- If further major disruptions or other adversities are avoided, linear growth would represent a forecasted CAGR of 13% for value and 7% for volume. Note this forecast is theoretical and does not take into account external factors.

Multiple drivers will impact future industry outcomes

- The citrus industry has a large dependence on select Asian export markets for orange and mandarin exports, therefore the industry is highly exposed to access limitations and disruptions to those regional supply chains.
- Citrus logistics face high pressure with increased demand, fluctuations in container availability and rising competition, and the possibility of market access challenges.

*Compound Annual Growth Rate’s have been self-calculated based on Hort Innovation citrus export data using the standard CAGR formula.*
Cross-industry insights
There are several key impacts of recent logistics disruption on rural industries

Cross-industry:

• Ongoing congestion and delays are a global concern, with schedules continually revised and impacting supply chain planning of Australian exporters.7

• Competition for freight space will remain, with shippers paying record rates and surcharges to secure space. Exporter margins and ability to service international customers will continue to be pain-points.

• Australian exporters will likely face difficulty booking container space from major ports, given the prioritisation of repatriating empty containers faster to help relieve shortages elsewhere, particularly in Asia.³

• Potential duplication in handling charges, as per the ACCC Container Stevedoring Report 2019-20, is further increasing freight and logistics costs for exporters.⁶

• Access to food-registered containers is increasing, as well as cold-chain compliant containers - creating opportunities and additional capacity for chilled food exports, that tend to be higher value.

• Grains and Red Meat face some of the highest proportional freight charges compared to other rural industries, meaning the impact of shipping delays is particularly costly.⁸

Grains:

• May experience shipping delays for containers due to global congestion, however bulk exports appear to be relatively unaffected.

• Australian ports are performing well, with growing opportunity to export feed barley from Port Kembla, Adelaide, and Fremantle, while sorghum exports are performing particularly well out of Port of Brisbane.⁸

Red meat:

• Although global air freight availability remains inconsistent, Australia is slowly increasing the availability of flights and therefore capacity is likely to increase for high-value red meat exports. For example, new weekly flights are expected to commence this month from Sydney to Tokyo, and Adelaide to Singapore.⁹

• Increased market access opportunities to Japan through progressively decreasing tariffs and through the broader CPTPP are valuable, however potential demand growth will be reliant on increasing freight availability and supply.

Citrus:

• Potential for increased export opportunities through increasing availability of food-registered and cold-chain compliant containers, meaning more options for producers and exporters.

• Reliance on shipping containers has made the industry vulnerable to capacity limitations, however increasing availability of air freight for other high-value horticultural products is reducing competition for freight space on vessels.
Trade through Australian major ports is slowly recovering

Melbourne

- Full overseas container imports were 37.2% above those in March 2020, with year to date volumes up by 16.0%.
- Full overseas container exports increased 9.0% on March 2020, with year to date volumes up by 3.9%. Cereal grains and wool were key growth sectors.
- Empty container movements for March totalled 79,476 TEU, 51.0% above March 2020 and 16.6% up for the year to date. This was partly addressed in early April as a Maersk sweeper vessel moved containers back to Asia, however indicates ongoing challenges with availability of freight containers.
- Break bulk trade increased 76.2% over March 2020, up 35.8% for the financial year to date, driven primarily by imports. This indicates ongoing limited freight capacity and resultant variable volumes of goods shipped.
- Victoria International Container Terminal Ltd (VICT) is increasing the infrastructure surcharge levied per imported and exported full container - $141.80 (exclusive of GST) VICT is also reinstating the Stack Run in (Empty) Fee and introducing a Premium Slot Fee, effective 1 July 2021. Increased cost will drive further margin pressure for Australian exporters.

Botany

- High volumes of demand for goods globally, together with COVID-19 impacts on labour availability, resulted in ships operating at or near capacity.
- Improved berth availability has increased the number of larger vessels docking each month – continuation of this trend will enhance access for bulk export commodities.
- Some off-window vessels have been serviced on arrival (where a berth is available), otherwise vessels have needed to slow down until a berth has been available, with delays of a few days. This has had flow-on impacts to following routes or port stops.
- Ultimately, while Port Botany is well positioned to handle the volume of containers, it will be some time before global shipping schedules return to normal and standard freight availability resumes.
- Some terminal operators have accepted shipping line requests to load more containers than their contracted volume, while others have accepted requests on a case-by-case basis. There will be continued variability in container processing for export industries.
- NSW Ports are looking to wind back congestion surcharges by shipping lines, resulting from high volume demand globally and which have placed margin pressure on Australian exporters.
Trade through Australian major ports is slowly recovering

### Kembla
- Port Kembla has experienced a resurgence in **bulk grain exports** after two years of extended drought, indicating effective clearing of cargo and capacity for increasing grain exports in the future.
- Port Kembla has been identified by the NSW Government as the State’s **next major container terminal**, once Botany nears capacity. Increased capacity in the future could reduce reliance on existing saturated supply chains.²

### National
- According to the ACCC Container Stevedoring Report 2019-20, stevedore 'landside and other' revenue is **significantly increasing**; however, this is being **offset by a correlating reduction in 'quayside' revenue** – this suggests **exporters and importers are paying duplicate landside stevedoring fees** via Terminal Handling Charges (THCs) and Terminal Access Charges (TACs).³
- It is estimated that Australian supply chain participants **are currently paying an additional $500M+ per year** direct to stevedores and empty container parks – which will be hard to avoid whilst disruptions continue to impact freight availability.
- Access to **food registered containers** is increasing, as well as **cold-chain compliant containers**, across most ports.
Australian market access has improved slightly in the midst of continuing global shipping delays

1. Global congestion targeted in China, ASEAN, the US, and Europe

   - **COVID-19 lockdowns in India** are increasing the risk of slowdowns and congestion for onward international freight. Labour scarcity, particularly of truck drivers, has impeded cargo flow out of some port and inland locations.²

   - Berthing congestion in South East Asia, port congestion in Auckland and ongoing delays in the US have been observed² – many of these supply chains connecting into Australian logistics.

   - A backlog of containers waiting to be transported out of China; and congestion at many ports around the world including the US, Europe, Asia and New Zealand, has created delays for vessels and the delivery of goods.²

   - International ports are reporting average delays ranging from several weeks to up to a month.²

2. Relaxation of tariffs to Japan and broader CPTPP

   - Tariffs on chilled and frozen beef under the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) fell from 25.8 to 25% in early April, per the given tariff schedule.

   - The Japan-Australia Economic Partnership Agreement (JAEPA) has also recently introduced lower tariffs for Australian beef exports. This shows promise for future exports, however March volumes have been limited.³ Low red meat exports to Japan at this time of year are typical and do not necessarily indicate a lack of medium-term demand.⁴
Global air freight and sea freight movement remains volatile

**Container Availability Index (CAx)**

- **CAx 0.5** same amount of containers leave and enter the port
- **CAx > 0.5** more containers enter than leave
- **CAx < 0.5** more containers leave than enter

- **Shanghai Port**: weekly average 0.625, 3% decrease on last month
- **Singapore Port**: weekly average 0.61, 1% increase on last month
- **Los Angeles Port**: weekly average 0.61, 5% increase on last month

**Takeaway**: A surplus of containers in major global ports indicates there are fewer available in Australia.

**Airfreight movements this month**, compared to six-month and year-prior benchmarks

<table>
<thead>
<tr>
<th>Month</th>
<th>Inbound</th>
<th>Outbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb-19</td>
<td>79</td>
<td>33K</td>
</tr>
<tr>
<td>Feb-20</td>
<td>83</td>
<td>29K</td>
</tr>
<tr>
<td>Aug-20</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Feb-21</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

- 16% decrease from last month*
- 24.4% decrease from February 2020

**Takeaway**: Air freight capacity is yet to return to pre-COVID levels, and a decrease in last month’s global air freight volume indicates continued volatility. This will particularly impact high value exports with short shelf lives, that cannot utilise other freight options.

**What does this mean for…**

**Red meat**

- High-value red meat exports, historically to Hong Kong and Singapore, will continue to experience inflated prices for air freight space.
- Higher freight costs are causing lower margins for exporters.
- This impacts ability to compete with lower-cost global exporters like the US, Argentina, and Brazil.
- Reduced access to freight space for chilled exports limits exporters to frozen product - with lower margin.

**Cross-industry**

- In some cases, air freight prices from Australia have more than doubled. For example, some shipments from Australia to Taiwan have increased from $5-$6/kg in 2019 pre-pandemic to around $14/kg this year.³
- A surplus of containers in major global ports indicates reduced availability in Australia and therefore the risk of delays and higher freight prices for containers.
- Lower DIFTOs (Delivery in Full, On Time) is causing delay and congestion, meaning in some cases larger orders can not be fulfilled on time.
- Decline in CX (Customer experience) at Australian and global ports is impacting Australian relationships with importers and end customers in key export markets. This is a high risk in damaging valuable trade relationships and should be monitored accordingly.
- There is a greater risk of substitution for competing foreign produce in key markets, as a result of higher subsidies and additional capacity provided by those governments for global freight. This has sheltered competitors from margin erosion as well as enabling those exporters to offer more consistent supply into market.

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³ Source: [Statista](https://www.statista.com)
Australian sea freight movements are improving compared to global levels

### Full vs empty containers at major Australian ports March 2021

- **Port of Botany:** 53% empty containers, 47% full containers
- **Port of Melbourne:** 38% empty containers, 62% full containers
- **Port of Brisbane:** 46% empty containers, 54% full containers
- **Port of Fremantle:** 31% empty containers, 69% full containers

### Containerised exports and imports at major Australian ports March 2021

- **Port of Botany:** 92% exports, 8% imports
- **Port of Melbourne:** 173% exports, 27% imports
- **Port of Brisbane:** 99% exports, 1% imports
- **Port of Fremantle:** 87% exports, 13% imports

### What does this mean for...

#### Red meat
- A large amount of empty containers along East Coast ports, where most red meat production takes place, indicates freight availability.
- However, this also indicates potential for congestion.
- Empty container exports from Botany have increased 43.75% since March 2020, while empty container imports have decreased 12.63% over this time.

#### Grains
- Large number of empty containers exported versus imported out of major East coast ports where majority of containerised trade is shows alleviation of empty container crisis and may be a sign of more efficient clearing of cargo.
- Container imports are strongest in Botany and Melbourne, receiving large volumes of full containers which include fertiliser inputs.
- Cereal Grains was the second largest volume dry bulk export out of Port of Melbourne, indicating strong demand and efficient cargo flow.

#### Citrus
- Large number of full container exports (up 1% on 2020 levels) out of Botany indicate opportunity for citrus produced in NSW.
- Stable ratio of exports to imports out of Brisbane indicates efficient clearing of cargo, decreasing risk for exports of Queensland citrus.

#### Cross-industry
- Overall flow of exports is slowly increasing and shows significant improvement from this time last year.
- Reduction in congestion caused by empty container storage is being alleviated. The largest proportion of empty containers is still found at Botany, meaning greatest chance of delays.
- Many businesses are stocking larger inventories of inputs and product in Australia to mitigate potential future availability – pivoting from just-in-time delivery models. This is creating an imbalance within supply chains and reducing access for some smaller producers.
- Overall, higher freight costs are likely to persist.6
- All Ports analysed have seen an increase in full container exports on March 2020 levels, up highest for Brisbane at 40%, followed by Melbourne at 8%, Botany at 1.21%. Full container exports out of Fremantle decreased by 1%.
Availability of flights for Australian air freight is increasing May 2021

### Weekly inbound flights (supported by IFAM*)

<table>
<thead>
<tr>
<th>Australian arrivals¹</th>
<th>Weekly flights</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEL</td>
<td>11</td>
</tr>
<tr>
<td>BNE</td>
<td>11</td>
</tr>
<tr>
<td>SYD</td>
<td>2</td>
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</tbody>
</table>

### Weekly outbound flights (supported by IFAM)

<table>
<thead>
<tr>
<th>Australian departures²</th>
<th>Weekly flights</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEL</td>
<td>17</td>
</tr>
<tr>
<td>BNE</td>
<td>10</td>
</tr>
<tr>
<td>SYD</td>
<td>3</td>
</tr>
<tr>
<td>TWB</td>
<td>2</td>
</tr>
<tr>
<td>PER</td>
<td>1</td>
</tr>
<tr>
<td>CNS</td>
<td>1</td>
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</table>

### Destinations/origins of weekly flights May 2021:

<table>
<thead>
<tr>
<th>Weekly flights</th>
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</thead>
<tbody>
<tr>
<td>Hong Kong</td>
</tr>
<tr>
<td>Tokyo</td>
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<tr>
<td>Los Angeles</td>
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<tr>
<td>Singapore</td>
</tr>
<tr>
<td>Shanghai</td>
</tr>
<tr>
<td>Seoul</td>
</tr>
<tr>
<td>Abu Dhabi</td>
</tr>
<tr>
<td>Bangkok</td>
</tr>
</tbody>
</table>

### Key outbound freight prices:

- $1.25-3.86/kg chilled meat
- $2.90-$3.04/kg fresh produce
- $2.60-5/kg live seafood
- $924-$1,995 AKE min charge
- $1,870-$20,040 PMC min charge²

### What does this mean for?

- **Red meat**
  - More frequent flights to Hong Kong and Singapore show promise for red meat exports, where traditionally (2019) air freight accounted for 84% and 81% of total chilled Australian beef into these markets respectively – worth a combined US$85 million.³
  - Flights to Tokyo and Los Angeles also offer new opportunities for high-value red meat exports.

- **Grains & citrus**
  - Increased number of outbound flights will enhance short-term capacity. However, competition for freight space remains high and costs are inflated.
  - Smaller number of inbound flights indicates limited availability for backloading imports of key agricultural inputs.

### Cross-industry

- Increased number of outbound flights will enhance short-term capacity. However, competition for freight space remains high and costs are inflated.
- Smaller number of inbound flights indicates limited availability for backloading imports of key agricultural inputs.

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*IFAM is the International Freight Assistance Mechanism, a targeted support measure put in place by the Australian Government to keep global air links open in response to the ongoing effects of the pandemic.
Red meat:
Industry snapshot

AgriFutures
Australia
May 2021 red meat exports decreased from last month

**Export statistics** (updated 11 May):

- **121,857** Tonnes total shipped weight to date in April 2021 (sea)
- **5,398** Tonnes air freight exports

**Top 5 export destinations**

- **36%** Other Asia
- **17%** USA
- **13%** Japan
- **19%** Korea
- **6%** Middle East

**Top 5 red meat product exports**:

- **59%** Beef/veal
- **20%** Lamb
- **11%** Fancy meats
- **7%** Mutton
- **2%** Pork
- **1%** Goat

**Logistics channels used pre COVID-19**:

<table>
<thead>
<tr>
<th>Logistics Channel</th>
<th>Sea Freight</th>
<th>Air Freight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>94.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Mutton</td>
<td>96.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Goat</td>
<td>99.9%</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

**Key events this month**:

- While Australian beef exports to China have shown some signs of recovery in recent months, volume of beef shipped to China in April was 26% below the five-year average level for April.6
- Recovery in US beef and pork exports may put further pressure on logistics in the region as well as increase competition for Australian red meat.3 Brazilian and Uruguayan exports to China are also competing strongly. China approved 31 new US processing plants, threatening Australian competitiveness.
- South Korea has recently surpassed China and the US to become Australia’s second-largest beef export destination in 2021, offering record-high prices.6 This is due in part to a growing popularity of loin cuts, in particular tenderloin, with demand driven by a number of strategic internal marketing programs.7
- Australian exporters of luxury red meat products such as wagyu are starting to experience recovery in demand from strong pre-pandemic customers the US and China, in line with a comeback in food service sectors globally.4

While slowly recovering on a monthly basis, red meat exports remain at significantly lower levels than prior to the pandemic. Continued volatility in container availability and freight movements will become increasingly problematic as demand rebounds in key export markets.

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*Other ‘non canned processed meat’ refers to products that are not non-canned ham & bacon, corned meat, boiled beef, salted beef, corned mutton*
Key logistics disruption insights for the red meat industry to consider this month

January-March red meat shipments were down 25% on the same three-month period in 2020¹

- March shipment figures were the lowest March recordings seen in QLD DAFF’s monthly shipping data back to 2012.
- This is in part due to lower slaughter rates caused by the ongoing impact of the 2019 drought.¹

Shipments are down year-on-year levels

Continuation of staged decrease to red meat tariffs to Japan and broader CPTPP

- Tariffs on chilled and frozen beef under the CPTPP continue to decrease, falling from 25.8 to 25% in early April.
- The Australia-Japan FTA also recently lowered tariffs for beef exports, cut from 28.2 to 27.6% for fresh/chilled, while competitors continue to pay up to 38.5%.³

Relaxing trade barriers showing promise for future trade and logistics

Increase in space for high-value red meat exports via air freight to key markets

- New weekly flight added this month from Sydney to Tokyo increases opportunity for air freight exports to a key red meat market.
- Weekly flights from Adelaide to Singapore and Melbourne to Los Angeles have been extended to July/August.²

Minimising disruption:

Alternative market options and export destinations:

- There is potential to explore feasibility for growth in higher-value red meat products that can utilise air freight, such as wagyu, to increase margins and reduce reliance on disrupted sea freight container shipments.
- Continue to develop exports to alternative markets showing a rebound in demand following COVID-19 lockdowns, including the EU, Canada, USA, Japan, and the Middle East. Leverage the success Australian beef exports have been experiencing in South Korea in recent months, where record high prices have been achieved and demand for loin cuts is rising.³
- Monitor developing Australia-UK FTA, which is set to offer premium prices for Red Meat exports

Flow-on impacts:

- Many major export markets have been impacted by logistics disruption and therefore declined in export volume – exports to Japan have fallen by around 25% compared to this time last year.¹
- However, some routes have been less affected - South Korea has emerged as one of Australia’s most stable export destinations for red meat in recent months, with Q3 shipments relatively stable year-on-year.
- With word of large amounts of containers being held at Chinese ports, some exports have been bringing containers back and sending elsewhere. This has been the case especially for cuts like trimmings.

March shipment figures were the lowest March recordings seen in QLD DAFF’s monthly shipping data back to 2012.

This is in part due to lower slaughter rates caused by the ongoing impact of the 2019 drought.¹
Grains: Industry snapshot
Key events this month:

- At the Port of Melbourne, dry bulk trade increased 45.2% over March 2020, up 14.9% for the year to date, primarily driven by a bumper production season. This is compared to no grain exports in March 2020.
- Cereal grains were the second largest dry bulk export out of Port of Melbourne in March 2021.
- Demand for containers for grain exports has been relatively minor over the last two months given pulse exports timed to serve the completion of Ramadan are already booked.

Australian grains trade has experienced destabilising reductions in bulk and containerised exports due to a high reliance on sea freight logistics. However, some categories are rebounding following an improved production season.

*Source: UN Comtrade Database. SITC Rev.2 commodities: (1) 110411 - Cereal grains; rolled or flaked, of barley. (2) 110412 - Cereal grains; rolled or flaked, of oats (3) 1001 - Wheat and meslin. (4) 100700 – Grain sorghum. These graphs are not indented to represent the grains industry as a whole, but show an example of some of the volatility certain exports have experienced.
Key logistics disruption insights for the grains industry to consider this month

**Bulk grain exports have been increasing from Australian ports**

- Sorghum exports out of Port of Brisbane are performing particularly strongly, as is feed barley from the Ports of Adelaide and Fremantle.4
- The empty container crisis is slowly being alleviated at Australian ports, however global congestion still creates risk of delay.
- Full container exports are being prioritised at most ports due to record harvest and availability of grains.6

**Globally, container vessels continue to experience issues with overbooking and bottlenecks**

- Competition for freight space globally remains high, with shippers paying record rates and surcharges to secure space – eroding margin for Australian exporters.
- Congested terminals have resulted in vessels waiting for multiple days for a berth, particularly at major grains transhipment ports in Singapore and Colombo.2
- This has slowed the flow of containerised Australian agricultural commodities to some ports in South Asia and the Middle East.

**Container imports into Australian ports increases stability for future production**

- Container imports are strongest in Botany and Melbourne, receiving large volumes of full containers which include machinery and potentially other fertiliser and chemical inputs for producers.
- Incoming flow of key production inputs to meet the requirements of rising Australian production, is representative of increasing stability in the coming months for Australian grain producers and exporters.

**Freight charges by major shipping lines continue to rise amid congestion**

- Greater availability of space for break and dry bulk

**Flow-on impacts:**

- Increasing/duplication of fees have downstream financial impacts on manufacturers, farmers and regional communities, increasing the cost of exporting and eroding margins for producers.5
- Market access challenges for Australian barley has forced producers to compete with Black Sea growers to access the Saudi market, where lower quality product standards will drive prices down.7
- Barley production may decrease in the long-term however many growers will continue planting due to agronomic on-farm benefits

**Minimising disruption:**

**Alternative market options and export destinations:**

- Continue to pursue exports to markets where market access challenges have not been experienced, in particular Thailand and other Southeast Asian countries, as well as the Middle East.3
- Capitalise on Australia’s return to a net exporting position, and defend market share by continuing to play to strengths in bulk exports
- Potentially explore ability to increase exports of high-value grains exports like mung beans with longer shelf life.
Citrus: Industry snapshot
Citrus has been a key growth horticultural export with notable increases in export values.

Export statistics this month:

- **284,667** Tonnes exported 2020¹
- **$509M** FOB Value exports 2020¹

Contribution of Citrus of the $1B+ Australian horticulture exports 2017²

<table>
<thead>
<tr>
<th>Contribution</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Citrus</td>
<td>42%</td>
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<tr>
<td>Increase in export volumes 2019-20</td>
<td>13%</td>
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Top export destinations:

- **Mandarins:**
  - China
  - Thailand
  - Japan
  - New Zealand
  - Philippines

- **Oranges:**
  - China
  - Singapore
  - Malaysia
  - New Zealand
  - Thailand

Key events this month:

- Reports that a large citrus production season in South Africa will require an estimated 95,000 reefer containers to export this season’s crop – competing with Australian citrus and logistics access to key export markets.⁴ Some South African producers are exporting citrus via bulk freight, producing large volumes, albeit lower value than Australian product, which will further challenge Australia’s competitiveness.

- Citrus exporters globally continue to struggle to supply full export crops, due to shipping lines forgoing the allocation of space on vessels to reposition reefer containers.

- In the 2020 season, China imported 35 per cent of Australia's 270,000 tonnes of citrus exports, in the midst of COVID-19 restrictions. Whilst a lucrative market, diversification will become important to ensure China-specific logistics impacts do not disproportionately citrus exports as a whole.³

- The Australian citrus market can expect to see increased demand for container space in the coming months with a number of varieties introduced to export nearing harvest time, which will further intensify competition.

Overall, the Australian citrus industry has enjoyed consistent growth of exports, however dependence on container availability is creating major challenges.
Key logistics disruption insights for the citrus industry to consider this month

**Customs processes are causing delays to citrus trade**

- Amid increased inspections of Australian fruit by foreign authorities, industry members are preparing for increased delays at ports/customs and potential market access challenges based upon biosecurity claims.
- Growing competition of citrus exports from South Africa, Argentina, and Spain may further threaten market share.

**Global competition for citrus exports compromises container availability**

- A large citrus season in South Africa and significant demand for containers may reduce availability of containers for Australian exports.
- This is reflective of the global challenge in repositioning reefer equipment to certain ports, with high demand in general freight movement out of China, the US, South America and EU.

**Increasing availability of food-registered and cold-chain compliant containers**

- Increasing exports out of Botany indicate opportunities for citrus produced in NSW.
- Stable ratio of exports to imports out of Brisbane indicates efficient clearing of cargo, decreasing risk for exports of Queensland citrus.
- Strict cold chain requirements into fruit fly protocol markets such as China, Japan, the US and Canada will benefit particularly.

**Flow-on impacts:**

- A pest and disease breach and/or market access restrictions would severely impact both domestic and global Australian citrus logistics through further delays in processing at customs
- Continued freight price increases may deter producers from pursuing export, which may contribute to an oversupply of domestic product in the long-term
- Competition for container space is particularly high from Australian red meat exports to China in the wake of African swine flu demand.

**Minimising disruption:**

**Alternative market options and export destinations:**

- Continue to explore possibility to diversify into other premium markets such as India and potentially Vietnam or South Korea. Consider the product preferences and logistics requirements for exporting to these markets.
- Continue to emphasise exports to high volume markets such as China and Japan, leveraging current favourable trade conditions, however simultaneously pursue a diversified distribution network to mitigate risk for producers and exporters should disruption occur.
Takeaways and next steps
A summary of the May 2021 key logistics disruption insights with the potential to impact producers

The research has identified a number of key takeaways based on logistics disruption information from this month, which may be used to guide industry participants regarding their supply chain decision making in the near and medium term.

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<tr>
<td>Ongoing congestion and delays are a global concern, with shipping schedules continually being revised. Supply chain bottlenecks are an issue particularly in major transhipment ports like Singapore and Colombo, which is increasing freight costs and reducing DIFOT rates (Delivery in Full, On Time).</td>
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<td>Understaffed ports in countries under COVID-19 lockdowns, such as in India, are compounding congestion issues and resulting in delayed clearing of cargo.</td>
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<td>Australian exporters will likely continue to face difficulty in booking container space from major ports, given the prioritisation to repatriate empty containers faster to help relieve shortages elsewhere, particularly in Asia.</td>
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<td>Greater exposure to substitution in export markets by domestic production or competing imported products, especially given that some exporting nations are subsidising freight more heavily than Australia, to protect producers from losing market access and erosion of margin.</td>
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<td>Duplication in handling charges at Australian ports is further increasing freight and logistics costs for exporters.</td>
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Incremental improvement in the availability of access to sea and air freight, particularly with new weekly international flights implemented under the support of IFAM, is slowly aiding access to new export opportunities and alleviating logistics disruption. However, costs and risks remain high for most supply chain participants.
## References (1/3)

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(2) Consultation with Grain Growers  
(4) Stakeholder consultation with Citrus Australia |


References (3/3)

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     (5) Stakeholder consultation with Citrus Australia |