

The Agriculture Letter

Insight and Analysis for Agribusiness Leaders

• Vol. 92, No. 16

Dear Client:

Washington, July 30, 2021

How can USDA estimates, forecasts be improved?
We asked readers and others for their input...

USDA
FORECASTS

Many are quick to criticize USDA's efforts to estimate U.S. and global crops, stocks, usage, etc., but suggestions for real-time improvement are often limited. We examined legitimate questions the market has about USDA data and offer some suggestions for improvement, based on our aforementioned discussions.

Different functions of WAOB, NASS. Within USDA, there are multiple branches responsible for different functions. The World Agricultural Outlook Board (WAOB) produces the monthly World Agricultural Supply and Demand Estimates (WASDE)... its domestic and global "balance sheets." To do so, WAOB manages a system of Interagency Commodity Estimating Committees (ICECs). WAOB senior commodity analysts chair the ICECs that are comprised of reps from key USDA agencies, including the Economic Research Service (ERS), Foreign Agricultural Service (FAS) and the Farm Service Agency (FSA).

National Agricultural Statistics Service (NASS) is responsible for U.S. crop and livestock estimates. Besides those survey-based estimates, NASS also conducts the U.S. Census of Agriculture every five years.

Issues regarding NASS's survey methods include a trend of declining NASS survey responses by farmer participants, and some say growing inaccuracy of some farmer responses. For most crops, NASS production estimates are based on data collected from farm operations via grower survey responses. Declining survey response impacts more localized or regional estimates first, particularly county-level estimates... including farm program payments.

Analysis of NASS data suggests it is both objective and trustworthy; however, market price reactions to NASS estimates have increased in recent years.

WAOB's balance sheets are more subjective... it relies on ERS for domestic and foreign regional assessments, NASS for U.S. crop and livestock estimates, FSA for farm policy input and the Agricultural Marketing Service for domestic market information. The vast network of USDA attachés is another source of information.

Some statistic-based monthly industrial reports are also incorporated, as they provide info on the level of corn used to make ethanol and soybeans crushed for soymeal and soyoil. There are still assumptions based on a snapshot for a moment in time. Conditions can change quickly, causing the snapshot assumptions to be dated.

WAOB has chosen to adopt "official" estimates from other countries for the most part, though sometimes WAOB will vary from those official forecasts if its own intelligence says otherwise. Some say the recent country forecasts exposed reliance on foreign government forecasts or actions, particularly China.

Possible Solutions, Not the Final Word

We have dealt with USDA's NASS and World Board for decades and know they are professional and want to do their best job. USDA's estimates and forecasts are still the gold standard, even though improvements are needed.

This is by no means the final word on this topic, but hopefully it drives discussions to improve USDA's forecasts. To read the full special report, including comments from current and former USDA officials and industry contacts, go to: www.profarmer.com.

Note: We did not focus on live-stock, dairy and poultry estimates/forecasts from USDA. Those will be addressed in a future special report.

Source: Ag Letter & Pro Farmer editors

SUGGESTIONS

Some initial conclusions and recommendations...

- NASS needs to catch up with new crop-forecasting tools of private industry.
- Many ERS personnel did not want to go to Kansas City when jobs were relocated from Washington by the Trump admin. and left to work elsewhere or retired. ERS has hired some good, new analysts, but it will take time to rebuild the intellectual capacity.
- WAOB needs to modernize its forecast models. They seem dated, which is causing inaccuracy problems.
- Survey responses are poor... both in numbers and quality. The survey process and format needs to be redone... see next item.
- USDA's data is kind of a garbage-in, garbage-out situation. That's not saying USDA data is garbage, but it does need better data coming in before its figures can improve.
- There are too many "experts" that are trying to prove USDA's numbers wrong. That's largely due to social media.
- Some say releasing data outside of market hours would help. Huge immediate price reactions to report data puts more focus on USDA being "wrong." But a report timing change appears unlikely.

USDA

Key comments from Lance Honig, chief of Crops Branch at NASS:

- "Crop estimates are not based exclusively on producer-reported data. We utilize many additional sources of data, including objective yield, satellite data, administrative data, etc.)." The quality of NASS crop acreage and production estimates depends on a high level of participation and truthful assessments by agricultural producers. As the number of respondents falls, some say the statistical reliability of estimates and forecasts declines and the value of NASS's estimates declines as well. But Honig says: "I'm not sure this is a fair statement. I agree that less data [lower response] leads to increased variability of the resulting survey indications, but [that] doesn't necessarily make the data less valuable."
- A declining farmer survey response rate, and apparently some inaccurate farmer reporting, is a concern seeking some solutions. But Honig said NASS uses "extensive editing processes to help identify inaccurate reporting, whether inadvertent or intentional."
- Price reaction to NASS reports: While some note variability of data as measured by market price reactions to NASS estimates appears to have increased, Honig notes: "Just because market reactions are more variable does not necessarily mean that the NASS estimates are the cause. Market participants' reduced accuracy in predicting USDA estimates could be due to other factors."
- "Without NASS as the independent, unbiased source of data," Honig says, "the market volatility would increase dramatically due to the wide range of opinions of crop size from private entities. Additionally, the largest entities with the greatest resources would have a significant advantage over smaller groups, and especially individual producers."

From USDA Chief Economist Seth Meyer:

- Regarding forecast for China's total corn import forecast, Meyer said: "It is a fair point to note that the WAOB forecasts were initially slow to anticipate such extraordinary growth in those sales, but it's incorrect to assume that those forecasts were made without careful consideration of all available data and evidence. Evidence at the time, including the existence of the TRQ [tariff rate quota], historic trade patterns and statements by government officials provided reason to be cautious in forecasting what would be and has become a historic shift in global corn markets without precedent. However, as evidence grew, WASDE forecasts were consistently adjusted to reflect this new market reality, and each month all WASDE forecasts reflect the best information available at that snapshot in time."
- ERS move to Kansas City: "ERS leadership support for the S&O (situation and outlook) work didn't suddenly fall off as portions of ERS moved to KC. The S&O work was consistently undervalued by previous administrators of ERS, particularly given the large impact those researchers have and the readership their publications draw. Staff numbers have begun to rebound with many good new analysts coming onboard. I believe the new administrator understands the importance of the S&O work."

WHIP+

Latest WHIP+ /ag disaster bill authorizes up to \$8.5 billion for eligible 2020 and 2021 disasters. The House Ag Committee cleared the measure this week. It will likely be linked to a must-pass bill later this year. It would cover losses via drought, high winds, excessive heat and polar vortexes, and would also cover power outage, losses to wine grapes impacted by smoke and allow direct payments to sugar and dairy cooperatives for losses, including milk dumping, that affect an entire co-op.

WHIP+ reforms include making it easier for farmers to qualify for drought losses, with those eligible facing a county with a USDA disaster designation due to D2 (severe) drought versus a previous requirement of D3 (extreme) or D4 (exceptional) drought.

Payment caps would generally be limited to \$250,000 per person, but payments for high-value specialty crops would be capped at \$900,000.

MARKETS

Corn: Weather remains a key factor in the price outlook. Much of the U.S. corn crop made it through pollination unscathed, with the key exception of the north-west Corn Belt where conditions have remained too dry and warm. Late-July heat raised some concern about grain fill, though much of the crop has adequate moisture. Meanwhile, Brazil's safrinha corn crop continues to shrink with a third round of frost the last week of July whittling the weather-battered crop.

Soybeans: August is the key development month for soybeans, with the crop struggling in northern and western areas with warm, dry conditions. Some southern and eastern areas of the Belt have been too wet. Scouts on the *Pro Farmer* Crop Tour will provide a firsthand look at the crop Aug. 16-19. Strong demand for global vegoils from consumers and biofuel continues to provide underlying support.

Wheat: Condition ratings for the U.S. spring wheat crop continue to slide... 66% of the crop was rated "poor" or "very poor" as of July 25, with just 9% rated "good" or "excellent." The situation has provided support for other wheat varieties and high corn prices are keeping wheat in feed rations in places around the globe, including China.

Rice: Demand news has created some price optimism, but prospects for a solid U.S. crop to be harvested in coming months remains a limiting factor.

Cotton: Conditions for the U.S. crop improved as the season wore on, with 61% of the crop rated "good" to "excellent" versus 49% at this point one year ago. That and improving demand as economies around the globe reopen from Covid-linked restrictions have lifted futures to new contract highs. But there has been some speculation the spread of the Delta Covid-19 variant and the reimposition of related restrictions could squelch demand.

Dairy: Cow slaughter has been picking up and dairy cows have increased as a portion of the beef market, rising more than 7% from year-ago. But this also means the growth in dairy herds is slowing and that has already been seen in reflected by milk production data. That increased cow slaughter will also keep ground beef supplies ample.

Hogs/pork: Supply is the key issue for the industry at this stage. Slaughter data signals USDA has likely overstated the size of the U.S. hog herd... and market hogs, in particular. That paired with strong domestic and export demand has resulted in historically low levels of frozen pork at the end of June.

Cattle/beef: The U.S. cattle herd has seen liquidation and high feed costs signal this liquidation phase is not going to abate quickly. Beef supplies will tighten ahead, and that will lend support to live cattle and feeder cattle futures. This comes against the backdrop of Washington's efforts to boost meat processing capacity.

Poultry: The chicken sandwich wars may be on the wane and that could help address the tightening supply situation. Broiler meat supplies at the end of June were 15% under year ago. But while whole breast meat may have peaked, prices for things like tenders remain at record levels and wings are no longer a "cheap" snack.

TRANSP.

Supply chain issues remain a key factor and will be for an extended period. Current ocean freight values out of the PNW compared with the Gulf are tipping the advantage toward the PNW relative to getting grains out of this country. But that price benefit is somewhat reduced by higher rail freight rate in getting supplies to PNW export elevators.

FOOD
PRICES

Consumer food costs are increasing, but USDA held steady its forecast for overall food price inflation as well as its outlook for food at home (grocery store) and food away from home (restaurant) prices.

Overall food price inflation of 2.5% to 3.5% is likely in 2021, according to USDA. It still expects grocery store prices to rise 2.0% to 3.0% in 2021. Restaurant prices are expected to climb 3.0% to 4.0% from 2020 levels. All three categories remain above their 20-year averages of 2.4% for all food prices, 2.8% for restaurant prices and 2.0% for grocery store prices.

The year-to-date average of food prices in 2021 vs. 2020 has increased, with grocery store prices up 1.6% and restaurant prices up 2.8%, according to USDA. The Consumer Price Index (CPI) for all food has increased an average of 2.1%. USDA noted that of all grocery store prices it tracks, "the fresh fruits category has had the largest relative price increase (5.0%) and the fresh vegetables category the smallest (0.4%)." USDA added, "no 2021 price categories decreased compared to 2020 prices."

Restaurant prices rose 0.7% in June and were up 4.2% from June 2020, while grocery store prices were also up 0.7% from May and 0.9% higher than year-ago levels.

USDA did make some changes to its forecasts for various foods. Forecast ranges for beef and veal, pork, poultry, fish and seafood, eggs, and fresh fruits, as well as the aggregate categories of "fresh fruits and vegetables," "meats" and "meats, poultry and fish" were revised upward this month. Increases in meat prices in June compared with May were, "driven up by strong domestic and international demand, high feed costs and supply chain disruptions," USDA said. "Winter storms and drought impacted meat prices this spring, and processing facility closures due to cybersecurity attacks impacted beef and other meat production in May," the department added.

Compared with May, June beef and veal prices were up 5.3%, pork prices rose 4.0% and poultry prices were 0.9% higher. Beef and veal prices are now predicted to increase between 3.0% and 4.0% in 2021 (vs. a prior forecast for a 2.0% to 3.0% increase) while pork prices are now predicted to increase between 4.0% and 5.0% (vs. a 3.0% to 4.0% forecast increase) and poultry prices are seen rising from 2.5% to 3.5% (1.5% to 2.5% prior).

Inflation is a reason. "Economy-wide inflation is also high and is contributing to overall price increases," USDA said.

More food price boosts ahead? Some companies have indicated retail price hikes have not yet covered their own cost increases, with further price increases planned this year to offset them. Looking ahead, USDA's forecast has food prices rising at a slower clip in 2022 and closer to the 20-year average, mirroring more moderate though still elevated inflation predictions for 2022 across the broader economy.

Best regards,

The Ag Letter Editors
THE AGRICULTURE LETTER EDITORS

July 30, 2021