

California Tree Nut Industries Set Up Well to Handle COVID-19 Pandemic

Brittney Goodrich

This article discusses the impacts of the COVID-19 pandemic on tree nut industries in California, specifically almonds, pistachios, and walnuts. Overall, impacts seem to be minimal due to the nature of tree nut marketing and mechanization along the supply chain.

Supply Chain

California tree nuts are mechanically harvested in the fall and much of the harvest is stored to be sold throughout the rest of the marketing year. Tree nut growers typically market their production through handlers who aggregate and sell the nuts or their processed products. USDA production numbers and December 2019 inventory reports for the 2019/2020 marketing year showed that California growers sold over 94% of each crop to handlers prior to the new year. Almond, walnut, and pistachio handlers had approximately 42%, 44%, and 63%, respectively, of their total inventory left to market beginning in January 2020.

The supply chains in California's tree nut industries have been disrupted less than in some other crops. This is, in part, due to tree nuts being relatively non-perishable, which allows for long-term storage without spoiling. Additionally, logistical processes associated with tree nuts (harvest, shipping, processing, etc.) are done in bulk and are highly mechanized. This means social distancing measures are easy to implement throughout most of the tree nut supply chain, and labor shortages have not been an issue.

Domestic Consumption

California accounts for, virtually all almond, pistachio, and walnut production in the United States and is the primary supplier for domestic consumption. Figure 1 displays percentage changes of domestic shipments by month in comparison to the 2018/2019 marketing year for pistachios, almonds, and walnuts. Nuts shipped from December 2019 through February 2020, deviated slightly from the previous year. In March, when

shelter-in-place orders were implemented throughout the U.S., all three markets saw significant increases in domestic shipments. It's clear that in addition to other food staples, U.S. consumers stocked up on tree nut supplies.

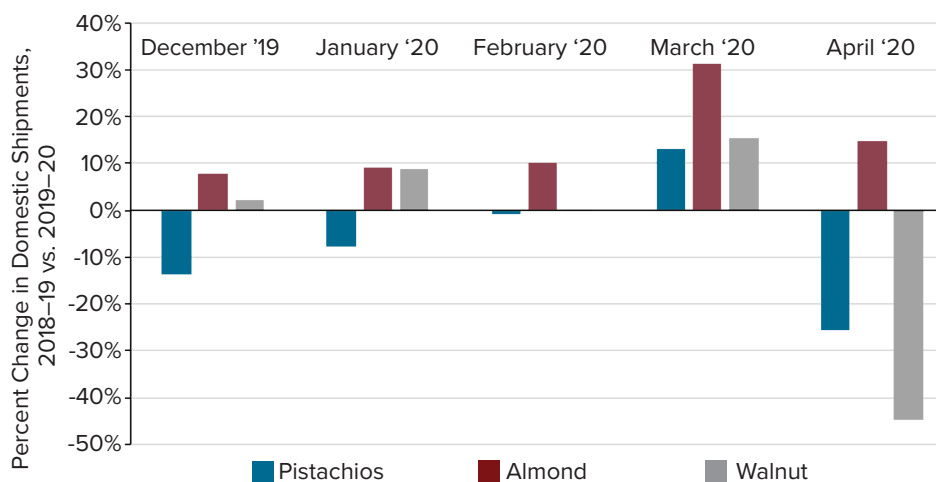
Figure 2 shows weekly domestic wholesale prices for California tree nuts in comparison to 2019. Pistachio prices showed a noticeable response to the demand increase from the pandemic. Pistachio prices in 2020 had been below 2019 levels until the week of March 14, when prices increased by 21%. California walnut prices have been consistently above their 2019 levels, while almond prices have decreased over the time period and are now below 2019 levels. Almond prices decreased 11% between January and April. This is likely a response to the record almond crop anticipated for 2020, in addition to export demand disruptions.

In April, pistachios and walnuts saw significant decreases in domestic shipments from previous years (Figure 1), likely an adjustment due to consumers having bought large quantities of these items in the previous month, as well as to relatively high prices (Figure 2). Domestic shipments of almonds fell in April, but not by as much—likely due to low prices.

Exports

For 2016–2018, nearly half of pistachios and roughly two-thirds of walnuts and almonds were exported, so export markets play a considerable role in California tree nut markets. There have been no clear overall effects across all export markets due to the pandemic. It should be noted that

Figure 1. Percentage Changes in Domestic Shipments between 2018/2019 and 2019/2020 Marketing Years, December 2019–April 2020



Sources: Author's calculations using data from Almond Board of California Position Reports, Administrative Committee for Pistachios Shipment Reports, and California Walnut Board Shipment Reports

tree nut markets have been experiencing trade issues in a number of major markets, which make isolating effects of the pandemic difficult (Sumner et al., 2019).

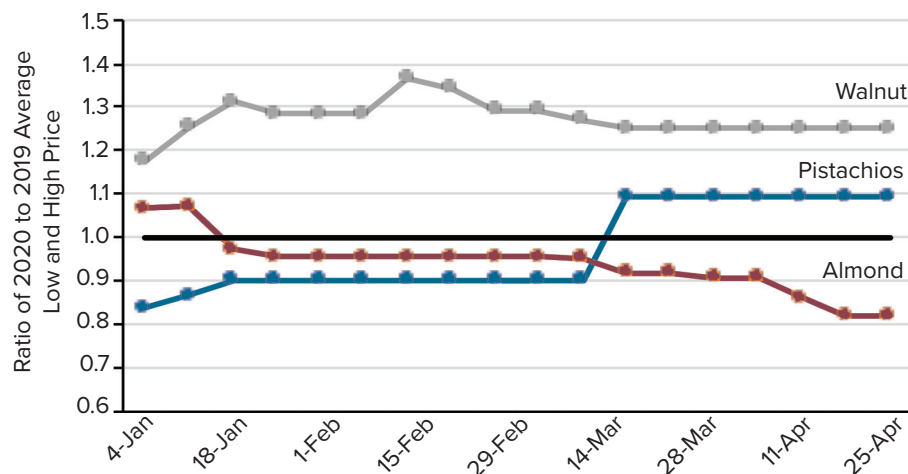
One relatively large export market for California almonds and walnuts documented sizeable disruptions due to the pandemic. The Indian government issued a three-week lockdown beginning March 25, and confusion regarding which industries and workers were considered “essential,” caused a shortage of workers at Indian ports (Almond Board of California, Global Update, April 2020). As a result, California tree nut exports to India dropped off substantially in April. No pistachios were exported to India in April, while almond and walnut exports were down 52% and 12% from April 2019. Most of these shipments were likely postponed and will be shipped later, but it is unclear whether exports to India in the coming months will compensate for this sharp decline in shipments.

Looking Ahead

It seems probable that consumers will continue to eat more food at home than usual in the coming months, given the recession and continued social distancing measures associated with the pandemic. Tree nuts are considered a healthy snack by many consumers and frequently included in cereals, granola bars, and other processed foods that are consumed at home. With the shift to more food consumed at home, consumer demand could increase for California tree nuts in the coming months, though it is too early to tell.

If a second wave of COVID-19 occurs in the fall during harvest of tree nuts in California, growers are unlikely to see too much of an impact given the mechanization of harvest. There may be issues with nut processing plants, handling and shipping operations,

Figure 2. Weekly Average Wholesale Price Ratios for California Almonds, Pistachios, and Walnuts: 2019 vs. 2020



Sources: Author’s calculations using data from USDA AMS Terminal Market Reports

and port facilities needing to implement social distancing measures, but given that many adjustments have already been made over the last couple of months, it is unlikely these disruptions will be major.

On May 19, USDA announced details of the Coronavirus Food Assistance Program (CFAP), which will provide direct payments to producers with losses due to the pandemic. Almonds, pecans, and walnuts are listed as eligible commodities. Growers can apply for this funding beginning May 26 through their local USDA Farm Service Agency. Applications will be done online or over the phone. Find more information about the program at the CFAP website: www.farmers.gov/cfap.

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The Milk Economics of the COVID-19 Pandemic

Daniel A. Sumner

Milk has been in the news over the past few months as much as any food or farm commodity. Empty shelves in the dairy case, milk dumped at the farms, and billion-dollar government programs illustrate the complexities of milk economics during the pandemic.

Four basic facts about milk demand and supply are crucial to understanding the recent news, the current situation, and the outlook. First, fluid milk products—whether gallons at supermarkets, cartons at schools, or with coffee in cafes—represent a small share of the use of farm milk. Almost 80% of California-produced milk is used to make butter, milk powder, or cheese, which is shipped across the country and around the world.

Second, about 20% of milk is typically processed and packaged for food away from home. Third, the quantity consumed is relatively insensitive to price. Fourth, cows produce milk every day, and even with low prices, a farm cannot turn off the milk one day and start back a month later when markets look better. Moreover, raw milk produced each day must be processed immediately.

In the immediate aftermath of the shutdown of restaurants, schools, and many places of employment, dairy processors and marketers scrambled to shift products into grocery stores, where demand had surged. Some products, such as milk already in

school-size cartons, were not easy to adapt. Others, such as certain cheeses, which were designed for menu items, such as pizza, tacos, and cheese burgers, that were often purchased away from home, were moved into storage. The resulting mismatch left a few weeks of unfulfilled retail demand while processors worked overtime to prepare the right products for the larger retail market. As a result, the average retail prices of dairy products were almost 2% higher in April compared to February.

The domestic market disruption and a decline in exports, especially of milk powders to Mexico and Asia, caused storage capacity to fill, while about 10 million U.S. cows kept the milk flowing. Mexico and other importers have been hit by the same economic disruption and recession as experienced in the United States, and their imports of dairy products are responding to lower income and income prospects. By the middle of April, futures prices of milk used for products such as butter, milk powder, and cheese had fallen by more than one-third, reaching depths that were not economically sustainable, even for the most efficient California dairy farms.

In part because of the severity of the milk price collapse, Congress supplemented existing subsidy programs with new ad hoc payments. Nationally, direct payments to dairy farms are expected to add about \$3 billion, or

about 7%, to annual revenue. However, much California milk production may be ineligible for compensation because farms here are relatively large. Finally, USDA will begin purchasing dairy products that will be distributed through food banks and other programs to those in need, which may raise farm prices a little.

Dairy markets have risen since price lows in April. As of the middle of May, the futures price of milk for cheese has made up most of its losses. However, identical milk that is designated for butter and dry milk powder, remains down by about one-quarter. Prices of identical milk differ by use because of peculiarities of government milk marketing regulations. Table 1 shows the divergent pattern of milk product prices. Cheese and whey (and the milk used to produce those products) are near to or above the prices of a year ago. The prices of nonfat dry milk and butter (and of the raw milk used for those products), remain depressed by 15% and 36% below last year, despite rising in recent weeks.

Dairy farm prices and incomes are expected to crawl slowly back, but remain below normal for the rest of this year. Much depends on the depth of the global recession and when the demand for milk recovers. California and U.S. milk production is likely to fall and dairy farms will exit because they do not see profitability soon enough to make hanging on worthwhile. The full recovery seems many months away.

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Table 1. Dairy Product Price Patterns

	May 15, 2020	Change from last week	Change from last year
	\$/Pound	Percent	Percent
Cheddar Cheese	1.60	+25	-4
Dry Whey	0.40	-0.5	+12
Nonfat Dry Milk	0.89	+9	-15
Butter	1.50	+20	-36

Source: Chicago Mercantile Exchange.

Smaller U.S. Wineries Especially Hard-Hit by COVID-19 Pandemic

Julian Alston

Even before the COVID-19 pandemic took hold, the global and U.S. wine industries were facing economic and market challenges. U.S. markets were adapting to new Chinese tariffs on American wine and U.S. tariffs on European wine. As we entered 2020, wine markets worldwide were already soft, wine consumers were enjoying a buyer's market, and industry prognosticators presaged some industry adjustments to come (McMillan, 2020).

In just a few months, COVID-19 has made matters much worse, especially for those parts of the wine industry most dependent on direct sales to consumers—on-premise sales through hotels, restaurants, and winery tasting-rooms, and cellar-door sales at wineries. With social distancing and mandated closures, sales from these outlets are blocked for now and are projected to be well down for the year 2020.

The detailed outcomes will depend on many current unknowns. In one set of estimates, John Moramarco (Wine Institute, 2020) projects revenue losses for the U.S. wine industry in 2020 attributable to the pandemic totaling \$5.9 billion, comprising decreases of 80% (or \$2.5 billion) for on-premise sales, 80% (or \$3.0 billion) for tasting-room sales, and 10% (or \$323 million) for direct-to-consumer (DTC) shipments from wineries; he projects a 10% (\$1.33 billion) increase in off-premise retail sales through grocery stores and other outlets.

In the immediate context, the effects are more pronounced and more mixed. Nielsen data indicate that DTC shipments and off-premise sales in March and April 2020 were up by 30% in value compared with 2019 (see, e.g., Adams, 2020). This reflects a rise in

DTC and off-premise sales of alcohol, a shift toward larger package sizes, and a shift within alcohol toward wine.

These seismic shifts in marketing channels have complex implications for the total value and volume of sales, and the overall winery share of consumer wine expenditure. The consequences will be borne unevenly across the many thousands of American winegrape growers and wineries, as well as wine wholesalers and distributors, wine merchants, restaurants, and other retailers. Among the hardest-hit wineries will be those that emphasize sales on-premises and through their tasting rooms. Many of these are at the smaller end of the size distribution.

Looking forward to the 2020 vintage, winegrape growers can anticipate reduced demand for their grapes reflecting not only the immediate impact of the pandemic on wine markets, but also in view of the longer-run impacts of reduced incomes and consumer spending even after the world has returned to a more normal footing. Growers who do not have a well-established (contractual) relationship with a winery may struggle to find a buyer for their grapes and many are anticipating further price declines. Jon Moramarco (Wine Institute, 2020) projects a 25% (\$1.4 billion) reduction in value of winegrape sales in 2020.

Among the complicating factors, as we try to make sense of the implications of the COVID-19 pandemic for California and U.S. wine producers, is uncertainty about impacts and adjustments in the rest of the world—both immediately and in the longer-run. Along with disruptions to domestic markets in all countries, the pandemic has disrupted production and distribution channels in ways that affect international trade.

Some countries—such as France, Italy, Spain, and Australia—are heavily dependent on exports, including exports to the United States. In the short-run, U.S. producers may benefit from disruptions to those exports. Various early reports are anticipating major structural changes in the wine sector in the main producing countries, the consequences of which could ameliorate the longer-run effects of changes in U.S. markets on the U.S. wine and grape industry.

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For additional information, the author recommends:

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Cattle Producers Struggle as COVID-19 Reduces Beef Processing Capacity

Tina L. Saitone

Outbreaks of COVID-19 in meat-processing facilities across the U.S. have created a significant bottleneck in the beef supply chain that has had substantial and widespread ramifications for cattle producers. Cattle producers are reliant upon a highly concentrated processing sector in order for cattle to reach consumers as cuts of beef. At the end of April, when beef packing plant shutdowns were most widespread, daily processing volumes fell 40% below 2019 levels. While every effort has been made to get these plants back online, recent statistics indicate that throughput remains 30% below last year, even though all but one plant had reopened as of May 13.

Meatpackers' dependence on labor, coupled with protocols to reduce the risk of work-related COVID-19 infections, means that throughput at packing facilities will remain below normal levels for the foreseeable future. With the majority of restaurants still shuttered, or operating with severely limited dine-in options available, meatpackers continue to struggle to repurpose cuts of beef that are typically utilized by foodservice operations. This process is especially challenging because much of this repurposing is labor-intensive; butchers breaking down larger cuts to sizes and packages appropriate for retail. While foodservice sales are still severely compromised, retail sales of fresh beef have increased 59% relative to the same week last year.

While media headlines have warned of widespread meat shortages and Tyson, one of the largest three meat processors in the country, publicly declared that the "food supply chain is breaking," only limited product-specific stockouts have been noted in specific geographic areas. But, this does not mean that the

issues confronted by the processing sector have occurred without costs. With fewer cattle being processed and a reduction in the supply of beef, wholesale and retail beef prices have increased.

The consumer price index for beef indicates that in April 2020, consumers paid 7.5% more for beef, compared to 2019. In the early days of May, wholesale beef prices were up almost 50%, relative to the same time last year, and 67% year-to-date. At the same time wholesale and retail prices are rising, the processing bottleneck has limited the producers' ability to sell their cattle, increasing supplies and driving down cattle prices. This reduction in cattle prices sent meatpackers' margins (the difference between the wholesale beef price and the live cattle price) soaring, an increase of 150% year-to-date. Although this margin calculation fails to account for processors' additional costs associated with operating during these unique circumstances (e.g., running plants at lower capacity, installing equipment to increase worker safety, increased cost of sick workers), cattle producers and policymakers have used these developments to petition the U.S. Department of Justice to investigate the competitiveness of the industry and formulate legislation to dictate the procurement mechanisms utilized by packers in the future.

California's cattle producers are the backbone of the beef supply chain; primarily participating in the cow-calf and stocker segments of the industry that produce calves and feed young cattle before they are sold to large-scale feeding operations in the Midwest. Although California is the 5th largest cattle-producing state, some would like to believe that our geographic separation from the meat-processing sector

would soften the blow. However, this is not the case.

With fed cattle ready for slaughter backed up in feedlots, many feed yards have stopped making purchases. This forces producers up the supply chain to make hard decisions; keep cattle longer hoping the market improves (adding costs as you continue to feed them) or sell immediately at a loss. Average feeder prices (cattle one year away from slaughter) are 12% below last year and 24% below the average price paid in May over the last five years. The drought-like conditions that occurred this winter throughout much of the state leaves less available forage and limits producers' ability to hold cattle until prices improve.

The short-run situation is likely to remain unstable for the foreseeable future. While all processing plants are currently open, the possibility remains that worker health issues could shutter facilities again. Even if processing lines continue to run, cattle prices are unlikely to recover until meatpackers are able to process the backlog of fed cattle. At current throughput levels, this is predicted to be months away. However, producers selling younger animals are likely to see prices recover sooner, given those animals are more than a year away from being ready for processing.

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How is Fresh Produce Adjusting to the Public Health Crisis?

Kristin Kiesel

Over a third of the country's vegetables and two-thirds of all fruits are grown in California. Lettuce, one of California's top ten commodities, directly added \$1.81 billion and millions of dollars in indirect business activities to the California economy in 2018. Moving towards the peak of the California growing season, the produce industry is one of few sectors of the economy currently hiring. Temporary labor supply is more plentiful than in previous seasons given the collapse of the non-farm economy and easing of restrictions on H2A visas. Yet, industry leaders worry that localized outbreaks could quickly shut down farms and packing facilities.

Responding to social distancing rules meant reducing employment by 18% in processing and 15% in harvesting, and resulted in efficiency losses. Washing and disinfecting stations have also been added and PPE is widely made available. However, a large share of the now essential workers—many of whom are undocumented immigrants—return to financially vulnerable homes without adequate access to health care. The industry repurposed empty California motels and hotels as isolation homes for agricultural workers, committed to offering financial support to their employees during quarantine, and set up charitable funds to augment the general provision of health care services. While these measures have increased production costs, community spread of COVID-19 has largely been avoided so far.

The impact of this public health crisis on the demand for fresh produce can be described in three distinct phases—panic buying, supply chain challenges, and emerging new consumer patterns. Although produce

never quite experienced the kind of surge seen in meat, dairy, dried and canned goods during the first phase of the pandemic, fresh produce sales increased significantly. However, by March 29, fresh produce sold at only slightly elevated levels according to weekly total sales of fresh produce reported by IRI. Grower-shippers impeded from selling their produce through foodservice distributors were trying to pivot into retail. Yet, highly perishable items were pushed to the back of the priority list as retail partners were having a difficult time restocking their shelves. Taylor Farms, the nation's largest producer of leafy greens, confirms that although they were able to ramp up retail operations by 25% during the first weeks of the pandemic; to date, volume is on par with pre-COVID-19 projections. Operating based on 60–90 day planting cycles, rapid volume reductions in foodservice sales and unexpected changes in product mix meant that Taylor Farms had to till under \$11 million in produce.

Foodservice distributors were able to submit first bids to the USDA's Agricultural Marketing Service new Farmers to Families Food Box program. The program puts \$461 million towards the purchase of fresh fruit and vegetable kits delivered to food banks. California committed an additional \$3.64 million in funding to ensure that excess produce will reach the families that need it the most. Still-operating fast food and casual dining restaurants, and schools dedicated to providing food to their communities, further allowed some categories like iceberg to recover to 80% of normal levels. Others, like romaine loose leaves, remain low at around 40% of pre-COVID-19 sales.

In retail, consumers are also moving away from value-added products and towards commodities, although salad kits continue to perform well. As consumers are minimizing shopping trips, shippers have seen an increase in the relative shares of sales through supercenters and national grocery chains. The rapid increase in e-commerce and demand for services like Instacart is one of the emerging consumer trends likely here to stay as well. In general, simplicity and straightforwardness are key to marketing fresh produce in this new environment. Many brands are sharing additional resources like downloadable shopping lists, limited-ingredient recipes, and cooking videos to help families during this public health crisis, and Driscoll's reminds consumers to share a little joy in these challenging times when promoting one of very few new product introductions.

The California fresh produce industry is a tightly connected web of grower-shippers, packers, processors, transporters, and more. Vulnerabilities in our food supply have to be addressed more broadly in the aftermath of this pandemic. Despite facing astonishing disruptions caused by this public health crisis, the industry acted nimbly, moving as much fresh produce as possible and continuing to find ways to reach consumers.

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How is the Strawberry Industry Weathering the Pandemic?

Yujing Song, Mark Bolda, Oleg Daugovich, and Rachael Goodhue

In 2017, 38,200 acres of California strawberries generated \$3.1 billion in production value, making it one of the state's top ten crops. Strawberry production ramps up in March and is at its peak in April through June. At press time, much of this period has been impacted by COVID-19-related restrictions that have been in place nationally and internationally, making the potential impacts relatively large in terms of the share of annual production affected.

The shuttering of foodservice businesses has reduced a major marketing channel; foodservice accounts for about 20–25% of sales. Export demand has shrunk. Typically, California strawberries are shipped as cargo on passenger planes to Dubai, Hong Kong, and elsewhere. Now, shippers are using cargo planes, which increases transportation costs.

At press time, strawberry producers have access to three USDA initiatives designed to blunt the economic impact of COVID-19 on agriculture. First, under the Families First Coronavirus Response Act, the USDA is making additional commodity purchases, including \$35 million allocated for strawberries, to distribute to communities nationwide. At slightly over 1% of 2017's production value, the absolute value of this purchase is small. However, to the extent that it can facilitate moving volume at critical times during the coming months, it could have an outsize effect on the industry.

Second, strawberry growers and shippers are eligible to apply to the Farmers to Families Food Box program to supply produce to food banks and other non-profits. Finally, the USDA announced on April 19 that strawberries were one of 22 specialty crops eligible for direct payments to producers

under the Coronavirus Farm Assistance Program.

Market impacts of the pandemic differ for fresh and frozen strawberries. Frozen berries can be stored so when stay-at-home restrictions began, consumers may have increased their purchases as part of the stockpiling strategy many undertook. As a highly perishable food, fresh strawberry availability should not be greatly affected by consumers stocking up and generating shortages, as has been observed for many non-perishables. On the other hand, because fresh strawberries are highly perishable, fresh sales may have declined initially as a result of people limiting their trips to grocery stores.

Recently, demand for fresh strawberries has strengthened, and people appear to be purchasing strawberries at a near-normal pace. The loosening of restrictions on mobility in many regions has likely played a role, as may have other factors. Mother's Day is considered a driver of strawberry demand, as is spring more generally, and this traditional force may have influenced consumers to resume purchases. Additionally, major shippers are investing substantially in advertising and promotion of fresh berries this year.

COVID-19's labor-related challenges are particularly significant for strawberries, which require about 1.5 workers per acre. The industry has instituted costly additional worker and food safety measures. Growers check workers for symptoms and monitor COVID-19 outcomes. The availability of protective face covers, sanitizer, and tissues for workers was an early challenge and continuing these measures increases costs. Social distancing drives up harvest costs because it requires increasing the space between workers, which

slows picking. To some extent, growers can manage this increase by staggering the assignment of rows to create the necessary distance. Additional hand-washing stations are another response that increases costs.

Despite these marketing challenges and cost increases, to date, total farmgate strawberry volume has not shown a sustained reduction relative to previous years based on USDA data. In part, this is because growers have already planted their fields and slowing the harvest of strawberries reduces plant health and future yields. Impacts may appear over time. Higher harvesting costs may induce growers to transition from the fresh market to the processing (frozen) market earlier in the season or skip producing for the processing market entirely. If growers transition to the frozen market earlier, the availability of fresh strawberries will decline, increasing prices for fresh berries.

While the precise impact on prices and returns this year of these off-setting effects is unknown, the increase in costs may change future decisions. Strawberry acreage may decline in future seasons if the costly safety precautions continue, making less labor-intensive crops more attractive.

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Processing Tomatoes Benefit from Machine Harvesting and Storability

Ellen Bruno and Mark Evans

Tomatoes are a top 10 commodity for California that bring in over \$1 billion in revenues annually. About 80% of that value is derived from processing tomatoes, that is, the tomatoes that are used in shelf-stable sauces and pastes. California is the leading producer, growing 95% of processing tomatoes nationwide and 28% of processing tomatoes worldwide.

The economic impacts of the pandemic on the processing tomato industry will depend largely on the degree to which producers and processors can respond to changes in demand. Tomato processors selling to the foodservice industry typically produce in gallon-size or larger containers. This production requires specialized equipment that is often shipped from abroad, meaning it is not feasible for processors to convert a major portion of their production to retail sizes this year if foodservice operations continue to be shuttered or operating under limited capacity. In the short run, some processors will struggle to adapt to the recent surge in retail demand due to the pandemic. As a result, we may see temporary scarcity for some retail products that could manifest in either higher prices or shortages at the retail level.

An important dynamic for understanding the longer-term implications of COVID-19 to the processing tomato industry is that of storability. The industry will benefit from the fact that canned product has a relatively long shelf-life. Bulk and canned products can maintain their full quality in warehouse storage for at least 2 years. This will help with managing the disruptions to demand for product that was processed for foodservice. Unlike some other fresh vegetables slotted for foodservice, this product will not

go to waste. According to the April crop update by the World Processing Tomato Council, some California tomato processors have reduced their contracted acreage in response, which will either get picked up by other processors or lead to an overall reduction in acres planted.

Bulk product that was originally intended to be an ingredient in foodservice manufacturing can easily (at least physically) be shifted to use in retail production. For example, processors could repurpose a 300-gallon package of tomato paste intended as an ingredient in foodservice spaghetti sauce to make sauces in retail-size containers. Although the canneries may face logistical challenges as to the timing of the final-goods production, the lengthy shelf-life of the 300-gallon product should allow for these adjustments. While this may be great from a food waste and overall industry standpoint, some producers may face negative impacts. Excessive inventories may occur when the economy reopens, driving some prices down.

Commodities that involve labor-intensive activities, such as hand picking, are likely to be at higher risk for outbreaks and supply disruptions than mechanically harvested produce. Even though processing tomatoes are mechanically harvested, the industry and its workers still face some outbreak risk. For example, tomato plants are started in greenhouses that often require substantial hand labor. People also work in close proximity to each other during the field transplanting process. The industry has taken precautions to minimize risks and, to date, there has been no significant disruption in establishing the crop this season.

There is always some concern in the industry regarding how government regulations will impact the ability to produce food in a cost-effective manner. For example, (understandable) limitations in CA Department of Motor Vehicles licensing activities due to COVID-19 may lead to difficulties in obtaining licenses for truck drivers who are needed to deliver tomatoes from the fields to the canneries. Even if an abundance of people are motivated to get trained and licensed, backlogs due to the suspension of driver's tests may prevent the agricultural industry from adapting quickly if and when licensed truckers get sick.

There is no doubt that the pandemic is causing disruptions on both the supply and demand sides that affect the processing tomato industry. The magnitude of the impacts from these disruptions remains uncertain. Further, policies and regulations intended to enable social distancing will challenge the production efficiency and quality of the products. The tomato industry, like the rest of the agricultural sector, is committed to maintaining a healthy workforce and a strong supply chain to continue supplying healthful food.

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