

Urner Barry is the leading provider of protein market news and information in the food industry. Through daily canvasses of the trade and an unrivaled historical database, our analysts are uniquely positioned to report on underlying conditions and significant disruptors to the market. In this special report, Urner Barry reporters outline the biggest impacts in the commodity protein markets seen so far due to the global COVID-19 pandemic. The insights provided here are powered by Urner Barry's premier information platform, COMTELL. The situation continues to develop, please visit www.comtell.com for continuous updates and analysis.

The impact of coronavirus continues to grow and is no doubt at the forefront of everyone's minds these days. The situation remains fluid and Americans are hit with more information and restrictions daily. The virus was first detected in China in December 2019 with the first reported case in the United States on January 20, 2020, and the CDC began reporting data on January 22. Soon after the former, the Chinese government restricted movements and shut down business and commerce. Italy followed suit after a surge in cases, and most of Europe has now taken stronger measures. The United States quickly cancelled sports leagues, and all mass gatherings, including business events and conferences. Schools have gone to virtual learning. Now measures have increased where we are at a national emergency and some states or local governments have put shelter in place in orders in effect. This has impacted the global economy leading to steep financial market losses.

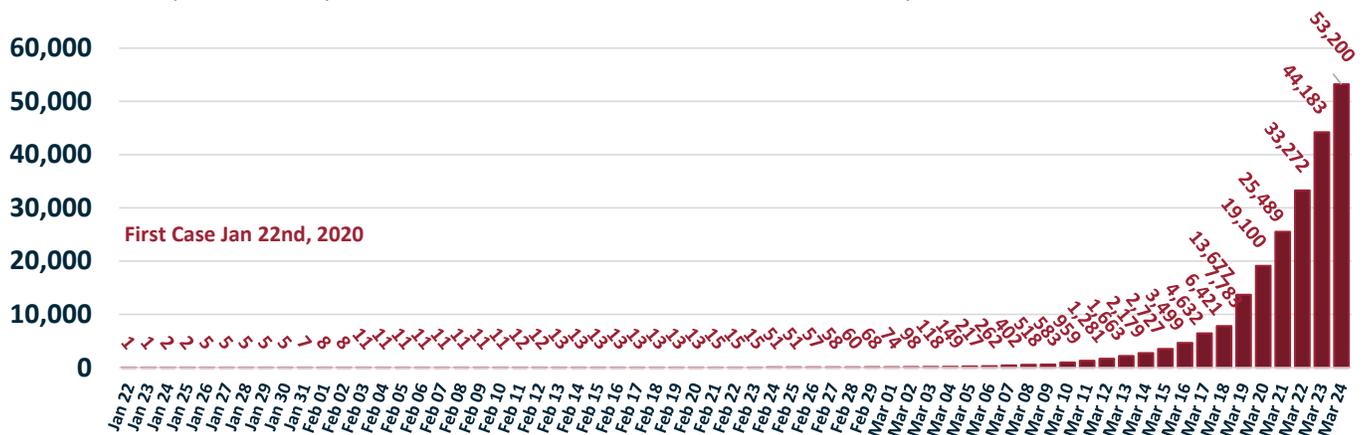
This appears to be here to stay for the foreseeable future as cases increase in the US and around the world. But how

does this relate to the protein markets? The first thing we have noticed is the quick shift in consumer demand from foodservice to retail outlets. As restaurants around the country were either forced to close or change to take-out/deliver only and more and more restrictions were put on citizens, along with the uncertainty of what is coming has caused mass buying at retail stores. Pictures are surfacing in the news and on social media nationwide of empty supermarket shelves. These companies can't keep meat in stock and are out there actively replenishing, and we have seen the effects on wholesale prices. Plants from the three major protein categories, beef, pork, and chicken can't keep up with the demand and are looking to increase capacity as much as they can to meet those needs.

While it appears to have generated increased traffic at retail, it's almost the exact opposite for foodservice. The long-term demand destruction will be noticeable as operators close, business travel remains weak, and service workers lose their jobs.

COVID-19 Confirmed Cases - United States

Source: Johns Hopkins University, Centers for Disease Control and Prevention, Urner Barry

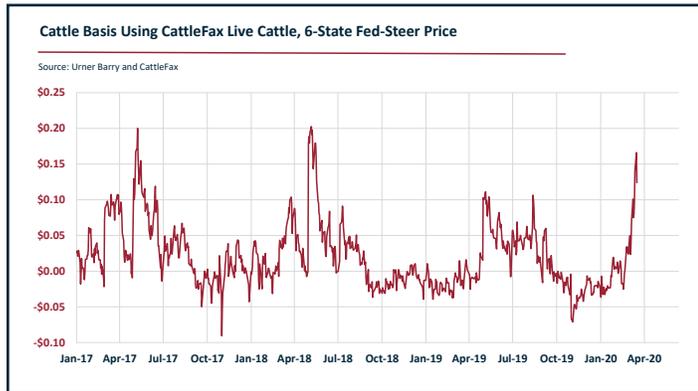


BOXED BEEF

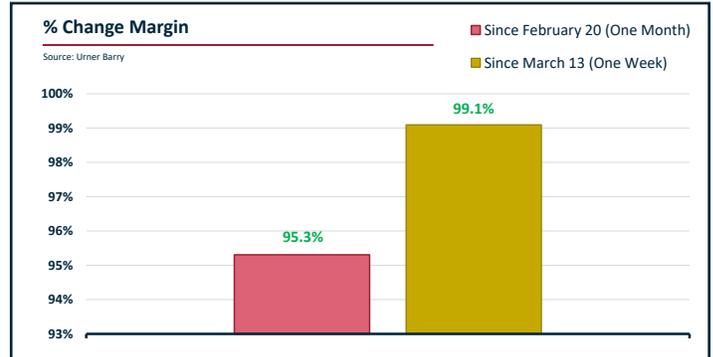
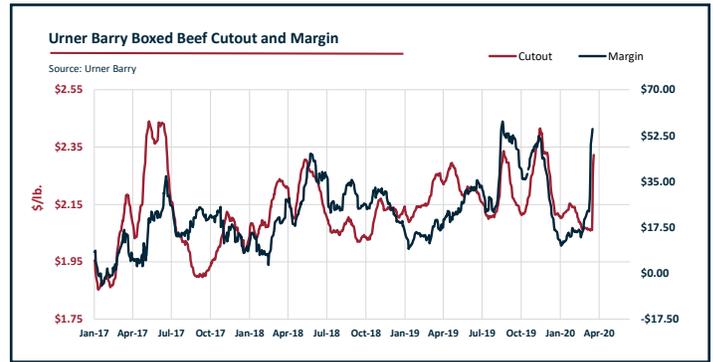
While the fundamentals of the cash and futures market could be slightly different—since the cash market looks more at the current supply and demand situation while the futures market adds in a layer of future expectations for market fundamentals—as the market moves closer to expiration, the cash price and futures price should converge.

Despite both moving lower recently, the delta on the futures market has been much greater. It seemed the biggest factor in this was the uncertainty of what might happen if a plant or number of plants needed to close due to the coronavirus. We only must go back to August of 2019 after the Tyson fire to see how fast cash cattle prices could fall and beef prices could rise during a shock.

More recently, however, the demand for boxed beef has started to support cash prices while futures losses have started to accelerate. This led to record cattle basis since the beginning of the contract in 1964.

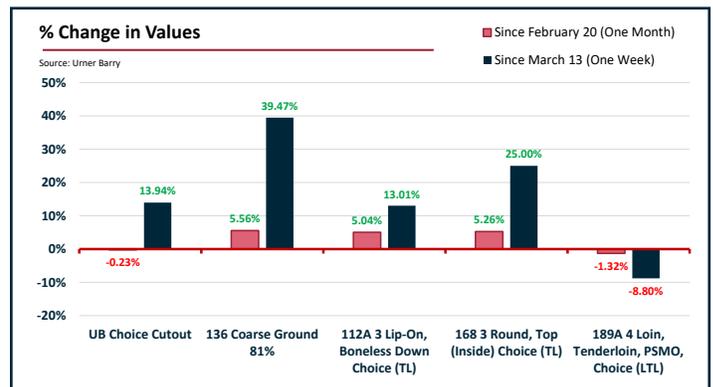


Meanwhile, beef packer margins are rapidly accelerating. On Friday, March 20, Urner Barry’s margin hit \$57.16/cwt, nearing the record \$57.92/cwt achieved post-Tyson’s Holcomb plant fire. While grocery retail sales soar, during which the Urner Barry’s Choice beef cutout gained \$28.74/cwt in the span of a week, packers have been able to acquire negotiated cattle at prices \$13 to \$20 per cwt below a year ago.



Further evidence of this shift is the price movements of individual beef items. In that same one-month period to March 13, 2020, the overall cutout was generally even with a month ago. But most beef items still saw good demand as production was slightly higher than last year but prices on quite a few items moved between 5.00-5.56% higher, with only slight weakness in the tenderloin during this period.

Things changed drastically, however, in this last week since March 13. Gains were generally broad based and significant. The overall cutout gained nearly 14 percent in this five-day trading period. Typical retail items were some of the largest gainers. Ribeyes moved 13% higher while inside rounds ended 25% higher. The most popular beef item at almost all times is ground beef. The interest in this versatile product pushed prices up nearly 40% this week. On the other end of the spectrum is the tenderloin. This high-end steak is popular at foodservice. The absence of business during the COVID-19 outbreak led prices 8.8 percent lower.

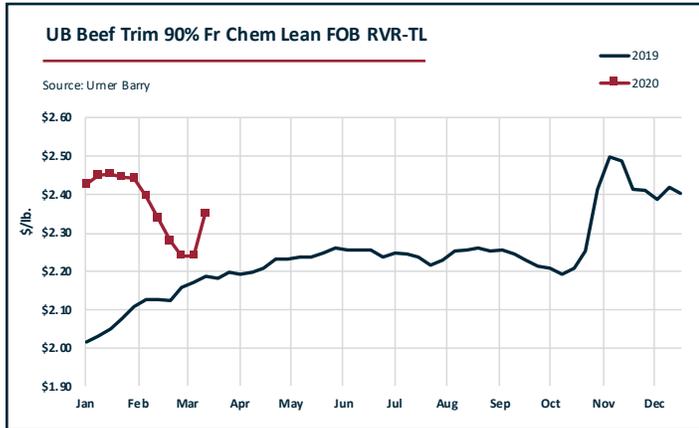


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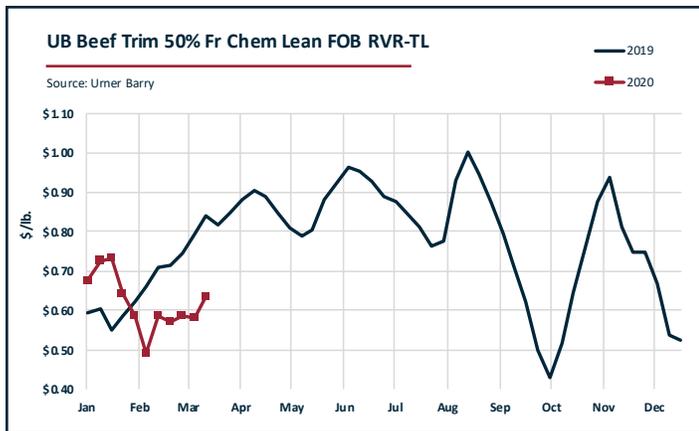
BONELESS BEEF

The domestic boneless beef market has undergone significant changes as the coronavirus has impacted the lean and fat trimmings markets in significantly different ways.

The leaner boneless beef market continues to outperform recent years, but prices did drop dramatically in the month of February. Panic buying in the retail sector in March has helped to push prices back up the last couple of weeks. Imported product which typically competes with items like fresh 90s has also been tighter as of late.



The market for fresh 50s started the year off strong but prices failed to climb in February and March. This is likely due to the closure of major sporting events and lighter-than-expected demand for items like hotdogs and hamburgers at those venues. Foodservice demand has also taken a significant hit due to business closures and restrictions. Retail demand has been the one area of strength.

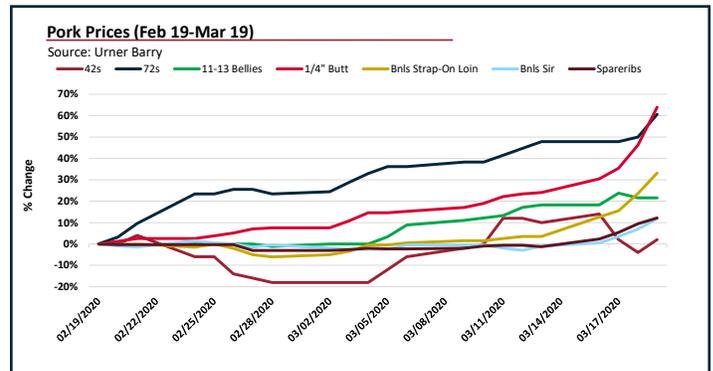


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PORK

The pork market has experienced gains across nearly all categories, except for bone-in hams. Items rooted in the retail side of the business have fared better than those that are more foodservice dependent, although there are some cross-over cuts that have performed well up to this point.

Over the last 30 days, butts and lean trimmings have both seen prices increase by over 60%. Boneless pork loins have gained 33 percent while ribs are up 12 percent. All of these items have been pushed into the spotlight as retail and, in the case of lean trimmings, delivery demand takes hold.



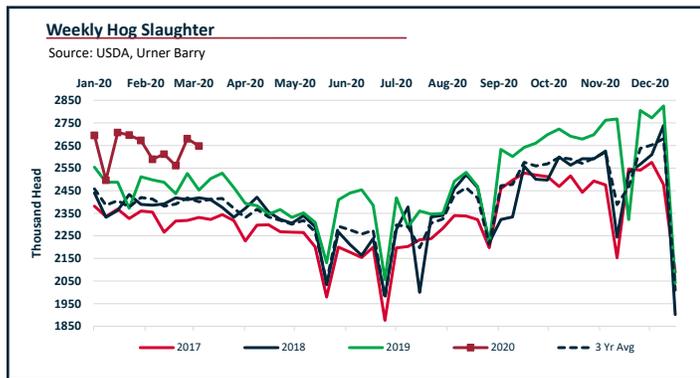
Social and commercial restrictions from municipal, state and national levels have effectively stifled foodservice flows and have cast a significant shadow over the outlooks for near and mid-term sales. No sporting events means no hotdogs or sausages in the stands. According to the National Hot Dog and Sausage Council, Major League Baseball fans were expected to eat more than 19 Million hot dogs in 2018. A key factor here to remember is that processed items such as hot dogs are not made on the spot. Processing ahead of sports seasons or any kind of events that boost demand happen well in advance, potentially leaving the industry at the moment with an inventory situation of finished goods that were intended to be distributed to venues across the country. In addition, less travel means fewer continental breakfasts, whether on a cruise, resort or your one-night stay in an airport hotel. For some of us, these breakfasts usually involve a disproportionate mountain of bacon on your plate. As the weather warms, rib establishments would be pushing St. Louis or back ribs like hotcakes. All of those flows are now in question. One thing to note on lean trimmings is that there has been an emergence of improved demand both from retail and for products like sausage crumbles and pepperoni for pizza toppings. If you can't go out and eat, sometimes a delivered pizza is the next best thing. This has led to lean trimmings seeing notable support up to this point.

Fear over the coronavirus pandemic and directives to stay at home has sent consumers to the meat case in droves, which has led to significant demand for some key retail-oriented items. Loins, the source of pork chops, butts and

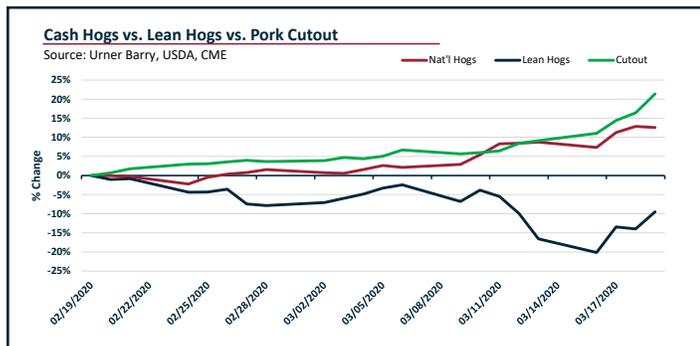
ribs have all seen substantial support this month. Other less obvious items, such as lean sausage materials and cooked hams have also experienced bullish demand. In some cases, the price increases over the last few weeks have only been rivaled by those seen during the Porcine Epidemic Diarrhea virus (PEDv) panic in 2014.

Hog slaughter continues to track in record territory. The industry was already producing more pork than ever before prior to the COVID-19 outbreak. Now, with pork demand skyrocketing at retail and margins improving on a packer level, there is incentive to keep this pace or even add to it in some cases.

In terms of pork availability, the percentage gains in price speak for themselves. The items which have shined at retail are all thinly available despite the record slaughter as retailers struggle to keep them on the shelves and packers struggle to keep up with the unrelenting demand.



The pork cutout, buoyed by advances in retail items, is up 21% over the last 30 days. National hog prices have risen as well, gaining 13 percent as packers raise the kill in an effort to keep pace with pork demand. Hog futures however have not enjoyed the same enthusiasm. Fears over hog supply, liquidation in line with the overall equities market and concerns over what happens to hog prices if plants have to close due to virus outbreaks among plant staff have all weighed on lean hog futures.

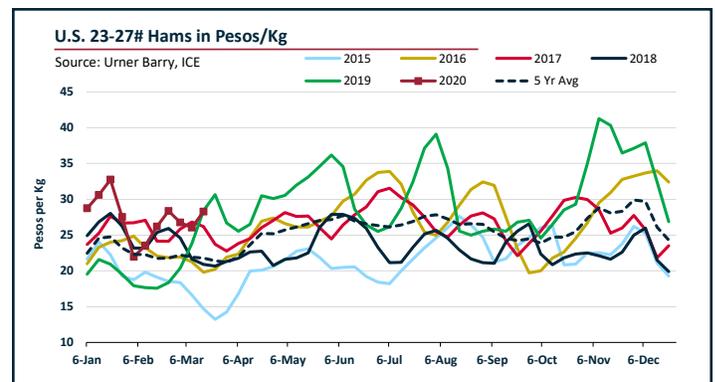
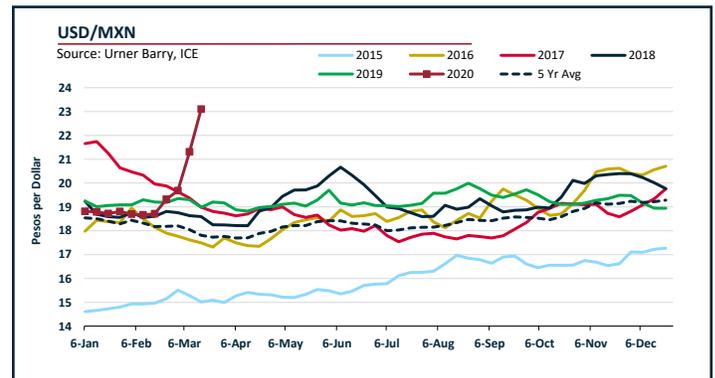


Now, much has been happening outside of direct pork sales which also have a very real effect on the market. Chief among these factors is that the world equity markets

have seen extreme volatility and selloffs. At the time of writing this, the Dow has lost almost a third of its value since mid-February, seeing two trading days that each fell by more than the 1987 crash “Black Monday,” and investors around the globe have sought safety as a result. This safe haven has largely been in the form of cash (U.S. dollars) and treasuries. With these kinds of flows into the dollar, the value of the U.S. currency has moved into record territory across a number of important trade partner exchange rates. For a country like Mexico, this means that while U.S. prices for ham have declined domestically, the sharp devaluation in the peso has resulted in ham prices which are just as expensive as they were last year at this time when ASF in China and U.S. Easter demand were converging. This currency disadvantage has contributed to trepidation in exports and the underperforming domestic ham prices seen recently.

Countries with currencies experiencing at least 52-week lows versus the dollar currently include: Australia, Canada, Indonesia, Mexico, New Zealand, Russia, South Africa, South Korea, and Thailand.

Countries with currencies that have never been this low versus the dollar include: Brazil, Great Britain, Chile, India, Norway, and Uruguay.



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CHICKEN

Jumbo sized boneless breasts were among the first items on the list to quickly catch the eye of retail buyers and values have skyrocketed as a result. Following a \$0.09 drop at the year's outset, which led to an all-time-low of \$0.87/lb. spurred on by record-setting seasonal RTC production levels, jumbo boneless breasts have weathered the supply storm; ultimately breaking through the clouds and catapulting higher to \$1.33/lb. Although strong premiums remain evident in Urner Barry's day-to-day market canvassing, the degree of these paid premiums has begun to subside when compared to the recent past as buyers become a bit more calculated in their procurement strategy.

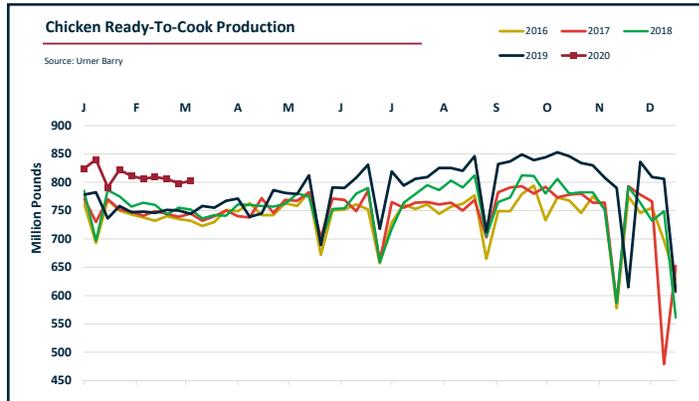
Beyond boneless breasts, leg quarters, drumsticks and thighs have also enjoyed a very robust March pull from within the retail segment. While the spot values of these lines continue to reside well within the range of what analysts consider to be seasonal, the stout better than seasonal pull from buyers, suggests that these lines could continue to rise above the norm. In the case of back-half items, US retail consumption, when coupled with a slight increase in buying interest from China, may result in an increased level of competition and thus, advancing prices.

On the other side of the coin are jumbo whole wing values which have begun to trend in a contra-seasonal direction. Following the cancellation of the NCAA Tournament and the subsequent decline in foodservice foot traffic, jumbo wing values have begun to tumble. As it currently stands, Urner Barry's quotations reside about \$0.06 below this time last year.



With seasonal ready-to-cook chicken production continuing to outpace all other years in recent history, it is no surprise that the sudden, and unanticipated, withdrawal in buying outreach from the foodservice sector has begun to weigh heavy on the minds of chicken market participants. However, amidst the currently shaky market backdrop, a common saying rings true: When one door closes, another one opens. In the case of poultry, that new door happens to be retail. As suggested isolation measures related to COVID-19 gradually

give way to mandatory quarantine orders on a county and state level, there has been a direct uptick in anticipatory consumer demand for cost-efficient protein, and chicken is often at the top of their shopping list.



Perhaps one of the most sought-after items on that list remains medium boneless chicken breasts which are commonly sold in a tray pack. However, following the first wave of proactive consumer buying outreach, retailers quickly realized that the sudden spike in demand far exceeded their ability to keep the refrigerated shelves stocked. This scenario gave way to some willingness on the part of the wholesale buyer to absorb additional product which is more traditionally associated with foodservice and further processing such as jumbo boneless breasts, WOGs, line run tenders, thighs, drumsticks and thigh meats.

As it currently stands, the chicken industry is well-equipped to handle the influx of consumer buying outreach. As has been the case for quite some time now, US processors are slaughtering heavier birds and more of them. As previously stated, this has ultimately resulted in record high seasonal RTC slaughter figures which have been consistently outpacing year-ago levels. Further helping to ease the supply-side anxiety are chicken cold storage holdings which, through the end of January, reside at record seasonal levels which are about 12% above this time last year.

As with all other proteins, the chicken industry remains in a state of flux as participants adjust to the fluid set of circumstances that they've been dealt. Upon looking out to the horizon, there are several key factors that one must consider. At the top of the list are those on the processing side who, despite the increased prevalence of automation, are still heavily reliant on workers to maintain various processes throughout the line. These workers, like all of us, are not immune to COVID-19, and without them, production could be dramatically reduced. Additionally, in the event that a worker is exposed to COVID-19, it is currently unclear whether or not there will be an expedited inspection and testing process put into place by the government to quickly resolve any loss in production. With that said, processing plants maintain such stringent sanitary, health and safety

standards as it is, that the recent challenges associated with COVID-19 shouldn't pose any major challenges that do not already exist on a daily basis.

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TURKEY

The biggest movement the turkey market has seen that's been directly attributed to the coronavirus pandemic would be whole-body toms and hens. The market for whole birds in general was and continues to be strong, but in the past week, retailers have slowly added turkey to their must-have list. With meat cases barren, processors have noted an uptick in buying inquiries from retailers to fill the void.

Another item that has seen an increase in movement has been fresh tom breast meat. For the past month or so, overly adequate offerings and little buyer interest has forced asking prices downward. But with consumers heading to the supermarkets, pre-sliced deli meats have seen an increase in demand. In this case, wholesale prices haven't moved upward for the time being, but movement has certainly improved and the undertone is much better than a couple weeks ago.

The last item that's been directly affected is drumsticks. With drum meat being the main component of ground turkey, it was only a matter of time before retailers came knocking to refill their supplies. Additionally, surprising demand from smokers to help fill retail cases has helped to soak up any additional offerings. Much like tom breast meat, paid prices have yet to move upward, but general direction and undertone have improved.

Like whole birds, tom breast meats normally see an uptick in demand in the latter parts of the spring and into summer, as deli requirements begin to increase. Currently, processors are reporting that buyers are looking for supplies at a much earlier date to fill the robust retail demand. With drums, as many retailers look to put any possible protein on their shelves, it's no surprise that ground turkey has seen an increase in interest. Processors in the southern part of the country also note that smokers are pivoting to put their product in tray packs designed for retail buyers to capitalize on the protein demand.

With retail demand off the charts, supplies of all the above items have begun to tighten. With whole birds, processors have been touting tighter than normal product since the new year, so when retailers came knocking to fill their immediate needs, premiums were paid in most cases.

Breast meat supplies have been overly adequate for a good portion of the year. Heavy toms coupled with lackluster demand had left offerings abundant on the spot market. But with such a strong retail pull for deli meat, processors have noted that product is being absorbed quickly. In the drum segment, with historical demand peaking later in the spring, supplies were readily available at this point to fulfill any additional needs. As of now, paid prices are steady, but if demand continues to be strong, premium bids to secure product will follow.

As previously stated, the whole bird segment has consistently been above year ago levels for all of 2020. With processors proclaiming a tight supply scenario, paid prices will continue to rise if demand maintains. Breast meat prices are well below the year ago values as desperate processors dropped their asking price to entice buyer interest. With demand picking up, previously ignored inventory could be soaked up and supplies may begin to tighten to the point that asked prices may rise. As for drums, with demand historically rising in the late spring, supplies and paid prices should follow if this retail pull continues.

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EGGS

Market sources began noting an uptick in shell egg orders in the first week of March, almost exclusively among membership stores, chalking it up to overly prudent consumers who wanted to be sure they had a reasonably stocked refrigerator and a large supply of paper goods on-hand in the event of a potential quarantine.

But as the scope and breadth of the virus escalated, and potential quarantines developed into actual quarantines, public concerns mounted. Panic shopping – and a significant jump in egg prices – quickly followed. The increase in retail foot traffic spread from big-box stores to grocery chains and then on to smaller retail outlets such as convenience stores and pharmacies. Eventually, even some local farm markets began to sell out, with customers lined up at their doors in search of eggs, milk and other essentials.

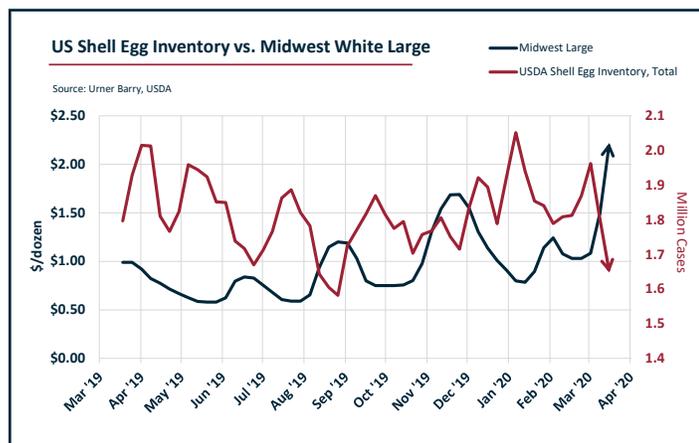
Since March 3rd, our benchmark Midwest large quotation has surged a staggering \$1.58/dozen, or 153%, to \$2.61/dozen – the highest price recorded since the avian influenza outbreak of 2015. And with prices advancing at a clip of 10-20cts a day, that record-high value of \$2.88/dozen is very much within striking distance.

As we enter the last week of March, retail demand for shell eggs is unrelenting. Contacts across the country are reporting unprecedented orders, as stores struggle to keep their shelves stocked. While the initial bump in demand

observed a couple of weeks ago was primarily panic-driven, with a chunk of the population now isolated at home, we are seeing increased consumption and replenishment as well. Contacts report that some major retailers are ordering as much as 400% above normal – a level of need suppliers simply cannot satisfy, often forcing them to allocate, push, or simply cut orders.

Foodservice and institutional demand, in the meantime, has effectively vaporized. While that has freed up some supply that can easily be redirected into retail channels, it's barely put a dent in the volumes being requested. The need is so great, in fact, many say it's virtually impossible to quantify.

Unlike the avian influenza, which was a supply-side issue, this situation is being driven entirely by consumer demand. Industry participants – many of whom have been entrenched in egg farming for decades – tell Urner Barry the demand spike is unlike anything they've ever witnessed.



And it's certainly not anything they could have predicted. In fact, after experiencing unusually slim margins for the better part of 2019, several producers made the strategic decision to scale back their outputs in recent months – a call that was undeniably warranted pre-pandemic, but one that many now regret. The production cuts were meant to bring the national supply into better alignment with demand patterns, but no one could have predicted that demand would take such a sharp and drastic turn.

After climbing to the fourth-highest level on record March 2nd, the national shell egg inventory has since plummeted 16% to 1.647 million cases, the lowest it's been since late-August. Sources report that inventory of all sizes, color and category have essentially been whittled down to what is being laid daily. Several producers have said older birds that were scheduled to come out of production are being held onto in an attempt to meet the call, but beyond that there's little that can be done in the near term from a production standpoint.

While retail demand is booming, foodservice demand has taken a drastic hit from restaurant closures. Many dine-in restaurants are offering curbside pick-up, but people are more inclined to take advantage of that option for lunch or dinner – not breakfast. The egg-products market will likely feel the biggest impact from this downturn. Not only are restaurants shuttered without an end in sight, but many analysts feel this is the start of a broader economic downturn, which typically hits the value-added sector hardest.

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SEAFOOD

Seafood is, and always has been, uniquely placed when compared to other protein categories. It's hugely reliant on the foodservice sector, and in particular, the mid-to-upper scale establishment.

As the situation surrounding coronavirus intensifies, many states have prohibited dine-in consumption in restaurants, others have issued an “avoid recommendation,” and President Trump recommended that people avoid eating and drinking at bars, restaurants and food courts.

Many states are allowing takeout and delivery, and we have seen a consumer preference shift from foodservice to retail, but these shifts are likely to be somewhat problematic for seafood consumption.

Beef, pork, chicken and eggs have all been the big beneficiaries; you can see it in the recent price action. Each of these protein categories has a much more prominent retail presence and also benefit from widespread adoption at fast food.

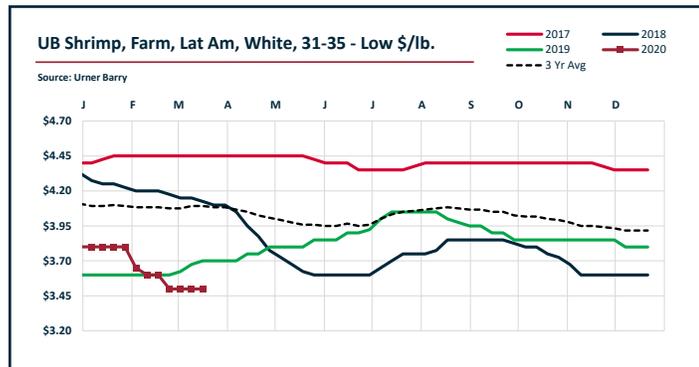
The runs on supermarkets that are being widely reported have been largely comprised of the proteins mentioned above, as well as other life essentials such as water, paper goods and cleaning products. In addition, fresh counters are closing either out of an abundance of caution or those employees are being reassigned to other departments.

The individual seafood markets have responded in different ways—some are frozen in-place, while others are reeling. We'll take a look at individual items here.

SHRIMP

The impact on shrimp was first felt at the beginning of February following the coronavirus outbreak in China which just so happened to coincide with Chinese New Year. China is the largest importer of shrimp globally and

It was immediately realized that any disruption in the flow of product into that country would certainly have market implications. It was difficult in the early days to identify just how severe the impact would be as Chinese buyers were not at work around the time of the Chinese New Year.



The most immediate concern was shrimp of Ecuadorian origin given its close proximity to the U.S., its reliance on the Asian market and the anticipation of some fairly large harvests. Sellers of Latin origin headless shell-on and head-on shrimp quickly began to lower offerings in order to deplete inventory.

This action has been ongoing ever since, with the bellwether 21-25 count size moving from \$4.75 to \$4.15 per pound in just seven weeks. The balance of the market has been steadier, but all susceptible.

Any price action, except for 31-40 and smaller count P&D, tail-off, white shrimp has been lower. More recently, the market is frozen in place. Movement of shrimp products has essentially come to a standstill.

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EUROPEAN SHRIMP

Comparable to protein channels in the US, the European shrimp market is experiencing elevated market uncertainty.

With increased quarantine efforts across Europe, consumption of shrimp at the foodservice level has declined dramatically, with thousands of foodservice workers already laid off. While retail sales of shrimp have climbed, volumes remain behind staple food proteins. As a result, importers continue to purchase for the short term as COVID-19 restrictions impede the flow of trade.

However, despite declined demand across the foodservice industry, demand out of China for industrial shrimp has remained sturdy throughout, providing some relief to European exporters.

While there are discounted offers on the market, most suppliers continue to hold firm on prices, with much of the market frozen in place. Increasing quarantine restrictions, particularly in Italy, France and Spain, have led to a significant decline in traded volumes, with some suppliers reporting a return of pallets.

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TILAPIA FROZEN FILLETS

Tilapia frozen fillets, the largest seafood product by volume imported into the United States from China, has not seen an immediate reaction from the growing COVID-19 situation as wholesale prices have remained steady in the wake of uncertainty.

Currently, demand lost from restaurants and foodservice establishments is balanced by a growing number of orders for supermarkets. Plants in China are steadily seeing a rise in capacity as more and more workers are able to return to work, rushing orders out that were placed before the extended Chinese New Year holiday and focusing on collecting as much raw material supply as possible, not only to fulfill the growing demand, but also in case any problems arise overseas.

In addition to COVID-19 related obstacles, tariffs remain in effect on the market at 25% despite numerous requests of exclusions that were denied by the United States Trade Representative in early March. In the midst of so many setbacks, steady wholesale prices are supported majorly by active demand, however, in the coming weeks raw material pricing will be closely reviewed.

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SALMON

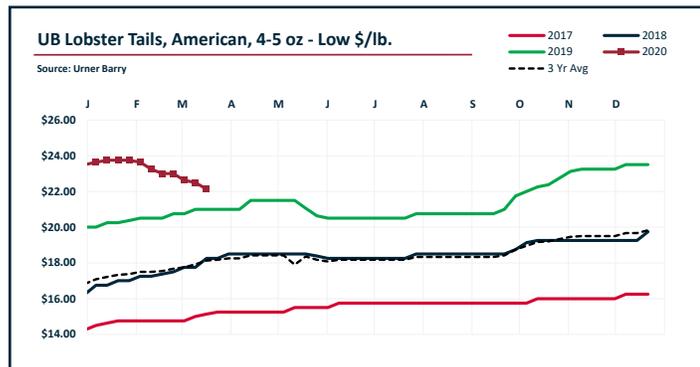
The fresh farmed salmon market has seen immediate reaction from the global coronavirus pandemic. Fresh whole salmon, which is an extremely active item in the foodservice sector, has seen a huge hit. Pricing has dropped on 10-12 pound fresh whole fish out of Western Canada over 20 percent from the end of February and this week alone, pricing has dropped 14.6 percent from the previous week on this same size. Even with imports from Europe coming to almost a complete halt, supply on fresh whole fish in the U.S. market is greatly outstripping a diminished demand.

On the other hand, the fresh Chilean salmon fillet market, an extremely popular item in the retail sector, has been only moderately impacted with some downward price adjustment, mainly a reaction to the lack of foodservice demand. Many market participants report that retail demand for salmon fillet remains strong heading into the weekend. However, with logistical issues arising due to the lack of passenger planes and suppliers switching to cargo only will come at a cost. Where those added costs are absorbed throughout the supply and distribution chain is in question.

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LOBSTER

Movement of lobster products has come to an abrupt stop. Lobster is a luxury item consumed at mid-to-upper scale restaurants and sold at retail during certain holidays. As a result, our live quotations have been withdrawn until we see a resumption in trade. The warmwater tail market has been unchanged, but our observations are that inventories are still considered limited and the unsettledness has paralyzed the markets. Meanwhile, the North American tail and meat markets have been moving steadily lower since early February. While we don't have the impression that there's overwhelming inventory, processors have gained access to raw material since the China market closed. There's also concern about holding any inventory in this climate and ahead of a new season.



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The insights provided in this report have been powered by Urner Barry's COMTELL, the premier market intelligence platform for those operating in the food and agriculture industry. As the situation continues to evolve, please visit www.comtell.com for continued updates and exclusive analysis from our market reporters. Don't have COMTELL? Call 732-240-5330 to get started.