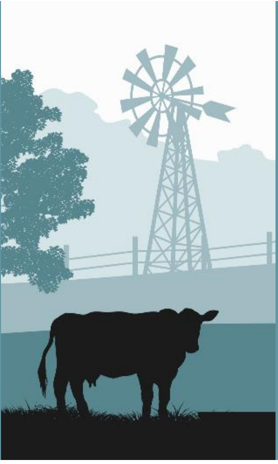


# Cattle Markets, Price Discovery, and Emerging Issues

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## A Summary of COVID-19 Impacts on Beef and Cattle Markets


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One of many factors that make the U.S. cattle and beef industry an extremely complex set of markets is the disassembly of the beef animal into thousands of different products. These products are sold in a vast array of final markets including retail grocery, food service and exports. In the U.S., food expenditures prior to COVID-19 consisted of two market channels, roughly equal in size: food service, representing 54 percent of expenditures, and retail grocery, representing 46 percent of expenditures.

The combination of food service disruptions and supply reductions in 2020 led to a 16.9 percent year over year reduction in food away from home (food service) expenditures and dropped food service to a 48 percent share of total food expenditures. Food at home (retail grocery) expenditures increased 8.5 percent year over year in 2020, resulting in a 52 percent share of total food expenditures. Not since 2008 had retail grocery expenditures exceeded food service expenditures. Overall, food expenditures decreased 5.4 percent in 2020 compared to 2019. The unprecedented impacts of COVID-19 revealed to producers, processors and consumers, efficiencies as well as vulnerabilities of beef industry supply chains.

The first wave of impacts, which began in mid-March 2020, resulted from the near total shutdown of food service. Abruptly, food demand at retail grocery nearly doubled. The surge in retail grocery demand was further aggravated by panic buying as consumers attempted to stockpile food at home. Retail grocery demand quickly overwhelmed the retail grocery supply chain resulting in localized and temporary shortages in retail stores. There was no actual shortage of product during the first month of the shutdown, but rather bottlenecks in the supply chains. Food service supply chains are not equipped to provide food products with the correct sizes, packaging, and labels for retail markets.

The second wave of initial pandemic impacts began in April 2020 when COVID-19 affected the labor force of harvest and processing installations and severely reduced output. Never have so many packing and processing plants been affected simultaneously by reductions in capacity. Some harvesting plants completely shut down for up to two weeks and others curtailed output due to labor force reductions. This reduction in beef production resulted in real, though temporary, shortages of product that looked to many consumers like more of the same conditions as the initial shutdown in March and early April. The beef supply disruptions were exaggerated by the continuing limitations in the food service sector, and the added demand continued to stress the retail grocery supply chain. Over several weeks, additional adjustments were made to help food service supply chains support retail grocery, including more bulk packaging and, in some cases, temporary exemptions from some labeling requirements.

Beef product markets reacted variably depending on the nature of product demands. In general, prices on end meat products from the chuck and round increased immediately in March 2020 in response to the food service shutdown as these products are heavily used for ground beef in retail grocery. Prices of middle meat products used largely in food service decreased. Wholesale prices for ribeye decreased and beef tenderloin prices dropped to a record low in the initial phase of food service shutdown. Though demand for ground beef at retail grocery was record high, prices for 50 percent lean trimmings (used for food service ground beef) dropped to 18-year lows in early April before spiking to record highs just five weeks later. Eventually, prices for all beef products rose as the reduction in cattle slaughter and beef production reduced overall supplies of all products.

The reductions in packing plant operations effectively cleaved beef product markets from cattle markets for several weeks. During this period, beef product markets generally moved in opposite directions from fed cattle markets. The lack of packing capacity created beef shortages that led to immediate and dramatic wholesale and retail price spikes for beef products while that same lack of packing capacity created an immediate excess supply of fed cattle relative to packer demand and led to lower fed cattle prices.

Reduced cattle slaughter in April and May 2020 resulted in a marketing backlog of fed cattle that took many weeks over the summer and fall to work through. No cattle were depopulated and delayed feedlot marketings resulted in excess supplies of fed cattle that pushed fed cattle price lower into July before recovering into the fall. Delayed fed cattle slaughter resulted in heavier carcass weights, higher quality grading percentages and other lingering impacts on beef supplies and product mixes.

The biggest direct impact of COVID-19 in 2021 was on fed cattle markets. In 2020, feedlot placements were delayed in March and April, followed by higher placements in June through September. These delayed placements resulted in a bulge in feedlot inventories and pushed the cyclical peak in market-ready fed cattle into 2021. By itself, this placement backlog would not have caused major problems, but the beef packing industry faces ongoing capacity constraints that are the result of long-term downsizing of the packing industry combined with chronic labor challenges (aggravated by continuing COVID-19 impacts). The result, through much of 2021, was, once again, a physical disconnect between the demand for beef products and the demand for fed cattle. With limited packing capacity, the supply of fed cattle exceeded packing demand and held fed cattle prices down relative to beef markets. In November 2021, fed cattle prices finally jumped sharply indicating that fed cattle numbers had dropped to a level that put packers in a position of competing more aggressively for slaughter numbers.

COVID-19 revealed both strengths and weaknesses in beef supply chains. It also revealed much about market economics. Under normal, stable market conditions, markets coordinate resource and product allocation with such efficiency and subtly as to be largely unrecognized. Only in the face of abrupt and unexpected shocks are the reactions of markets to rebalance and restore equilibrium revealed. Freely operating markets react with dramatic, sometimes surprising and confusing, responses to a massive and unprecedented shock such as COVID-19. Consumers, producers, companies, and policymakers all learned much about how beef supply chains and the market-based economy works as a result of COVID-19.