

Iowa Farm Outlook

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Sizing Up Long-Term Beef Prospects

We spend a lot of time focusing on the market price implications of short term supply and demand conditions. We have to. If you can't stay in business in the short run, you won't be in business in the long run. Still, it's wise to occasionally step back and take a longer term perspective, not only where we have been, but also what factors will carry us forward.

Long-term forecasts are important considerations in the timing of decisions on facility improvements, new facility construction, or general expansion of the cattle operation. For example, producers might strive to plan investment in new facilities or in facility expansion so that the initial new output flow coincides as closely as possible with the price upturn phase of a cattle cycle.

Similarly, investment in packing facilities involves long-term commitments of funds. A new packing plant would be expected to have a useful life of decades. Therefore, packers need long-term projections of the relevant variables to evaluate the profitability of a new packing facility.

The packing industry is supply oriented in the sense that slaughter plants rely on a readily available supply of cattle. If this flow became sharply curtailed for some reason, plant efficiency would immediately decline and permanent plant closures could result. Long-term supply and demand projections are important to packing firms when planning to expand their facilities, or to prospective entrants into the industry.

USDA provides long-term forecasts for crop and livestock commodities, agricultural trade, and aggregate indicators. On November 2, 2018 USDA released selected tables prepared for the upcoming USDA Agricultural Projections to 2028 report. The complete report will be released in February 2019.

The report summarizes supply and demand flows in supply and utilization tables, often called balance sheets. A balance sheet generally includes supply components as: Beginning Stocks + Imports + Production = Total Supply. Utilization includes demand components as: Exports + Total Domestic Use + Ending Stocks = Total Utilization. For some commodities, use may be disaggregated into several use categories. For beef, total use is not directly measured and thus is calculated as Total Disappearance from other balance sheet categories.

The USDA beef balance sheet projects beef total supply for 2019 at 31.758 billion pounds including beginning stocks of 685 million pounds, total production of 27.973 billion pounds and imports of 3.1 billion pounds. In contrast to grain markets, beginning and ending stocks of beef are minor (2019 beginning stocks would be 2.2% of total supply) because the perishable nature of meat precludes large carryover from year to year. Beginning and ending stocks consist of cold storage holdings plus short-term pipeline supplies of beef in wholesale and retail markets.

Beef use in 2019 is estimated as exports of 3.245 billion pounds, total disappearance of 27.823 billion pounds, and ending stocks of 690 million pounds. This level of total disappearance is equivalent to domestic per capita beef consumption of 58.8 pounds (retail basis).

Compared to the projected 2019 beef balance sheet, forecasted 2028 values show beginning stocks down by 8.8%, total production which includes commercial production plus a minor amount of farm production up by 6.2%, and imports up by 3.9%, all leading to total supply up 5.6%. On the demand side, exports are projected

up 5.1% (Table 1), total disappearance up 6.1%, and ending stocks down 9.4%. Per capita consumption in 2028 is forecasted to decline to 58.4 pounds, down 0.4 pounds or 0.7% from 2019 (Table 2).

Table 1. U.S. Red Meat and Poultry Exports

| Calendar year | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2028 | %Δ '19-'23 | %Δ '19-'28 |
|------------------|--------|--------|--------|--------|--------|--------|--------|------------|------------|
| (Million Pounds) | | | | | | | | | |
| Beef | 3,164 | 3,245 | 3,283 | 3,342 | 3,322 | 3,329 | 3,410 | 2.6% | 5.1% |
| Pork | 5,989 | 6,200 | 6,350 | 6,380 | 6,400 | 6,450 | 6,800 | 4.0% | 9.7% |
| Broiler | 6,869 | 7,045 | 7,150 | 7,250 | 7,350 | 7,450 | 7,675 | 5.7% | 8.9% |
| Turkey | 595 | 585 | 598 | 599 | 599 | 598 | 608 | 2.2% | 3.9% |
| Sum | 16,617 | 17,075 | 17,381 | 17,571 | 17,671 | 17,827 | 18,493 | 4.4% | 8.3% |

Source: USDA November 2018 Long-term projections to 2028.

Table 2. U.S. Per Capita Meat Consumption

| Calendar year | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2028 | %Δ '19-'23 | %Δ '19-'28 |
|---------------|-------|-------|-------|-------|-------|-------|-------|------------|------------|
| (Pounds) | | | | | | | | | |
| Beef | 57.2 | 58.8 | 59.7 | 59.2 | 58.8 | 58.8 | 58.4 | 0.0% | -0.7% |
| Pork | 50.8 | 53.1 | 53.4 | 53.5 | 53.8 | 53.9 | 54.3 | 1.5% | 2.3% |
| Broiler | 93.8 | 94.7 | 95.0 | 95.3 | 95.4 | 95.5 | 95.7 | 0.8% | 1.1% |
| Turkey | 16.2 | 16.4 | 16.2 | 16.1 | 16.0 | 15.8 | 15.5 | -3.7% | -5.5% |
| Sum | 218.0 | 223.0 | 224.3 | 224.1 | 224.0 | 224.0 | 223.9 | 0.4% | 0.4% |

Source: USDA November 2018 Long-term projections to 2028.

The limited 10-year forecasted change in per capita consumption is telling. It suggests that growing per capita beef consumption beyond current levels will be very difficult without a dramatic reduction of price. No price collapse is forecasted. However, price levels that would substantially boost per capita consumption would likely not be financially sustainable. What the forecasts imply, and a realistic goal, is holding beef's share of the domestic protein market relatively steady, while looking for opportunities to grow demand.

Per capita consumption is entirely a supply statistic. It imparts no information about prices, tastes and preferences, and other factors that ultimately determine how much beef individual consumers will choose to buy and consume. Demand, on the other hand, effectively refers to the quantity of beef that consumers will purchase at a given price, with all other factors held constant. Demand strength reflects consumer valuation of beef which underlies total dollars available for the industry and drives prices and profitability for all sectors in the industry.

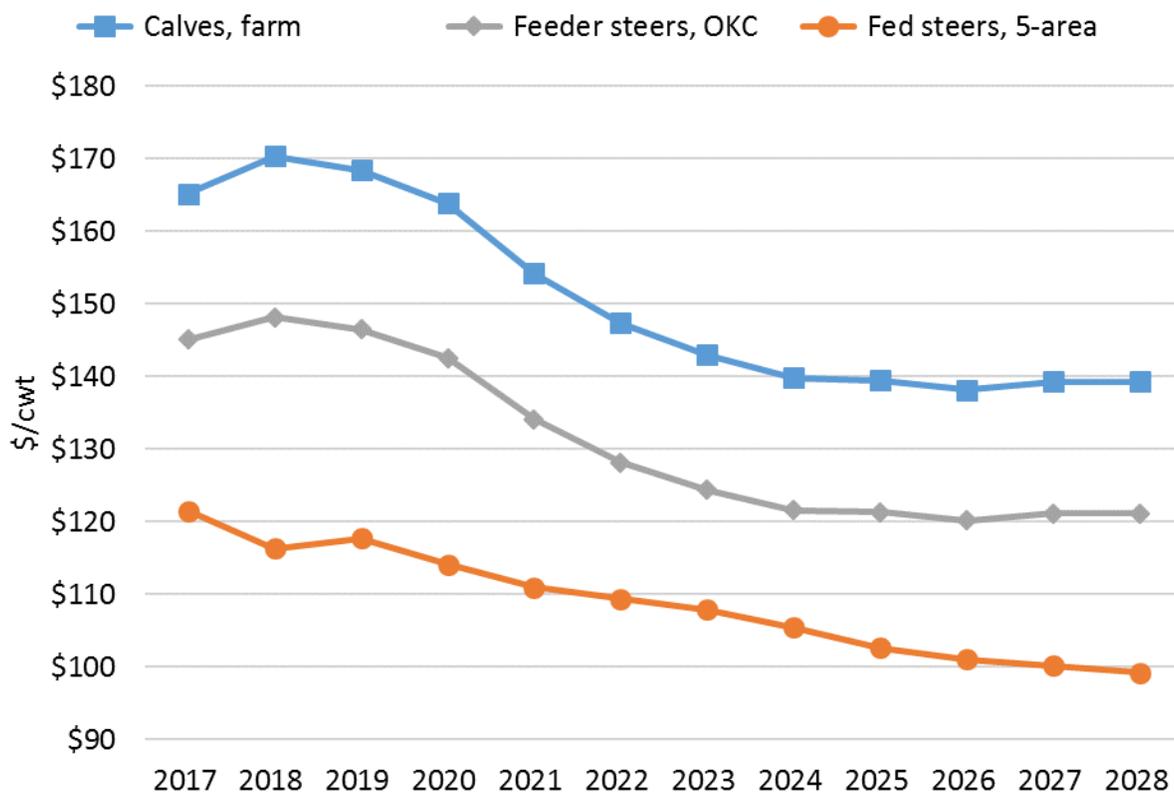
Consumer demand for beef is influenced by many customary demand factors, including consumer expenditures and prices for beef and competing goods. In addition, there are several non-price demand drivers such as food safety, health and nutrition, and convenience. Developing and marketing convenient-to-prepare beef products that meet consumer nutrition, taste, and food safety needs will continue to pay dividends for the beef industry.

Active export market development has permitted beef producers to boost production at a faster rate than domestic consumption. That trend will likely continue. Further trade liberalization of key customary and emerging markets would benefit the U.S. beef industry, but also benefit export competitors. Expect export markets to be strongly contested in the future years.

The United States, primarily a grain finished exporter, is the fourth largest exporter behind Brazil, India, and Australia, which largely ship grass-finished cattle. Most U.S. beef is not the lowest cost to produce, a pound of grass-finished beef can typically be produced cheaper. The United States is a leader in processing and packing, technology, safety, meat quality, and an extensive transportation system. There is always room to improve all of these and more, but in relation to our key competitors, these are all advantages.

The price of cattle is determined by the interaction of these underlying supply and demand conditions. Fed steer prices are projected to decline through the next decade as production rises (Figure 1). Feeder steer and calf prices are anticipated to drop over much of the projection period before leveling out and increasing at the end of the period, possibly signaling a price upturn for the market.

Figure 1. USDA Beef Cattle Price Projections to 2028



Source: USDA November 2018 Long-term projections to 2028.

Balance sheet estimates change. Balance sheet projections and forecasts are revised regularly to reflect new information and changing market conditions. Of course, supply or demand shocks such as major drought impacts, trade altering policies, or other factors may appear unexpectedly at any time.

Lee Schulz

The Challenge of Finding New Markets

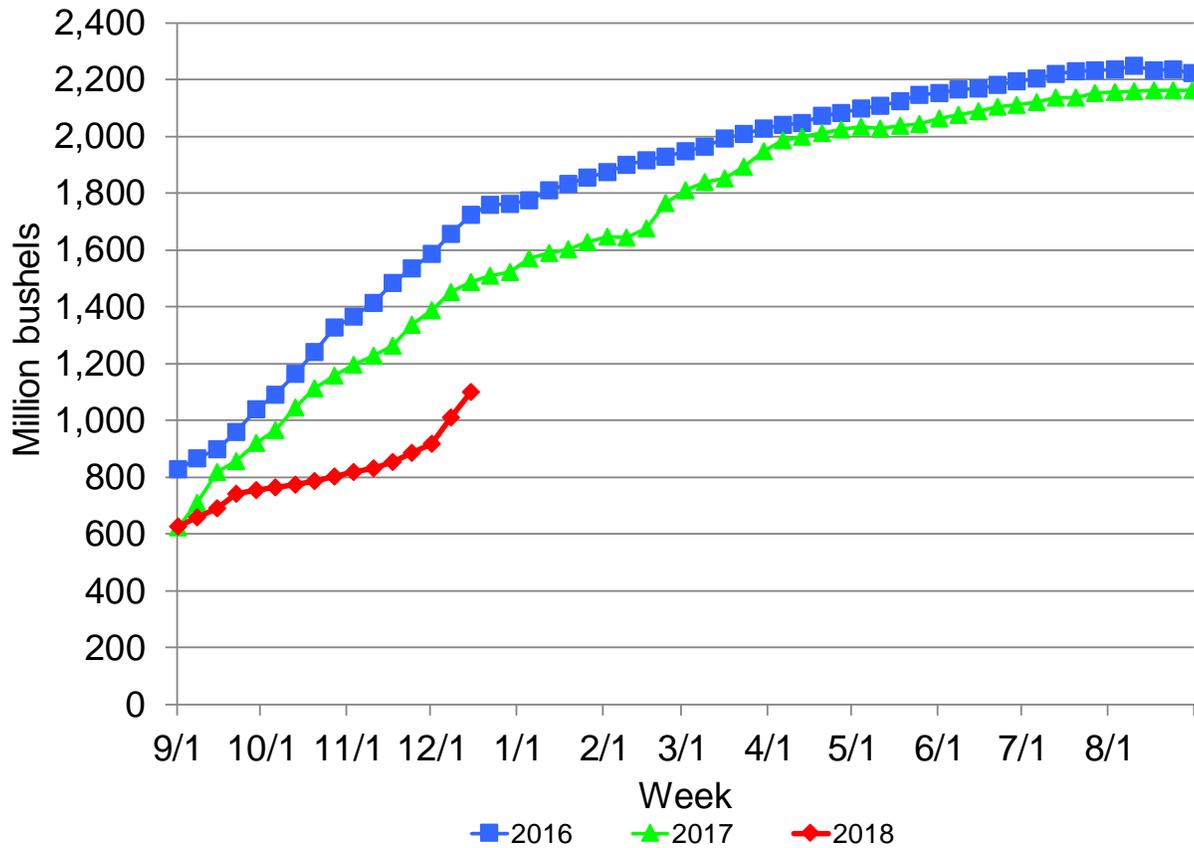
The U.S.-China trade dispute has brought into sharp relief the issues that occur when one country dominates the trade flows for individual commodities. When the tariffs hit the soybean market, the impact was substantial and the global market for soybeans is still being reshaped today, months after the imposition of the border taxes. Prior to the tariffs, China was the overwhelming destination for U.S. soybeans moving out of the country. Roughly one out of every three soybeans produced in the U.S. was headed that way. The tariffs drastically curtailed Chinese soybean purchases from the U.S. And now, while China is still our 3rd largest market for soybean exports, the search for replacement homes for those soybeans once headed there continues.

The government shutdown came at an inopportune time for the soybean market. Presidents Xi and Trump had recently announced a “trade truce” between the two countries and there were signals that China would purchase U.S. soybeans as a “good faith” gesture during the resulting trade talks. However, with the delay in USDA’s export reports, confirmation of any export sales or shipments was lacking. The reopening of the government has revived the export reports. While there is some evidence of some sales to China in mid-December (after the truce announcement), the pace of those sales was just enough to maintain the size of the hole in the Chinese

markets from the tariffs, as we started December with a 750 million bushel decline in soybean export sales to China and are still there based on the latest report.

As Figure 1 shows, the last couple of weekly export reports have included a significant upturn in soybean export sales. China was the major driver behind that upturn. But overall export pace remains well below last year's levels. With Chinese sales down 750 million bushels, the total sales picture is weaker. Last year at this time, we had soybean export sales of 1.48 billion bushels. This year, the number is 1.1 billion bushels. But as the graph shows, the total gap compared to last year is roughly 380 million bushels, as other countries have stepped in to purchase approximately half of the soybeans that used to go to China. One of the longer-term questions for U.S. soybean producers as we move forward will be whether we can continue to grow these other markets, while working to recapture some of the flows to China.

Figure 1. Soybean export sales (Source: USDA-FAS).

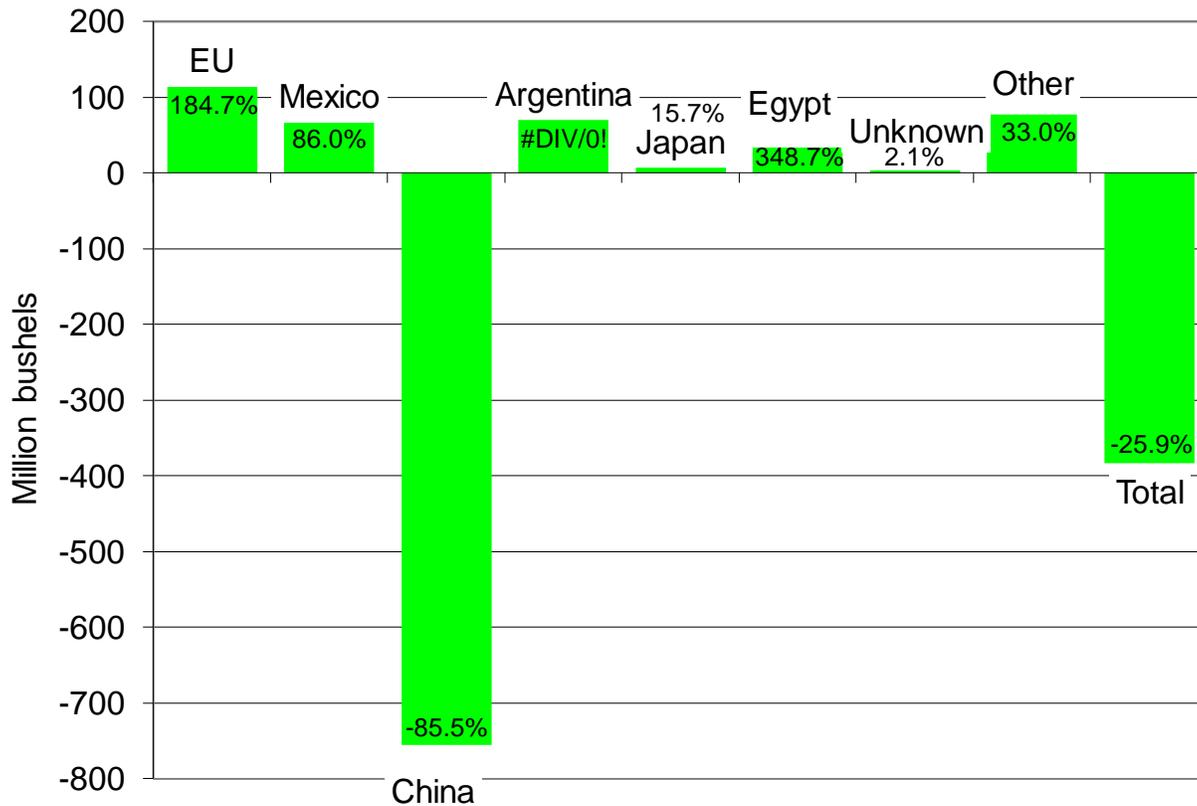


When we look at the changes in export sales to our largest current markets, it's a mix of old and new customers. The European Union, Mexico, and Japan have been large purchasers of soybeans in the past. Despite issues over genetically modified crops in the past, the European Union has purchased nearly three times as many soybeans from the U.S. this year when compared to last year. Mexico has nearly doubled purchases, while Japan has increased 16 percent. On the other hand, we have seen some new customers ramp up purchases as well. With China draining the South American soybean markets after the tariffs were implemented, Argentina had to backfill some of its soybean needs for its crushing facilities. By buying 70 million bushels, Argentina has temporarily become our 4th largest soybean export market for the year. Egypt has more than quadrupled soybean purchases from the U.S.

But a significant portion of the growth has occurred across a number of smaller soybean markets. Over the past two years, the U.S. has sold soybeans to 43 countries and regions. Last year, soybean shipments went out to 34 countries. So far this year, sales have been made to 41 countries. Looking across those 43 countries, U.S. soybean sales are higher in 31 countries and lower in the remaining 12 countries. From last year's customers, only Guatemala and Venezuela have not purchased any U.S. soybeans. And we have added 8 new countries on

the soybean sales list: Argentina, Chile, the Dominican Republic, Georgia, Iran, Nepal, New Guinea, and Nigeria. While some of these markets will disappear, for example Argentina, others could turn into longer-run trading partners for U.S. soybeans.

Figure 2. Soybean export shifts (Source: USDA-FAS).



As noted earlier, Chinese purchases are down 750 million bushels. The gains in these other markets have filled in roughly half of that loss. The European Union has bought 114 million more bushels. Argentina grabbed 70 million bushels. Mexico increased soybean purchases by 66 million bushels. Egypt obtained 33 million more bushels. Iran bought 19 million bushels. And Canada took 17 million more bushels. Given our strong reliance on China in the soybean market, it is taking many other markets to fill the void.

The trade gap is the biggest challenge to the soybean industry for 2019. Along with growing additional markets for direct export, the U.S. soybean industry has looked to other ways to utilize more soybeans. Domestic crush has risen since the tariff imposition and soybean meal exports have increased. In total, meal exports have increased by 15 percent with the European Union, Colombia, and the Dominican Republic leading the charge. Continued growth in the livestock industries is also helping work through the large soybean supplies.

But as USDA indicated with its first outline for the 2019 crop year, the challenges in trade will likely lead to a reduction in soybean plantings. The size of that reduction will depend on the ability of the U.S. to hold on most of these new and/or growing markets and the ongoing negotiations with China. Crop insurance prices are set in February and they often give us a preview of the economic factors shifting acreage. For soybeans right now, the projected insurance price is running roughly 60 cents below last year's guarantee. For comparison, corn's projected insurance price is slightly higher than last year's guarantee. Soybeans will need a trade boost to head off a significant loss of area.

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