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On Appropriations

NATIONAL AGRICULTURAL STATISTICS SERVICE

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

Chairman Aderholt, Ranking Member Farr, and members of the Subcommittee, I appreciate the opportunity to present the President's 2015 Budget request for the National Agricultural Statistics Service (NASS) 2015 budget request. NASS administers the U.S. Agricultural Estimates program, which began at the United States Department of Agriculture (USDA) in 1863. Since 1997 NASS has conducted 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 farmer 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 U.N. Global Strategy for Agricultural and Rural Statistics, and to the U.S. Feed the Future Program, 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 150 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. NASS conducts a periodic labor survey for the Department of Labor that provides vital labor statistics used in the H-2A temporary agricultural worker program. The Natural Resources Conservation Service (NRCS) and NASS have also collaborated together to conduct the Conservation Effects Assessment Program (CEAP). This is a multi-agency effort to quantify the environmental effects of conservation practices and programs and develop the science base for managing the agricultural landscape for environmental quality. The latest release of the NRCS Chesapeake Bay Conservation Assessment Report showed significant progress made from the conservation efforts of the Chesapeake Bay Region.

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 to provide accurate error measures. A model that incorporates multiple data sources, including current and historical data, and administrative/auxiliary information is being developed for state-level corn and soybean yields. Time series techniques are being utilized to model estimates of hogs and pigs as well as cattle. Small area estimation techniques were 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. Several models transferred from research to development and will be operational later this year. NASS has worked collaboratively with consultants from outside of the agency to develop the methodology for all of these endeavors.

NASS uses its area frame both as a stand-alone frame to estimate numbers of farms and a wide variety of commodities, and as a measure of incompleteness for its list surveys -- including the quinquennial Census of Agriculture. The Agency's area frame estimates of the numbers of farms for 2007 were less than those from its dual-frame 2007 Census of Agriculture, requiring further analysis of the area frame and dual-frame data collection procedures and estimates to reconcile the differences. New methods that use the census mailing list in census years and the list frame in non-census years to adjust the area frame's estimate of the number of farms for misclassification are being developed. Measures of uncertainty for the resulting estimates were produced for the 2012 Census of Agriculture.

NASS is exploring methods to identify operations for which it is most unlikely to obtain responses in future surveys during data collection. Classification tree models have been developed for the Crops/Stocks and ARMS surveys to assign scores for the strong tendency for nonresponse to survey sample cases. Methods to adaptively use this information to manage data collection have been developed and are being used to obtain responses more efficiently. Future research will evaluate methods of using this information in statistical estimation.

NASS began using the Computer Audio Recorded Interview (CARI) system developed by the Research Triangle Institute for the U.S. Census Bureau in its National Operations Division calling center. The system is intended to improve data quality by allowing evaluation of both data collection instruments and interviewers. NASS continues to evaluate its use of CARI and to train enumerators to obtain optimum results.

George Mason University and NASS completed the work on a National Aeronautics and Space Administration (NASA) competitive grant titled "A National Crop Progress Monitoring System Based on NASA Earth Science Results." NASS primarily benefited from the technology development which supports the web portal VegScape. The research showed that the vegetative indices (color gradations) are not sufficient to determine the vegetative and reproductive stages of the crops. The web portal VegScape is most useful to identify the green-up and senescence of the crops. VegScape is one of the analysis tools NASS uses to validate and verify survey estimate results. VegScape is one to the tools available to the public and is used by researchers, farmers, and ranchers.

NASS completed its fifth 48 state Cropland Data Layer (CDL) in 2014 for the 2013 crop year. Additionally, NASS went back, for historical reference, and processed the 2008 CDL, making six years of CDL data available.

2015 Budget

The agency's 2015 Budget request is $179 million, of which $131 million is for the Agricultural Estimates Program and $48 million is for the Census of Agriculture Program. This funding level is necessary to pay for the decentralized GSA rent and security costs ($9.2 million), formerly financed centrally by USDA, to restore some previously suspended programs, to support new initiatives for the Agricultural Estimates Program, and to continue with a robust set of follow-on studies within the Census of Agriculture Program.

Agricultural Estimates

The over four hundred 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.

NASS proposes an increase in funding to support the Pollinator Health Initiative and to provide information associated with Colony Collapse Disorder (CCD). This key government-wide initiative is funded by several USDA agencies as well as other Cabinet level Agencies. USDA and the Environmental Protection Agency (EPA), in consultation with other Federal partners, are scaling up efforts to address the decline of honey bee health with a goal of ensuring the recovery of this critical subset of pollinators. NASS supports this USDA – EPA

CCD National Action Plan, which emphasizes the importance of coordinated action to identify the extent of and causal factors in honey bee and pollinator declines.

As part of this effort, the requested funding will allow NASS to focus its resources and expertise, to expand its annual survey of bee keepers. This survey will include questions related to colony losses, pests and parasites, management practices, crops pollinated and locations served, as well as estimates of revenues and expenses. Expansion of the loss survey of beehives was strongly encouraged by beekeepers, the National Academy of Sciences, and the USDA Office of Inspector General. This action will provide improved baseline and annual data to determine the extent of CCD, in addition to providing quantitative information on potential causal factors, essential to the industry.

A Geospatial Improvement Initiative is proposed for FY 2015. This new program will enhance the current satellite based agricultural statistics monitoring program. It will research and institute systems to provide satellite based crop condition, soil moisture, crop progress (phenological development of crops), crop yields, and begin research and development to provide data on emissions of greenhouse gasses associated with agriculture at local levels. This will leverage strategic cooperative partnerships with USDA Climate Hubs and the National Oceanic and Atmospheric Administration Regional Climatic Centers.

In 2012 the chemical use program crop rotations were changed so that individual crops were surveyed less frequently in response to funding reductions. In 2015 NASS proposes to restore the chemical use data series to the 2011 level, including more frequent data on major row crops, and fruit and vegetable chemical use data on an alternating year basis. Appropriated funding is necessary for this initiative to ensure equal access to Federal statistics. The statistical data provided by NASS enhances the competitiveness and sustainability of rural farm economies by leveling the playing field. All parties have equal access to official statistics

The chemical use data collected by NASS have been used in building a database for the USDA Pesticide Data Program. This database is used by the Department to evaluate the safety of the Nation's food supply. Additionally, the implementation of the Food Quality Protection Act (FQPA), in 1996, increased the need for actual, reliable chemical use data. FQPA requires the Environmental Protection Agency (EPA) to conduct an accelerated review of tolerance levels for re-registration of pesticide products. Part of the review includes using actual chemical usage data that only growers can provide. The absence of these data has created

difficulties for EPA and industry to effectively conduct and analyze these reviews. In the absence of actual data, EPA is often in the position to assume maximum label rates are being applied on all acreage. This has the potential of over-estimating actual pesticide usage.

NASS restored the annual Fruit and Vegetable program in 2014 to fulfill data users' requests and to provide acreage statistics necessary for conducting the chemical use program. In 2015, NASS proposes to augment the annual Fruit and Vegetable program by providing the in-season forecasts for fruits and nuts. These are needed by industry and include a variety of reports including the monthly Crop Production reports, annual Cherry Production report, and the annual Cranberries report. For vegetables, NASS will resume publishing in-season forecasts in the fall. Additionally, NASS will resume publishing a preliminary Annual Summary for all noncitrus fruits and nuts in January. The annual data is required to conduct the fruit and vegetable chemical use surveys.

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.

In addition to the 50 States, NASS is also publishing census data in Puerto Rico. NASS makes all data publicly available on its website. On February 20, 2014 NASS issued a preliminary release of 2012 Census of Agriculture data that contained high level estimates at the U.S. and State level. In May 2014 NASS intends to release the full Volume I series of data at the U.S., State and county level.

In addition to the in-depth large publication to be released in May 2014, a number of special tabulations are planned to be released subsequently. Those include State and county profiles; Congressional District Profiles; Watershed Publication; Race, Ethnicity and Gender Profiles and Specialty Crop Report.

NASS uses each Census of Agriculture as a sampling frame to conduct in depth mandatory studies on specific sectors of agriculture. In FY 2014 NASS is conducting the Farm and Ranch Irrigation Survey (FRIS) and the Census of Aquaculture. Data will be published from these surveys during FY 2015.

In FY 2015 NASS plans to conduct a Census of Horticulture. The Census of Horticultural Specialties was last conducted for the 2009 growing season. This project is a detailed examination of all operations identified from the Census of Agriculture with sales of $10,000 or more. Production and sales data for fresh cut flowers, potted flowering plants, foliage plants, bedding plants, or cut cultivated greens are summarized. This census also collects data regarding expenses, growing area, and hired labor. This historic data series was also conducted in 1970, 1979, 1988, and 1998. NASS proposes to conduct the Census of Horticultural Specialties every five years as funding permits and the next one is scheduled for FY 2020.

The FY 2014 Appropriation Act, with language for NASS to conduct four Current Industrial Reports (CIR), provided NASS the legal authority to request sampling lists from the Department of Commerce and the Internal Revenue Service. The 2015 Budget request includes resources for NASS to continue producing these four vital reports 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. Commodities covered in these reports include: Oilseeds, Beans & Nuts; Fats and Oils; Cotton; and Flour Milling Products. NASS will publish a preliminary progress report in September 2014 and plans to publish the first full CIR report in January 2015.

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

NASS will work in collaboration with ERS to conduct a survey under the Census of Agriculture to update data on land ownership and farm finance that was last collected in the 1999 Agriculture Economics and Land Ownership Survey (AELOS). NASS has renamed this

survey Tenure, Ownership, and Transition of Agricultural Land (TOTAL). This survey had been part of the Census of Agriculture program every decade until 1999. The Advisory Committee on Agriculture Statistics made the recommendation that this land ownership and farm finance survey was the top program to be reinstated in the Census of Agriculture cycle in 2015. Data in FY 2015 from this new survey would inform policy decisions for USDA programs linked to farm land ownership and rental arrangements, inform research on generational transitions in agriculture, and provide updated parameters for the National Accounts for agriculture that ERS provides the Bureau of Economic Analysis (Department of Commerce).

NASS and ERS have developed a new survey approach using the Agricultural Resource Management Survey (ARMS) and the June Area Survey across two fiscal years. With this two year methodology NASS will conduct a survey to build the list frame in 2014 as the first year and in 2015 as the second year NASS will conduct the TOTAL survey based on that list frame. Funding for the first year in 2014 will come from a reimbursable agreement with ERS. The survey results of this two-year collaborative effort between NASS and ERS would be available after data summary and analysis in late 2015.

In recent years, NASS has instituted a number of performance enhancing initiatives that capitalized on new statistical and survey methodologies to keep pace with an increasingly complex agricultural industry in a cost effective manner. In 2011, NASS opened the National Operations Division in St. Louis, Missouri. This new Division focused on streamlining and standardizing a number of survey processes. In 2012, NASS underwent a large stakeholder engagement effort with State departments of agriculture to negotiate a path forward that ensured sustained cooperative working relationships while finalizing a comprehensive field reorganization. The following year NASS implemented the reorganized field structure resulting in 12 regional centers that economize the way staff coordinate survey data collection, review record level data, and disseminate state level data products. During FY 2014 NASS has reorganized its headquarters divisions to better align its statistical methodological work and to increase the utilization of space.

At the same time NASS underwent other transformational changes its research program has undergone a reengineering that focused on increasing the knowledge base of staff with academic expertise in survey and statistical methodology. This investment in research has

allowed the organization to develop new statistical models for its estimating program; examine computer editing applications to replace manual review; expand modes of data collection to include Computer Assisted Personal Interviewing and Computer Assisted Web Interviewing; implement quality assurance protocols in routine operations; develop two new tools using remote sensing data -- CropScape and VegScape; and further benefit from computer based processing technology. NASS's dedication to research and continued process improvement will ensure the organization remains relevant and viable to fill the urgent need for timely, accurate, and useful statistics in service to U.S agriculture.

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