



**AMERICAN
FARM BUREAU
FEDERATION®
CATTLE MARKET
WORKING GROUP**



EXECUTIVE SUMMARY

In April 2020, AFBF President Zippy Duvall tasked the newly created Cattle Market Working Group, composed of the 10 state Farm Bureau presidents listed on the back cover, to investigate and research recent volatility in the cattle markets due to COVID-19, as well as the impacts of the Holcomb, Kansas, beef plant fire that occurred in August 2019. The committee met each week, for a total of well over 20 hours, to hear from guest speakers and experts representing multiple perspectives and different facets of the value chain. The working group extensively discussed and debated the various factors that led to the market disruptions, policy proposals currently being examined in the public arena, and potential actions to mitigate the impacts on producers if similar events occur in the future.

This document includes an economic overview of the two events, as well as the results of the working group's research and discussions. The findings and suggestions in this document represent the consensus of the committee. This report is intended as a guiding document for county and state Farm Bureau policy development.

ECONOMIC OVERVIEW

AFBF's economics team regularly releases economic analysis through its [Market Intel](#) series, with several of those articles related to the packing plant fire as well as COVID-19. Links to these Market Intel articles are provided and a high-level summary analysis of the market conditions before, during and after these events follows.

Previously published Market Intel articles:

- [Impacts of the Packing Plant Fire in Kansas](#)
- [Pandemic Injects Volatility into Cattle and Beef Markets](#)
- [As Processing Facilities Struggle with Labor, Spread Between the Wholesale Price of Meat and Livestock Prices Widens](#)
- [Pandemic Disrupts Processing Capacity, Drives Slaughter Numbers Down](#)
- [Beef and Pork Supply Chain Recovering](#)
- [Pandemic Results in Record Farm-to-Retail Price Spreads in Beef and Pork](#)

The Impacts of the Kansas Packing Plant Fire:

On August 9 a fire broke out at one of the largest beef packing plants in the U.S., significantly impacting beef markets in the days and weeks that followed. The fire, at a plant in Holcomb, Kansas, that accounted for 5%-6% of processing capacity before the fire, stressed an already sensitive balance between processing capacity and a growing fed cattle supply. In the aftermath of the fire, several market impacts were observed: the cutout value increased, fed cattle prices declined, and the spread between live animal and cutout values widened, all while processing volumes actually increased. However, it should be remembered that there was substantial uncertainty surrounding the event as well as the timing of the fire. The fact that the fire occurred as seasonal boxed beef demand was ramping up leading up to the Labor Day weekend certainly contributed to the resulting price swings. Lack of clearly communicated information about the fire contributed to retailers' and meat buyers' panic buying, which was driven by concern

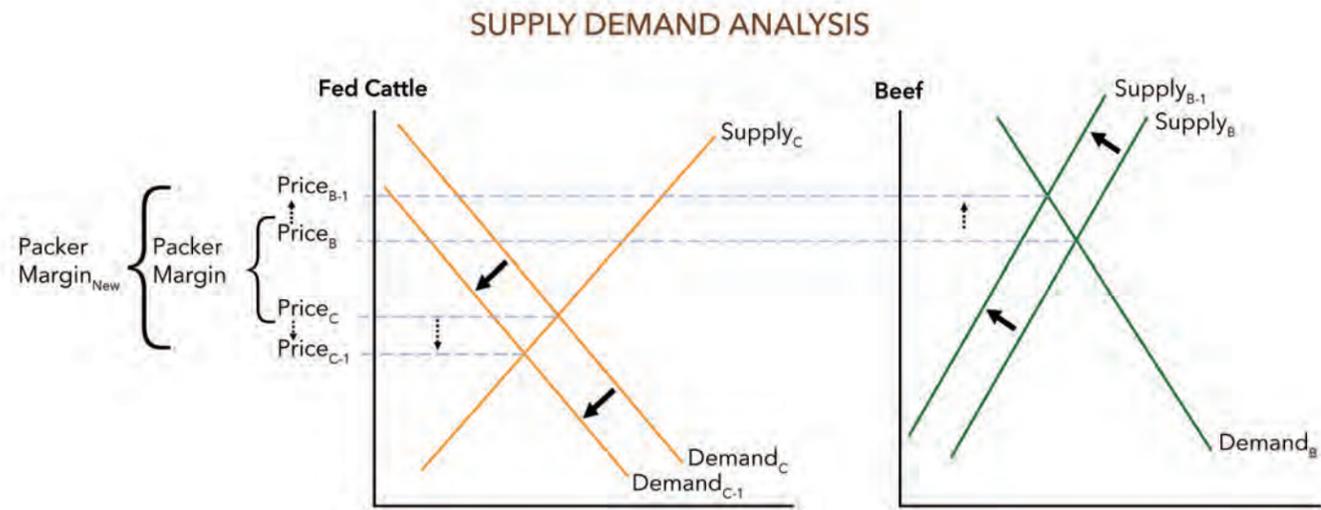
about the availability of supplies and a lack of understanding about the processing sector's rapid response in moving animals around.

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What Economic Theory Tells Us Would Happen?

Immediately after the plant fire, we saw significant price movements in both the beef cutout, the product being produced by the packing plant, and in fed and feeder cattle, immediate and eventual inputs into the plant. The question is: Is this what one would expect under normal economic circumstances? The following graphic walks through a (very simplified) supply and demand response to the event, as well as the expected price response.



First, we should examine the situation before the fire. On the right graph, we have a downward sloping demand curve ($Demand_B$), which represents restaurant and grocery store demand for wholesale beef. On the same graph we have the upward sloping supply curve ($Supply_B$), which represents the beef that packers process and supply to the market. The intersection of these two curves results in the market equilibrium price of beef, denoted by $Price_B$. On the left side of the graph we have a similar set-up for fed cattle, the major input for packers. Because packers require fed cattle to process into beef to supply their customers, we can develop a derived demand curve for fed cattle ($Demand_C$). Feedlots and other cattle producers supply cattle to the market, resulting in the supply curve ($Supply_C$). Similar to the beef market, the intersection of these two curves results in the market equilibrium price for fed cattle, $Price_C$. The difference between the price of beef and the price of cattle can be considered a (simplified) representation of the packer's margin (because it does not include processing costs, fixed costs, overhead, etc.).

The fire at the Holcomb facility was an exogenous shock to both the wholesale beef market and the fed cattle market (and later down the supply chain, feeder cattle market). In the beef market, this means the packing industry can supply less beef (assuming they were operating at capacity) to its customers, which is shown by shifting the supply curve inward and to the left ($Supply_{B-1}$). This shift results in a new higher equilibrium price ($Price_{B-1}$), as the supply has declined while demand for beef has stayed the same (*ceteris paribus*). At the same time, since the packing industry has potentially lost 6% of its capacity, the industry is going to demand less of its input, fed cattle. This results in a leftward shift of the demand curve for cattle ($Demand_{C-1}$), which in turn leads to a decrease in the equilibrium price for cattle ($Price_{C-1}$). With price for the input declining, and price for the output increasing, the remaining facilities that process cattle into beef would expect to see their gross margin increase, at least in the short run.

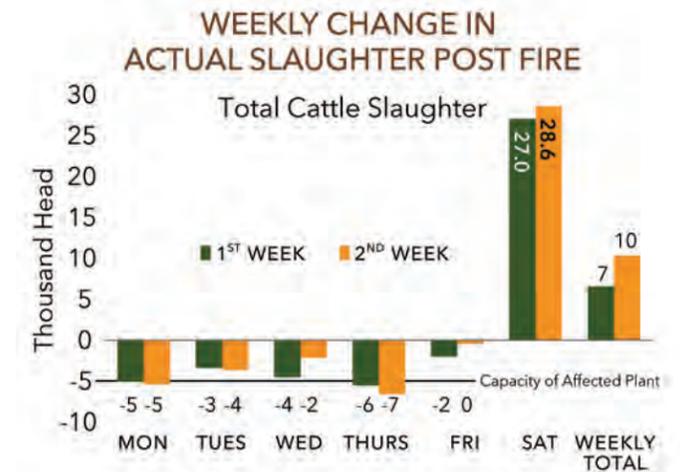
What Actually Happened?

This fire serves as a reminder that rarely do real world conditions perfectly align with the neat assumptions in our economic models. However, we did see many impacts directionally follow the expectations set forth above. In the weeks following the fire, boxed beef values increased, moving from \$216.04/cwt the week of the fire to \$230.43/cwt the week after the fire and to \$239.87/cwt the week after that. That's a \$23.83 jump in the two weeks after the fire. This is exactly the kind of market reaction one would have expected (at least directionally) from our basic analysis.

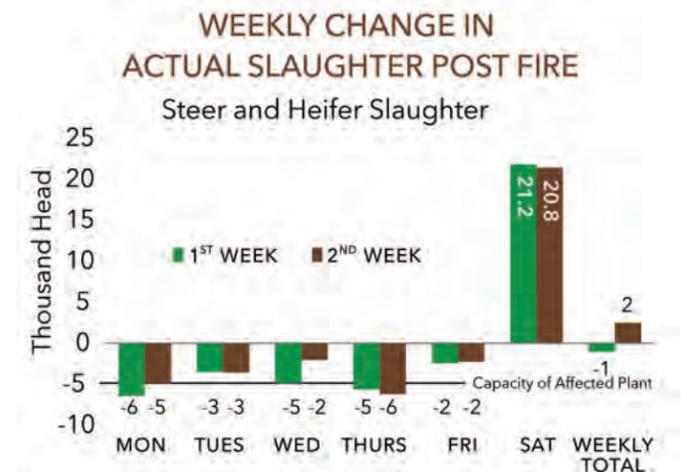
While the price of the beef cutout moved significantly upward, the fed and feeder cattle markets went in the opposite direction. For the month leading up to the fire, both feeder and fed cattle futures were largely holding steady at or slightly above the value the day of the fire. Immediately following the fire, both futures markets exhibited significant bearish activity. However, the initial downward movement of prices is what we would have expected based on our simple modeling above.

While the price movements were along the lines we expected, all of this activity falls under a key economic term, "*ceteris paribus*," which means "all else equal." A big assumption in all of this is that the packing industry did in fact lose 6% of its capacity, which was reflected in an approximately equivalent decline in cattle slaughtered/quantity of beef produced. What occurred though, was an approximately 6,600-head increase in total cattle slaughter the week after the fire.

However, it makes more sense to look at steer and heifer slaughter as opposed to total cattle slaughter in this instance. When looking at steer and heifer slaughter, we see that the first week after the fire, weekly slaughter was actually down around 1,000 head. Another key takeaway is how close the daily slaughter for Monday through Friday was to the actual capacity of the



Source: USDA AMS, LMIC, AFBF Analysis



Source: USDA AMS, LMIC, AFBF Analysis

closed plant (5,000 to 6,000 head). This tells us that many plants were already operating at or close to capacity prior to the Holcomb facility fire. However, with the economic incentive of increased margins, the processing industry will find a way to capture those margins, a fact reflected in the dramatic increase in weekend slaughter as facilities added extra shifts and shuffled cattle around plants. Due to this additional slaughter on the weekend, the overall decrease in slaughter numbers is much smaller than we would have anticipated in our simple model. In fact, in the second week following the fire, the weekly numbers for steer and heifer slaughter actually increased, reflecting a rather quick adjustment by the packers. Granted, this

additional slaughter, which primarily occurred on weekends, is going to be in areas and shifts that are not as efficient, so costs will likely be higher. Additionally, the transportation and other costs of shipping cattle that were going into the closed plant to other facilities further away will cut into those higher margins.

Packers' gross margins spiked following the increase in the beef cutout combined with the lower live prices, as the spread between live and cutout values subsequently widened. Leading up to the fire, the calculated spread was healthy relative to the long-run history. After the fire, gross margins reached the highest levels in the 28 years this data has been collected. (Though less than a year after the fire the impacts of COVID-19 would shatter these records.) In the first week following the fire, the live-to-cutout spread jumped to \$498 per 1,000 lbs. steer, and in the following week it jumped again to \$549 per 1,000 lbs. of steer.

Again, this is in line with what we would have expected. However, given that one of our major assumptions of declining beef supplies was negated by increased slaughter, this reminds us that real-world conditions rarely follow the assumptions in our neat economic models.

Following the price movements and the resulting margins, there was consternation from many in the cattle industry over the potential for some in the packing industry to take advantage of the situation and participate in unfair or illegal behavior. USDA took notice and [announced](#) that the secretary of agriculture was directing USDA's Packers and Stockyards Division to launch an investigation "into recent beef pricing margins to determine if there is any evidence of price manipulation, collusion, restrictions of competition or other unfair practices." This investigation would later be rolled into an investigation into similar market reactions following the spread of COVID-19.

The Impacts of COVID-19 on Livestock and Meat Markets:

Less than eight months after the packing plant fire, livestock and meat markets were again roiled, but the onset of COVID-19 would result in market volatility that dwarfed the impact of the fire. Livestock producers and markets faced massive disruptions on both the supply side as well as the demand side, contrasting with the packing plant fire which was primarily a supply-side shock. The jolt to demand came first, as consumers increased purchases of fresh beef and pork at grocery stores, and food service demand channels shut down as restaurants closed their in-person dining options in many areas of the country.

Just when many thought the industry had started to get a handle on the shifts in purchasing behavior, slaughter facilities and further processing facilities were disrupted by labor issues arising from COVID-19 infections and related concerns about worker safety. The lower beef and pork production that came with the slowdowns and closures at packing plants led to legitimate concerns about the availability of animal protein. At the same time, the reduced capacity at plants negatively impacted

demand for fed cattle, which contributed to lower fed cattle prices, ultimately trickling down to the cow/calf sector through uncertainty in feeder cattle markets.

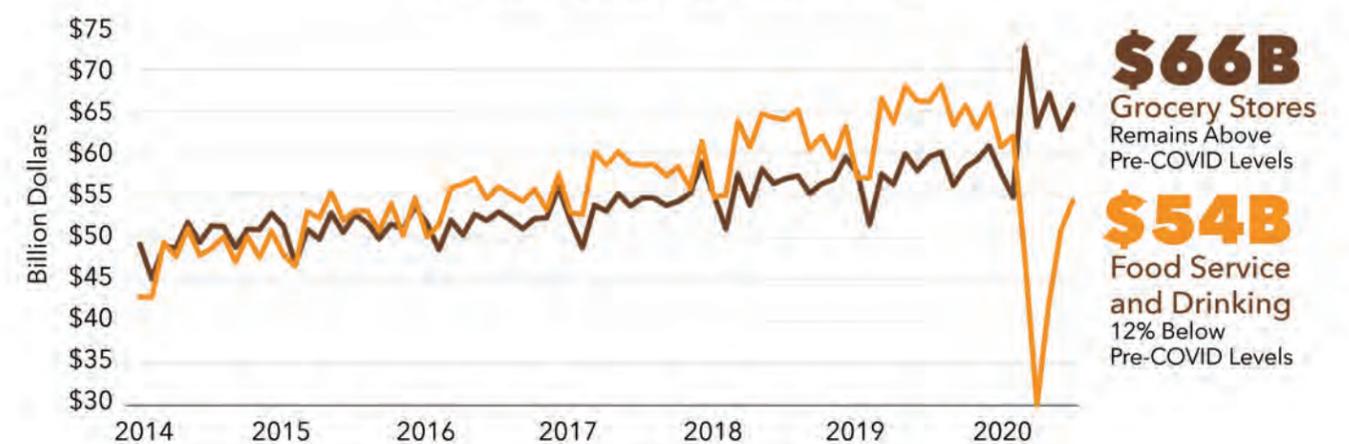
Impact of Disruptions to Demand

For several years prior to the disruptions of COVID-19, American consumers were [shifting](#) many of the dollars they spent on food to food-away-from-home spending, meaning they were spending more eating out at restaurants than at grocery stores to make food in their kitchens. This shift dramatically impacted animal protein supply chains when stay-at-home orders took hold around the country and shut down the food service demand channel as consumers had to stay home to cook, rather than eat out. The complicated nature of our supply chain means that one cannot simply flip a switch and move product that was destined to the food service sector over to the retail sector. At the same time, we saw consumers rush into grocery stores and panic buy to stock up for the upcoming quarantine. As a result, many grocery meat cases were emptied as



COMBINED FOOD-AWAY-FROM-HOME AND GROCERY SALES TOTALS

\$120B in July, Only \$6B Below Prior-Year



Source: U.S. Census Bureau, Farm Bureau Compilations Note: Data Current Through 9/18/20

consumers filled their freezers with whatever beef, pork, and poultry they could get their hands on. At this point in the pandemic, there was no real shortage of supply in the country, instead the surge of demand at the retail level happened more quickly than the supply chain could react. Packing plants met this higher retail demand by increasing their processing volumes, which included the addition of weekend shifts.

As a result of consumer panic buying, retailers looking to restock their meat cases rushed into the wholesale spot market, pushing the beef cutout up substantially. In just a week, the daily boxed beef cutout jumped roughly 25%. Something that should be mentioned here is the way beef is sold. Typically, retailers are not going to order more meat for delivery the next day. The meat that retailers sell on a typical day is product the retailer started planning sales around as many as three months before. They may have actually purchased the product as many as six weeks prior. This means that there is not a large volume of “unsold for” meat in the market on a typical day, and much of the meat being processed in a plant is “spoken for.” The spike in the cutout at the end of March was partly driven by a surge in demand as retailers looked to refill their meat cases, increasing competition for the small share of “unsold for” meat.

From the middle of March into early April, there was a moderate increase in the price of dressed fed cattle. However, at the same time futures markets were reacting negatively, mostly driven by the uncertainty of the situation and the market’s reaction to that uncertainty. The rise in the boxed beef cutout, combined with fluctuating cattle prices, resulted in a widening live-to-cutout spread, with the spread increasing almost 170% from the end of February to the end of March.

Impact of Disruptions to Supply

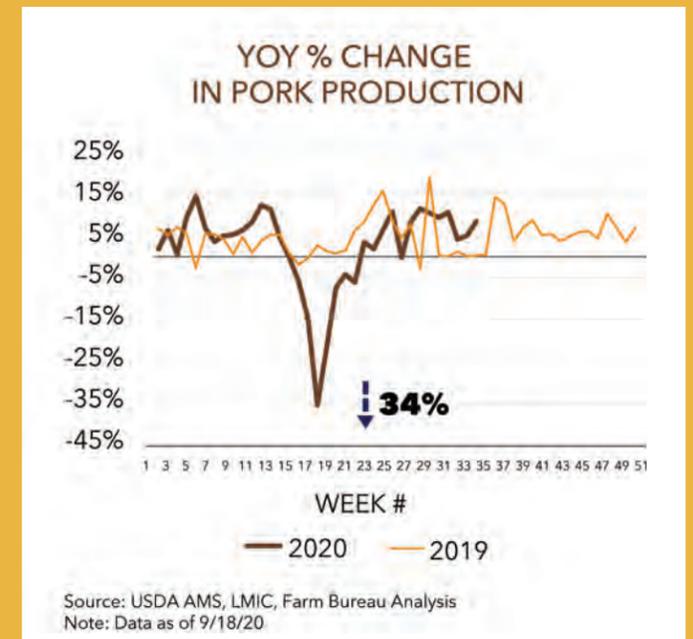
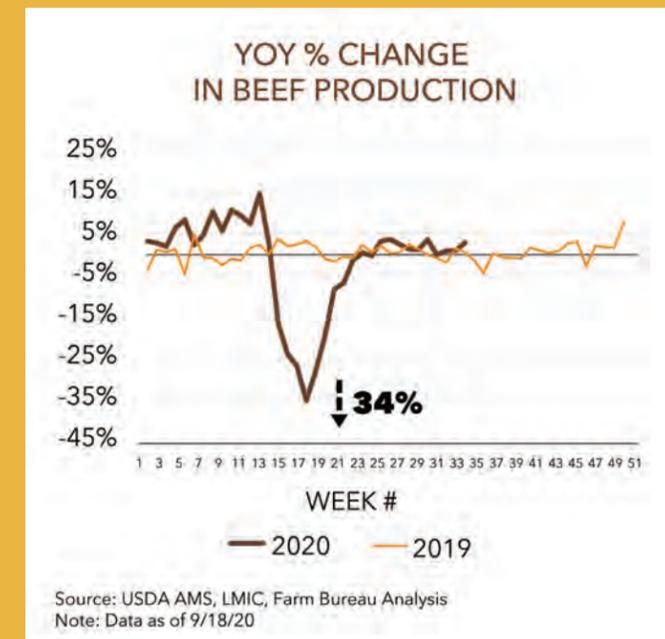
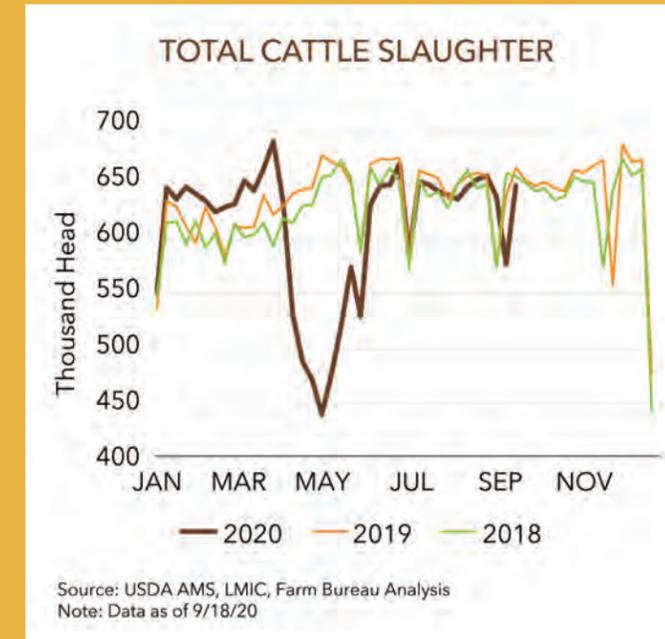
The real test of COVID-19 for the supply chain came later, in April and May. Over the course of a few months, more than two dozen livestock processing plants closed due to issues with COVID-19, for periods ranging from a few days to several weeks. In some cases, the closures were due to outbreaks among workers at the plants. In other cases, it was a struggle to keep workers, who were afraid of getting sick, coming into the plant. It is the latter impact that largely led to severely reduced capacity across many plants that remained open, and reduced processing capacity by more than a third from the end of March to the beginning of May, when slaughter numbers hit their lowest levels.

The decline in slaughter capacity created a backlog of animals that would take months to work through. This was a particular challenge for livestock producers, who scrambled to slow the weight gain of animals already in the pipeline. While it certainly was a challenge for all livestock producers, the just-in-time delivery nature of the hog supply chain was particularly difficult for hog producers, forcing some of them to depopulate their animals. This capacity reduction also created an oversupply of animals available for slaughter, driving the price of fed cattle down. From early April until early May, dressed fed cattle prices declined nearly 20%. It wasn’t until July that processing capacity mostly recovered, and beef and pork production recovered accordingly.

One side effect of the backlog of animals was heavier animals coming to market, which pushed beef and pork production above 2019 levels throughout the back half of the summer, even though the number of animals that could be processed in the new socially distanced plants stayed slightly below year-ago numbers.

The decline in beef and pork production combined with retailers’ increased purchasing pushed boxed beef cutout values to never-before-seen highs. From late February lows to mid-May highs, the daily boxed beef cutout increased more than 130%, putting

any other historical increase to shame. The pork cutout also increased substantially, but mostly remained below the sky high levels experienced in 2014 as a result of a different virus decimating the nation’s hog herd.

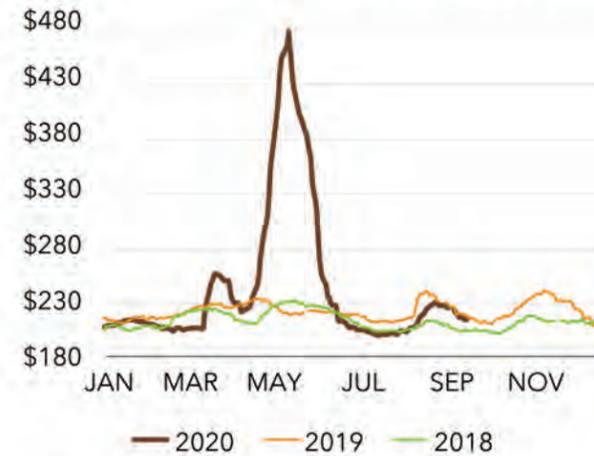


This historically high cutout combined with declining fed cattle prices created historical spreads that favored packers. From early April to mid-May, the live-to-cutout spread nearly quadrupled, increasing from \$481 per 1,000 lbs. of steer to \$1,839 per 1,000 lbs. of steer. This historic increase, like the increase in the beef cutout, dwarfed any past increases.

While the live-to-cutout spread typically provides a good measure of the overall health of packer margins, the uncertainty surrounding this situation makes that incredibly difficult to gauge. Processing plants' new COVID-19 safety measures add a cost that is not included in the spread. There is no way to know the exact cost without getting a look at the processing companies' internal information, but one

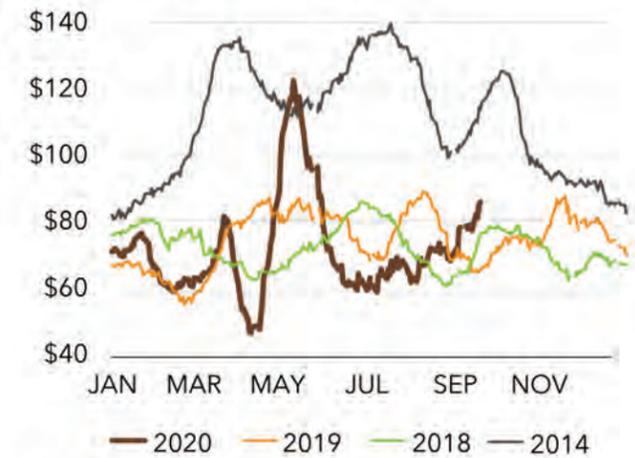
can infer that the cost of protective gear, increased sick leave, increased bonuses and increased incentive pay are very high for these businesses. Additionally, while a plant may be profitable while operating at 90%-100% capacity, that may not hold true at 50% capacity, even with record-breaking spreads. The fixed costs associated with operating a plant come in many forms, including massive asset investment costs and large regulatory costs. The companies normally spread those costs over many animals when operating at or near full capacity, but when capacity is reduced significantly, the ability to operate profitably declines as they spread these fixed costs over fewer animals. That being said, these levels reveal that processing margins were likely very healthy for many plants.

DAILY CHOICE BOXED BEEF COUTOUT



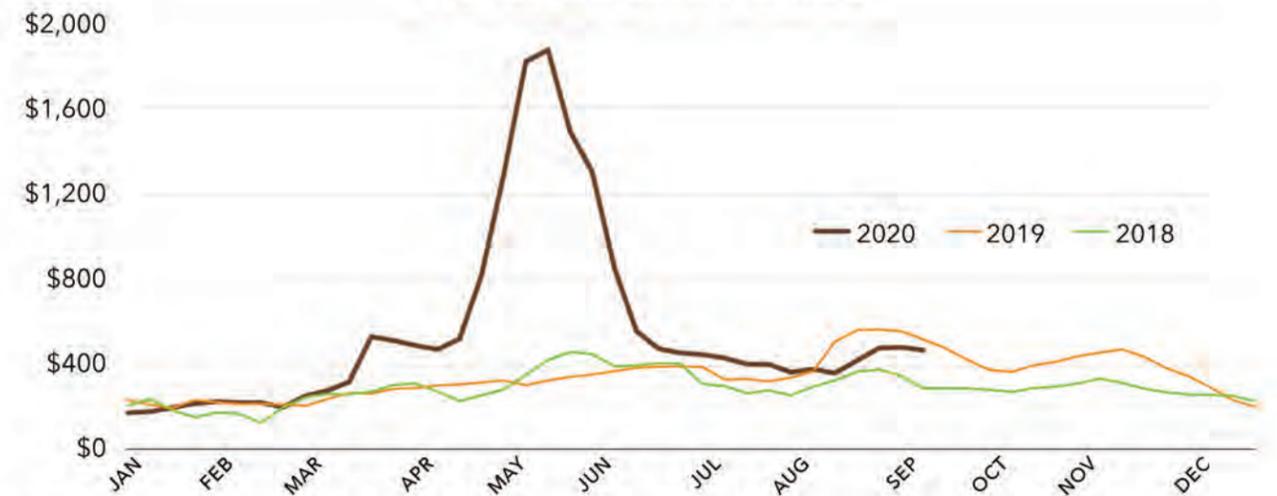
Source: USDA AMS, LMIC, Farm Bureau Analysis
Note: Data as of 9/18/20

DAILY PORK CUTOUT



Source: USDA AMS, LMIC, Farm Bureau Analysis
Note: Data as of 9/18/20

BEEF LIVE-TO-CUTOUT SPREAD



Source: USDA AMS, LMIC, Farm Bureau Analysis
Note: Not actual margins, not including labor, overhead, increased COVID costs, etc
Note: Data as of 9/18/20



A Slow Return to a New Normal

As the rest of the summer passed, slaughter capacity largely recovered to near-normal levels -- more quickly than most anticipated. The livestock supply chain has worked hard to clear the backlog of animals in the system, but there is still some work to be done before feedyards are fully current. Fed cattle slaughter has settled around 95% of full capacity, but this may be the most that the industry can accomplish given the measures put in place at facilities to combat the spread of COVID-19. Hog slaughter is above 2019 levels and mostly in line with its pre-COVID-19 trajectory. Maintaining these higher slaughter levels will be critical to working through the backlog of animals. This is particularly true of the pork complex, as previous USDA hog and

pig reports indicate a larger volume of animals in the pipeline for later in the summer, meaning there may not be much room at slaughter facilities to clear additional processing backups.

The breeding decisions that resulted in this larger volume were made long before the impacts of COVID-19 could be imagined. As cattle supplies tighten, feeders should regain some leverage in their weekly negotiations with packers and we could see a rise in cash cattle prices. Weights remain above historical levels, but the gap between last year and this year is expected to decline in the coming weeks as the backlog is taken care of. The increase in beef production from heavier animals will help to offset the capacity-induced early summer decline. Overall, for 2020, we may see a relatively small decline

in beef production for the year. Feedyards are exhibiting some optimism, with large July placements reported in August's Cattle on Feed report. We will likely see large placements for the month of August as well. Though the demand picture is brighter than it was earlier in the summer, challenges loom -- particularly uncertainty in the food service sector's recovery and the economic recession, an event that is rarely kind to the demand of an economic luxury such as beef and some other animal proteins.

Similar to after the packing plant fire, many at the producer and retail level were frustrated with the magnitude of the price impacts following the onset of COVID-19 and concerned about potential manipulative behavior on the part of the packing industry.

Again, USDA took notice and announced they would be rolling their packing plant fire investigation into a new investigation into any behavior surrounding the COVID-19 emergency. In late July, [USDA released a report compiled](#) by AMS and the office of the chief economist. Much of the report focused on explaining the market reactions to both the fire and COVID-19 from an economic perspective. However, the report also delves into some of the solutions that have been discussed widely by industry in the aftermath of these events. The report notes that at the core of many of these discussions is the desire for improved price discovery, reinvigorated competition and a more transparent relationship between the prices for cattle and their further processed products.



TOPICS OF DISCUSSION AND WORKING GROUP CONSENSUS

Over the course of the working group's discussions, numerous relevant topics were extensively debated. The following is a short summary of the many key topics of discussion and the group's consensus on each. Various states have a diversity of opinion on these issues and this document reflects a general consensus of the group, not the opinion of every state that participated in the discussions.

Mandatory Minimum Negotiated Trade:

American Farm Bureau Federation staff outlined mandatory minimum negotiated trade early in the COVID-19 pandemic in a three-page white paper as well as a [Market Intel article](#). In recent months, there have been many conversations about how cattle are and should be marketed in the U.S. Some discussion has focused on the optimal level of cattle transactions through certain marketing channels to facilitate greater price discovery. It is important to understand that types of transactions vary by regional market. Negotiated trade is more common in certain states, such as Nebraska, where the negotiated percentage has ranged from 30-60% in recent years. Other states typically have very little negotiated trade. In Texas and Oklahoma, for example, negotiated trade accounts for only 5-8% of cattle transactions. These discrepancies between regions contrast with the national picture, where negotiated trade hovers around 20-23%.

To maintain producers' freedom to enter into progressive, value-added cattle pricing

arrangements and contracts, current AFBF policy put in place by our voting delegates opposes a mandatory minimum for negotiated cattle slaughter. Mandates on negotiated cash trade ultimately limit the use of alternative marketing agreements. While more negotiated trade would further bolster price discovery, a minimum negotiated trade threshold would require the federal government to monitor and maintain the minimum, inviting further government intrusion into the industry. Additional regulation may not solve the problems as intended and could potentially result in negative consequences. A key point to remember when discussing the optimal level of negotiated transactions is that PRICE DISCOVERY is not the same as PRICE DETERMINATION. While enhanced price discovery is a good thing, it does not necessarily mean it will result in higher prices (as many proponents of minimum thresholds contend). Mandatory minimum negotiated trade could potentially inhibit a producer's ability to enter into AMAs, which are typically a premium paid above market value. Current AFBF policy does not endorse a mandatory minimum negotiated trade.

However, a "triggered"-style mandatory minimum was discussed, that is set on a region-by-region basis, at various and fluctuating levels to be determined regionally including input from state Farm Bureau members. Any new policy should be mindful to not cause unintended negative consequences to cow/calf producers or to cause additional government interference in our markets ([Recent research on minimum negotiated levels](#)). Additionally, an area of improvement could be for mandatory price reporting to go beyond the current confidentiality limits to provide further transparency in the marketplace.

Risk Management and Education:

A resounding theme in almost every topic of the working group's discussions was "risk management." Whether it be hedging cattle in the futures market or an insurance product, the lack of risk management tools used by smaller cattle and hog producers is concerning. The working group feels that more robust education around risk management and how it increases a livestock operation's viability during turbulent times is important. The working group also feels more risk management tools in various sizes that could help all producers need to be developed. The working group showed interest in having AFBF explore opportunities with the Chicago Mercantile Exchange to better address these concerns.

Other areas of discussion surrounding risk management included but were not limited to:

- Internet based platforms for auctions to provide transparent market information
- Boxed beef contract on the CME may provide additional risk management opportunities
- Changes to risk management options both on the CME and through other private providers to make them more accessible to smaller producers.

Additionally, the working group feels that existing risk management tools, such as the Livestock Risk Protection crop insurance tool, could be adjusted to make them more attractive and affordable for producers, especially smaller producers. Simply put, risk management tools work when utilized and should be used as part of a producer's business.

Small Capacity Meat Packing:

In the middle of COVID-19, meat counters across the country were empty. The packing industry was shuttered due to worker outbreaks in the plants, and consumers stocked up in fear of the pandemic's impact on the meat supply. All of these factors considered, it became glaringly apparent that the current meat supply chain is intended for "just-in-time" delivery. Regardless of the level of disruption, we saw major impacts. Policy options are needed that would allow for Farm Bureau to be at the table for discussions related to allowing smaller sized packing facilities to play a larger role in the supply chain while at the same time maintaining high food safety standards. Cooperative Interstate Shipment Agreements could potentially be beneficial as an option to some states. Incentives are needed in helping smaller packing plants to become FSIS inspected, as well as for additional FSIS inspectors and to help increase the role that innovative technology plays in the meat inspection process.

AFBF supports the following bills relative to Small Capacity Meat Packing:

- [RAMP UP Act](#)
- [DIRECT Act](#)
- [Small Packer Overtime and Holiday Fee Relief for COVID-19 Act of 2020](#)

GIPSA:

Farm Bureau believes in the need for robust enforcement through GIPSA and supports strengthening the agency's ability to crack down on those who don't play fairly in the market. AFBF currently has strong GIPSA enforcement policy, as acknowledged by the working group. The working group recognizes the need to continue to advocate for these strong policy positions to make sure the markets are fair.

COMMITTEE MEMBERS:

Committee Chairman Scott VanderWal, South Dakota
Stefanie Smallhouse, Arizona
Craig Hill, Iowa
Richard Felts, Kansas
Mark Haney, Kentucky

Mike McCormick, Mississippi
Hans McPherson, Montana
Steve Nelson, Nebraska
David Fisher, New York
Russell Boening, Texas

GUEST SPEAKERS:

Shawna Newsome, Chief of Staff,
USDA's Food Safety and Inspection Service
Katie Zenk, Professional Staff,
House Ag. Committee Chairman Collin Peterson
Dr. David Anderson, Professor and Extension
Economist, Department of Agricultural
Economics, Texas A&M University
Dr. John Newton, Chief Economist,
American Farm Bureau Federation
Dr. Stephen Koontz, Professor,
Department of Agricultural and Resource
Economics, Colorado State University
Jarrod Gillig, VP of Operations,
Cargill Protein Division

Jess Peterson, U.S. Cattlemen's Association
Ethan Lane, VP of Government Affairs,
National Cattlemen's Beef Association
Kate Miller, Chief Operating Officer,
Fort Worth Meatpackers
Under Secretary Greg Ibach, USDA's Agricultural
Marketing Service (via TXFB webinar)
Heath Tarbert, Commodity Futures Trading
Commission Chairman (via Council of Presidents)
Forrest Roberts and **Surcy Peoples**,
Central Stockyards
Mike Lynch, Director, USDA-AMS Livestock,
Poultry, & Grain Market News Division

For questions involving this report or the **CATTLE MARKET WORKING GROUP**, please contact:

SCOTT BENNETT

Director, Congressional Relations
scottb@fb.org

MICHAEL NEPVEUX

Economist
michaeln@fb.org