

NATIONAL AGRICULTURAL STATISTICS SERVICE

**Statement of Dr. Cynthia Clark, Administrator
Before the Subcommittee on Agriculture, Rural Development,
Food and Drug Administration, and Related Agencies**

Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to submit a statement in support of the National Agricultural Statistics Service (NASS) 2014 budget request. NASS administers the U.S. Agricultural Estimates program, which began at the United States Department of Agriculture (USDA) in 1863. NASS also conducts the quinquennial U.S. Census of Agriculture, first collected by the Department of Commerce in 1840. Both the agricultural estimates and the census program align with the basic mission of NASS to provide timely, accurate, and useful statistics in service to U.S. agriculture.

Major Activities

Annual Surveys and the Census of Agriculture. The primary activity of NASS is to provide reliable data to meet the decision-making needs of the agricultural industry. The agency fulfills its mission through an annual agricultural estimates program and the quinquennial census of agriculture. Farmers, ranchers, and agribusinesses voluntarily respond to a series of nationwide surveys about crops, livestock, prices, chemical use, and other agricultural activities each year. Surveys are conducted during the growing season to measure the impact of weather, pests, and other factors on crop production. In many cases, NASS supplements crop surveys with field observations and measurements of plant counts. NASS also uses administrative data from other USDA, Federal and State agencies; data on imports and exports; and other survey data to ensure official estimates accurately represent agricultural inventories. NASS prepares estimates for

over 120 crops and 45 livestock items that are published annually in more than 400 separate reports.

International Programs. NASS provides technical assistance and training to improve agricultural survey programs in other countries in cooperation with other government agencies on a cost-reimbursable basis. The NASS international program focuses on developing and emerging-market countries in Asia, Africa, Central and South America, and Eastern Europe. NASS assists countries in applying modern statistical methodology, including sample survey techniques. Accurate information about other countries is essential for successfully marketing U.S. farm products throughout the world. NASS has been an important contributor to the UN Global Strategy for Agricultural and Rural Statistics, contributing to better statistics for USDA global estimates of food supply.

Stakeholder Input. NASS annually seeks input from the public on determining priorities and improving its products and processes. It consults with customers and stakeholders through meetings of the Secretary of Agriculture's Advisory Committee on Agriculture Statistics, interaction with producers, data users meetings with agribusinesses and commodity groups, special briefings for agricultural leaders during the release of major reports, and numerous individual contacts. In response to this input, NASS continues to improve the quality and accessibility of its reports. The agency has adjusted its agricultural estimates program and published reports, and has expanded electronic access capabilities. All reports issued by NASS' Agricultural Statistics Board are made available to the public at a previously announced release time to ensure equal access to the information. All national statistical reports and data products, including graphics, are available on the Web, as well as in printed form, at the time they are released. Customers can electronically subscribe to NASS reports and download them in an easily accessible format using standard software. NASS also provides free Rich Site Summary (RSS) and podcast feeds to interested data users, who receive an alert or audio clip when content of interest is posted to the NASS Web site. A summary of NASS and other USDA statistical data is produced annually in USDA's *Agricultural Statistics*, available on the NASS home page, on CD-ROM disc, or in hard copy.

Collaboration with Other Agencies. NASS conducts special surveys and provides consulting services for USDA agencies, other Federal or State agencies, universities, and agricultural organizations on a cost-reimbursable basis. Consulting services include assistance with survey methodology, questionnaire and sample design, information resource management, and statistical analysis. NASS has assisted USDA agencies in programs that monitor nutrition, food safety, environmental quality, and customer satisfaction. In cooperation with State Departments of Agriculture, land-grant universities, and industry groups, NASS conducts over 200 special surveys each year covering a wide range of issues such as farm injury, nursery and horticulture, equine, farm finance, fruits and nuts, vegetables, and cropping practices. For example, NASS conducts the Agricultural Resource Management Survey (ARMS) in collaboration with USDA's Economic Research Service. ARMS data are the primary input for the Nation's farm income statements—one of the country's federal principal economic indicators. These data are the basis for much of the targeted analysis conducted by USDA economists on the Farm Bill and other important issues.

An Enhanced Research Program. NASS is conducting a number of statistical and survey research projects to improve methods and techniques for collecting, processing, and disseminating agricultural data.

- NASS is examining model-based estimation techniques to improve the statistical reliability of published forecasts/estimates and error measures. Time series techniques are being utilized to model estimates of hogs and pigs as well as labor. Small area estimation techniques are being examined to model county-level estimates of cash rental rates for pastureland, irrigated cropland, and non-irrigated cropland; harvested corn and soybean acreage; and corn and soybean yield.
- NASS continues to improve efficiency with its fourth annual 48 state Cropland Data Layer (CDL) in 2013 for the 2012 crop year. The 2012 CDL was produced at 30 meter pixels and was completed with reduced resources, using only one satellite system due to the failure of the LandSat 5 satellite in December 2011. NASS continues to improve efficiency in this data series.

- NASS continues work on the NASA competitive grant titled “A National Crop Progress Monitoring System Based on NASA Earth Science Results.” Work has focused on developing and adapting crop growth models to determine the crop stages. Several vegetation indexes have been developed to improve the models.
- NASS is researching methods to identify operations for which it is most unlikely to obtain responses in future surveys. Methods to use this information to manage data collection are being evaluated with the goal of collecting more responses, more efficiently. Future research will also evaluate the possible methods of using this information in statistical estimation.
- NASS is evaluating the use of the Computer Audio Recorded Interview system developed for the U.S. Census Bureau. NASS has obtained the system code and is currently testing it in the NASS systems environment. The system is intended to improve data quality by allowing evaluation of both data collection instruments and interviewers.
- As part of the operations of the newly opened National Operations Center (NOC), quality metrics are being developed to allow monitoring of process productivity and quality. These metrics will ultimately be part of a comprehensive quality control and tracking system for multiple systems at the NOC.
- The National Agricultural Statistics Service released a new vegetation condition portal named VegScape <http://nassgeodata.gmu.edu/VegScape> for monitoring crops in this time of highly variable growing conditions. Vegetation indices contained in Vegescape have proven useful for assessing crop condition and identifying the aerial extent of floods, drought, major weather anomalies, and vulnerabilities of early/late season crops. Data for the indexes are from National Aeronautics Space Administration’s Moderate Resolution Imaging Spectroradiometer (MODIS) satellite and its thirteen years of data history has been loaded into Vegescape. This tool will allow users to monitor and track the weather anomalies effects on crops in near real time and compare to the history, at localized levels or across States.

Through recent research, NASS developed a computer-assisted personal interview (CAPI) process utilizing a “thin client” approach for data transmission. This approach ensures security because data are not stored on computers used in the field, but encrypted data is transmitted

through broadband technology directly to agency computers. As a result, enumerators now use CAPI tablets to collect in-person interview data in the field. Using the tablets is almost cost-neutral because it eliminates paper questionnaires and the associated mailing, keying, and handling. It also facilitates going directly to computer-based editing.

The growing diversity and specialization of the Nation's farm operations make producing accurate agricultural statistics more complicated. Research is under way to use CDL to redesign the area frame stratification procedures and to implement an improved area sample design in order to help NASS maintain good coverage of diverse agricultural producers and diverse commodities.

2014 Budget

The agency's 2014 budget request is \$159.6 million, split between \$117.3 million for Agricultural Estimates Program and \$42.3 million for the Census of Agriculture Program. The funding level for Agricultural Estimates is necessary to restore a number of programs announced for suspension in 2013. The decrease in the Census of Agriculture is primarily due to the 2012 quinquennial census data collection. The 2012 Census of Agriculture is in its fifth year of the 5-year funding cycle, and the funding level reflects lower processing operational costs needed in FY 2014.

Agricultural Estimates

The hundreds of agricultural estimates reports NASS issues annually are critically important to assessing current supply and demand in agricultural commodities. Producers, agribusinesses, farm organizations, commodity groups, economists, public officials, and others use the data for decision-making. The statistics NASS collects and disseminates ensure buyers and sellers have access to the same official statistics at the same pre-announced time, making markets fair and preventing them from being influenced by "inside" information. The free flow of information minimizes price fluctuations for U.S. producers, makes commodity markets more efficient, and

makes our Nation's agricultural industry more competitive. The data has become increasingly important as producers rely more on world markets for their sales.

Census of Agriculture

The Census of Agriculture is taken every five years and provides comprehensive data on the agricultural sector at the national, State, and county level. The Census of Agriculture is the only source for this information on a local level and is extremely important to the agricultural community.

- Agricultural organizations, suppliers, handlers, processors, wholesalers and retailers use detailed county-level information to better plan their operations.
- Agricultural policymakers use the valuable demographic database for developing public policy for rural areas.

In addition to the 50 States, NASS is also conducting the Census of Agriculture in Puerto Rico. NASS makes all data publicly available on its website.

Upon completing the collection, processing, and analysis of 2012 Census of Agriculture data in 2013, NASS will complete its summary and disclosure processes and prepare the catalog of Census Products for release beginning in early 2014. In addition to the in-depth large publication to be released in early 2014, a number of special tabulations are planned to be released at intervals to follow. Those include Congressional District Profiles, Watershed Publication, Race, Ethnicity and Gender Profiles; and Specialty Crops.

The 2014 budget request includes resources for NASS to start producing four vital Current Industrial Reports (CIR) that were formerly compiled by the U.S. Census Bureau but were cancelled at the end of 2011. These surveys are part of the U.S. Economic Census Program as is the Census of Agriculture and, as such, are mandatory and required by law.

This request supports estimation requirements for NASS, Economic Research Service (ERS), the World Agricultural Outlook Board (WAOB), the USDA Chief Economist, and the Census of

Agriculture. Private industry uses CIR data to monitor the effect of international trade on domestic production, evaluate the relationship between company and industry performances, market analyses, assess current business conditions, and plan future operations.

Using operations that report special practices or commodities in the Census of Agriculture, NASS plans to collect, under the 2014 budget request, additional in-depth data from the following two surveys:

Farm and Ranch Irrigation Survey: The Farm and Ranch Irrigation Survey was last conducted for the 2008 growing year, providing one of the most complete and detailed profiles of irrigation in the United States. It supplements basic irrigation data collected from all farm and ranch operators from the Census of Agriculture. Examples of data summarized from this survey include: quantity of water usage, distribution methods, water sources, equipment and energy expenditures, and crops produced using irrigation. This follow-on survey has been conducted in 1979, 1984, 1988, 1994, 1998, 2003, and 2008. There is tremendous demand for the Farm and Ranch Irrigation Survey data especially because of the 2012 drought in the midsection of the country. These survey results are critical to the country and will affect policy decisions for the next five years.

Census of Aquaculture Follow-on Survey: The Census of Aquaculture was last conducted for the 2005 growing year and provided a comprehensive picture of the aquaculture sector at the State and national level. This census collects detailed information relating to production methods, surface water acres and sources, products, sales, point of first outlets, aquaculture distributed for restoration, conservation, recreational purposes, and farm labor. This follow-on was scheduled for 2011 but was eliminated due to budget reductions. The industry has petitioned NASS to reinstate the census of aquaculture as soon as possible and NASS has included funding in the 2014 budget request to conduct this important survey.

NASS is keeping pace with an increasingly complex agricultural industry to achieve cost savings through re-engineering processes and developing new statistical methodologies for its program.

NASS has enhanced its research program by hiring staff with expertise in survey statistics; developed new statistical models for its estimating program; examined computer editing applications to replace manual review; expanded modes of data collection to include tablet and web means of electronic reporting; implemented quality control in its routine operations; developed two new tools using remote sensing data -- CropScape and VegScape; and exploited computer intensive processing technology. These improvements ensure that NASS is able to continue to fill the urgent need for timely, accurate, and useful statistics in U.S agriculture.

This concludes my statement, Mr. Chairman. Thank you for the opportunity to submit this statement for the record.