



2020 End of Year Report: From COVID-19 to Trade Wars

December 2020

Written by

Market Intelligence Team

Executive Summary

The year 2020 will be remembered as one of the most challenging as well as rewarding years for the agricultural industry. As this year comes to a close, Tridge has compiled the most significant events within the industry since the start of this year.

This report will include the impact of the coronavirus on various markets, such as the meat industry in the US and stone fruits in Spain, and it will also feature other notable events, such as the US-China trade war, the Avian Influenza, and La Niña, China's rice imports from India for the first time in nearly 35 years, and how Egypt has become the biggest worldwide orange exporter. Below is the list of topics that we will be covering in the report:

- The Impact of COVID-19
- Trade Tensions
- Diseases & Natural Disasters
- Market Shifts
- Booming Markets

In order to prepare for the new year, there is a need to reflect on these events, and Tridge provides a brief, yet comprehensive overview of these topics, as well as an outlook for 2021 to help you stay on top of these unprecedented times.

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Part I

COVID-19

- 1.1 US Meat Processing Facilities remained Shut in the First Half of 2020
- 1.2 Labor Shortage in Spain Reduces Harvest of Stone Fruits
- 1.3 The Impact of COVID-19 on Top Shrimp Exporters Vietnam and Ecuador
- 1.4 Global Oversupply of Cashews Despite Shutdowns
- 1.5 Brazil's Coffee Exports Reach Record Levels Amidst COVID-19 and Lockdowns
- 1.6 Pine Nut Prices Normalize in China after Initial Shock

COVID-19

The first COVID-19 cluster was reported on December 31st, 2019 by the World Health Organization (WHO) and declared as a global pandemic in March. The outbreak has brought disruptions to the agricultural value chain and induced severe demand and supply shocks across the world.

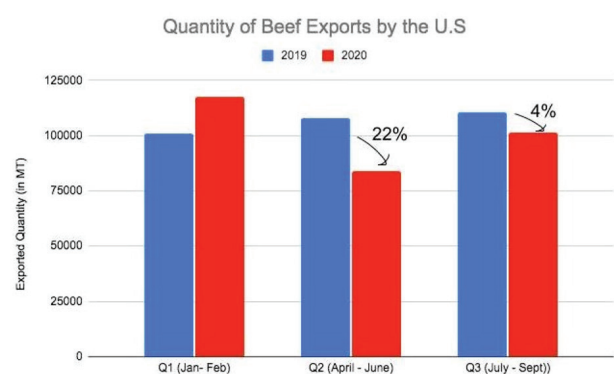
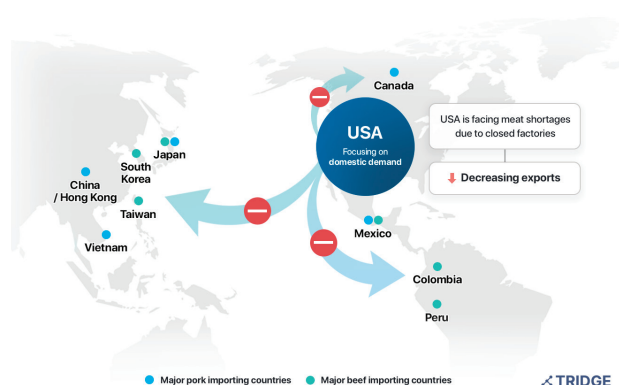
Challenges from COVID-19 can be broken down into two categories:

1. Labor shortages
2. Demand and supply shocks due to lockdowns

In several countries, nationwide lockdowns and travel restrictions were imposed. In many cases, the lockdown coincided with peak harvest times which resulted in the loss of harvest and a fall in quantity available for domestic as well as international sales. The shutdown of the hospitality sector in many parts of the world also resulted in reduced demand.

Exports of US beef, along with Vietnamese and Indian cashews were negatively affected due to the closure of processing facilities. On the other hand, the closing of borders increased Brazil's coffee exports as importers feared a shortage in the coming months. Spain's stone fruit harvest was impacted due to labor scarcity whereas China's pine nut industry recorded an all-time low price due to a lack of demand.

US Meat Processing Facilities Remained Shut in the First Half of 2020

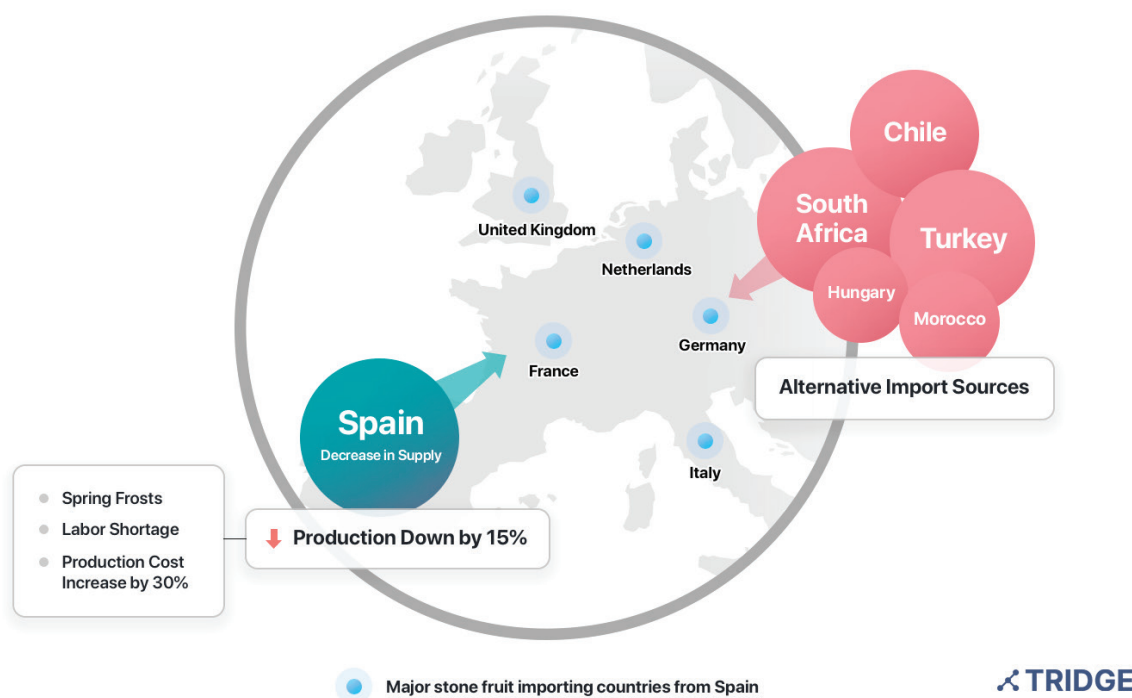


COVID-19 severely disrupted the meat supply chain in the U.S in April 2020 as processors were forced to shut down their facilities. The USDA reported a 25% drop in beef production and a 15% drop in pork

production within a month, which resulted in a meat shortage in the US. In order to cater to domestic demand amidst the shortage, the country's beef exports reduced dramatically.

An immediate repercussion of the closure of meat processing facilities was seen in the volume of beef exports in May as the country exported 40% fewer beef products in May 2020 compared to the volumes recorded in 2019. Beef export volumes were the worst hit during Q2 (April - June) when export volumes fell by about 22% in comparison to the same period in 2019. During this period, Brazil took advantage of reduced exports from the US and expanded its exports to China. As the facilities became more accustomed to social distancing norms, production resumed.

Labor Shortage in Spain Reduces Harvest of Stone Fruits



Spain is one of the world's largest producers and exporters of stone fruit varieties such as nectarines and peaches. In 2020, however, Spanish production was down by approximately 15% and the expected yield was 508K tons, which is 20% less than the volume recorded in 2019.

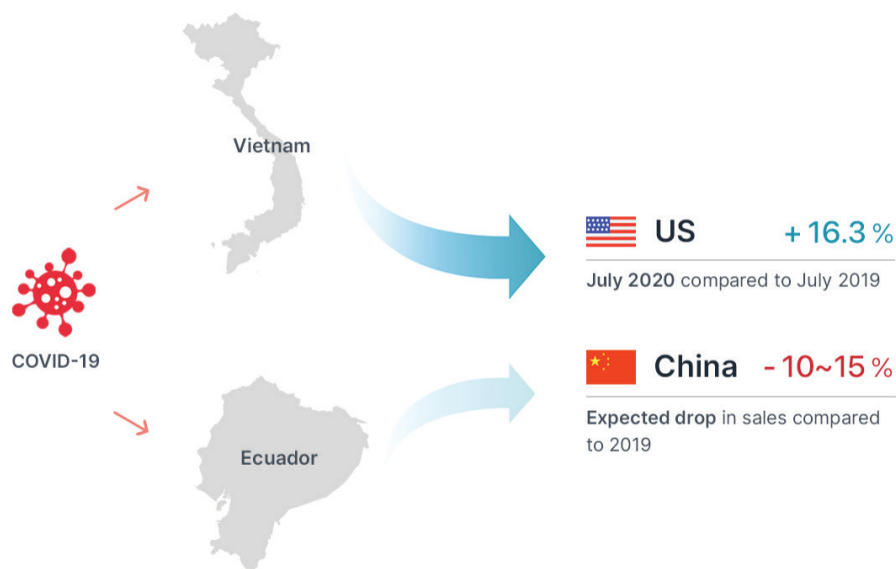
The decrease in production volumes was witnessed due to the following reasons:

- Spring frosts and unsuitable weather conditions reduced the acreage of the fruit.

- Nationwide lockdowns to control the outbreak of COVID-19 during the main harvest period resulted in labor shortages and losses of fruit.
- Harvest and production costs increased by about 30% as stringent safety measures were implemented to avoid the spread of COVID-19. Transport costs were also relatively higher, leading to a shortage of labor.

As Spain's production fell, the country's peach and nectarine exports also fell by approximately 9% during the first nine months of 2020 in comparison to the same period in 2019. Spain's major export destinations; the UK, France, Italy, the Netherlands, and Germany subsequently started sourcing peaches and nectarines from alternative sources. Turkey became a significant alternative source as it saw modest production in 2020 as well as having been steadily increasing its market share in the EU. South Africa, Chile, Hungary, and Morocco were some other countries that seized the opportunity and increased their peach and nectarine exports to the EU

The Impact of COVID-19 on Top Shrimp Exporters Vietnam and Ecuador



TRIDGE

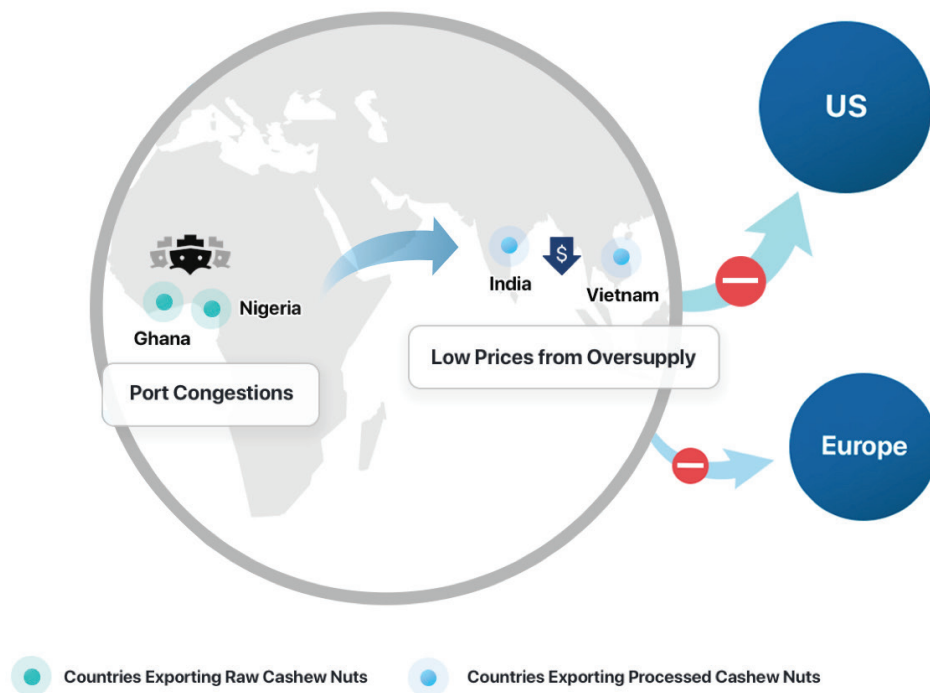
Vietnam and Ecuador, two competing countries for global shrimp exports, faced disruptions in exports due to restrictions in the movement of goods and services. However, while Vietnam's exports to the US, its largest shrimp export market, grew by 16.3% in July 2020 in comparison to 2019, Ecuador's exports to its biggest shrimp market, China fell to 8K MT. This is a 70% decline compared to the average amount of

exports made between January and June.

Vietnam's ability to efficiently contain the outbreak during the initial stages, along with the newly established Europe-Vietnam Free Trade Agreement (EVFTA) allowed shrimp exports to pick up in the later months. Vietnam also benefited from a decline in exports from major shrimp industries such as India and Ecuador that failed to contain COVID-19 as effectively. Ecuador's inability to contain the outbreak cost its shrimp industry by creating backlogs within the supply chain. Lack of domestic demand combined with China suspending shrimp imports from Ecuadorian suppliers in July 2020 severely impacted overall export levels.

Global Oversupply of Cashews Despite Shutdowns

TRIDGE




Port congestion at Ghana and Nigeria (main exporters of raw cashews) along with shutdowns in processing facilities in Vietnam and India (main exporters of processed cashews) disrupted the demand-supply chain in the cashew industry. Despite the bottlenecks, there was an oversupply of cashews in the global market as major importing countries like China, the US, and the EU reduced their cashew imports and overall demand for the nuts fell. In July 2020, export prices slashed to reach an all-time low of USD





6K per MT in Vietnam. The recorded price was 6% less compared to the prices in June 2020 and down by 14.8% in comparison to July 2019 as a consequence of excess supply.

Brazil's Coffee Exports Reach Record Levels Amidst COVID-19 and Lockdowns

1 Stockpiling Demand

	COFFEE IMPORTERS	Bringing forward orders by up to a month
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2 Alternate Demand

	HIGH TEMPERATURE		LOW RAINFALL		LOW COFFEE HARVEST IN VIETNAM	Helped the Brazilian coffee exports
	ROBUSTA COFFEE VARIETY IN BRAZIL	Filled the gap in the global coffee market				

3 Currency Depreciation

	BRL/USD DECREASE	Decreased by 30% YTD
	EXCHANGE RATE	An attractive exchange rate for players in Brazil



1 + 2 + 3 =  Stable Exports Amidst the Pandemic
 Hit a 2-year record in May 2020.

Brazil's coffee exports stood strong despite the chaos and reached a 2-year record in May 2020, when the virus started to spread across the globe. The country was struggling to curtail the outbreak and was forced to impose lockdowns which restricted the movement of workers, people, and goods. Coffee exports escalated due to increasing uncertainty about the lockdown across the world which encouraged coffee importers to stockpile and bring forward orders by a month to avoid shortages in the future.

Brazil's Robusta grain coffee filled the gap in the global coffee market as Vietnam struggled with unfavorable weather conditions. The increase in exports was further propelled by favorable exchange rates for sales in US dollars. Thus, Brazilian coffee shipments remained relatively stable while world figures plummeted and the industry struggled to keep up with the pace. As a result, despite the pandemic, Brazil exported more than 39.7 million sacks of coffee beans between January - November 2020 which is 5.7% more than the quantity recorded in 2019 during the same period.

Pine Nut Prices Normalize in China after Initial Shock

For this year, the harvest commenced much earlier in August compared to the normal starting month of October, attributed to the effects of global warming. Due to diminished demand this year from COVID-19, fueled by increases in supply as the harvest began, pine nut prices in China dropped by an estimated 35% compared to the same period in 2019. After exhibiting drops to as low as CNY 80 per kg in the early stages of harvest, prices are on track to recovering.

While the rebound of prices can be attributed to the reopening of the hospitality sector, there has been a noticeable increase in demand coming from both the US and Europe, especially from supermarkets as retailers stocked up on pine nuts before the holiday season. In addition, the anticipation of higher prices after reaching such a low point encouraged buyers to purchase them in stocks. As supply steadied after the initial inflow from the new harvest, the shifts in demand have compelled prices to start returning to their normal levels.

Irregularities in the Pine Nut Market

Main Producers



CHINA



KOREA



RUSSIA



Production

10 → **8**
OCT → AUG

Global warming caused the harvest to start much earlier in August compared to the normal starting month of October.

Prices

1



COVID-19

2



Initial increase in supply
from the new harvest

1 + 2 = CNY 80 (USD 11.9) per kg **35% ↓** in CHINA

But prices are starting to recover to normal levels

REASON 1



Noticeable increases in demand coming from both the US and Europe, especially from supermarkets as retailers are stocking up on pine nuts before the holiday season.

REASON 2



The anticipation of higher prices after reaching such a low point is encouraging buyers to purchase them in stocks

Part II

Trade Tensions

- 2.1 US vs China: Phase One Deal Allows US Chicken Back in China
- 2.2 China vs Australia: Barley Becomes Another Victim
- 2.3 US vs EU: Trade War Brings Down Spanish Olive Oil Exports
- 2.4 US vs Iran: Iranian Pistachios Bear the Brunt of the War
- 2.5 Indian Onion Export Ban
- 2.6 US Eyes on Imposing Protectionist Measures Against Peruvian Blueberries

Trade Tensions

The agricultural industry in 2020 was impacted by a wide range of trade disruptions; trade tensions that affect not only the parties involved but also exporters and importers across the world looking to navigate through the restrictions. China and the US were at the center of the political tensions as the countries were involved in a brawl not only with Australia and the EU but also with each other.

The US-China trade war kicked off the year with the signing of the Phase One deal, in which China agreed to import up to USD 50 billion worth of agricultural products from the US, allowing US chicken to re-enter the Chinese market. Massive tariffs on Chinese imports of Australian barley were placed in May 2020, while trade tensions between the US and EU impacted the exports of Spanish olive oil and US sanctions against Iran affected its pistachio exports.

While not strictly stemming from political tensions, protectionist measures of major exporters and importers also made an impact, including the ban of Indian onion exports arising from a supply shortage, and the Trump administration's effort to protect domestic farmers, which has impacted exports of Peruvian blueberries.

US vs China: Phase One Deal Allows US Chicken Back in China



 **TRIDGE**

The ban on imports of US chicken from China was lifted during the preliminary stages of the Phase

One deal in November 2019 and was finalized in January 2020. Implemented in 2015, the ban had been caused by an ongoing trade conflict between China and the US since 2010.

In 2008, prior to the clash, the US had exported over 420K tons of chicken paws to China that year alone. In 2009, however, the US International Trade Commission concluded that the sharp increase in tire imports was adversely affecting domestic suppliers, which led the country to impose ad valorem tariffs on Chinese tire imports in 2010.

Subsequently, China imposed anti-dumping duties of up to 105.4 percent on US broiler chicken imports. Exports of US chicken meats and paws declined noticeably as a result. While China lowered its duties to a maximum of 73.8 percent in 2014 and the US won its case against China in a WTO suit in 2018, by then China had imposed an import ban from the avian influenza outbreak in the US. Since the retaliatory tariffs were imposed in 2010, US chicken part exports to China decreased by approximately 90% (2011).

Even with the Phase One deal in effect, US chicken exports to China suffered in early 2020 when China put a stop to chicken imports from COVID concerns, with the import duties not helping. Nevertheless, it is still estimated that US chicken paw exports to China could possibly reach a yearly value of nearly USD 1 billion.

China vs Australia: Barley Becomes Another Victim

In late May 2020, China placed a massive 80.5 percent tariff on Australian barley. While the official reasons stated were as a precautionary measure against “dumping”, many speculate that the decision to implement barley tariffs was likely due to the deteriorating diplomatic relations between China and Australia.

Tensions between the two countries are seen to stem from China’s attempt to shift away from being overly dependent on Australian exports and Australia’s push for an inquiry into COVID-19. The tariffs are expected to last for the next five years with opportunities for affected parties to seek an interim review. Australian industry groups say that the new tariffs could cost the barley industry up to USD 500 million in 2020. The barley tariffs follow a partial ban already in place for beef, with additional agricultural products such as dairy and wine expected to be hit by tariffs in the future. While it is possible that the Australian government might seek out a WTO referral, many experts have been heavily advocating a diversification of export destinations, with some Australian farmers expressing interest in exporting barley to the Middle East.

China's tariffs on Australian agricultural products



REASON 1

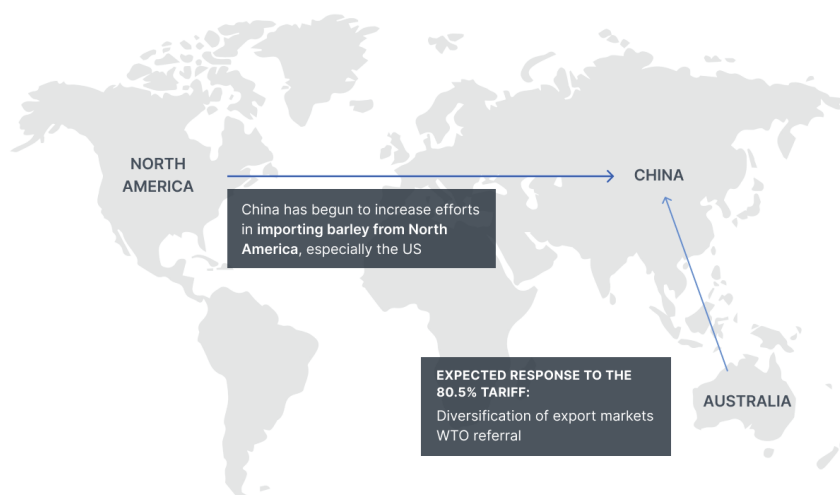
PRECAUTIONARY MEASURE AGAINST GOVERNMENT SUBSIDIES AND DUMPING

REASON 2

DIPLOMATIC RELATIONSHIP BETWEEN CHINA AND AUSTRALIA

- 1 Economic coercion** to Australia's push for an inquiry into COVID-19
- 2 The desire to initiate a trade war** to support steel exports
- 3 An attempt to shift away from being overly dependent on Australian exports**

Australian and American barley competing in China.



US vs EU: Trade War Brings Down Spanish Olive Oil Exports

Trade War between the US & EU

Changes in US imports of olive oil from the first half of 2019 to 2020

Olive oil exports to the US

Spanish exports



DOWN BY 39% ↓

Portuguese exports



UP BY 10 times ↑

Tunisian exports



UP BY 3 times ↑

Decrease in Spain's market share

41.6% → 20.4%

Possible additional markets for Spanish olive oil suppliers



Canada



Australia

TRIDGE

The ongoing trade war between the US and the EU has stripped Spanish olive oil of its competitive price advantage, resulting in a 39% drop (volume) in Spanish exports to its second-largest importer, the US, during the first half of 2020 compared to the same period in 2019. Tensions were spurred by an ongoing 16-year battle between Washington and Brussels on the distribution of government subsidies to aerospace companies- Boeing and Airbus. Accordingly, Spanish table olives, olive oil, wine, and cheese have been taxed at a 25% rate since October 2019, with the US having threatened another tariff increase to 100%.

While Spanish exports of food products to the US enjoyed a more than 7% increase from 2018 to 2019, the country has not witnessed such growth this year. As a result, Spanish olive oil suppliers have turned to secondary markets such as Australia, where exports rose by 62.9% in the period between January and June of 2020, and Canada, where exports saw a growth of 110.5%. The US has in its stead increased imports from Portugal and Tunisia, where exports have increased by 10 and 3 times respectively.

The US has expressed its willingness to start “a new negotiation process” with the EU to come to an agreement on this matter, but it remains to be seen how swiftly negotiation efforts will be made, with president-elect Joe Biden’s win.

US vs Iran: Iranian Pistachios Bear the Brunt of the War

US Sanctions Against Iran

Withdrawal from Iran nuclear deal

- JULY 14, 2015** Nuclear deal signed between Iran and world powers including the US
- JAN 16, 2016** Nuclear-related UN sanctions against Iran lifted after Tehran fulfilled its JCPOA obligations. US sanctions also lifted.
- MAY 8, 2018** US President **Donald Trump** announced **US withdrawal** from the multilateral Iran nuclear deal



Paves the way for
the return of nuclear-related US sanctions

TWO PHASES

90 and 180-Day
Wind-downs
counting from may
8, 2018

Grace periods for companies to wrap up transactions, terminate their operations and put their money out of Iran

PHASE 1:
August 7, 2018

PHASE 2:
November 5, 2018

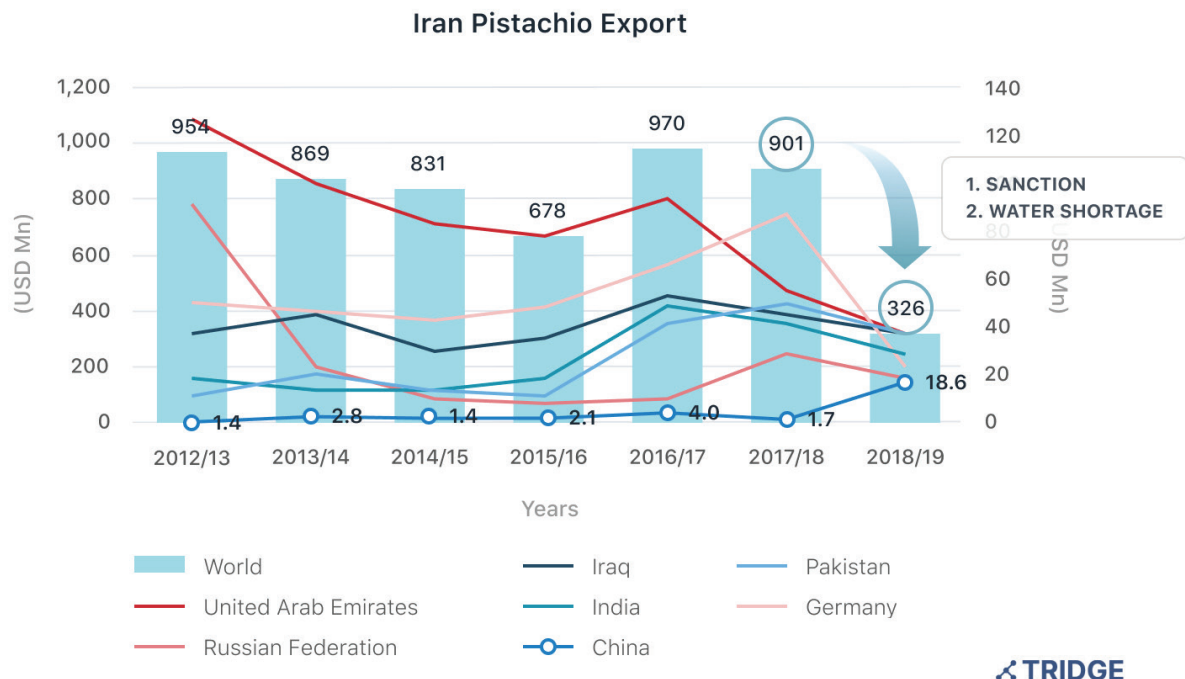
Iran lost business transactions in AEROPLANES, CARPETS, CAVIAR, **PISTACHIO**, GOLD, CARS because of the re-imposition of US sanctions

PISTACHIO: US & Iran were the main competitors in pistachio production with 85% percent of the annual world market in 2017. Approximately 100,000 MT of Pistachio exports were affected due to the US sanction



Iran's pistachio production is expected to increase dramatically in the current Iranian calendar year compared to the previous year. This is in line with the USDA's recent expectation that Iranian nut production will recover to 205K tons following last year's weather shock that slashed output by over 75 percent.

The recovery of pistachio exports to previous high levels, however, is not easy, given the US's withdrawal from the Joint Comprehensive Plan of Action (JCPOA), an agreement co-signed in July 2015 by the US, Iran, China, France, Germany, Russia, and the UK, in which Iran agreed to put substantial and verifiable limits on its nuclear science and engineering activities in exchange for sanctions relief. The Trump

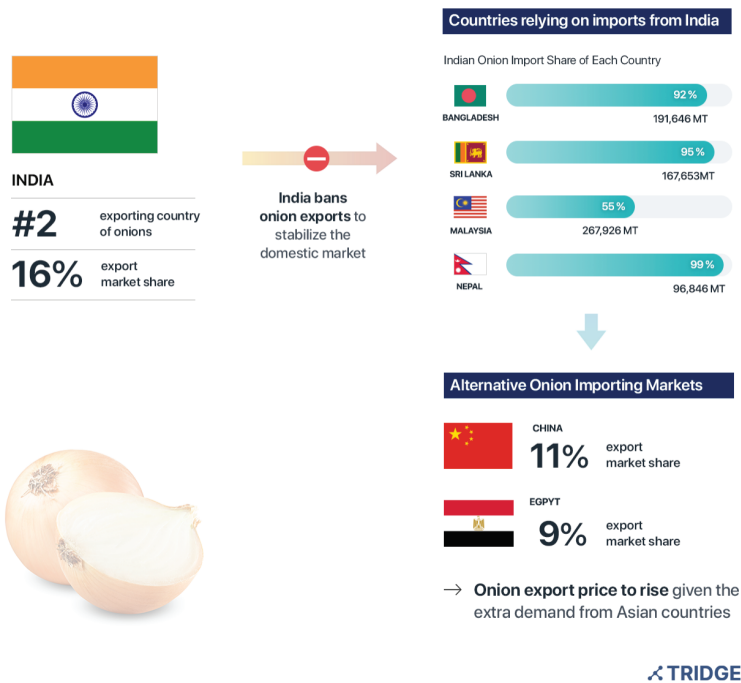


administration subsequently withdrew from the agreement in May 2018, and the resumption of sanctions has been affecting Iran. Approximately 96K MT of pistachio exports have been affected during the period between March and December 2017 from the sanctions.

Fortunately for Iran, pistachio demand from China has been sturdy. Imports from Iran in 2018/19 resulted in a 1,111% YOY growth rate from USD 1.6M to USD 18.5M. And while the trade value is far from sufficient to make up for the loss that Iran is experiencing in the global market, China's marginal support acts as a small relief for the country.

Indian Onion Export Ban

India prohibited the export of onions on September 15 in an effort to protect its domestic market amidst supply shortages and skyrocketing prices after excessive rainfall hit the southern states. With the exception of cut, sliced, or powdered onions, the ban includes all varieties of onions produced in India and was put into immediate effect. India exported USD 198 million of onions during the April-June period of 2020/21 while recording USD 440 million during the entire 2019/20 season.



A similar situation was spotted in October 2019, when India had banned all onion exports after local prices jumped to INR 4,500 (USD 63.3) per 100kg from heavy rains, the highest in nearly six years. Countries such as Bangladesh have turned to suppliers such as China and Egypt to make up for the loss and reduce prices, but the hefty volumes lost were hard to replace, and the import price doubled as suppliers took advantage of the ban.

Wholesale onion prices in India's largest trading hub, Lasalgaon, nearly trebled in a month at INR 30K (USD 408.52) per MT in

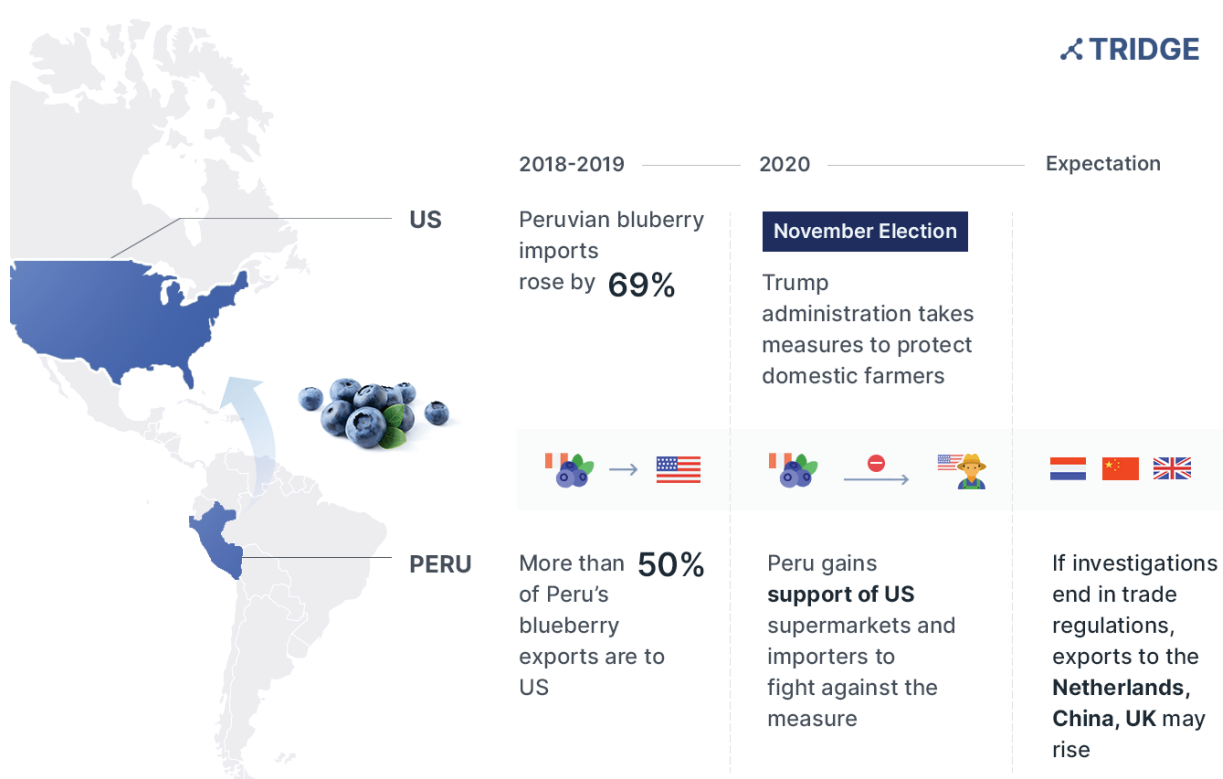
September 2020. Prices fell by 64% in November-Dec as new stocks of onions from Madhya Pradesh and Rajasthan reached the market. Amidst increasing domestic supply and falling prices, farmers, and traders

Daily Onion Prices in Lasalgaon, India (Largest Wholesale Onion Market)



are demanding the export ban to be lifted immediately. Despite this, however, it is expected that the fall in onion prices will be short-lived and will last only until December 2020. Even though the Kharif crop is ready to flow into the markets, a large quantity of Kharif onion crops was also destroyed from heavy rains, and Kharif crops are small compared to the dominant Rabi crops.

US Eyes on Imposing Protectionist Measures Against Peruvian Blueberries



The US has requested that the International Trade Commission (ITC) start an investigation on how blueberry imports have adversely affected US suppliers, which allows the US to pause Peruvian imports and possibly limit the import volume if the decision is made in its favor. The South American country recorded a CAGR of 174% in exports to the US during 2015-2019 and a 69% YoY growth in 2019, posing a threat to US producers.

The US accounts for more than 50% of Peruvian blueberry exports, and Peru is slated to actively demonstrate that its exporters do not engage in practices anti-competitive to the detriment of US

producers, in response to these measures. As part of its strategy, Peru has obtained the support of US supermarkets and importers, who would suffer from the protectionist measures.

It remains to be seen whether the investigation will be concluded to trade restrictions such as quotas, tariffs, or some other types. If the decision ends in the US's favor, some likely candidates that may see their imports rise are the Netherlands, China, and the UK, as their demand for Peruvian blueberries follows a similar demand increase trend to the US.

Part III

Disease & Natural Disasters

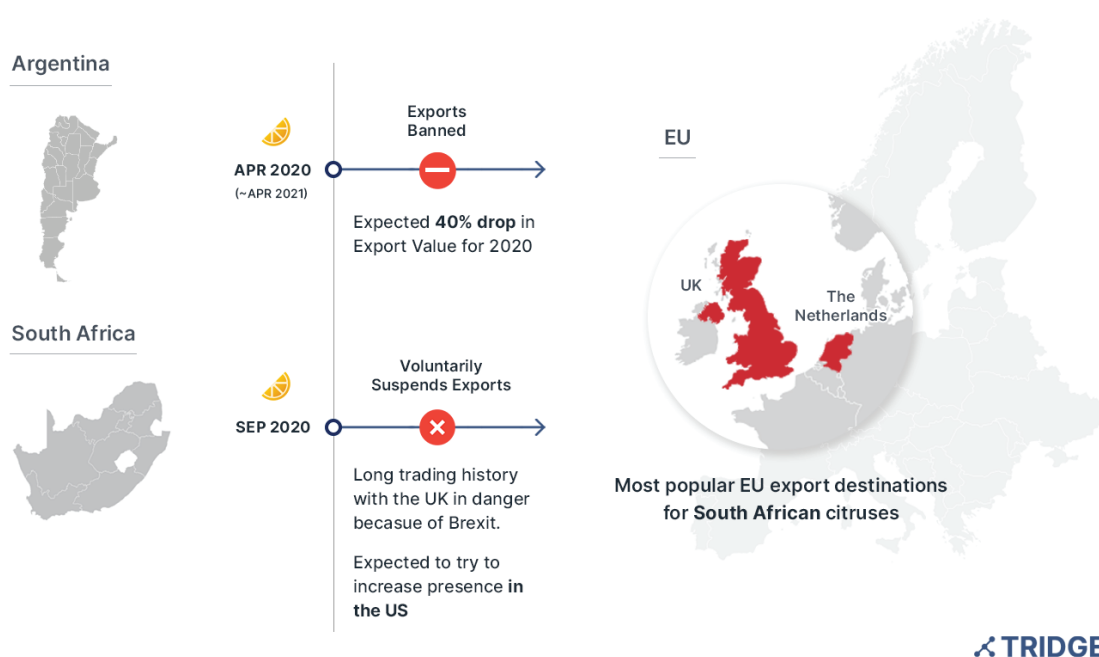
- 3.1 South Africa Suspends Citrus Exports Over Black Spots
- 3.2 China Bans German Pork Imports over ASF
- 3.3 Updates on the Avian Influenza Outbreak
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- 3.5 La Niña behind Upward Pressure on Peruvian Mango Prices
- 3.6 Storm Eta Impacts Ecuadorian Banana Production and prices

Disease & Natural Disasters

Diseases

In 2020, the global agricultural industry witnessed the outbreak of the Avian influenza that impacted the global poultry industry, the spread of the Citrus Black Spot (CBS) that affected citrus fruits in South Africa and Argentina, and the spread of African Swine Fever (ASF) in the German pork sector. These diseases have negatively impacted the production of agricultural products and their market access.

South Africa Suspends Citrus Exports Over Black Spots



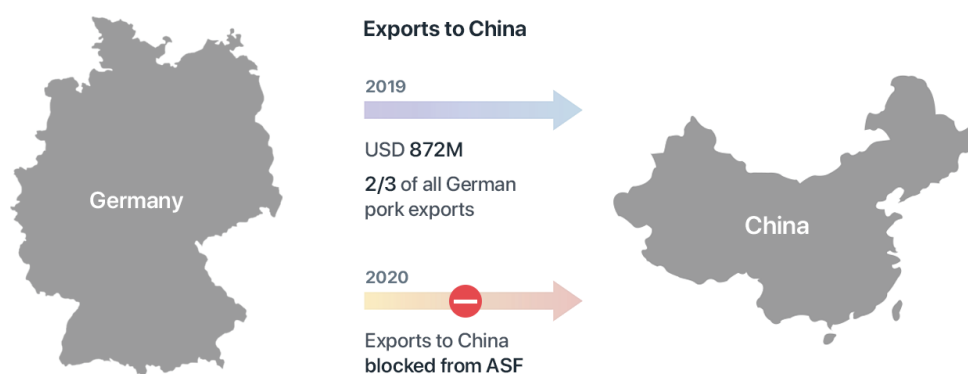
The Citrus Black Spot (CBS) is a citrus disease that affects all commercial citrus varieties, with late-maturing cultivars and lemons being the most susceptible. The disease is caused by a fungus called *Phyllosticta citricarpa*, and it affects citrus plants that grow in subtropical climates, resulting in reduced yields and compromised fruit quality.

South Africa, one of the largest citrus industries in the world, has suspended exports of multiple citrus fruits to the European Union upon detecting infections caused by Citrus black spot (CBS) and false codling moth (FCM) infestation on locally harvested citrus fruit. This suspension was self-implemented by the South African government on September 12, 2020.

The voluntary suspension was possibly a preemptive move in response to a similar situation that occurred in Argentina mid-August. Traces of CBS were also found in Argentinian citrus fruits, and as a result, the EU implemented a ban on Argentinian citrus imports starting from August 16, 2020 until April 30, 2021, which is expected to cost the country up to 40 percent of its 2019 export value in the 2020 season.

China Bans German Pork Imports over ASF

German Pork Exports



Market Outlook

- ✓ Global prices expected to rise
- ✓ Major exporters (US, Canada, Spain, Brazil) expected to benefit

TRIDGE

The African Swine Fever (ASF) is a viral disease that affects wild pigs, such as warthogs and bush pigs, as well as domestic pigs of all ages. The disease is highly contagious, hemorrhagic, and deadly, able to spread rapidly in pig herds. ASF has affected many African countries and outbreaks have also been reported in Central and Eastern Europe, Eurasia, and China.

China announced a ban on pork imports from Germany on September 12 after confirmation of Germany's

first African swine fever case. This comes after pork exports to South Korea, where German pork takes up the biggest portion of its import market, was also banned. China, where approximately 50% of all pork in the world is consumed, had experienced its own difficulties with ASF, and German imports to China doubled from January to April this year compared to the same period in 2019 after Chinese production decreased by 20%. The ban brought expectations of hiking up pork prices and affecting other major exporters such as the US, Brazil, and Spain.

Updates on the Avian Influenza Outbreak



First outbreak in October. More than 150K birds culled.

ACTION BEING TAKEN

The government has imposed **an immediate transport ban** for poultry farms in a 10 km zone around the farm in Altforst where an outbreak occurred.



The low pathogenic H5N2 strain of Avian influenza was confirmed at the premises near Deal, Kent. All 13K birds at the farm that were close to hatching eggs were culled.

ACTION BEING TAKEN

3 km and 10 km **temporary control zones** were formed around the infected premises near Frodsham to limit the risk of spreading the disease.



330K+ chickens slaughtered. First time in nearly 3 years in the country.

ACTION BEING TAKEN

Temporarily suspended chicken and egg exports.



Preparing for outbreak as the country is expecting migratory birds from the Southern Hemisphere.

ACTION BEING TAKEN

Taiwan & South Korea banned import of poultry products from the UK.

The Avian Influenza (AI), which largely affects domestic chicken or turkey, is a highly contagious disease that may cause up to 100% mortality in birds. Poultry is highly susceptible to this viral infection and this has led to outbreaks in the US, Asia, Europe, and Africa.

The global poultry and egg industry were already under pressure from the effects of COVID-19 which caused national lockdowns, closures of farms and slaughterhouses, a fall in demand as well as stagnant trade. On top of the global pandemic, the outbreak of the Avian Influenza resulted in a loss of the poultry population as a large number of commercially bred birds were culled as a measure to curtail the outbreak.

Several outbreaks of different strains of Avian Influenza were reported across the world during the last few months. The Netherlands, which is the third-largest exporter of poultry products, was forced to kill

more than 150K birds to control the outbreak. The UK and Japan also engaged in widespread culling and formed control zones to avoid further spreading of the disease. In addition, poultry importing countries such as Taiwan and South Korea imposed a ban on poultry imports from the UK.

Natural Disasters

2020 was unfortunately not spared from natural disasters and weather irregularities, with wildfires in North America, the La Niña phenomenon in Peru, and the Storm Eta in Ecuador which has affected the global agricultural industry this year.

Wildfires Complicate Apple Harvest in US, Canada

Washington

Produces approximately 65% of the apples in the US
(USD 3B in apples / 3.25B in value-added apple products)

ORIGINAL ESTIMATE

EXPECTATION

5.36B POUNDS → **10%** ↓

FACTORS



Natural
Disaster



Labour
Shortage



Disruptions in
Supply Chain



Increased
Tariffs

to China - 60%
to India - 70%

 **TRIDGE**



Destructive wildfires and windstorms affecting the US and Canada complicated the apple harvest on the West Coast (Washington and Okanagan, British Columbia). Washington is one of the most important apple-producing states in the US, which is the second-largest apple-exporting country. Apple suppliers were already experiencing disruptions with labor shortages and supply chain issues from the pandemic on top of retaliatory tariffs from China and India. Washington apple crops are expected to be reduced by 10% than the original estimate of 134 million 40-pound boxes.

La Niña behind Upward Pressure on Peruvian Mango Prices

Peru

Global Top 5 Exporter of Mangoes: 11.0% in 2019

La Niña affecting Peruvian Mango Production



Cold weather



Lack of Rainfall

Piura, the top northern region in Peru where mango is mainly grown, has had a dry year which led to water shortages and 50% depletion of its reservoir.



- **15% drop** in production is expected
- Lower supply may lead to **price hikes in Peru**



As Peru is the global top 5 exporter of mangoes (11% in 2019), this will put **upward pressure on global mango prices**

TRIDGE

The La Niña is a phenomenon in which ocean surface temperatures are at above-average, coolness in the Eastern and Central Pacific Oceans, affecting regions close to the equator such as the West Coast of South America. Since August - September 2020, many regions in Peru have been experiencing an unusual cold spell, which has affected the production of certain crops, such as mangoes. These conditions are expected to continue in early 2021.

Peruvian mango exports this year were expected to drop by at least 15% compared to the previous year, even with an early start of the harvesting

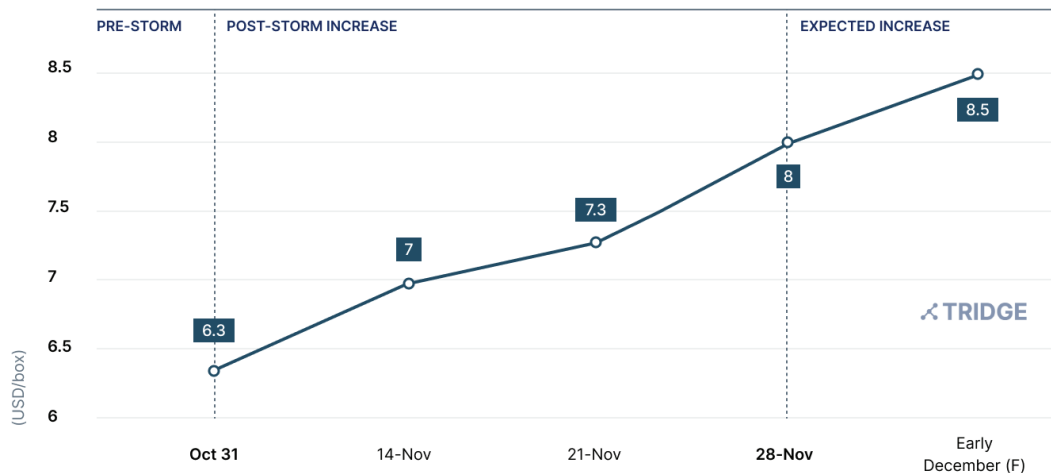
season for the MY 2020/21 campaign which started in late October, a two week head start compared to the previous two seasons, expected to go on until March 2021. Nevertheless, reduced rainfalls induced from the La Niña caused the reservoirs to be unable to reach the levels necessary to irrigate the plantations, especially in these key months.

A similar situation was observed two years ago, during the 2018/19 season, when the export volume of mangoes suffered a 10% drop. During this time, the lower offer caused an increase in the prices of the fruit, which reached USD 1.30 per kg, the highest during the previous five years. Peruvian exporters expect a similar performance in prices for this season

For this season, a select number of companies in Peru have even decided to advance harvest, and some shipments were made in September (around 120 MT, 78% more than 2019). With this, Peruvian companies are reportedly trying to cope with the lack of rain and competitive prices in the international market.

Storm Eta Impacts Ecuadorian Banana Production and Prices

Wholesale Prices of Banana Boxes in Ecuador



Classified as a category 4 hurricane, Hurricane Eta that swept across Latin America in early November caused one of the biggest damages ever done for the banana industries in the region. Within LATAM, Ecuador is one of the largest producers and exporters of bananas in the world, and the country had a share of more than 20% of global banana exports in 2019. While banana-producing regions in Ecuador recently overcame the aftermath of volcanic ashes from the eruption of Sangay with minimal impact, production was not able to withstand the recent storm Eta. Due to the drastic loss in banana production

and plantations, there was a shortage of bananas available in the export market. The lack of supply for exports was immediately reflected in the price of bananas; the price of a standard banana box increased from USD 6.30 to USD 7 and even touched USD 7.30 which is an increase of almost 16% in just a few weeks in Ecuador.

According to local suppliers, the price of bananas is expected to inflate even more and touch USD 8 to USD 8.5 throughout December. The prices are expected to remain high for the next 4 - 6 months which is the minimum period estimated for the affected plantations to recover.

Part IV

Market Shifts

- 4.1 Indian Surge in Rice Exports to China Amidst Border Tensions
- 4.2 Demand for Australian Canola Rises as EU Production Suffers
- 4.3 Rising Commodity Prices

Market Shifts

Every year we are faced with changes in the global market due to demand shifts or weather conditions that cause fluctuations in prices. 2020 was marked by logistical disruptions due to COVID-19, droughts in some major grain-producing areas, and a change in consumer behaviors.

Indian Surge in Rice Exports to China Amidst Border Tensions

Backdrop

Political Tensions Between China and India

- ✓ 35 years of **little to no rice trade** between the two countries
- ✓ **Border Disputes, The ban of Chinese products**, such as Tik-Tok, in India



Reason

1

- 8%



Chinese production is 8% lower from floods and supply disruptions this year

2

Southeast Asian rice powerhouse countries saw **plummeting production volumes** and **spikes in export prices**.

- 30%



Thailand has been facing **intense drought**, which has decimated much of its crops. **Rice exports** from January to mid-November in 2020 is **30 percent less** than the same period in 2019.

Other traditional exporters to China such as Vietnam, Myanmar, and Pakistan are also reporting tighter supplies.

3

+ 30%



Rice production in India up by 30% this year and prices lowered with ample stocks available

Market Outlook



Temporary Occurrence vs Orders from China set to continue until early next year, at least until March - June

China is the biggest rice consumer in the world and imports around 4 million MT of rice annually to supply the demand. The country's main suppliers are Thailand, Indonesia, Cambodia, and Pakistan, all of which are facing supply disruptions due to COVID-19, and have been stocking up on domestic supplies. Thailand, the main supplier for China is facing a severe drought that decimated most of its crops with a production decrease of 6.5 million MT (the lowest in 20 years), dropping exports by 30% between January and November compared to the same period in 2019. To add to the situation, China also had a reduction in production by 8% this year due to floods and supply disruptions, making the need for imports even greater.

India, on the other hand, had very good production this year, with production up by 30%, achieving lower prices than its competitors at around USD 300 to USD 340 per MT, making it highly competitive. China had avoided importing rice from India due to quality issues and trade tensions in the past, but the country has started importing non-basmati rice from India for virtually the first time in 35 years to avoid high prices and fill import shortages. This decision came amidst political tensions caused by

border disputes in the Himalayas that worsened after a confrontation in May, triggering the ban of more than 150 Chinese mobile apps, including Tik-Tok in India, citing security concerns.

Indian exporters report that China has ordered more than 5K MT for November and December of non-basmati rice and contracted 100K MT of broken rice for February shipments at USD 300 per MT (FOB). Many are regarding this as a temporary occurrence spurring from a limited number of options this current season, with China expected to return to its traditional pool of suppliers once the shortage is resolved. Rice exporters in India, nevertheless, are of the opinion that orders from China are set to continue until early next year, at least four to seven months onward from December, with the possibility of it being more than a one-time occurrence.

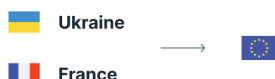
Demand for Australian Canola Rises as EU Production Suffers

High Demand and Prices of Canola Oil

TWO MAJOR MARKETS



MAJOR PRODUCERS STRUGGLE



Lower production
 ↳ Dry weather conditions
 ↳ Insects



Obstacles in exporting to Europe
 ↳ GM products (against EU regulations)

Obstacles in exporting to China
 ↳ Two major grain producers got blocked in China
 → Exports from Canada to China in 2019 dropped by 70%

→ Australian canola demand rising

- ✔ Non-GM products in exporting to the EU
- ✔ Increased demand from China
- ✔ Production estimated to increase by 43% for 2020/2021

TRIDGE

Canola oil prices are currently at a high point as Chinese demand soars and production in the EU has been faltering in recent years. Shifting market dynamics have been conducive to Australia, whose booming production of non-GM canola seeds has allowed it to reaffirm its main exporter status in Europe as well as expanding further to Asian markets.

The EU, which accounts for approximately 30% of the world's canola production, has been troubled by lackluster production and severe weather conditions. France in particular had two consecutive years of decline in planted areas due to pests and droughts, resulting in a drop from 1.5 million ha to 1 million ha in 2020.

New regulations imposed by the

EU on pesticides have also become a barrier to future rapeseed exports, leading producers to reduce planted areas by 28% for MY 2020/21. Imports have risen in light of this situation, with business from the EU taking up more than 70% of Australia's canola exports. This is as the country's strict non-GM production makes it a perfect choice for the EU market.

However, Australia's typical export destinations could be subject to change in the coming years. The country is especially cognizant of how reliant the Australian canola industry is on the EU, as the market is often at the mercy of the constantly changing European Union trade policies like the Renewable Energy Directive.

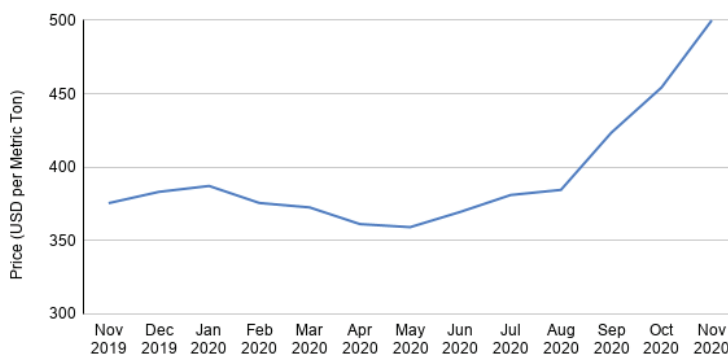
One of the most promising markets is China, which has significantly increased demand for Australian crude canola oil as of late despite the progression of the Australia-China Trade War. While the Australia-China Trade War has soured relationships between the two nations, many suppliers are confident that China will continue to rely on Australian canola despite the threat of tariffs other agricultural industries have been facing. This belief is based on the difficulties in production within the EU combined with how another major supplier of canola and rapeseed, Canada, is in a potentially worse relationship with China than that of Australia.

Rising Commodity Prices

Unfavorable weather conditions during sowing, plant development, and harvesting have affected many crops this year, and combined with supply complications from COVID-19, key commodity prices have skyrocketed.

Soybean hits four year high

Monthly Soybean Prices



*Soybeans (US), c.i.f. Rotterdam

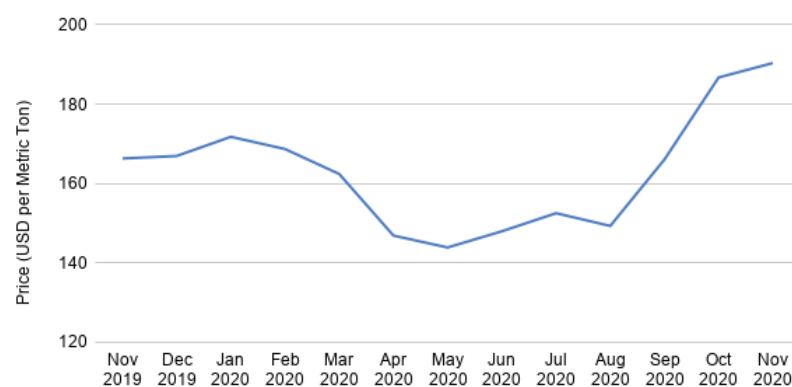
Soybean prices have been rising steadily since May 2020, racking up a 26% increase, due to a combination of several factors. First were poor results for US soybean production in MY 2020/21, which was 17% lower YoY due to droughts that affected main production areas in the Midwest, which lowered stocks to record levels. Soybean prices reached the highest levels in the last four years.

Data Source: USDA, World Bank, Oil World ISTA Mielke GmbH

The Chinese market has been putting upward pressure on US soybean prices in replenishing grain stocks in the ongoing recovery of its livestock after the African Swine Fever swept the nation in 2019. Combined with these factors, there are still uncertainties in production in major producers Argentina and Brazil, as severe droughts from the La Niña caused sowing delays. The drought situation in LATAM has since improved and Brazil now expects another record production for MY 2020/21 if the effects of the La Niña's do not resurge, and prices might retreat once LATAM starts harvesting at the beginning of 2021.

Maize Prices Increase by 30% since May

Monthly Maize Prices



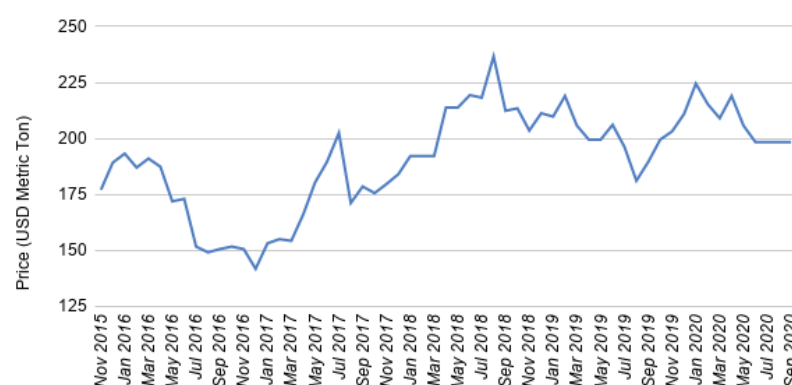
*Maize (US), no. 2, yellow, f.o.b. US Gulf ports

Data Source: USDA, World Bank, Oil World ISTA Mielke GmbH

Maize prices also saw an increase of 30% since May due to global uncertainties mainly caused by the increases in Chinese demand from a low yield. Demand has increased from 7 million MT to 22 million MT for MY 2020/21, which has led to a surge in global prices.

Wheat Sees Highest Prices in Six Years

Monthly Wheat Prices



*Wheat (US), no. 1, hard red winter, ordinary protein, export price delivered at the US Gulf port

Data Source: Bloomberg, USDA, World Bank

Following the rise in prices for grains, wheat prices saw a 28% increase since May, recording a six-year high driven by high corn prices. This increased purchase of feed grade wheat from China is intended to support the growing hog population and put import forecasts at the highest level in 25 years in MY2020/21 at 8 million MT. In addition, the US, the Black Sea region, and Argentina are suffering from a drought and low surface soil humidity that affects proper plant

growth. Argentina's wheat production for MY 2020/21 is forecasted to be the lowest in five years at 16.8 million MT, 3 million MT lower than that of the last season.

While Russia, the biggest exporter of wheat, is expecting the second-largest recorded production of wheat in MY 2020/21, due to COVID uncertainties, the Russian government is considering reinstating restrictions on grain exports which were implemented earlier this year. The regulations were implemented with a quota of 15 million MT for wheat from mid-February to June 2020 as a measure to secure domestic market supplies and prices. A combination of these factors combined with countries replenishing their stocks culminated in the price surge.

Part V

Booming Markets

5.1 Egyptian Oranges

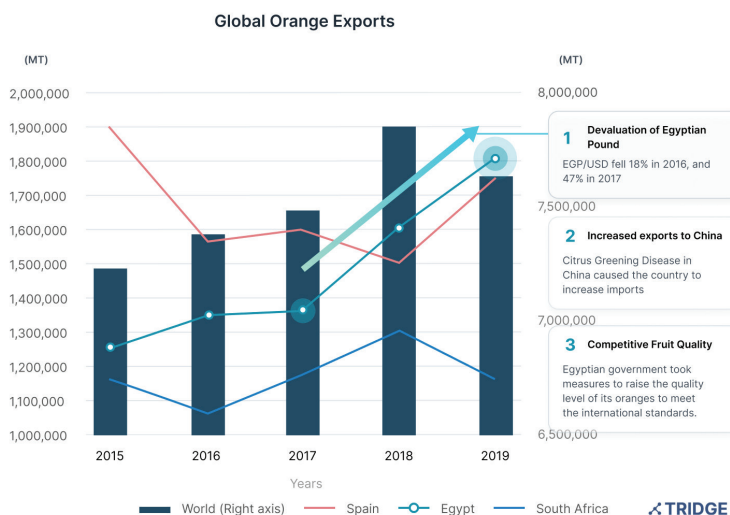
5.2 Chilean Cherries

5.3 US Avocados

Booming Markets

This year has brought a shock to the agricultural industry, where some products have seen steep declines during this period, while others have flourished as it rode on the wave of high demand. Oranges, and citrus fruits, in general, were one of the most prized fruits during the pandemic, due to their immune-boosting properties. Tridge has selected markets that have performed well in 2020 and are expected to show great promise even for the next season.

Egyptian Oranges



In particular, this year, Egypt has topped the list as the world's leading orange exporter in terms of volume, above strong competitors such as Spain and South Africa. Exports have grown by 30% over the past two years, resulting in exports of 1.8 million MT of oranges for 2019. Egypt's standing as the world's top exporter was from a culmination of three main events: the devaluation of the Egyptian Pound, governmental support, and increased exports to China.

The devaluation of the Egyptian currency took place several years

back, resulting in Egyptian exports having the upper hand over other countries in terms of prices, while also triggering a demand surge in old as well as new destinations. Even more so, in 2017, the Egyptian government pushed strongly to increase the quality of oranges, allowing smaller farmers to be able to meet international standards and step into global trade.

These measures have become fruitful in 2019 when China was hit by the destructive Citrus Greening Disease, where China has decided that Egypt was the most suitable replacement for its production shortfalls. Just from January to October 2019, Egypt increased its exports to China by 107% compared to the same period the previous year. The strong demand throughout this year will likely secure Egypt's position as a world leader in orange exports throughout the future as well.

Chilean Cherries

Production



- ✓ Production in MY 2020/21 increases **by 12%** compared to 2019/20
- ✓ Production is expected to reach **345K MT** by MY 2023/24 due to high productivity and increased planting areas.

Exports

Total Exports



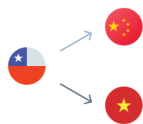
- ✓ Expected to **increase by 13%** for MY2020/21 compared to 2019/20

Exports to China



- ✓ From MY 2017/18 to 2018/19 **0.53% increase** in exports
- ✓ From MY 2018/19 to 2019/20 **31.6% increase** in exports

Market Outlook



Due to the dangers of relying too much on a single market (China), the recent entry of Chilean cherries to the **Vietnamese market** was welcomed by the industry

Chilean cherries have also found relief in exports within the Chinese market. Since 90% of its export share for cherries is from China, any complications in the market could have been catastrophic for the Chilean industry. However, most issues were resolved by the beginning of the year. Chilean cherry exports to China managed to increase by 31.62% for MY 2019/20 from MY 2018/19, a huge jump from MY 2017/18 to MY 2018/19 where exports to China grew by 0.53%, according to the USDA. Production has been bountiful as well and is expected to continue its growth, with an increase of 12.1% in MY 2020/21.

US Avocados

Remarkable US Avocado Domestic Volumes

1 ALTERNATE-BEARING SEASON



MY 2019-2020 is an alternate-bearing season for Californian avocados, a pattern that tends to see higher production.

2 FAVORABLE CLIMATIC CONDITIONS



Production was boosted further on the back of plenty of rainfall and temperature.

Result

1 **HARVEST** (MY 2019/20) **+85% YoY** Harvested Avocados in the US for MY 2019/20 surged +85% YoY

2 STRONG HARVEST

Causes the Drop in

1

The US Avocado Wholesale price

2

Demand for Latin American Avocado

3 PRICE DIP IN THE WHOLESALE PRICE

Discouraged Latin American suppliers to export to the US



TRIDGE

In 2020, the United States managed to reduce its dependency on avocado imports from Latin America as MY 2020/21 is the better of the alternate-bearing season, in which there is usually higher production. Additionally, good rainfall and ideal temperatures boosted the already well-off harvest. Imports from Chile, for example, dropped by 95% YoY, and imports from the US' main supplier, Mexico, decreased by 24% YoY. With plentiful production, avocados were actually at an oversupply within the US market, with wholesale prices indicating a downward trend during August. With prices lower than usual, suppliers have even more strayed from exporting to the US.

While MY 2021/22 is a low alternate-bearing season for Californian avocados, a pattern that tends to see lighter production, the California Avocado Commission (CAC) notes that the harvest projection for the campaign is as high as 330M pounds, a huge increase from the 216M pounds of harvest during the 2018/19 campaign, the most recent low-bearing season. It remains to be seen whether the hype on US production could be actually sustained, but if so, there will be prolonged downward-pressure on amounts imported from Latin America.