

Subject: CROP ESTIMATES USA - HOT OF THE PRESS

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FOR IMMEDIATE RELEASE

New Report Recommends Changes to County Crop and Cash Rent Estimation Methods Used by the National Agricultural Statistics Service

WASHINGTON -- Producing more precise county-level estimates of crops and farmland cash rents will require integrating multiple data sources using model-based predictions that are more transparent and reproducible, says a new report from the National Academies of Sciences, Engineering, and Medicine. The report provides a vision of how the National Agricultural Statistics Service (NASS) can accomplish this.

NASS surveys are the basis of crop and cash rent estimates, which are vital to efficiency in the agricultural market and the evaluation of farmland, helping industry participants decide on what to grow, how to determine sales, and the availability of food, as well as rental and loan rates for farmland. But over time, survey response rates have declined, creating challenges for county data users including the USDA's Farm Service Agency and Risk Management Agency, who use the county estimates as part of their processes for administering USDA programs, including providing farm insurance and determining farmland rental rates and farm subsidies. As a result, when official NASS estimates are not reliable due to low survey response, alternative estimates may be used that are neither transparent nor reproducible.

Currently, the Agricultural Statistics Board (ASB) of NASS determines county estimates, using survey responses along with other available information. To achieve transparency and reproducibility, the report recommends developing, evaluating, validating, documenting, and using model-based estimates that incorporate both survey data and complementary data such as administrative data, satellite and other remote sensing data, and precision agriculture data. The recommended inclusion of measures of uncertainty with the model estimates allow users to determine the utility of the estimates. The report further recommends that NASS shift the ASB role from integrating multiple data sources to ensuring that the models used for the integration are continually assessed and validated via a feedback loop that suggests modifications to improve model performance. A key factor in combining survey data with complementary data is the development of a geo-referenced list frame from which the farms to be surveyed are selected. Then the location of the farm can be used to tie the multiple data sources about the farm together with the survey response.

The report acknowledges that given its limited resources, it may take NASS many years to develop a geo-referenced list frame, appropriate models, and other components needed for this vision of improved county level estimates. The report suggests a two-part plan of action that could be completed by 2025, as well as breaking down each stage into individual projects to be executed by different groups within NASS, each over the course of three years. This allows NASS to continue its ongoing schedule and workload while implementing gradual change to their estimation practices.

The study was sponsored by the National Agricultural Statistics Service. The National Academies of Sciences, Engineering, and Medicine are private, nonprofit institutions that provide independent, objective analysis and advice to the nation to solve complex problems and inform public policy decisions related to science, technology, and medicine. The National Academies operate under an

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