

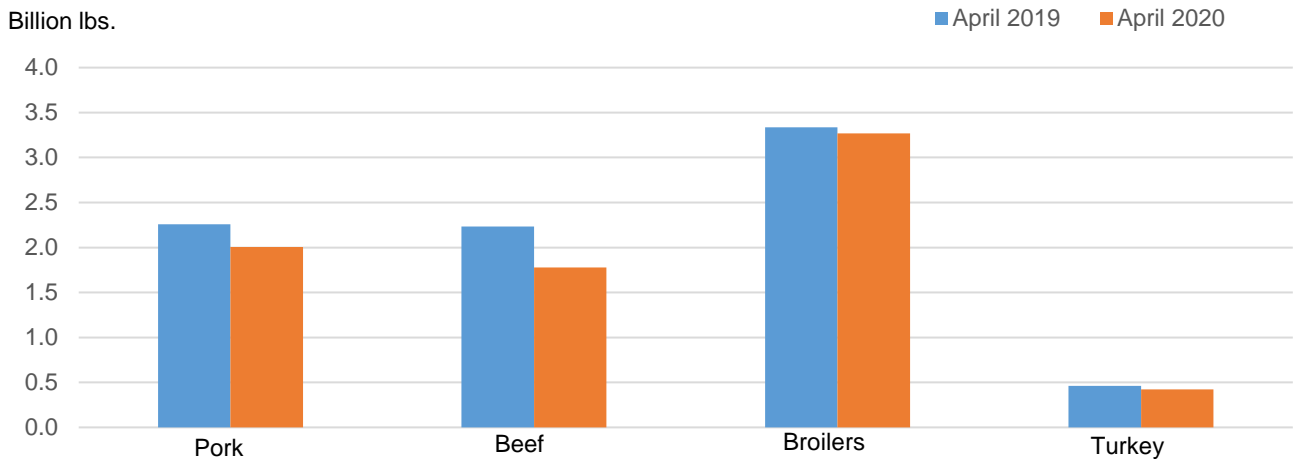


Livestock, Dairy, and Poultry Outlook

COVID-19 Infects Laborforces in U.S. Meat Processing Plants, Disrupting April Production

Since early April, COVID-19 infections of animal processing plant laborforces have disrupted beef, pork, broiler, and turkey production in the United States. The figure below compares preliminary estimated federally inspected April 2020 production levels to those of a year earlier. It is notable that each meat category shows a year-over-year decline. Estimated pork production in April—2.3 billion pounds—fell more than 11 percent below a year earlier, as hog processing plants in several States reduced throughput (with some plants shutting down temporarily) due to COVID-19-related labor shortages. Estimated federally inspected beef production in April, at about 1.8 billion pounds, is almost 21 percent lower than the volume produced in April 2019. COVID-19 contagion of poultry processing plant employees caused year-over-year reductions in broiler and turkey production in April, as well. Estimated April 2020 broiler production—3.27 billion pounds—was 2 percent below production in April 2019, and turkey production fell 8.3 percent to 420 million pounds this year from a year earlier.

April federally inspected production, 2019 and 2020:* Pork, beef, broilers, and turkey



*Estimated.
Source: USDA, National Agricultural Statistics Service and Agricultural Marketing Service.

Beef/Cattle: While beef production had its strongest levels in early 2020, slaughter levels are expected to restrict beef production for the rest of the year due to COVID-19 challenges at meatpacking facilities. However, slaughter capacity is expected to recover in 2021, and beef production is expected to set a record. Despite strong first-quarter 2020 beef imports, the forecast for the rest of the year was revised lower on tighter expected beef supplies in Oceania. Imports are expected to recover in the second half of 2021. Beef exports in first-quarter 2020 reached record levels, but tighter expected domestic supplies and global economic uncertainty drags down the forecast for rest of 2020. Exports are expected to rebound in 2021, at almost 9 percent higher than 2020. Cattle imports and exports in 2020 are expected to be lower than the previous year but to recover slightly in 2021.

Lamb/Sheep: 2020 first-quarter production was higher than forecast. The forecasts for the rest of the quarters for 2020 were raised as well. Reported lamb prices have declined substantially since the end of April. Lamb price forecasts have been lowered for the last three quarters of 2020.

Dairy: The all-milk price forecast for 2020 is \$14.55 per hundredweight (cwt), an increase from last month's forecast of \$14.35 per cwt. The milk production forecast has been raised by 0.2 billion pounds to 222.4 billion. Export forecasts for 2020 have been raised by 0.3 billion pounds on a milk-fat milk-equivalent basis and by 2.3 billion pounds on a skim-solids milk-equivalent basis. For 2021, milk production is forecast to grow to 224.1 billion pounds, and the all-milk price forecast is \$15.00 per cwt.

Pork/Hogs: Due to COVID-19-related labor disruptions in pork processing plants, 2020 pork production is reduced 1.6 billion pounds from last month's forecast to 27.4 billion pounds, nearly 1 percent below production in 2019. The virus will likely constrain processing plant throughput to some degree into 2021, with total pork production forecast at about 28.2 billion pounds, almost 3 percent above the current 2020 forecast. Lower U.S. pork production, increases in pork prices, and declines in world economic growth are expected to temper U.S. pork export growth for the balance of 2020 to 7.15 billion pounds, 327 million pounds below last month's forecast but 13 percent above 2019. Exports in 2021 are expected to rebound modestly to 7.3 billion pounds, about 2 percent higher than the 2020 forecast. Lower production, exports, and ending stocks imply a decline in 2020 per capita pork disappearance to 49.7 pounds, about 5 percent below 2019. For next year, disappearance is calculated at 50.8 pounds per capita, about 2 percent above the 2020 forecast. ERS composite values for 2020 and 2021 retail pork will likely average in the mid-\$3.90s.

Poultry/Eggs: The 2020 broiler production forecast was decreased on slower processing volumes and hatchery data, as well as expectations for continued weakness in demand. The broiler price forecast was decreased as prices are anticipated to remain soft for the remainder of 2020, while broiler export volumes were increased on higher shipments to China. In 2021, production is expected to resume growth as producers aim to return to operating efficiency. While prices are expected to improve relative to 2020, they will likely remain soft in 2021 due to higher production. Broiler export growth will likely slow in 2021 due to challenging global economic conditions and a strong U.S. dollar early in the year. The 2020 egg price forecast was increased on higher prices in April and expectations for sustained retail demand. Table egg production forecast was increased slightly, while hatching egg production was revised down on reduced broiler production. In 2021, table egg production is expected to increase on higher lay rates and a larger layer flock. 2021 egg prices are expected to be lower than in 2020 due to increased production. The 2020 turkey production forecast was revised down to 5.834 billion pounds on decreases in processing capacity and poults placed. The 2021 turkey production forecast is 5.885 billion pounds, a 1-percent increase over the 2020 forecast. The 2020 annual average was revised up to 104.6 cents per pound, and the 2021 annual average forecast is 104 cents per pound. The total turkey export forecast for 2020 is 584 million pounds, a 9-percent year-over-year decline from 2019. For 2021, total exports are forecast at 595 million pounds, a 2-percent increase over the 2020 forecast.

Beef/Cattle

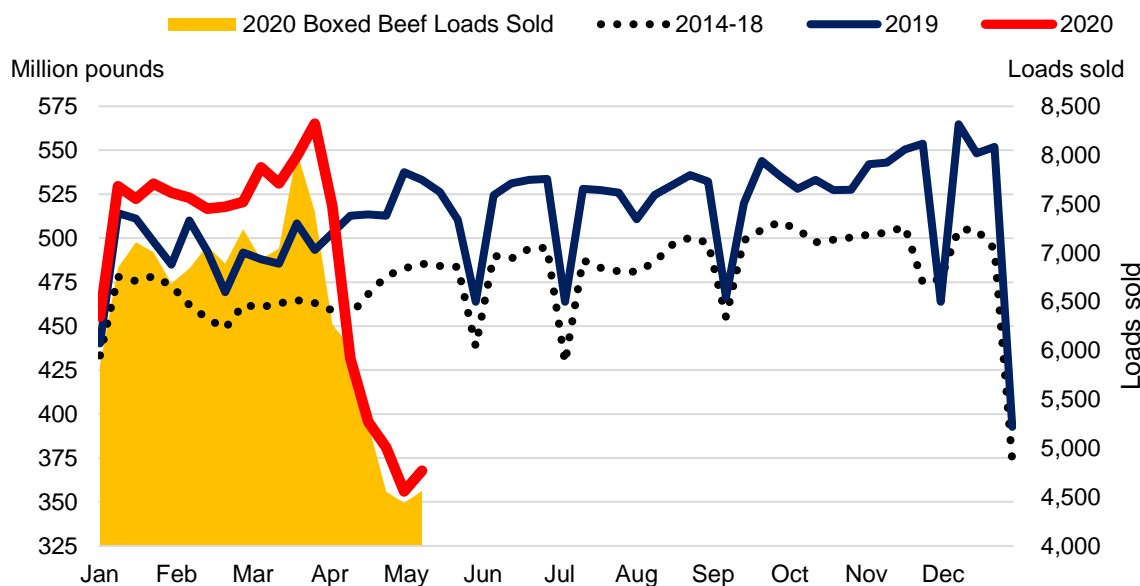
Russell Knight and Christopher Davis

After Record Production in First Quarter, COVID-19 Slams Brake on Beef Production

In first-quarter 2020, beef production reached record levels on the largest number of cattle slaughtered for the quarter since 2002 and the heaviest dressed weights since 2016. Further, U.S. beef imports in the first quarter reached levels not seen since 2016, when production was 17 percent less than the current quarter. Record production and high imports likely helped build beef supplies in cold storage at the end of March to 11 percent above last year.

However, the impact of COVID-19 on beef production in April and early May was significant. As shown in the chart below, beef production peaked during the week ending March 28. From there, production quickly declined, and at an exceptional pace. As the spread of COVID-19 hit many meatpacking facilities, they had to temporarily close operations or reduce shifts to adjust to laborforce absences. Facility-specific health protocols and social distancing may inhibit plants' processing ability to return to normal kill levels as employees try to return to work. To an extent, kill schedules will depend on each facility's ability to manage the situation at their plants. Further, the capacity to produce beef at pre-COVID-19 levels may remain an issue into 2021.

Weekly federally inspected beef production



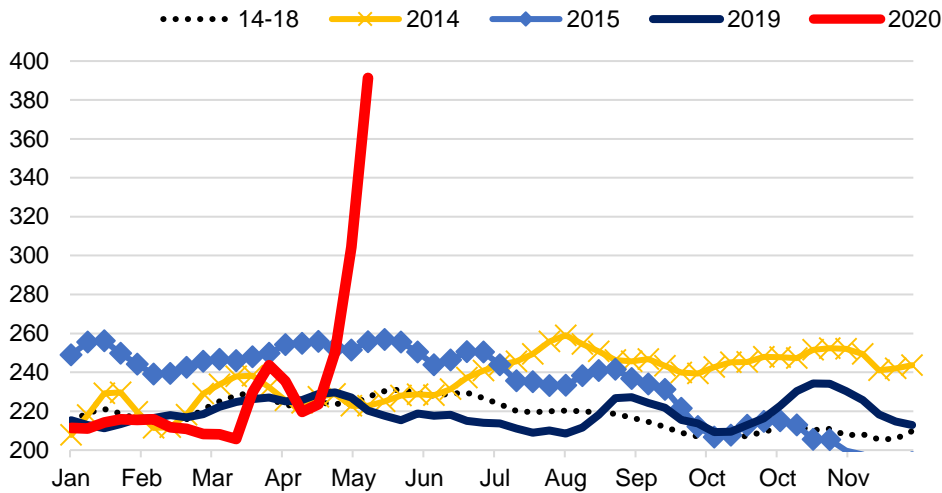
Note: One load equals 40,000 pounds.

Source: USDA, Economic Research Service calculations; Data from USDA, Agricultural Marketing Service.

In late March, as consumers prepared to shelter in place, retail demand for beef increased, as suggested in the chart above by boxed beef loads sold. However, despite strong demand, boxed beef sales diminished quickly as production deteriorated in the weeks following. The effects of limited production had a large impact on beef prices, as shown in the chart below. This chart illustrates the

weekly comprehensive beef cutout value, an all-inclusive value of wholesale beef prices, which skyrocketed to new heights well beyond recent records set in 2014 and 2015. Beef production may have reached its low in early May.

Weekly comprehensive beef cutout values



Source: USDA, Economic Research Service calculations; Data from USDA, Agricultural Marketing Service.

Reduced Slaughter Capacity Backs Up Fed Cattle

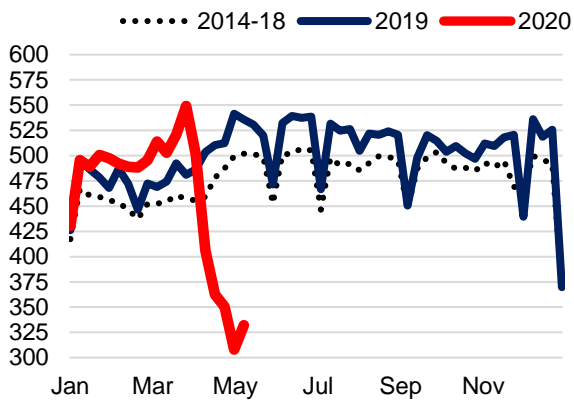
The charts below illustrate that by volume and percentage, fed cattle¹ have had a more dramatic reduction in slaughter than have nonfed cattle². In the weeks following the peak fed-cattle slaughter (steers and heifers) during the week ending March 28, the beef industry has lost 40 percent of slaughter capacity. Further, the weekly slaughter volume of cows and bulls has declined about 12 to 14 percent over the same period.

¹ Fed cattle consist mainly of steers and heifers marketed from feedlots for slaughter.

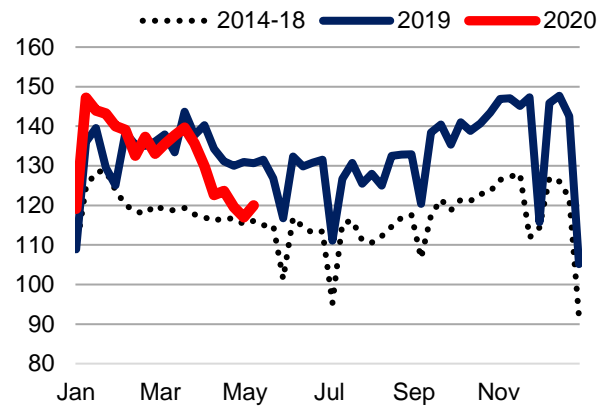
² Nonfed cattle pertains to cows and bulls that are marketed by producers for slaughter.

Weekly federally inspected slaughter

Steer and heifer slaughter



Cow and bull slaughter



Notes: Units are on 1,000 head basis.

Source: Data from USDA, Agricultural Marketing Service.

The most recent disruption to the beef market occurred in August 2019 after a fire halted operation at a Tyson beef plant in Kansas for 4 months. That plant accounted for 5 to 6 percent of weekly fed cattle slaughter, and after a period of adjustment to redirect those cattle to alternative slaughter locations, packers were able to increase capacity with increased slaughter on Saturdays to make up for the loss.

However, the current situation does not allow for plants to easily make up for lost slaughter capacity given workforce challenges. Based on recent maximum slaughter levels for the second quarter, there is likely a significant shortfall in slaughter since it peaked the last week of March. As a result, feedlots are having to continue to feed their cattle longer, and this is likely to be an issue into 2021 as the industry works through the feeder cattle that are awaiting placement in feedlots. This will likely add to the number of cattle outside feedlots, which was estimated to be over 3 percent more on April 1, 2020 (see table “Feeder Cattle Supplies Outside Feedlots” on the ERS webpage Livestock & Meat Domestic Data).

Production—Lower in 2020—Expected To Set a Record in 2021

The beef production forecast for second-quarter 2020 was lowered by 1.3 billion pounds to 5.6 billion pounds, 17 percent below last year and the lowest for the quarter since 1990. Expected cattle slaughter was lowered as packing facilities adjust to workforce challenges stemming from COVID-19 infections in several plants. However, the reduced slaughter was partly offset by higher expected dressed weights as a result of fed cattle remaining on feed longer and by the proportion of fed cattle slaughtered expected to grow through the rest of the quarter.

The production forecast for the second half of 2020 was also lowered from last month on the expectation that beef packing facilities that principally slaughter fed cattle will continue to adjust slaughter capacity as facilities implement social distancing and other health protocols that will slow the daily pace of slaughter. This more than offsets heavier expected average dressed weights and higher expected nonfed cattle slaughter as producers cull cows in response to low returns. As a result, the annual beef production forecast for 2020 was reduced by 1.7 billion pounds from last month to 25.8 billion pounds, about 5 percent below 2019 levels.

The initial forecast for 2021 commercial beef production is expected to set a record for production at 27.5 billion pounds, as cattle placements in feedlots during second-half 2020 are expected to be

slaughtered in 2021. In addition, higher expected dressed weights as the result of feeding cattle longer will support higher production.

Lower Cattle Prices Expected for an Extended Period

The buildup in fed cattle supplies that are market ready is expected to have a substantial and lasting effect on fed cattle prices. Prices will remain low as the supply of market-ready cattle remains above the sector's ability to process them, and the supply issue is expected to linger through 2021. As a result, the 2020 price forecast for fed steers was reduced to \$104.10 per hundredweight (cwt) as average prices are expected to dip below \$100.00 per cwt in the second and third quarters and then rebound modestly in the fourth quarter. The first-quarter 2021 price forecast is expected to remain relatively low at \$101.00 per cwt. However, prices are expected to improve later in 2021 as demand recovers, leading to an annual price forecast of \$109.00 per cwt, almost 5 percent higher than 2020.

As a consequence of lower fed cattle prices and of having to keep cattle on feed longer as packing facilities adjust slaughter schedules lower, feedlot margins are being squeezed. Feedlots have substantially reduced placements in February and March and are likely less willing to bid aggressively for feeder cattle. Based on recent price data, the second-quarter 2020 feeder steer price was lowered by \$2 to \$121 per cwt. The third-quarter 2020 price forecast was lowered \$5 to \$123.00 per cwt and the fourth-quarter 2020 price was lowered \$17 to \$118.00 per cwt. As a result, this month's annual price forecast for 2020 was \$124.50 per cwt, close to last month's forecast. The price forecast for first-quarter 2021 is expected to remain relatively low at \$125.00 per cwt. Feeder steer prices are expected to improve in the second half of 2021 on increased demand. The 2021 annual feeder steer price is forecast \$131.50 per cwt, more than 5 percent higher than 2020.

Cattle Import and Export Forecasts Are Reduced for 2020, but Higher in 2021

U.S. cattle imports for 2020 first quarter totaled 530,196 head, about 36,889 less than the previous year. The 2020 forecast for cattle imports was revised down by 65,000 head from last month to 2.0 million head to reflect weaker cattle demand due to COVID-19. Cattle imports impacted the most are those imported for slaughter, which account for 25 percent of U.S. total cattle imports. The forecast for cattle imports in 2021 is 2.025 million head, a 1-percent increase over 2020, but not expected to exceed 2019.

Cattle exports in the first quarter of 2020 were estimated at 68,745 head, which was 11.4 percent more than were exported in 2019. The forecast for cattle exports in 2020 was lowered 20,000 head to 265,000 head, 13 percent lower than 2019. Cattle exports are forecast at 280,000 head in 2021, about 6 percent more than 2020 and 8 percent less than 2019.

Beef Imports Are Expected To Be Lower in 2020, but To Rebound in 2021

March beef imports totaled 299 million pounds, an increase of 28.7 million pounds year-over-year from 270.3 million pounds in 2019. March imports showed a 10.6-percent year-over-year increase. The largest increases in shipments came from major markets such as New Zealand, Mexico, Nicaragua, and Australia (see table below). Reductions in beef imports were seen from Canada and Brazil.

U.S. year-over-year beef imports from major suppliers

	March 2019	March 2020	Difference in volume	Year-over-Year change
	--- Million pounds--			--- Percent --
Australia	54.9	56.8	1.9	4
Canada	79.6	70.3	-9.3	-12
New Zealand	46.0	63.8	17.8	39
Mexico	48.5	56.8	8.3	17
Brazil	12.9	9.2	-3.7	-28
Uruguay	10.4	10.3	-0.2	-1
Nicaragua	15.7	21.8	6.1	38

Source: USDA, Economic Research Service calculations using data from U.S. Department of Commerce, Bureau of the Census.

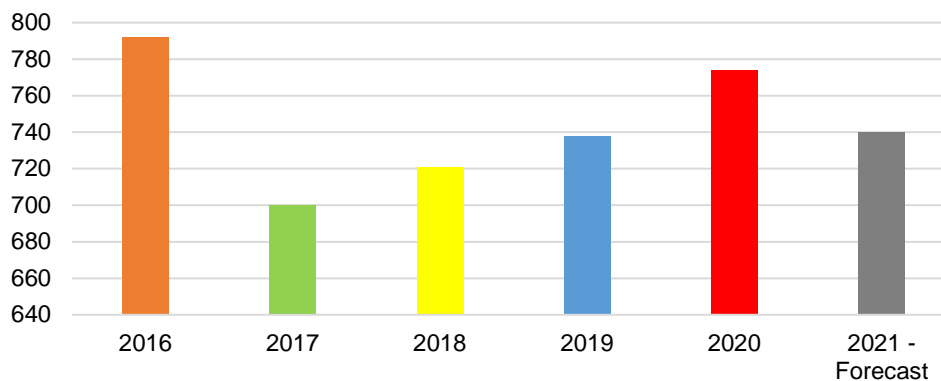
First-quarter beef imports totaled 774 million pounds, the highest since 2016 (see chart below). Imports during the first quarter of the year were up about 5 percent from a year ago, largely attributable to expanded shipments from Australia (+24.4 million pounds), New Zealand (+8.2 million pounds), Mexico (+13.0 million pounds), Nicaragua (+9.5 million pounds), Argentina (+5.5 million pounds), Costa Rica (+4.7 million pounds), and Ireland (+4.4 million pounds).

The 2020 second-quarter forecast for beef imports was lowered by 15 million pounds to 735 million pounds, while third and fourth quarters were also reduced by 35 and 15 million pounds to 710 and 685 million pounds, respectively. The beef import forecast was lowered slightly for outlying quarters as reduced fed cattle slaughter may limit the need for lean manufacturing trimmings and as exportable supplies may tighten in Oceania.

Beef imports in first quarter 2021 are forecast at 740 million pounds, 1 percent less than 2020 first quarter. While lower imports are anticipated in the first quarter, imports are expected to increase later in 2021. The annual forecast for 2021 is 3.020 billion pounds, up 4 percent from 2020.

U.S. beef imports in the first quarter

Million pounds



Source: USDA, Economic Research Service calculations using data from U.S. Department of Commerce, Bureau of the Census.

Beef Exports Are Expected To Fall in 2020 but Recover by the Second Half of 2021

U.S. beef exports totaled 267.1 million pounds in March, up 21 million pounds from the previous March. As shown in the table below, the year-over-year increase occurred for some major beef export destinations, with Japan accounting for the most of U.S. exports, followed by South Korea, Canada, and Taiwan (see table below). Much of the increase in exports was due to high levels of U.S. cattle slaughter and subsequent record beef production coupled with accelerated demand for animal proteins in Asia, helped by favorable export conditions as permitted under the US-Japan agreement enacted in January. Conversely, shipments to Mexico and Hong Kong, two of the U.S. major destinations, were less in March 2020 relative to a year earlier.

U.S. year-over-year beef exports to major destinations

	March 2019	March 2020	Difference in volume	Year-over-Year change
	--Million pounds--			--Percent--
Japan	68.9	86.3	17.4	25
Mexico	34.5	28.4	-6.1	-18
South Korea	54.7	61.1	6.4	12
Canada	19.1	25.3	6.2	32
Hong Kong	16.7	11.4	-5.3	-32
Taiwan	15.9	17.8	1.9	12
Vietnam	2.0	2.6	0.6	30

Source: USDA, Economic Research Service calculations using data from U.S. Department of Commerce, Bureau of the Census.

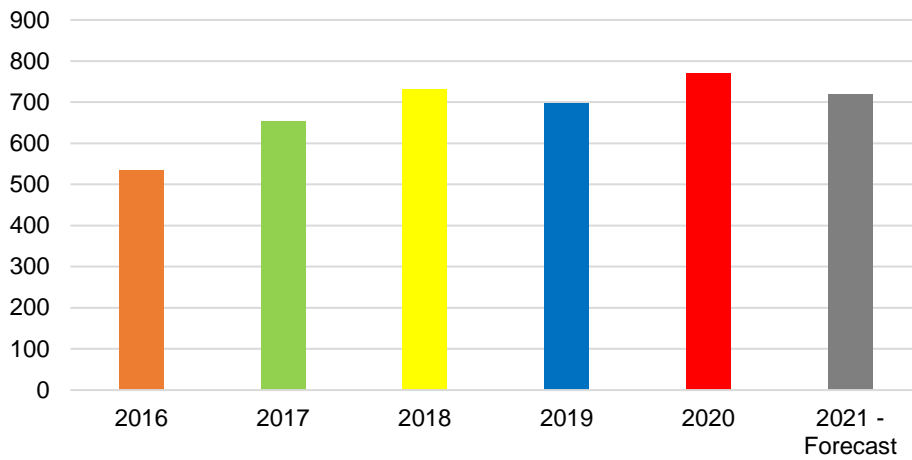
Beef exports in the first quarter totaled 769.2 million pounds, up 73 million pounds from the first quarter in 2019 (see chart below). A 10.5-percent increase in beef exports was partly driven by the largest beef production on record for a quarter and vigorous demands for animal proteins in Asia. Beef exports to Japan increased 33.8 million pounds year-over-year, while South Korea and Canada grew by 23.9 and 11.1 million pounds more in first-quarter 2020 relative to first-quarter 2019.

The 2020 second-quarter forecast for beef exports is reduced 105 million pounds to 675 million pounds. Similarly, shipments in the third and fourth quarters are forecast as lowered 130 and 65 million pounds, to 700 and 750 million pounds, respectively. Reductions in beef exports are attributed to lower anticipated beef production for the rest of the year and decreasing exportable supplies, along with a weakening global economy.

The 2021 first-quarter forecast for beef exports is 720 million pounds, 6 percent less than 2020 first quarter. Annually, the 2021 forecast for beef exports is 3.140 billion pounds, almost 9 percent higher than 2020. Trade is projected to rise as beef production expands.

U.S. beef exports in the first quarter

Million pounds



Source: USDA, Economic Research Service calculations using data from U.S. Department of Commerce, Bureau of the Census.

Lamb

William F. Hahn

Changes in 2020 Forecasts for Lamb and Mutton

First-quarter commercial lamb and mutton production was estimated at 34.8 million pounds, up 5 percent from the same quarter in 2020. Given the higher than projected weights in the first quarter, the forecasts for the rest of 2020 were increased as well. The current 2020 annual forecast is 144 million pounds, 3 percent lower than the total for 2019.

Since the later months of 2019, lamb slaughter has generally been less than that of the same month the previous year, with lower average weights. NASS's January 1, 2020, sheep inventory report showed slightly smaller inventories than their 2019 report.

There are a number of factors that make production forecasts uncertain. As noted in the February 2020 issue of this report, the forecast is based on an average lambing rate of 108 lambs per ewe. The 108 figure is the average for the past 25 years. However, there are more years with above-average than below-average lambing rates. It is possible that this year's lamb crop exceeds last year's, and a higher-than-average lamb crop would lead to increased production.

Another source of uncertainty comes from the effects of the COVID virus. While reported lamb prices generally drop after Easter, this year's decline in lamb prices has been larger than the typical post-Easter decline. Easter lamb is generally consumed at home; however, a large percentage of the lamb is consumed away from home. The loss of the away-from-home market may add to the post-Easter lamb price decline. Lower lamb prices might encourage producers to market a greater number of their lambs at lower weights.

Given the recent decline in lamb prices, lamb price forecasts have been lowered for quarters 2, 3, and 4 of 2020. The 2020 annual lamb price is forecast at \$137 per cwt.

The first-quarter and annual 2021 forecasts are now available. The lamb production forecast is 35 million pounds, 1 million less than the first quarter of this year. For the year, production is forecast at 145 million pounds, almost 1 percent above 2020. The first-quarter lamb price is forecast at \$145 per cwt. The annual 2021 lamb price is forecast at \$151 per cwt.

Dairy

Jerry Cessna

Effects of COVID-19 on Dairy Markets

The effects of the COVID-19 pandemic have been very challenging for the dairy industry. The extent of the problems remains highly uncertain. Although price data for dairy products are available for April and the early part of May, supply and use data are not yet available. The dairy industry has made considerable adjustments in response to the crisis, and the U.S. Government has taken steps to mitigate the problems faced by the industry.

Throughout April, there was low domestic demand for dairy products due to financial hardships for some Americans and the shift from consumption at foodservice establishments to at-home consumption. Americans typically consume higher proportions of dairy products when they eat out than when they eat at home. The shift from away-from-home to at-home consumption also brought about logistical and packaging problems, causing supply-chain bottlenecks. At the same time, milk production was reaching its peak season. USDA *Dairy Market News* (DMN) reported that cheese, butter, and dry product inventories were growing during the month.

Throughout April, there were reports that milk loads from various parts of the country were not being processed due to low demand for dairy products and logistical problems. Such milk is often spread on fields as fertilizer, added to manure lagoons, or fed to animals. There have also been reports of milk being sold at distressed prices. For several weeks, DMN has reported that some spot milk prices in the Midwest have been \$4 to \$8 less than the Class III milk price.

With the imbalance between supply and demand, some dairy cooperatives and other milk handlers have incorporated pricing terms to discourage dairy farmers from increasing milk production growth. Some of these are base-excess types of plans. With such a plan, each dairy farmer is paid a lower price for milk that exceeds a base amount, usually determined by the farmer's production history. There have been other actions taken by milk handlers, ranging from encouraging voluntary reductions in milk production to placing strict limits on how much milk will be accepted. Dairy farmers have several choices concerning how to limit milk marketings. These include increasing the culling rate, changing feed rations, reducing the milking frequency, drying cows off early, and using surplus milk as animal feed.

There are indications that imbalances between supply and demand have been mitigated to some extent. On the supply side, for the week ending May 8, DMN reported that contacts indicate milk supplies have been tightening and milk dumping has ceased in some areas. On the demand side, the same DMN report stated that foodservice orders for butter and cheese have been improving. This may have been a result of easing COVID-19 quarantine limitations in some areas and the depletion of pipeline stocks among some foodservice distributors.

U.S. Government Assistance for the Dairy Industry

There are several Government programs and actions that have been taken to assist the dairy industry during the crisis. Some of these programs are risk management tools that were available before the

crisis. Others were added due to effects of the pandemic. Below is a list of some of the major programs and actions:

Revenue and margin protection programs:

- The Dairy Margin Coverage program (administered by USDA Farm Service Agency (FSA)) is a voluntary program that offers protection to dairy producers when the difference between the U.S. all-milk price and the national average feed cost (as calculated by a formula) falls below a certain dollar amount selected by the dairy farmer.
- The Dairy Revenue Protection Program (Dairy-RP) and the Livestock Gross Margin for Dairy Cattle Program (LGM-Dairy) are administered by USDA Risk Management Agency (RMA). These are subsidized programs that allow farmers to manage price risk. To ensure that milk producers are not inappropriately penalized, RMA announced that it would allow dumped milk to be counted as milk marketings under both programs.
 - Dairy-RP is designed to allow farmers to insure against unexpected declines in the quarterly revenue from milk sales relative to a guaranteed coverage level.
 - LGM-Dairy enables dairy farmers to purchase margin insurance based on futures prices for Class III milk, corn, and soybean meal.

Federal Milk Marketing Order (FMMO) provisions (administered by USDA Agricultural Marketing Service (AMS)):

- At the request of milk handlers, administrators of FMMOs have allowed milk not processed to be pooled on a FMMO if that milk would normally have been pooled. This allows a handler to draw the difference between the pooled uniform price and the lowest use value of the milk; but the handler still bears the loss of that manufacturing value. If the handler is a farmer cooperative, as is most common, that loss is borne by its farmer-owners together.

USDA Purchases of Dairy Products (administered by AMS):

- On May 4, USDA announced details for additional Section 32 food purchases, including \$120 million for purchases of dairy products. Solicitations will be issued in June, with deliveries expected in July. Industry requests for future purchases, including potential plans for the fourth quarter of fiscal year 2020, will be assessed on an ongoing basis.
- As part of the Coronavirus Food Assistance Program, USDA plans to purchase up to \$1 billion in dairy products in the Farmers to Families Food Box Program, which will transport milk and boxes of food to nonprofit organizations serving Americans in need. Of this, at least \$317 million of dairy products has already been contracted for delivery from May 15 through June 30. AMS may extend the period of performance of the contracts, or bid new contracts, depending upon the program's effectiveness and the continued need.
- Through the Food Purchase and Distribution Program (FPDP), USDA is continuing its plans to purchase \$68 million in dairy products to mitigate the impact on farmers of unjustified trade retaliation by foreign nations.

- While not a direct purchase program, the Milk Donation Reimbursement Program allows eligible dairy organizations to partner with nonprofit organizations to distribute fluid milk to low-income individuals. Those partnerships may apply for and receive limited reimbursements to cover the difference in the cost of milk for beverage use versus the lowest priced use class for qualified fluid milk product donations.

USDA Direct Payments (administered by FSA):

- As part of the Coronavirus Food Assistance Program, USDA will provide \$2.9 billion in direct payments to dairy farmers. There is a payment limit of \$125,000 per commodity, with an overall limit of \$250,000 per individual or entity. USDA expects to make payments to producers by the end of May or early June.

U.S. Small Business Administration (SBA) assistance:

- On May 4, SBA announced that agricultural producers, specifically, would be eligible for the Economic Injury Disaster Loan (EIDL) and EIDL Advance programs, as well as the Paycheck Protection Program.

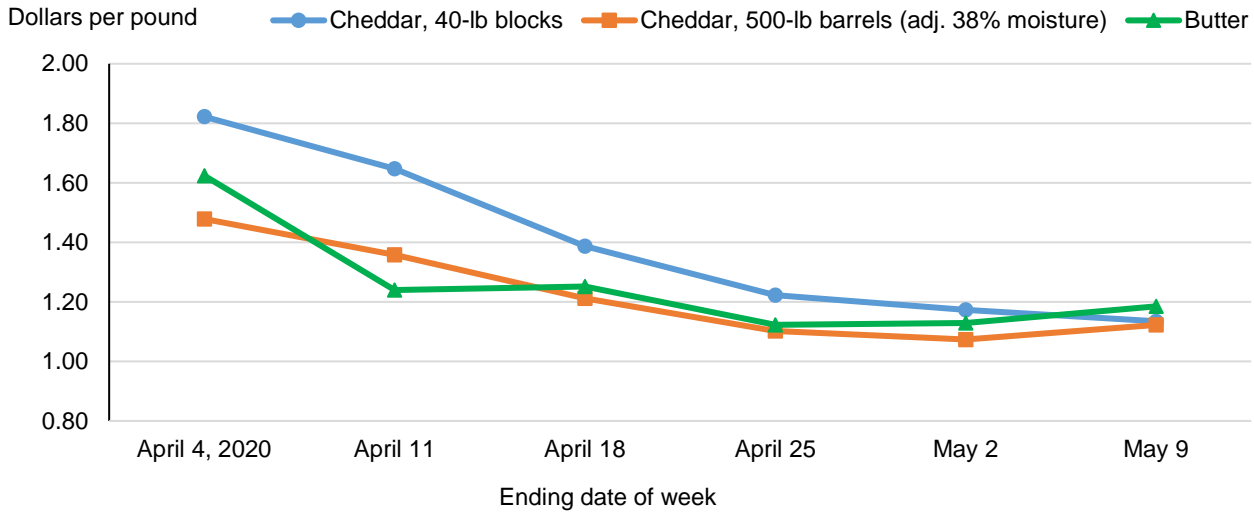
United States-Mexico-Canada Agreement Entry Into Force

The United States-Mexico-Canada Agreement (USMCA) will enter into force on July 1, 2020. Under the agreement, Canada will provide new access for U.S. dairy products, and the United States will allow new access for Canada's dairy products. These access provisions will be phased in over several years. Tariffs on agricultural products traded between the United States and Mexico will remain at zero. Canada will eliminate a pricing structure that allows Canadian processors of certain dairy ingredients (including skim milk powder, milk protein concentrate, and some other types of milk powders) to pay relatively low prices for raw milk from the farm. The change in Canada's pricing structure will begin no more than 6 months after the agreement enters into force. For more information, visit the website for the Office of the United States Trade Representative.

Discussion of Recent Dairy Market Data

During the month of April, most wholesale dairy product prices reported in the USDA *National Dairy Products Sales Report* (NDPSR) continued to plunge lower. Weekly butter and cheese prices fell to levels as low as 2009, when the Great Recession had a negative effect on global dairy demand. The butter price fell to \$1.1229 per pound for the week ending April 25 before increasing the following 2 weeks; for the week ending May 9 the butter price was \$1.1850 per pound. The price for 500-pound barrels of Cheddar cheese (adjusted to 38-percent moisture) fell to \$1.0736 per pound for the week ending May 2 before rising to \$1.1228 per pound for the week ending May 9. The price for 40-pound blocks of Cheddar cheese fell to \$1.1349 for the week ending May 9. The nonfat dry milk (NDM) price reached a low point for the year of \$0.8396 per pound for the week ending May 9. Dry whey prices were relatively steady in April and early May; the price for the week ending May 9 was \$0.3794 per pound.

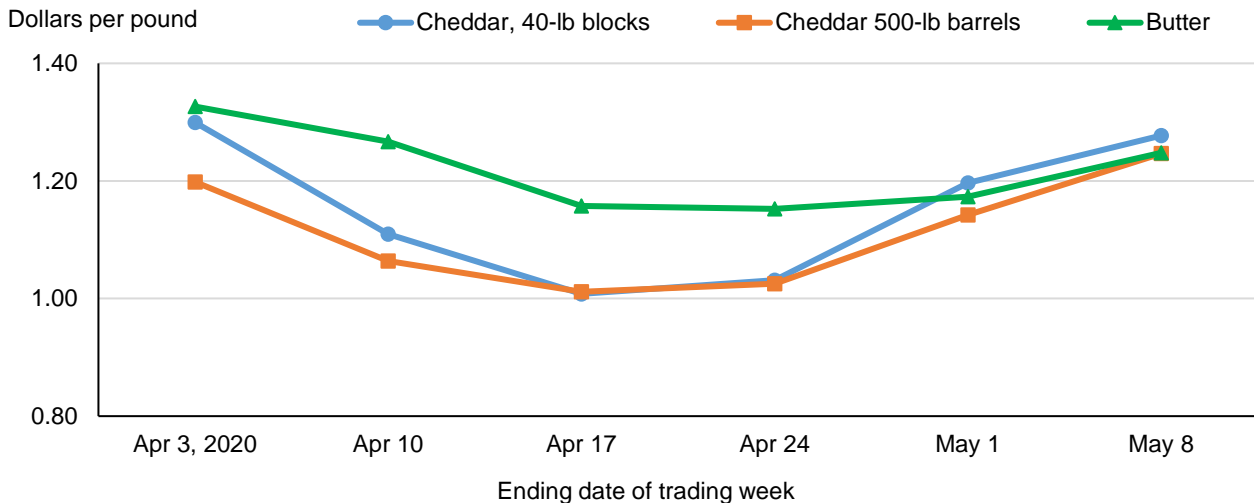
Wholesale prices for butter and cheese from USDA *National Dairy Products Sales Report*



Source: USDA, Agricultural Marketing Service, *National Dairy Products Sales Report*.

Chicago Mercantile Exchange (CME) wholesale spot prices for butter and Cheddar cheese fell and then rose in April. For the trading week ending April 17, average prices for Cheddar cheese 40-pound blocks and 500-pound barrels fell to lows for the year of \$1.0080 and \$1.0115 per pound, respectively. For the trading week ending May 8, the average prices had risen to \$1.2770 and \$1.2465 per pound, respectively. The weekly average butter price fell to a low of \$1.1525 for the trading week ending April 24. For the trading week ending May 8, the price had risen to \$1.2480 per pound. Since CME prices are often used as price discovery tools for U.S. dairy markets, CME spot prices are leading indicators of NDPSR prices. The NDPSR price for butter is highly correlated with the average CME butter price of the previous week, and the NDPSR cheese prices are highly correlated with the average CME cheese prices of the previous 2 weeks.

Wholesale prices for butter and cheese, Chicago Mercantile Exchange spot market



Source: Chicago Mercantile Exchange prices as reported by USDA Agricultural Marketing Service.

Benchmark U.S. domestic dairy prices have been much lower than corresponding Oceania export prices but comparable to Western Europe export prices. In April, Oceania export prices for butter, Cheddar cheese, and skim milk powder (SMP) were \$1.91, \$2.01, and \$1.16 per pound, respectively. Western Europe export prices for butter, SMP, and dry whey were \$1.18, \$0.82, and \$0.32 per pound, respectively.³

Milk production growth was robust in March. According to USDA National Agricultural Statistics Service (NASS), milk production in the United States during March totaled 19.260 billion pounds, 2.2 percent higher than March 2019. NASS reported that milk cows averaged 9.380 million head, an increase of 5,000 head from February. Milk per cow in March was 2,053 pounds per head, an increase of 34 pounds (1.7 percent) from March 2019. April milk production data are not yet available. For the weeks ending April 11 through April 25, federally inspected dairy cow slaughter was higher than it was in the corresponding weeks of 2019.

In March, U.S. exports on a milk-fat milk-equivalent basis totaled 824 million pounds, 85 million higher than February but 34 million less than March 2019. On a skim-solids milk-equivalent basis, March exports totaled 3.888 billion pounds, 398 million higher than February and 168 million higher than March 2019. Exports of dry skim milk products (NDM, SMP, and dry skim milk for animal use) were 137.4 million pounds, 4.8 million higher than March 2019. Exports of whey products (dry whey, modified whey, whey protein concentrate, and milk albumin) totaled 97.8 million pounds, 6.4 million higher than March 2019.

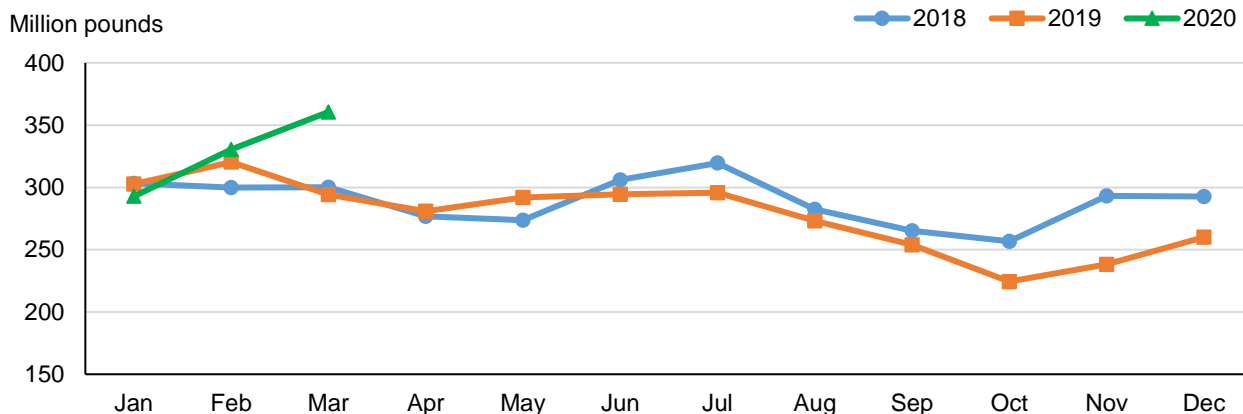
U.S. dairy imports on a milk-fat basis were 487 million pounds in March, 9 million less than February and 20 less than March 2019. On a skim-solids basis, March imports totaled 501 million pounds, 9 million higher than February and 127 million higher than March 2019. Notably, imports of milk protein products (milk protein concentrate and casein products) totaled 20.6 million pounds, 9.5 million higher than March 2019.

Domestic commercial use on a milk-fat basis was 51.741 billion pounds in the first quarter, 862 million pounds higher than the first quarter of 2019, an increase of 1.7 percent. On a skim-solids basis, first-quarter domestic use was 44.571 billion pounds, 544 million pounds lower than the first quarter of 2019, a decrease of 1.2 percent. Notably, domestic use of dry skim milk products in the first quarter was only 117.0 million pounds, 131.8 million pounds less than the first quarter of 2019.

Dairy stocks at the end of March were relatively high. On a milk-fat basis, they totaled 16.874 billion pounds, 759 billion higher than March 2019. On a skim-solids basis, they totaled 11.589 billion pounds, 518 million higher than March 2019. Although exports of dry skim milk products were relatively high in March, high production and low domestic use contributed to high ending stocks. Stocks of NDM and dry skim milk for animal use at the end of March totaled 360.6 million pounds, 66.3 million higher than March 2019.

³ The source for Oceania and Western Europe export prices is USDA *Dairy Market News*. Prices listed in this report are at the midpoints of the ranges.

Manufacturers' ending stocks of dry skim milk products (nonfat dry milk and dry skim milk for animal use)



Source: USDA, National Agricultural Statistics Service.

Outlook for Feed Prices

The corn price estimate for the 2019/20 marketing year is \$3.60 per bushel, and the 2020/21 forecast is \$3.20. The soybean meal price estimate for 2019/20 marketing year is \$300 per short ton, and the 2020/21 forecast is \$290. The alfalfa hay price in March was \$175 per short ton, \$4 higher than February but \$11 lower than March 2019. The 5-State weighted-average price for premium alfalfa hay in March was \$205 per short ton, \$5 lower than February and \$8 lower than March 2019. For more information, see *Feed Outlook*, published by USDA, Economic Research Service.

Dairy Forecasts for 2020

Milk cows for the first quarter averaged 7,000 head higher than expected last month. Due to low milk prices, recent dairy cow slaughter data, and actions by some milk handlers to discourage milk production growth, milk cow numbers are expected to decline gradually through the year. For 2020, milk cows are expected to average 9.355 million head, an increase of 5,000 from last month's forecast. Although milk per cow was higher than expected in the first quarter, yield forecasts for the remaining quarters of 2020 are unchanged from last month's forecast as some dairy farmers are expected to take steps to limit yields. Milk per cow for the year is forecast at 23,770 pounds, 5 pounds higher than last month's forecast. The milk production forecast for 2020 is 222.4 billion pounds, 0.2 billion pounds higher than forecast last month.

The 2020 forecast for exports on a milk-fat basis is 9.2 billion pounds, 0.3 billion higher than last month's forecast. On a skim-solids basis, exports are forecast at 44.4 billion pounds, 2.3 billion higher than forecast last month. Based on recent data and U.S. price competitiveness, expectations for exports of dry skim milk products, whey products, and several other types of products have been raised. Due to higher expectations for imports of milk protein products and cheese, imports on both a milk-fat basis and skim-solids basis have been raised by 0.1 billion pounds to 6.7 billion and 5.7 billion pounds, respectively.

Based on recent data and expectations for relatively weak domestic demand, domestic use forecasts have been lowered to 216.9 billion pounds on a milk-fat basis (-0.1 billion) and to 181.5 billion pounds

on a skim-solids basis (-1.8 billion). Ending stock forecasts are unchanged at 15.3 billion pounds on a milk-fat basis but have been lowered to 11.3 billion pounds (-0.1 billion) on a skim-solids basis.

Based on recent price strength, 2020 price forecasts for Cheddar cheese and dry whey have been raised to \$1.420 per pound (+4.0 cents) and 0.380 per pound (+ 3.5 cents), respectively. With lower expected demand, the butter price forecast has been lowered to \$1.410 per pound (-2.0 cents). The NDM price forecast has been lowered to \$0.940 per pound (-1.5 cents) based upon high stock levels and low expected demand. With higher price forecasts for Cheddar cheese and dry whey, the 2020 Class III milk price forecast has been raised to \$13.35 per cwt (+\$0.60). With lower price forecasts for butter and NDM, the Class IV milk price forecast has been lowered to \$11.90 per cwt (-\$0.25). The all-milk price forecast for 2020 is \$14.55 per cwt, an increase from last month's forecast of \$14.35 per cwt.

Dairy Forecasts for 2021

The milk production forecast for 2021 is 224.1 billion pounds, a modest increase of 1.0 percent from 2020 (adjusted for leap year). The forecast for the average number of milk cows in 2021 is 9.335 million, 20,000 lower than 2020. Milk per cow for 2021 is forecast at 24,010 pounds per head, an increase of 1.3 percent from the 2020 forecast (adjusted for leap year).

On a milk-fat basis, the 2021 export forecast is 9.2 billion pounds, the same as 2020. On a skim-solids basis, the export forecast is 44.9 billion pounds, an increase of 0.5 billion pounds from the 2020 forecast. Imports on a milk-fat basis in 2021 are expected to total 6.8 billion pounds, 0.1 billion higher than 2020. On a skim-solids basis, the export forecast is 44.9 billion pounds, 0.5 billion higher than 2020.

Domestic commercial use is expected to grow substantially in 2021. On a milk-fat basis, the forecast is 221.9 billion pounds, 5.0 billion higher than 2020. On a skim-solids basis the 2021 forecast for domestic use is 185.0 billion pounds, a year-over-year increase of 3.5 billion. With higher domestic use and higher exports on a skim-solids basis, stocks are expected to decline. The 2021 forecast for ending stocks on a milk-fat basis is 14.1 billion pounds, 1.2 billion lower than the 2020 forecast. On a skim-solids basis, the ending stock forecast is 10.3 billion pounds, 1.0 billion lower than the 2020 forecast.

Dairy product prices in 2021 are expected to increase from 2020. Forecasts for average prices of Cheddar cheese, butter, NDM, and dry whey are \$1.495 per pound (+7.5 cents), \$1.465 per pound (+5.5 cents), \$0.955 per pound (+1.5 cents), \$0.395 per pound (+1.5 cents), respectively. Class III and IV milk prices are forecast at \$14.20 per cwt (+\$0.85) and \$12.20 (+\$0.30) per cwt, respectively. The all-milk price for 2021 is forecast at \$15.00 per cwt, an increase from the \$14.55 per cwt forecast for 2020.

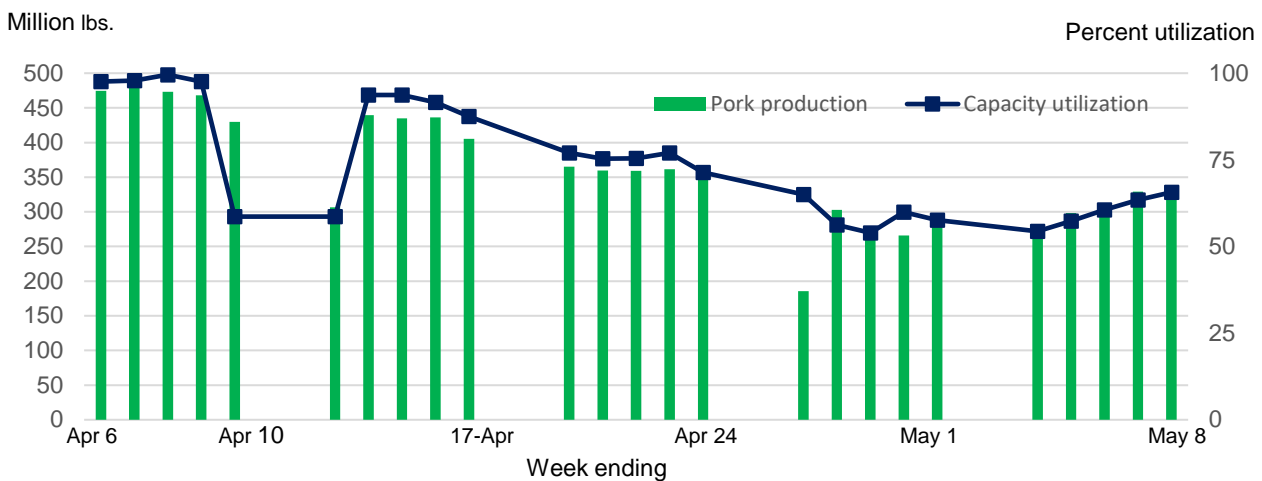
Pork/Hogs

Mildred Haley

Constrained Processing Capacity Expected To Limit 2020 Pork Production

Since early April, COVID-19 infections have reduced laborforces in several U.S. pork processing facilities, causing plant throughput to slow and some plants to temporarily shut down. USDA\AMS data below shows that from April 6 through April 30, the U.S. pork processing industry operated at about 78 percent of its normal capacity.

Daily pork processing capacity utilization and production, April 6-May 8 2020



Source: USDA, Agricultural Marketing Service.

Due to constrained processing capacity, both estimated federally inspected April hog slaughter and pork production fell more than 11 percent below a year ago. Early-May capacity utilization data suggests a nascent rebound. At 60.3 percent, the AMS\USDA utilization rate data for the week ending May 8 was slightly higher than that of a week earlier—the week ending May 1, when the capacity utilization rate averaged 58.5 percent.

Continued workforce infections and in-plant social distancing measures installed to reduce virus contagion risk are expected to constrain plant throughput for the balance of 2020. However, the slower pace of slaughter is expected to result in heavier carcass weights. Nevertheless, the forecast for second-quarter 2020 pork production was lowered to about 6 billion pounds, 615 million pounds less than last month's forecast and almost 9 percent below production a year ago. Third-quarter production is expected to be 6.9 billion pounds, 3 percent higher than third quarter last year, but 350 million pounds below USDA's April forecast for the same period. Fourth-quarter 2020 pork production is forecast at about 7 billion pounds, 665 million pounds below last month's forecast and more than 5 percent below the same period last year. For 2020, total commercial pork production is forecast at about 27.4 billion pounds, 1.6 billion pounds lower than last month's forecast and about 1 percent below production last year.

Hog prices for quarters 2-4 of 2020 are expected to reflect a situation where supplies of slaughter-ready hogs are ample relative to expected slaughter capacity. Second-quarter prices of live equivalent 51-52 percent live hogs are expected to average \$42 per cwt, almost 28 percent below a year earlier. Third-quarter prices are forecast at \$45 per cwt, about 10 percent lower than a year ago, with fourth-quarter prices expected to average \$43 per cwt, about the same as in the fourth quarter of 2019. For the year, prices should average about \$43 per cwt, 10 percent below the average price in 2019.

Modest Sector Rebound Likely in 2021

Lower pork production in the first quarter of 2021—forecast at just over 7 billion pounds, almost 5 percent below the same period of 2020—is expected to be offset by higher year-over-year production in succeeding quarters. Total pork production of about 28 billion pounds is anticipated in 2021, a volume almost 3 percent higher than forecast production this year. While the farrowings in late 2020 and early 2021 that yield hogs for slaughter in 2021 are anticipated to be year-over-year lower—reflecting COVID-19-related low returns sustained by producers and constraints on processor demand for hogs—and as slaughter throughput reflects social distancing measures in processing plants that are likely to persist to some degree into 2021, litter-rate growth is likely to partially offset farrowing reductions. First-quarter hog prices are forecast to average \$44 per cwt, almost 4 percent higher than first-quarter 2020 prices. For the year in total, 2021 prices of 51-52 percent lean hogs are expected to average 46.75 per cwt, more than 8 percent higher than average prices this year.

March Pork Exports Record-High

Pork exports in March were the highest on record, at almost 702 million pounds. Shipments to China-Hong Kong dominated the total at 196 million pounds, more than 3 times the volume of a year earlier, but exports to Mexico—at 140 million pounds, 9.5 percent higher than a year ago, and to Japan, at 114 million pounds, more than 18 percent ahead of March 2019—also accelerated the total to achieve the record high. March exports to the 10 largest foreign destinations are summarized in the table below. These 10 markets accounted for 94 percent of exports in March.

U.S. pork exports: Volumes and export shares of the 10 largest foreign destinations, March 2019 and 2020

Country	Exports March 2019 (mil. lbs)	Exports March 2020 (mil. lbs)	Percent change (2020/2019)	Export share March 2019 %	Export share March 2020 %
World	515.4	701.6	36.1		
1 China\Hong Kong	46	196	330.1	8.8	27.9
2 Mexico	128	141	9.5	24.9	20.1
3 Japan	97	114	18.2	18.7	16.3
4 Canada	55	59	8.1	10.7	8.5
5 South Korea	61	55	-9.8	11.8	7.8
6 Colombia	29	24	-17.8	5.6	3.4
7 Australia	28	23	-17.2	5.4	3.3
8 Chile	9	19	101.2	1.8	2.6
9 Dominican Republic	13	14	10.2	2.5	2.0
10 Honduras	7	12	61.4	1.4	1.7

Source: USDA, Economic Research Service.

Record-high first-quarter January-March pork exports are summarized in the table below. For the period, exports summed to over 2 billion pounds, almost 40 percent above a year ago. It is notable that the 2020 first-quarter export volume is just shy of the *annual* pork export total for 2004: total pork exports for 2004 were 2.18 billion pounds, just 157 million pounds above first-quarter exports this year. What also distinguishes first-quarter exports is that they accounted for 27.2 percent of commercial pork production; this trade share is record-high.

U.S. pork exports: First-quarter volumes and export shares of the 10 largest foreign destinations, 2019 and 2020

Country	Exports First qtr. 2019 (mil. lbs)	Exports First qtr. 2020 (mil. lbs)	Percent change (2020/2019)	Export share First qtr. 2019 %	Export share First qtr. 2020 %
World	1,446	2,023	39.9		
1 China\Hong Kong	103	597	477.2	7.2	29.5
2 Mexico	388	435	12.1	26.8	21.5
3 Japan	288	322	11.9	19.9	15.9
4 South Korea	175	157	-10.3	12.1	7.8
5 Canada	137	154	12.4	9.5	7.6
6 Australia	81	81	0.8	5.6	4.0
7 Colombia	80	60	-25.1	5.5	3.0
8 Chile	27	42	53.9	1.9	2.1
9 Dominican Republic	31	35	12.4	2.1	1.7
10 Honduras	22	27	21.2	1.5	1.3

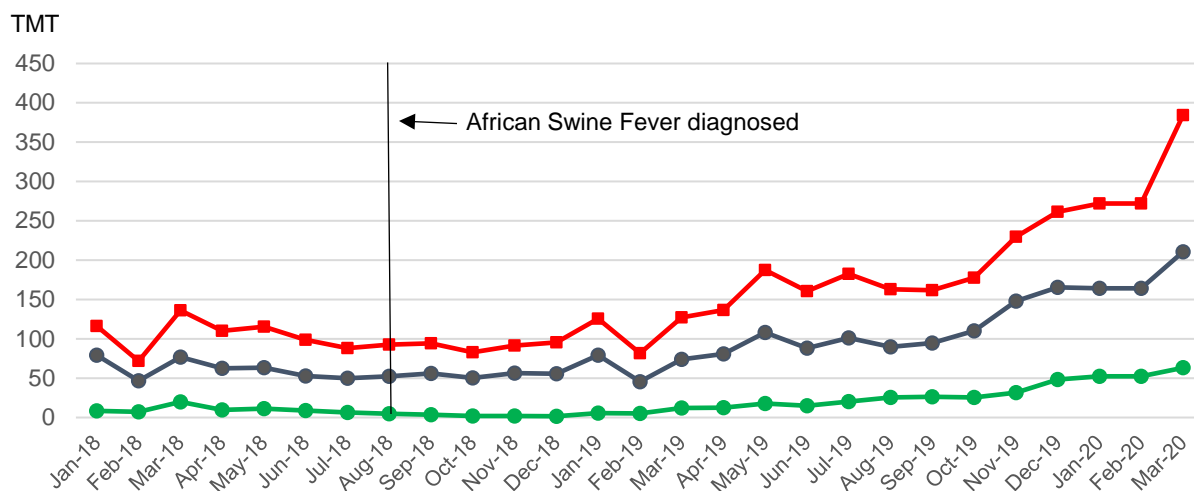
Source: USDA, Economic Research Service.

First-quarter shipments to both Mexico (435 million pounds, up more than 12 percent year over year) and Japan (322 million pounds, up almost 12 percent from a year earlier) would have been especially notable had it not been for China\Hong Kong exports, totaling over half-a-billion pounds. Exports to China\Hong Kong so far this year are more than 5 times larger than shipments during the same period last year, accounting for almost 30 percent of first-quarter U.S. exports.

China's import demand for pork is being driven by African Swine Fever (ASF)—first diagnosed in China in August 2018—which continues to constrain Chinese pork production. In the USDA publication "Livestock and Poultry: World Markets and Trade," published April 9, 2020, the Foreign Agriculture Service forecasts that China's 2020 pork production will decline more than 20 percent year over year, after having fallen 21 percent year over year in 2019. China's imports of pork have increased significantly since early 2019 as domestic production and stocks declined.

The evolution of China's pork imports since 2018, as well China's first-quarter import data, suggest that while pork from the European Union continues to hold a dominant share, recent relaxation of retaliatory measures on U.S. pork by the Government of China have contributed to increases in the U.S. share of first-quarter Chinese imports. The U.S. share increased to just over 18 percent, from about 7 percent a year earlier. The data suggest that the increase has come at the expense of Canada, whose import share declined from about 16 percent to just over 6 percent in 2020.

Monthly China pork imports, 2018-March 2020



Source: China Agriculture Ministry.

China pork imports: Volumes and export shares of major exporting countries, first-quarter 2019 and 2020

Country	Imports first qtr. 2019 (tmt)	Imports first qtr. 2020 (tmt)	Percent change (2020/2019)	Import share first qtr. 2019 %	Import share first qtr. 2020 %
World	334	928	177.6		
United States	23	168	636.4	6.8	18.1
Canada	53	57	7.4	15.8	6.1
Brazil	32	86	169.3	9.5	9.2
European Union	199	539	170.9	59.5	58.0
Other	28	79	182.0	8.4	8.5

tmt= thousand metric tons.

Source: China Agriculture Ministry.

Second-Half Pork Exports Reduced To Reflect COVID-19 Impacts

The economic effects of the COVID-19 virus are likely to have negative implications for U.S. pork exports in 2020. The impacts of the virus would derive from both the supply and demand sides: to lowered U.S. pork production and slower world economic growth leading to lower consumer incomes and weaker currencies, respectively. The negative effects of the virus are expected to be felt most acutely in the second half of 2020. Consequently, the third-quarter export forecast was lowered 100 million pounds to 1.6 billion pounds, almost 6 percent above same-period shipments in 2019. Fourth-quarter exports are expected to be 1.875 billion pounds, almost 3 percent above the same period last year. The quarterly U.S. pork export forecast totals 7.148 billion pounds for 2020, more than 13 percent above a year earlier, but 327 million pounds lower than the 2020 export forecast in April.

Restrained Export Growth in 2021 Anticipated

U.S. pork exports in 2021 are expected to increase modestly to 7.3 billion pounds, about 2 percent above exports forecast for 2020. Stronger growth next year is anticipated in the second half of the year, while first-quarter exports are likely to total 1.9 billion pounds, 6 percent below first-quarter exports in 2020. It is notable that pork exports are expected to account for 25.9 percent of U.S. commercial pork production next year. This is somewhat lower than forecasts imply for 2020—this year exports should represent 26.1 percent of pork production—but it is a sharp increase from the export share in 2019 of 22.9 percent.

Disappearance Declines in 2020 Year Over Year Before Increasing in 2021

Domestic pork disappearance is expected to decline in 2020, as lower forecasts for 2020 exports, combined with expectations for lower pork ending stocks, will likely not be sufficient to offset large 2020 reductions in pork production. Per capita disappearance is expected to be 49.7 pounds, retail weight, about 5 percent lower than the 52.4 pounds registered in 2019. Next year, production, trade, and ending stocks assumptions point to a 2021 per capita disappearance of 50.8 pounds, a 2-percent rebound from this year, but still down more than 3 percent from 2019.

Lower 2020 pork supplies are expected to lead to higher retail pork values from the second quarter, through the end of this year. The ERS composite pork value, calculated at \$3.85 per pound in the first quarter—about 2.7 percent above a year earlier—will likely gravitate toward a \$4.00 per pound range for the balance of 2020 before declining slightly in 2021.

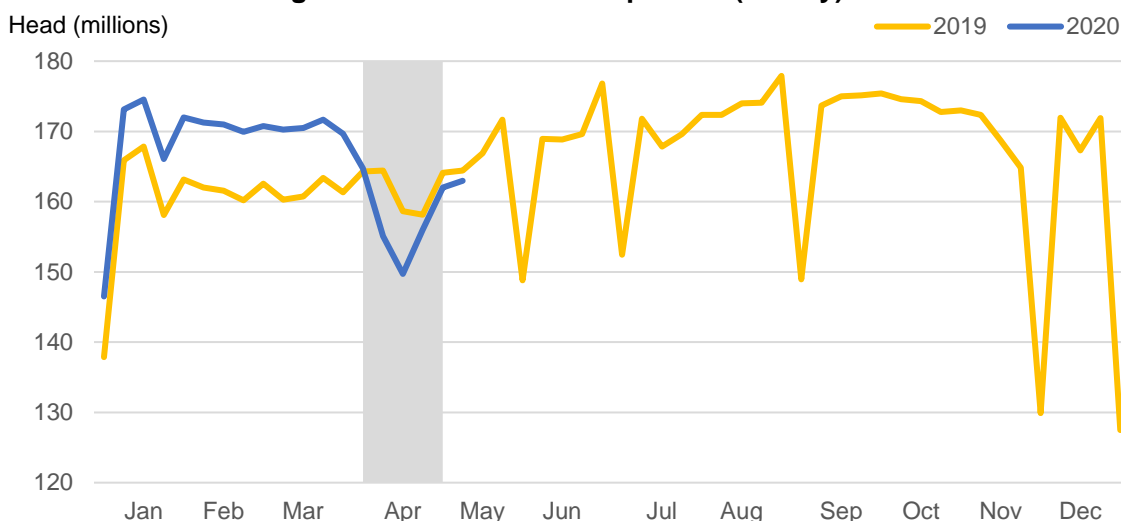
Poultry

Kim Ha and Grace Grossen

Processing Reductions and Hatchery Data Push Broiler Production Expectations Markedly Lower

In April, the COVID-19 pandemic caused supply-side disruptions to the broiler industry. In particular, processing plant operations were impacted as workforce absenteeism, enhanced safety measures, and temporary plant closures significantly reduced processing volumes. Preliminary weekly slaughter data indicates that broiler processing volumes began decreasing rapidly in early April, falling to a low of 150 million birds a week for the week ending April 18 (see chart)—significantly lower (-11.4 percent) than the average of 169 million birds per week reached in the first quarter of 2020. Estimated monthly slaughter for April is expected to be down year over year, a stark contrast to the 5.5 percent year-over-year increase (adjusted for slaughter days) in March. Weekly processing volumes began trending upward in the second half of April and may be able to stabilize relatively faster than the beef or pork industries, as broiler processing tends to be more automated.

Broiler chickens slaughtered under federal inspection (weekly)



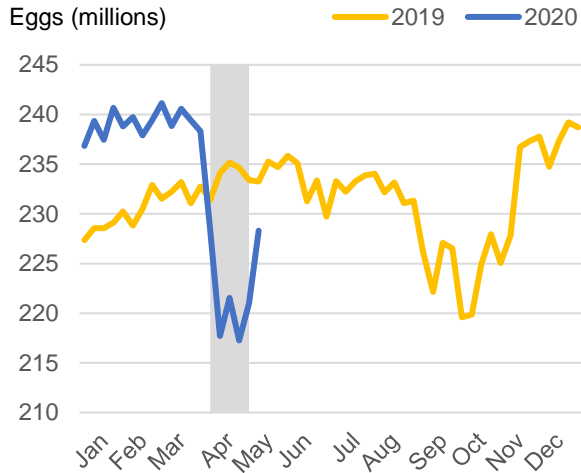
Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service.

Further into the second quarter, hatchery data indicates that U.S. broiler producers intend to significantly scale back production, likely in response to lower demand expectations and in part to ease pressure on plant workers. Much like slaughter, eggs set and chick placements began decreasing sharply in the beginning of April. While eggs set remain below 2019, numbers have increased since late April, and chick placements have begun to increase as well. Nonetheless, placements remain 7 percent below 2019. In addition, hatchability of chicks and the hatch rate⁴ in April were a few percentage points lower than recent rates (see chart), suggesting that producers were breaking eggs and placing those chicks that hatched at a lower rate to adjust production in line with expectations. Based on lower

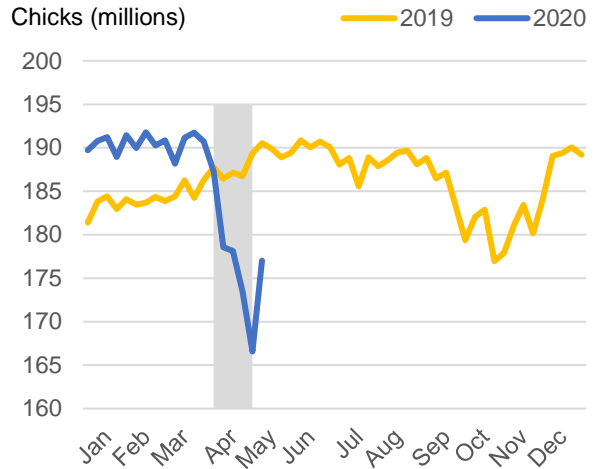
⁴ Hatchability is percent of eggs set that hatched. Hatch rate is chick placements as a percent of eggs set 3 weeks earlier.

processing volumes and expectations for fewer birds available for marketing in the coming months, the second-quarter production forecast was reduced to 10.550 billion pounds or 4 percent lower than 2019.

Eggs set

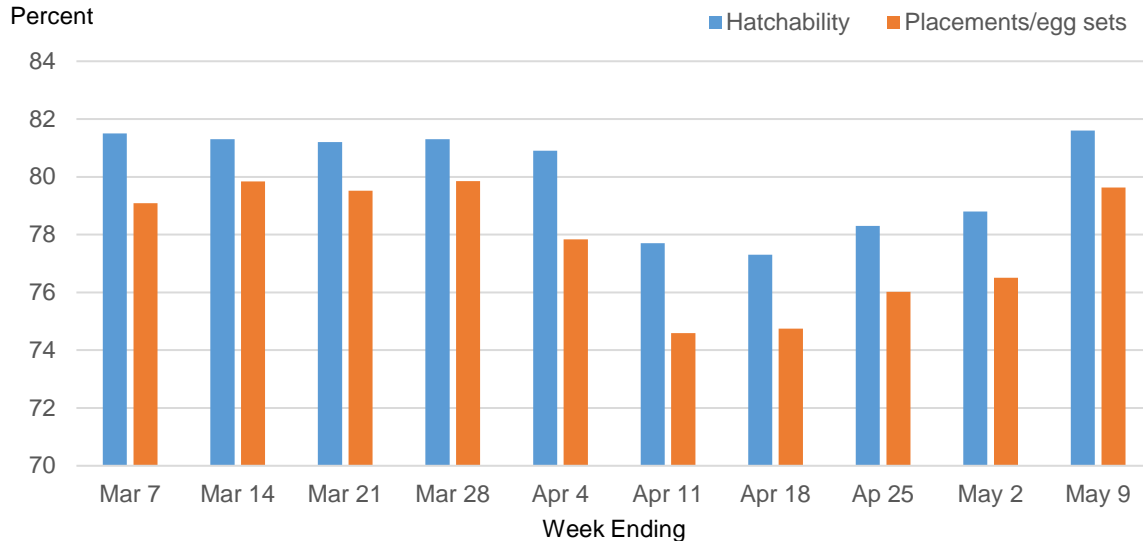


Chicks placed



Source: USDA, National Agricultural Statistics Service.

Weekly hatchability and chick placements as a percent of eggs set (March – April 2020)



Source: USDA, Economic Research Service calculations using data from USDA, National Agricultural Statistical Service.

In the second half of 2020, production is expected to be lower, in line with continued weak demand from the foodservice industry and COVID-19-related reductions to slaughter. Relative to beef and pork, broilers are expected to benefit from the return of the quick-service restaurant sector, for which there have been recent reports of demand improving. However, reduced demand from hospitality, dine-in restaurants and institutional foodservices is expected to persist for the remainder of the year, which was the basis for lowering the third- and fourth-quarter production forecasts to 10.950 billion pounds and 11.050 billion pounds, respectively. In sum, 2020 production is forecast at 43.778 billion pounds, a decrease of less than half-a-percent relative to 2019 production.

Broiler Price Forecast Revised Down

Wholesale whole-bird prices (National Composite Weighted Average) averaged 53.52 cents per pound in April, down 45.2 percent relative to last year and the lowest price on record since this data series began in 2009. Weekly prices began strengthening in the second half of the month, likely reflecting tighter supplies and improved demand relative to the prior weeks. Although prices are expected to strengthen relative to April, it is anticipated that prices will be soft for the remainder of 2020 on weaker foodservice demand and relatively high supplies. The 2020 price forecast was revised down to 71.4 cents per pound, 19 percent lower than 2019.

Broiler Prices Higher in 2021, Despite Increased Production

In 2021, production is expected to resume growth as producers push to return to operational efficiency and respond to lower feed prices. Although demand from foodservice is likely to remain weak into at least the first part of 2021, the broiler industry should benefit from its position in the quick service restaurant industry and from competitive pricing at the retail level. Production is forecast at 44.975 billion pounds, an increase of 3 percent over the 2020 production forecast. Whole-bird wholesale prices are expected to improve relative to 2020 on improved demand, despite larger supplies. The 2021 price forecast is 81 cents per pound, a 14-percent increase over the 2020 price forecast.

2020 Broiler Export Forecast Increased on Expectations for Higher Shipments to China

Broiler exports amounted to 680 million pounds in March, an increase of 14.8 percent year over year and the largest volume since October 2011. With the exception of Cuba, shipments increased year over year to the 10 largest markets (in terms of volume) as well as to other sizeable markets. In particular, sales to China increased by 29.6 million pounds, as well as to Mexico (+24.4 million pounds), and the United Arab Emirates (+17.4 million pounds).

U.S. broiler exports: Volume and export share (March 2019 and 2020)

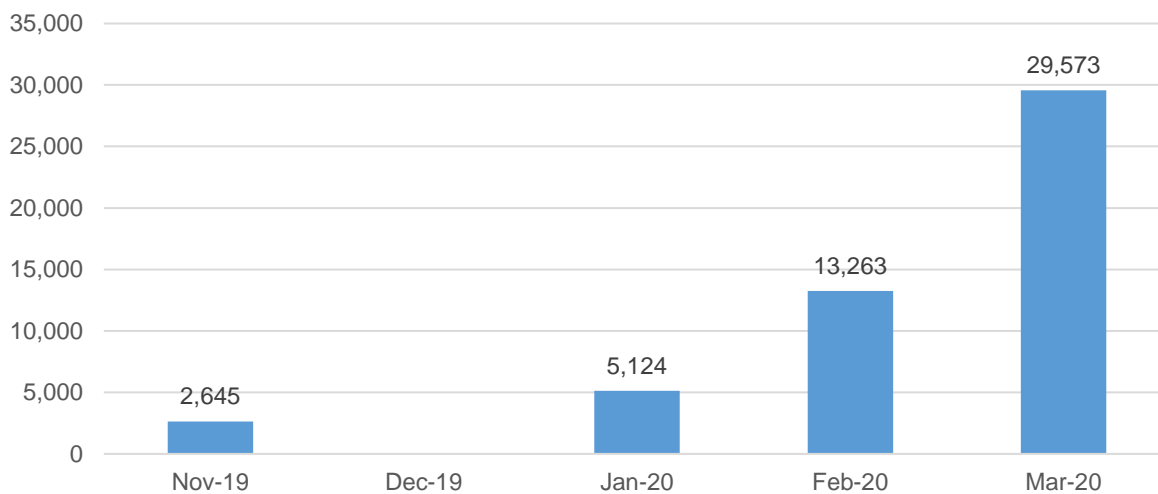
Country	Volume			Export share	
	Mar 2019	Mar 2020	Change in volume	Mar 2019	Mar 2020
	<i>mil. lbs</i>	<i>mil. lbs</i>	<i>mil. lbs</i>	%	%
Top 10 largest foreign markets (per first quarter 2020 export volumes)					
Mexico	119.8	144.1	24.4	20.2	21.2
Taiwan	50.4	51.2	0.8	8.5	7.5
Vietnam	27.6	33.2	5.6	4.6	4.9
Cuba	34.7	33.7	-1.1	5.9	5.0
Georgia	23.2	27.8	4.5	3.9	4.1
Canada	24.3	27.0	2.7	4.1	4.0
South Africa	23.1	32.9	9.8	3.9	4.8
Guatemala	21.2	25.6	4.5	3.6	3.8
Philippines	7.7	12.8	5.1	1.3	1.9
United Arab Emirates	10.2	27.6	17.4	1.7	4.1
World	592.7	680.2	87.5	100	100
Additional foreign markets of note					
China (Mainland)	0.0	29.6	29.6	0.0	4.3

Source: USDA, Economic Research Service using data from the U.S. Department of Commerce, Bureau of the Census.

Notably, March broiler sales to China totaled 29.6 million pounds, making China the sixth-largest foreign market (in terms of volume) in March. Since China lifted its ban on U.S. poultry products in November 2019, broiler shipments (not including paws) have steadily increased, in most cases more than doubling (see chart). Although this rate of growth is expected to slow, exports to China are expected to remain strong in April and relatively steady for the remainder of the year, which was the basis for raising the 2020 export forecast to 7.363 billion pounds, an increase of nearly 4 percent relative to 2019.

Monthly U.S. broiler export volumes to China

Pounds (1,000s)



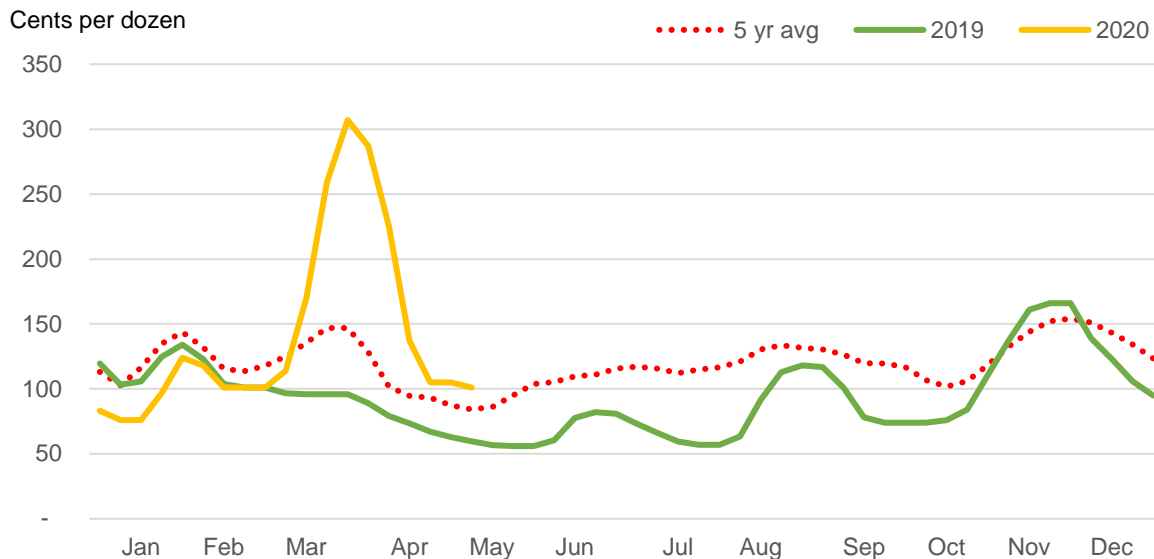
Source: USDA, Economic Research Service using data from the U.S. Department of Commerce, Bureau of the Census.

In 2021, broiler export growth is expected to slow as foreign buyers—many of which are oil-based economies and developing countries—face challenging economic conditions, and the United States is likely to face increased price competition. 2021 broiler exports are forecast at 7.400 billion pounds, an increase of approximately 1 percent over the 2020 export forecast.

Shell Egg Prices Stabilize

Nearly as fast as shell egg prices increased in March, they decreased in April (see chart). Wholesale shell egg prices (New York, Grade A Large) fell from 307 cents per dozen to 105 cents per dozen toward the end of the month for a monthly average of 180 cents per dozen, an increase of 136.5 percent year over year. This large increase can be attributed to high wholesale prices at the beginning of the month as well as to the low base price—prices in April 2019 were depressed due to excess supplies. Egg prices remained flat at 105 cents for 22 weeks before beginning to decrease slowly in early May. Based on higher-than-expected prices in April, the second-quarter price forecast was revised up to 130 cents per dozen, while the fourth quarter was increased to 135 cents per dozen on expectations for continued strong demand at retail. The 2020 egg price forecast is 129.5 cents per dozen, an increase of 38 percent year over year. In 2021, increased egg production is expected to put some downward pressure on egg prices, while prices are expected to be less volatile relative to 2020. The 2021 egg price is forecast to average 115 cents per dozen, a decrease of 11 percent year over year.

Weekly wholesale shell egg prices (New York, Grade A Large)



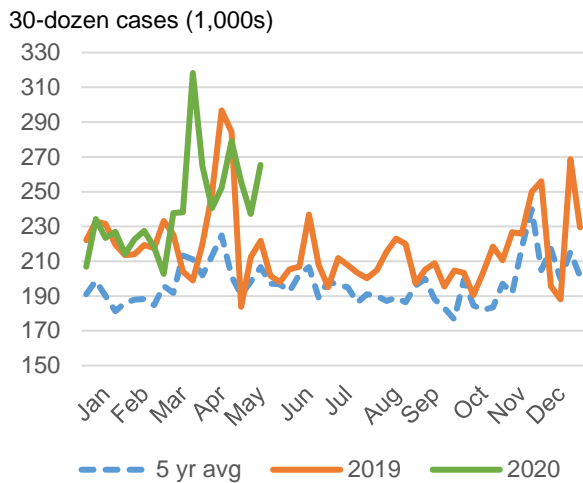
Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service.

Egg Production Expectations Steady

While March table egg production (691 million dozen) was down year over year by 2.1 percent, driven by a 3.5-percent year-over-year decrease in the average table layer flock, the April 1 table egg layer inventory suggests that the 3-month-long counterseasonal contraction in the table egg layer flock has likely ceased. If this is indeed the case, April table egg production on a per day basis is likely to be slightly higher than in March, suggesting a possible uptick in supply.

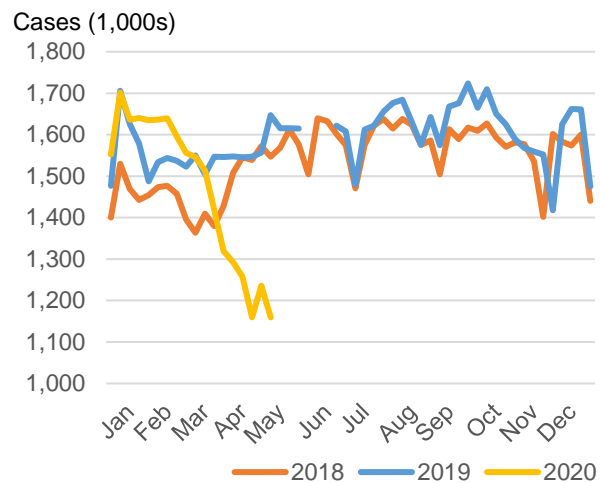
From a demand perspective, retail purchases remain elevated (see chart), indicating strong retail demand. Conversely, processing of egg products, for which the large share goes into foodservice, has decreased dramatically (see chart), indicating sustained weak foodservice demand. Nonetheless, weekly shell egg inventories have been replenished and returned to historic averages, suggesting supply and demand are more in balance and in line with recent industry norms. As retail demand remains elevated, it is possible that increased shell egg availability—whether through egg production or to a lesser extent from eggs intended for foodservice being redirected to retail⁵—has contributed to replenishing shell egg inventories. The 2020 table egg production forecast was revised up slightly to 8,312 million dozen, an increase of 1 percent compared to 2019. Based on expectations for reduced broiler production in the remainder of 2020, the hatching egg forecast was revised down to 1,201 million dozen, an increase of 1.6 percent over 2019.

Weekly retail sector egg purchases



Note: Data representative of 14 cooperators.
Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service.

Weekly eggs processed



Source: USDA, Agricultural Marketing Service.

In 2021, table egg production is expected to increase by 2 percent to 8,450 million dozen, driven by higher lay rates and a larger layer flock. Based on expectations for growth in broiler production and a larger table egg layer flock, hatching egg production is forecast at 1,230 million dozen in 2021, an increase of 2 percent over 2020 forecast hatching egg production.

Egg Exports

March exports of eggs and egg products are estimated at 27.6 million dozen (shell egg equivalent), a 4.0-percent increase year over year. This increase was comprised of a 37.4-percent increase in egg product exports but an 11.4-percent decrease in shell egg shipments. Although shell egg exports were down year over year, volumes are level with January and February. Shipments were particularly strong to Mexico (which increased shipments year over year by 2,112 thousand dozen containing both egg products and shell eggs) and Japan (+1,248 thousand dozen comprised mainly of egg products). Shipments to Canada were down 3,142 thousand dozen. 2020 egg exports are forecast at 311 million

⁵ Historically, U.S. egg producers that supply processing channels were able to redirect to retail channels only when access to grading and retail packaging was available; however, in most cases grading and packaging were not easily available.

dozen, a 7-percent decrease relative to 2019. For 2021, exports are forecast at 330 million dozen, an increase of 6 percent over the 2020 export forecast.

U.S. egg and egg product exports: Volumes and export shares of 10 largest markets (March 2019 and 2020)

Country	Volume			Export share	
	Mar 2019	Mar 2020	Change in volume	Mar 2019	Mar 2020
	<i>thousand dozen</i>	<i>thousand dozen</i>	<i>thousand dozen</i>	%	%
Mexico	6,564	8,676	2,112	24.7	31.4
Canada	9,385	6,242	-3,142	35.4	22.6
Hong Kong	4,705	3,850	-856	17.7	13.9
Japan	1,107	2,355	1,248	4.2	8.5
Jamaica	703	573	-130	2.6	2.1
South Korea	140	377	238	0.5	1.4
Denmark		302	302	0.0	1.1
Trinidad and Tobago	453	449	-4	1.7	1.6
United Arab Emirates	310	197	-113	1.2	0.7
Bahamas	292	592	300	1.1	2.1
World	26,535	27,604	1,068	100	100

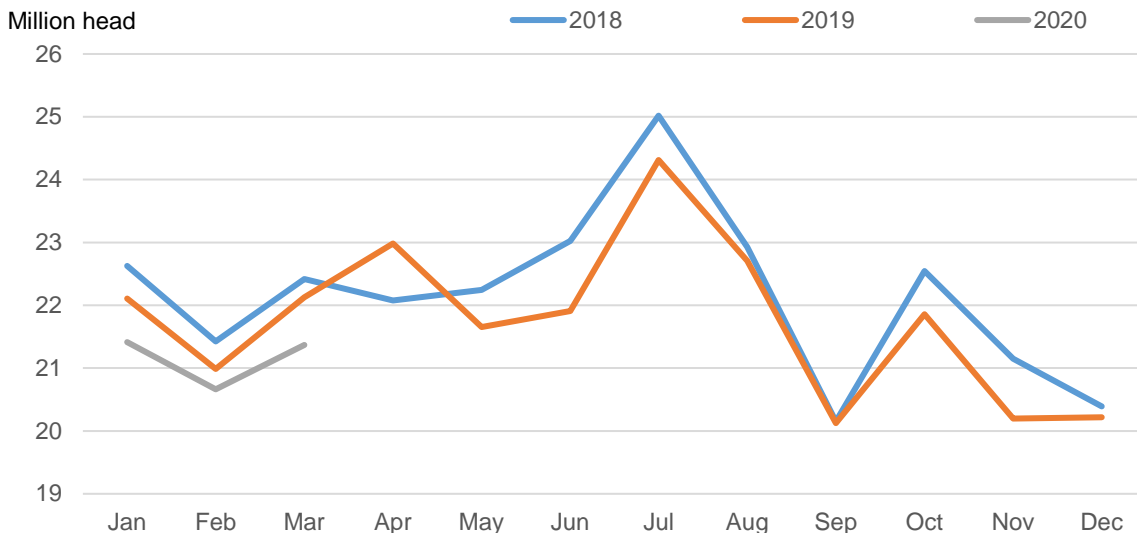
Note: Largest markets based on first-quarter 2020 export volumes.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.

2020 Turkey Production Revised Down

In the first quarter of 2020, turkey production totaled 1.469 billion pounds, representing a 1.6 percent year-over-year increase from the first quarter of 2019. However, that growth is expected to stall due to slaughter capacity adjustments caused by the COVID-19 pandemic. Additionally, the number of poult placed in the first quarter has been consistently below recent historical levels (see chart), indicating slower production in subsequent quarters. Based on the processing capacity limitations, as well as the lower levels of poult placements, forecasts for the remainder of the year were revised down to 1.445 billion pounds in the second quarter, 1.440 billion pounds in the third, and 1.480 pounds in the fourth. These amounts represent a 1-percent year-over-year decrease in both the second and third quarters, and a year-over-year increase of 1 percent in the fourth quarter. Based on the expectation that producers will respond to favorable turkey prices and lower feed prices, total turkey production for 2021 is forecast at 5.885 billion pounds, a 1-percent increase over the forecast 2020 total.

Monthly turkey poult placement

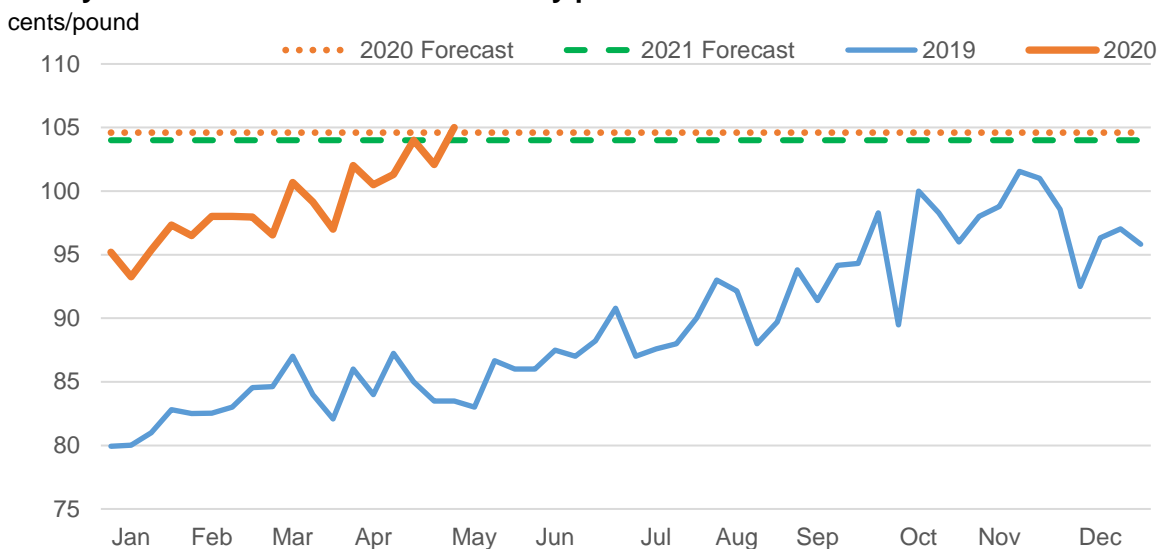


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service

Turkey Prices Continue To Climb

Wholesale frozen whole hen turkey prices continued to rise, reaching 105 cents per pound the week ending May 8th. In April, weekly prices averaged 18 cents above the same week a year ago. Prices for the remainder of 2020 were revised up on expectations of tightening turkey supplies and support from tighter supplies of other meat. The second-quarter price is forecast at 103 cents per pound, the third quarter is forecast at 108 cents per pound, and the fourth quarter is forecast at 110 cents per pound, with a 2020 annual average of 104.6 cents per pound. In 2021, the growth in prices is expected to level off due to production levels of all meats recovering from the current decline. The 2021 annual average price is forecast at 104 cents per pound, less than a cent different from the annual average forecast for 2020 (see chart).

Weekly frozen wholesale whole hen turkey price



Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service and USDA, World Agricultural Supply and Demand Estimates.

Turkey Exports

In the first quarter, turkey exports totaled 139 million pounds, a 5.3-percent year-over-year decrease from the first quarter in 2019. The export forecast for the rest of 2020 remains unchanged at 150 million pounds for the second quarter, 145 million pounds for the third quarter, and 150 million pounds for the fourth quarter. The total 2020 forecast is 584 million pounds, decreasing 9 percent year-over-year from 2019. The 2021 export forecast shows modest growth from 2020 levels, correlating with the expectation of rebounding production. The 2021 total export forecast is 595 million pounds, which would be a 2-percent increase over the 2020 forecast total.

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Dairy Forecasts

	2019				2020					2021	
	II	III	IV	Annual	I	II	III	IV	Annual	I	Annual
Milk cows (thousands)	9,331	9,322	9,345	9,336	9,372	9,360	9,345	9,340	9,355	9,335	9,335
Milk per cow (pounds)	5,971	5,818	5,779	23,391	5,976	6,065	5,880	5,850	23,770	5,990	24,010
Milk production (billion pounds)	55.7	54.2	54.0	218.4	56.0	56.8	54.9	54.6	222.4	55.9	224.1
Farm use	0.3	0.3	0.3	1.0	0.3	0.3	0.3	0.3	1.0	0.3	1.0
Milk marketings	55.5	54.0	53.7	217.4	55.8	56.5	54.7	54.4	221.3	55.7	223.1
Milk-fat (billion pounds milk equiv.)											
Milk marketings	55.5	54.0	53.7	217.4	55.8	56.5	54.7	54.4	221.3	55.7	223.1
Beginning commercial stocks	16.1	18.1	17.0	13.8	13.6	16.9	19.5	18.4	13.6	15.3	15.3
Imports	1.9	2.0	1.7	7.0	1.5	1.5	1.7	1.9	6.7	1.5	6.8
Total supply	73.4	74.1	72.5	238.1	70.9	74.9	75.9	74.7	241.7	72.5	245.2
Commercial exports	2.4	2.2	2.1	9.1	2.2	2.4	2.3	2.2	9.2	2.2	9.2
Ending commercial stocks	18.1	17.0	13.6	13.6	16.9	19.5	18.4	15.3	15.3	17.5	14.1
Commodity Credit Corporation donations ¹	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.3	0.0	0.0
Domestic commercial use ²	52.8	54.8	56.7	215.2	51.7	52.9	55.1	57.2	216.9	52.8	221.9
Skim solids (billion pounds milk equiv.)											
Milk marketings	55.5	54.0	53.7	217.4	55.8	56.5	54.7	54.4	221.3	55.7	223.1
Beginning commercial stocks	11.1	11.2	10.7	10.7	10.2	11.6	12.0	11.5	10.2	11.3	11.3
Imports	1.6	1.5	1.5	5.8	1.5	1.4	1.4	1.4	5.7	1.4	5.8
Total supply	68.1	66.6	66.0	233.9	67.4	69.5	68.1	67.3	237.3	68.4	240.2
Commercial exports	10.3	10.3	11.0	41.6	11.2	11.0	11.1	11.1	44.4	10.9	44.9
Ending commercial stocks	11.2	10.7	10.2	10.2	11.6	12.0	11.5	11.3	11.3	12.0	10.3
Commodity Credit Corporation donations	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Domestic commercial use ²	46.6	45.5	44.7	181.9	44.6	46.4	45.5	44.9	181.5	45.5	185.0
Milk prices (dollars/hundredweight) ³											
All milk	17.93	18.97	20.60	18.63	18.83	12.95	12.70	13.80	14.55	14.10	15.00
Class III	16.20	17.82	19.51	16.96	16.77	11.90	11.80	12.95	13.35	13.20	14.20
Class IV	16.28	16.66	16.56	16.30	15.91	10.65	10.30	10.65	11.90	11.30	12.20
Product prices (dollars/pound) ⁴											
Cheddar cheese	1.678	1.852	2.064	1.759	1.769	1.280	1.260	1.380	1.420	1.400	1.495
Dry whey	0.378	0.367	0.325	0.380	0.360	0.380	0.390	0.390	0.380	0.390	0.395
Butter	2.310	2.330	2.076	2.243	1.826	1.235	1.280	1.300	1.410	1.350	1.465
Nonfat dry milk	1.007	1.042	1.155	1.042	1.202	0.885	0.820	0.850	0.940	0.900	0.955

Totals may not add due to rounding.

¹ Commodity Credit Corporation donations include purchases made through the USDA Trade Mitigation program. They do not include products purchased under other programs.

² Domestic use for 2020 includes additional milk marketed but not processed.

³ Simple averages of monthly prices. May not match reported annual averages.

⁴ Simple averages of monthly prices calculated by the USDA, Agricultural Marketing Service, for use in class price formulas. Based on weekly USDA *National Dairy Products Sales Report*.

Sources: USDA, National Agricultural Statistics Service; USDA, Agricultural Marketing Service; USDA, Foreign Agricultural Service; and USDA, World Agricultural Outlook Board.

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Updated 5/18/2020.