The USDA National Ag Statistics Service (NASS) released the first 2018 survey-based U.S. yield estimates on Aug. 10, 2018. The corn yield estimate as of Aug. 1 was a record 178.4 bushels per acre. That is 2 bushels per acre above the average trade guess and 1.8 bushels per acre above the record 2017 final yield of 176.6 bushels per acre. The Iowa corn yield August estimate was 202 bushels per acre, identical to the 2017 final state yield.

Using the August estimates for the 2018 U.S. corn crop, production would be the third-highest amid a record national yield this year. Total U.S. corn carryover stocks for the 2018-'19 marketing year are projected to tighten by 343 million bushels. That would leave less than 1.7 billion bushels of corn as of Aug. 31, 2019.

2018 Corn Yield Uncertainty

The corn production “cushion” of the past two years was when corn carryover was above 2 billion bushels is gone. Thus, the 2018 crop would not need to lose too many bushels to further tighten stocks. Lowering the national final average corn yield by just 2 bushels per acre (1.1%) from USDA’s August estimate would drop roughly 165 million bushels off the crop and carryover would decline to just more than 1.5 billion bushels. Reducing the yield by 5 bushels per acre (2.8%) would cut the crop size by about 410 million bushels, reducing carryover to less than 1.3 billion bushels. At that level, the market would respond by trying to reduce record use by ratcheting prices higher.

U.S. Soybean Yields

The national soybean yield estimate as of Aug. 1 was 51.6 bushels per acre. That was 2 bushels per acre above the average trade guess and 2.5 bushels per acre above the 2017 final yield of 49.1 bushels per acre. The record national soybean yield was 52 bushel per acre realized with the 2016 crop.

Using August estimates for the 2018 U.S. soybean crop, production would be a record 4.586 billion bushels. Total soybean carryover stocks for the 2018-'19 marketing year are
projected to be a record 785 million bushels as of Aug. 31, 2019.

**ProFarmer’s Midwest Crop Tour**

On Aug. 20-23, 2018, about 130 scouts will help sample 3,000 corn and soybean fields across seven Corn Belt states. Many farmers think the Tour’s final yields should be compared to the USDA’s yield estimates for the August Crop Production report.

However, ProFarmer editors said the goal of this annual tour isn’t to prove or disprove USDA’s August crop estimates. The intent of the Crop Tour is to give the industry a realistic idea of yield potential across those seven states -- not a national yield estimate as provided by the USDA in August.

**Accuracy of the Midwest Crop Tour**

So how accurate are the results of the Midwest Crop Tour as compared to the final USDA crop yields released each January? Since 2001, the average Midwest Crop Tour corn yield estimates found these historical differences versus the USDA final yield estimate released each January for those 7 states:

- Ohio – Add 3 bu/A
- Indiana – Add 2.3 bu/A
- Illinois – Add 1.1 bu/A
- Iowa – Add 5.0 bu/A
- Minnesota – Subtract 9.4 bu/A
- Nebraska – Add 15.5 bu/A
- South Dakota – Subtract 3.9 bu/A

In other words, the Midwest Crop Tour results collected annually since 2001 are 6.1 bushels per acre above the USDA’s final estimates on average. The line graph appears that the Crop Tour is getting more accurate; however, USDA final yields have increased more rapidly.

The Crop Tour doesn’t use scientific methods to randomly sample fields. The Crop Tour travels the same roads every year, stopping about every 25 miles to grab crop samples. Both surveys use ear and kernel counts but USDA calculates an implied ear weight in August. Enumerators then return to the same randomly sampled 1,920 corn fields and 1,835 soybean fields monthly in the 10 major corn-producing states. In addition, the USDA conducts phone and e-mail surveys with 21,000 farmers nationwide for the August estimates regarding perceived yield prospects.

**Conclusion**

The best analysis of the 2018 Crop Tour is to compare results state-by-state to last year’s Tour. Then pay close attention to the percentage change from a year ago and apply the historical difference for each state. The yield calculated during Crop Tour will be different from USDA’s final yield for each state.

**ProFarmer** editors indicate there are too many soybean variables to evaluate on the Crop Tour with a high reliability. The number of pods it takes to make a bushel is different in each state.

Instead, Tour participants calculate the number of pods in a 3 ft. x 3 ft. square frame. Then, they compare the pod counts to past Tour data to arrive at this year’s yield potential for each of those 7 states.