

COVID-19 Impacts on Arkansas' Agricultural and Rural Economies

**UPDATE: *World Agricultural Supply and
Demand Estimates* Projections for the
Broiler Industry**

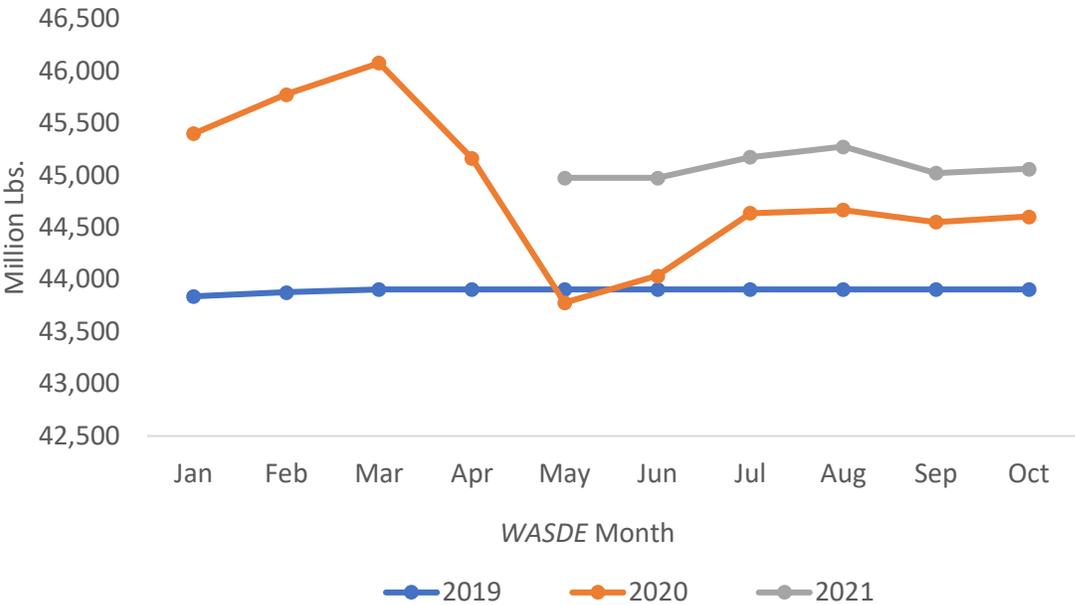
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On October 9, USDA World Agricultural Outlook Board released the *World Agricultural Supply and Demand Estimates (WASDE)* report for October. With three quarters of relatively complete data now available, the impact of COVID on agricultural markets in 2020 is coming into sharper focus. Also, the report continues to refine projections for 2021, providing a prospective look at how COVID effects may linger in key markets.

The impact of COVID-19 on the broiler industry has been significant, of course; and it appears increasingly unlikely that the industry will fully recover even next year. The impacts of COVID-19 on chicken production have been widely discussed. Processing plant disruptions in the second quarter of the year sharply reduced production in the short run. Beyond those short-term disruptions, though, more complex factors related to COVID-19 have altered longer-term production expectations. These factors include the supply-side effects of changes in production and processing operations in response to COVID-19 as well as demand-side effects related to the economic disruptions resulting from COVID-19 (including continued sluggish demand from the food service sector). Monthly *WASDE* projections allow us to trace the evolution of expectations in the market as the pandemic has unfolded. Figure 1 shows estimates of annual broiler (chicken) production for 2019, 2020, and 2021 (beginning in May) from each of this year’s monthly *WASDE* reports.



Data Source: USDA Office of the Chief Economist, World Agricultural Outlook Board.

Figure 1. Annual Broiler Production Estimates for 2019-2021 from Monthly *World Agricultural Supply and Demand Estimates (WASDE)* Reports in 2020

Expectations for 2020’s production peaked in March following several weeks of strong production during the stockpiling/panic buying phase of the pandemic. To be sure, even before the pandemic had begun to affect markets (going back into late-2019), expectations were for robust growth in chicken production due to favorable market conditions. By March, the *WASDE* report was projecting 4.9% year-over-year growth in broiler production. That collapsed to expectations for a slight (<1%) decline in production by May as processing plant disruptions led to unprecedented

uncertainty about production plans for the second half of 2020. As broiler production has rebounded since June, expectations for 2020 production have stabilized at about 1.5% above 2019's production. It is remarkable that the industry appears set to manage a modest increase in production given the magnitude of the 2020 market shock. Still, current expectations are over 3% lower than in March, illustrating the significant negative impact of the pandemic on the supply side of the market.

The price impacts of the pandemic are probably even more significant for the broiler industry than the production disruptions. In 2019, broiler wholesale prices averaged 88.6 cents/pound according to the *WASDE* report. At the beginning of 2020, expectations were for prices to slip just a bit (around 2% or so) in the face of increasing production. As the pandemic unfolded, though, price expectations deteriorated dramatically. The latest *WASDE* report projects a 2020 average broiler price of 70.8 cents/pound, a decline of about 20% compared to the prior year.

This sharp decline in price along with a modest annual increase in production represents a significant decline in value for the broiler sector. The October *WASDE* projects 2020 annual broiler production of 44.6 billion pounds (up 1.6% from 2019) and an average annual wholesale broiler price of 70.8 cents/pound. This implies a wholesale value of production of \$31.6 billion – down almost 19% from 2019's wholesale value of production of \$38.9 billion.

Current expectations as reflected in October *WASDE* projections are for a relatively slow recovery for the sector. The current projection for 2021 production is 45.06 billion pounds (up 1% from 2020) and average wholesale price of 79 cents/pound (up 12% from last year). This works out to an expected wholesale value of production of \$35.6 billion: a significant recovery from 2020 but still 8.5% below 2019.

It is worth pointing out that the year-over-year gain in production for 2020 and 2021 of 1.6% and 1.0%, respectively, represent historically rather small changes in production for the broiler sector. Over the past twenty years, the broiler industry has averaged about 2% annual growth in production. If current projections hold, 2020-2021 will witness the slowest two-year growth in broiler production since 2012-2013, when the industry faced record-breaking corn prices.

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