International Coalition of Fisheries Associations (ICFA) 20 October 2020

COVID Barriers to Trade: Patrick Hone and John Connolly

Purpose:
Purpose: Discuss efforts to use COVID as barriers to trade, especially on frozen foods.

Recommendation(s):
That ICFA notes the progress and agrees through the ICFA Communications Group to maintain a watching brief of emerging risks to seafood trade.

References

Supporting Documentation	Link to relevant document
Background on testing for COVID on frozen foods	See Page 43 ICFA Papers
NFI Seafood Safety FAQs	Frequently Asked Questions
World Health Organisation – food safety advice	Q&A: Food Safety and Nutrition related to COVID-19
FAO Summary of impact of COVID-19 on Fisheries and Aquaculture	Summary of impacts of CV19
OECD Trade Assessment	International Trade Issues
The effect of temperature on persistence of SARS-CoV-2 on common surfaces	Virology Journey Oct 2020
Australian Seafood Trade Advisory Group (STAG) – Export focused	STAG Web site for latest information

Background:

Food safety – The U.S. Food and Drug Administration and European Food Safety Authority has confirmed there are no concerns as to the safety of seafood. Nor is there any evidence that food is a likely source or route of transmission of the virus - i.e. *Eating seafood did not start the coronavirus epidemic*. The USA CDC believes the origin of the virus is from (live) animal-to-person spread. Many foods were present at the live animal market believed to be at the epicentre of the first outbreak, but it is not suggested that eating products from that market caused the spread. The Australian FSANZ is reporting that previous experience with outbreaks of illness due to MERS-CoV, SARS-CoV and other respiratory viruses (e.g. avian influenza) suggest that novel coronavirus may have been transmitted from animals to humans. However, transmission through food is unlikely and there is no evidence of this occurring with novel coronavirus to date.

- For answers on food safety - the National Fisheries Institute in the United States of America have developed the Seafood Safety and Covid19 website which provides some helpful information, frequently asked questions (with great authoritative references from international food safety authorities) and key messages, all focused on seafood safety and Covid-19.

Aquatic animal exposure (live exports) According to the Australian Veterinary Association, current evidence suggests that the COVID-19 virus has an animal source. However, the current spread of COVID-19 is a result of human to human transmission. At this stage there is no evidence that live seafood can play a role in the spread of this human disease, or that aquatic animals become sick.

Discussion:

Seafood is the largest traded animal protein. As such, disruptions to trade supply chains can have significant impacts on the seafood industry, country economies and livelihoods. Further, seafood is important to food security for coastal communities, particularly in developing countries.

The risks to trade can be summarised as:

Category	Issue	Risk	Mitigation
Food Safety	Contamination of packaging		
	Contamination of processed seafood		
	Contamination of Live seafood		
Market Access			
	CV-19 Lockdowns		
	Importing country Phytosanitary Certificate requirements		
Transport			
	Loss of airfreight		
	Closure of freight hubs		
Warehousing/Markets			
	Workers contracting CV19 (factory closures)		
	New physical and social distancing rules (constrains worker density)		

A further task would be to complete this risk assessment and agree on mitigation responses.

The Attachment below provides a summary from the Australian Academy of Science on how COVID-19 has affected food chains.

Of interest to ICFA members are the suggested ways to crisis proof the food supply chain. The suggested focus areas are:

- Solutions for the supply chain: traceability with blockchain
- Solutions for producers: online sales
- Solutions for warehousing and transportation: tracking and storing perishable products
- Solutions for retail: advanced inventory management

It would be useful for ICFA members to share experiences in how they are future proofing their supply chains.

Attachment 1

How does a global pandemic affect our food supply chain?

Source: https://www.science.org.au/curious/people-medicine/how-does-global-pandemic-affect-our-food-supply-chain

Around the world, fears of food shortages during the COVID-19 pandemic sparked panic buying. Despite an abundance of produce here in Australia, supermarket shelves were often bare of groceries. Why? It's a logistics problem—food supply chains can be long and (some say unnecessarily) complex.

According to the Australian Food and Grocery Council, Australia is capable of producing enough food for 75 million people (http://afgc.org.au/news-and-media/2020/06/no-need-to-panic-australia-produces-enough-food-for-75-million), three times its own population. While our food supply is considered secure, shutdown measures and transport restrictions put in place to contain

COVID-19 have had serious implications for global food security. The UN's Food and Agriculture Organization (FAO) (http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/en/) says that the pandemic continues to affect agriculture and food production and puts vulnerable populations at risk.

Disruptions to food supplies

Here, we take a detailed look at how a global crisis like the COVID-19 pandemic can disrupt food supply and look at emerging databased solutions that could make the supply chain more secure (https://www.nature.com/articles/s43016-020-0085-y).

Primary production

The food supply chain starts with the production of fresh fruit, vegetables, meat, seafood and grains. Natural disasters

(https://link.springer.com/chapter/10.1007/3-540-28307-2_1) like droughts have caused 'supply shocks

(https://www.reuters.com/article/us-health-coronavirus-food-supplies-insi/coronavirus-upends-global-food-supply-chains-in-latesteconomic-shock-idUSKBN21L2V7)' in the past, but COVID-19 has caused problems of a different kind.

Labour shortages are an immediate problem during a crisis. Continent-wide lockdowns can prevent seasonal harvesters from travelling, which can lead to fields of abandoned, rotting crops (https://www.theguardian.com/world/2020/apr/09/us-coronavirusoutbreak-agriculture-food-supply-waste).

As well as an active workforce, primary producers need essential resources like fertilisers, seeds and veterinary medicines, and any shortages can affect future agricultural production. If proper farming practices (https://www.scientificamerican.com/article/theeffects-of-covid-19-will-ripple-through-food-systems/) can't continue as normal, this could lead to reduced harvests in later seasons.

Transportation and warehousing

The safe and uninterrupted transportation of fresh produce, meat and seafood

(https://onlinelibrary.wiley.com/doi/abs/10.1111/cjag.12235) is critical in the food supply chain. A shortage of truck drivers means that products can't leave the farm, while transport delays are of particular concern for live animal transport and meat supply due to animal welfare issues and food spoilage.

The export market can also be disrupted. If planes are grounded, fresh produce can't be exported overseas

(https://onlinelibrary.wiley.com/doi/abs/10.1111/cjag.12235). This means that farmers and exporters can't access high-value overseas markets, affecting international trade (https://www.theguardian.com/world/2020/apr/17/research-debunks-claim-australia-mayface-coronavirus-food-shortages). Sourcing refrigerated shipping containers from China also became an issue during COVID-19 shutdowns.

Wholesale and food processing

Farmers sell a major portion of their produce to wholesale markets (https://doi.org/10.1111/cjag.12231) for commercial kitchens, but demand falls if pubs, bars, cafes and restaurants close due to shutdowns. Our food supply chains are highly specialised, which often means that wholesale products can't be diverted to retail because they're packed in bulk and not labelled in the right way.

Farmers also sell produce to various processed food sectors (https://www.austrade.gov.au/Processed-Foods/), such as manufacturers of dried, canned and preserved foods, snacks, confectionery and processed meat—many of which were forced to close during shutdowns (https://insideclimatenews.org/news/17042020/coronavirus-agriculture-supply-chain-grocery-storefarming) overseas.

Retail

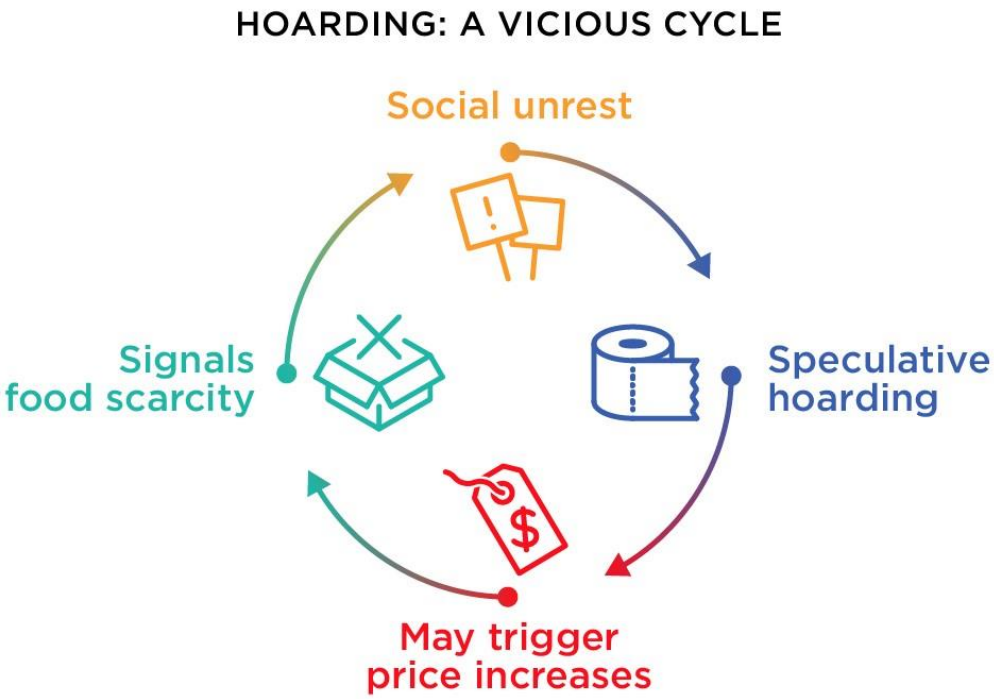
Ever wondered how supermarkets can offer customers a choice of more than 40,000 items

(https://econpapers.repec.org/article/agsuersfr/266244.htm)? It's by keeping very little in stock, with the bulk of products stored at distribution centres or warehouses. The logistics of replenishing stock is controlled by tracking sales with algorithms that have limited ability to adapt to sudden changes in consumer behaviour, which is known as the 'just-in-time'

(https://doi.org/10.1016/j.wasman.2016.08.025) concept. That means a sudden rise in demand for certain products—such as pasta, rice and flour—can quickly prove to be unmanageable.

This is exactly what occurred in many countries during COVID-19. If there aren't enough staff to load, transport and unload products from warehouses, the result is empty shelves. Panic buying can also result in a vicious cycle

(https://academic.oup.com/ajae/article-abstract/97/1/1/135390?redirectedFrom=fulltext) of shortages and unrest, which is well documented by agricultural economists.



Panic buying can spike a cycle of shortages and social unrest. Image: Australian Academy of Science

Consumers

Despite fears of food shortages due to COVID-19, our food supply in Australia is highly secure

(https://www.theguardian.com/global/commentisfree/2020/mar/19/dont-panic-australia-the-coronavirus-doesnt-mean-well-runout-of-food), and concerns about higher retail prices due to COVID-19 may not eventuate (http://www.fao.org/2019-ncov/q-anda/impact-on-food-and-agriculture/en/) either.

However, disrupted food relief services have caused serious adversity for vulnerable households around the world, reinforcing the need for well-connected food donation networks. According to the FAO (http://www.fao.org/2019-ncov/q-and-a/impact-on-food-andagriculture/en/), developing countries are most at risk from food insecurity: nations that already suffer from chronic hunger and that rely on imported food.

COVID-19 has undoubtedly accelerated changes in consumer purchasing patterns

(https://home.kpmg/au/en/home/insights/2020/06/post-covid-19-australia-food-agribusiness-sector-outlook.html). Consumers are switching (https://doi.org/10.1111/cjag.12231) to online food shopping platforms and visiting supermarkets less frequently, as well as showing greater preferences for local food with traceable origins.

Sustainable food production

According to the FAO (http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/en/), developing countries are most at risk from food insecurity: nations that already suffer from chronic hunger and that rely on imported food. Populous countries in Asia and Africa are particularly threatened by ongoing climate and health challenges (http://www.fao.org/asiapacific/news/detailevents/en/c/1277977/). In the latest State of Food Security and Nutrition in the World Report (https://www.who.int/newsroom/detail/13-07-2020-as-more-go-hungry-and-malnutrition-persists-achieving-zero-hunger-by-2030-in-doubt-un-report-warns), the United Nations warns that COVID-19 could push an added 130 million people worldwide into chronic hunger by the end of 2020.

Action on food security and climate change can be achieved simultaneously, according to the Intergovernmental Panel on Climate

Change (https://www.ipcc.ch/srccl/). Developing shorter food supply chains

(https://www.climatechangenews.com/2020/05/15/shorter-supply-chains-needed-end-hunger-pandemic-un-envoy/) means that perishable foods can be quickly transported, which supports local suppliers and lowers environmental impacts. Another approach is agroecological farming (https://www.mdpi.com/2071-1050/9/3/349/htm) practices that promote biodiversity, improve soil and water quality and recycle nutrients and energy.

These sustainable solutions require financial assistance and regulatory agreements from governments and policy makers to help feed an increasingly hot, hungry world (https://www.science.org.au/curious/earth-environment/feeding-hot-hungry-world).

Crisis-proofing the food supply chain

Even before COVID-19, food supply chains have been in transition (https://www2.deloitte.com/nl/nl/pages/consumer/articles/foodcovid-19-reshaping-supply-chains.html) due to multiple factors, from trade disputes to climate change

(https://time.com/5663621/climate-change-food-supply/). It's clear that they need to become more resilient, agile and flexible to cope with supply and demand shocks, and new technology and data platforms can help prepare for future disruption.

Solutions for the supply chain: traceability with blockchain

Traceability is the ability to track food products through all stages of the supply chain. It's incredibly important to maximise efficiency and becomes even more vital in the case of transport delays or contamination tracing. Food industry experts

(https://foodsafetytech.com/news_article/covid-19-puts-more-emphasis-on-supply-chain-visibility-and-data-quality/) believe that increasing the strength and security of supplier communications is essential to ensure food safety and traceability.

A promising technology to enable traceability is blockchain (https://www.science.org.au/curious/technology-future/blockchain), a digital platform where users store and share information across a network. This system can give producers, suppliers, distributors, retailers and consumers access to trusted information regarding the origin and state of each product or ingredient. It isn't yet widely used across the food industry (https://supplychainbeyond.com/safety-and-freshness-in-the-food-supply-chain/), but has the potential to increase visibility through our increasingly complicated supply chains.

Solutions for producers: online sales

COVID-19 didn't just boost downloads of food delivery apps. Physical distancing restrictions meant that livestock sales

(https://www.abc.net.au/news/2020-04-19/online-livestock-sales-boosted-coronavirus-restricts-saleyards/12157446) moved online too, through apps that connect farmers directly to buyers. Carrying out auctions via video stream negates the need for the animals to be trucked to saleyards, a hands-off approach that's better for animal welfare. As their popularity increases, online sales could eventually replace traditional livestock auctions.

Farmers who lost sales when restaurants and cafes closed also turned to e-commerce to sell their products directly to consumers.

With numerous examples of farmers adopting tech-based solutions

(https://onlinelibrary.wiley.com/doi/full/10.1111/cjag.12237) around the world, shorter food chains could become the norm postCOVID.

Solutions for warehousing and transportation: tracking and storing perishable products

During COVID-19, finding warehouse storage space (https://www.jll.com.au/en/trends-and-insights/cities/how-covid19-is-changingthe-grocery-business) for food products became a challenge. Avoiding bottlenecks like this requires creative storage options, such as compact vertical warehouses (https://www.us.jll.com/en/trends-and-insights/investor/why-multi-story-warehouses-are-comingto-america) closer to cities, which would also help cope with increased demand for online food deliveries.

For the transport of perishable goods, tracking perishables through the cold food chain is essential to prevent a whole shipment going to waste. The latest sensor technology can be instrumental in preventing food waste

(https://www.science.org.au/curious/earth-environment/food-waste-preventing-multi-billion-dollar-problem) and compromises to human health, as can smart food packaging that monitors food condition. These solutions are highly applicable to any crisis that affects food supply chains.

Solutions for retail: advanced inventory management

The latest inventory management and replenishment platforms (https://supplychainbeyond.com/5-big-problems-in-the-foodsupply-chain/) aim to respond faster to changing consumer behaviour—crucial to avoid bare shelves during unusual events. They keep inventory data up-to-date using automation and real-time tracking technologies, such as radio-frequency identification and Internet-of-Things capabilities (https://www.science.org.au/curious/technology-future/internet-of-things). Using advanced predictive tools, such as improved data processing with artificial intelligence (https://www.science.org.au/curious/technologyfuture/ai-and-robotics-revolution) and machine learning, retailers can better respond to disruption.

A crisis like COVID-19 has taught us that our complex food supply chains need greater transparency and flexibility to prepare for future disruptions (https://link.springer.com/chapter/10.1007/978-1-4614-4484-8_2). Making food supply chains more agile, resilient and adaptable is essential to protect the economy and feed the world.