

2017 President's Budget

National Agricultural Statistics Service

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Purpose Statement

The National Agricultural Statistics Service (NASS) was established by Secretary's Memorandum No. 1446, Supplement 1, of April 3, 1961, under Reorganization Plan No. 2 of 1953 and other authorities. The mission of the agency is to provide timely, accurate, and useful statistics in service to U.S. agriculture.

The statistical data provided by NASS is essential to the public and private sectors for making effective policy, production, and marketing decisions on a wide range of agricultural commodities. Every five years the Census of Agriculture (COA) provides comprehensive national, State, and county data as well as selected data for Puerto Rico, Guam, Virgin Islands, and Northern Mariana Islands. NASS' responsibilities are authorized under the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627), and the Census of Agriculture Act of 1997, Public Law 105-113 (7 U.S.C. 2204g).

- **Agricultural Estimates Program** – Annually, NASS publishes approximately 400 agricultural statistical national reports and thousands of additional agricultural statistical State reports, covering more than 120 crops and 45 livestock items. These basic and objective data are necessary to maintain an orderly association between the consumption, supply, marketing, and input sectors of agriculture. NASS uses scientifically-designed surveys to provide the basis for developing estimates of production, supply, price, and other aspects of the agricultural economy. Official USDA national, State, and county estimates and statistical reports are issued relating to the number of farms and land in farms; acreage, types, and production of farm crops; number of livestock on farms and of livestock products; stocks of agricultural commodities; value and utilization of farm products; prices received and paid by farmers; agricultural chemical use; and on other subjects as needed. The field offices forward the estimates to NASS headquarters where they are combined and released at preannounced scheduled times to the press and public through the Agricultural Statistics Board. 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. NASS field offices regularly survey thousands of operators of farms, ranches, and agribusinesses who provide information on a confidential basis. The necessity of protecting respondent confidentiality and ensuring the impartiality of official agricultural statistics and universal accessibility at predetermined and publicized dates and times are addressed by having the federal government produce these statistics.
- **Census of Agriculture (COA)** – The COA is taken every five years and provides comprehensive data on the agricultural economy, including data on the number of farms, land use, production expenses, value of land and buildings, farm size and characteristics of farm operators, market value of agricultural production sold, acreage of major crops, inventory of livestock and poultry, and farm irrigation practices. The COA data collection is conducted in close cooperation with the Nation's agricultural user groups and farmer organizations. The COA ensures that the list frame used for sampling records for surveys is current and is also utilized for the Agricultural Estimates program as well as the reimbursable program. Results from the 2012 COA were released in May 2014. Under this appropriation in 2015, NASS started publishing the Current Agricultural Industrial Reports (CAIR), previously cut by the Department of Commerce and plans to continue in the future.
- **Work Performed for Others** – NASS lends technical expertise and conducts surveys for other Federal agencies, State governments, and private organizations on a reimbursable basis. Through the reimbursable program, NASS provides support and assistance with questionnaire and sample design, data collection and editing, analysis of survey results, and training. NASS also provides technical consultation, support, and assistance for international programs under participating agency service agreements. The Census of Agriculture is essential to the reimbursable program and provides a current list frame to draw sampling records from which to do client work.

## National Agricultural Statistics Service

NASS maintains a central office in Washington, D.C., and a network of 12 Regional field offices, including a National Operations Center (NOC) in St. Louis, Missouri serving all 50 States that operate through cooperative agreements with the National Association of State Departments of Agriculture (NASDA) or universities.

As of September 30, 2015, NASS had 982 permanent full-time employees, including employees in Washington, D.C., field offices, and in the NOC.

NASS coordinated on USDA OIG Report #26501-0001-12, *Security Review of the National Agricultural Statistics Service's Lockup Procedures*, closing out all of the remaining 17 recommendations in FY15.

National Agricultural Statistics Service

Statement of Available Funds and Staff Years (SY)

(Dollars in thousands)

Item	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations - Salaries & Expenses.....	\$161,206	893	\$172,408	876	\$168,443	876	\$176,639	876
Mandatory Farm Bill.....	1,000							
Adjusted Appropriation.....	162,206	893	172,408	876	168,443	876	176,639	876
Balance Available, Start of Year.....	146	-	179	-	356	-	-	-
Other Adjustments (Net).....	7,691	-	4,274	-	-	-	-	-
Total Available.....	170,043	893	176,861	876	168,799	876	176,639	876
Lapsing Balances.....	-142	-	-	-	-	-	-	-
Balance Available, End of Year.....	-179	-	-356	-	-	-	-	-
Subtotal Obligations, NASS.....	169,722	893	176,505	876	168,799	876	176,639	876
<u>Obligations under other USDA appropriations:</u>								
Ag. Marketing Service - Pesticide work & data on milk prices, export certification, & base month series.....	66	-	35	-	35	2	35	2
Agriculture Research Service - Soybean Samples and Wheat & Barley Scab.....	111	1	111	1	50	-	50	-
Animal and Plant Health Inspection Service - Animal health monitoring system.....	1,145	2	525	2	-	-	800	2
Economic Research Service - Agricultural resource management & small farms data.....	10,248	33	9,215	37	7,000	33	7,000	33
Foreign Agricultural Service.....	1,196	5	1,164	5	1,020	5	1,020	5
Farm Service Agency - Estimates & Surveys.....	6,403	34	2,596	34	2,595	34	6,400	34
Forest Service - Grazing fees & woodland owners.....	68	-	71	-	70	-	70	-
Natural Resource Conservation Service & Farm Service Agency - Conservation effects assessment.....	6,000	10	4,000	10	10,000	10	4,000	7
Risk Management Agency - County estimates.....	2,290	3	825	3	825	4	825	5
World Agricultural Outlook Board - Lock-up & printing support & cotton objective yield.....	26	-	8	-	8	-	20	-
Miscellaneous USDA Reimbursements.....	4	-	4	-	20	-	20	-
Total, Other USDA.....	27,557	88	18,554	92	21,623	88	20,240	88
Total, Agriculture Appropriations.....	197,279	981	195,059	968	190,422	964	196,879	964
<u>Other Federal Funds:</u>								
Dept. of Interior, BLM; Survey Fees.....	67	-	70	-	100	-	100	-
National Institute for Occupational Safety & Health.....	837	4	-	-	850	4	850	4
Dept. of Labor - Agriculture Labor.....	1,200	1	1,200	1	1,200	1	1,200	1
National Science Foundation - data collection.....	100	1	115	1	100	1	100	1
National Aeronautics & Space Administration.....	12	-	12	-	10	-	10	-
United Soybean Council.....	40	-	40	-	50	-	50	-
Total, Other Federal.....	2,256	6	1,437	2	2,310	6	2,310	6
<u>Non-Federal Funds</u>								
State Agencies - Survey work.....	2,362	12	2,772	12	3,079	12	2,400	12
Miscellaneous Reimbursements - Agricultural reports, data, & mailings.....	-	-	-	-	-	-	-	-
Total, Non-Federal.....	2,362	12	2,772	12	3,079	12	2,400	12
Total, NASS.....	201,897	999	199,268	982	195,811	982	201,589	982

National Agricultural Statistics Service

Permanent Positions by Grade and Staff Year Summary

Item	2014 Actual			2015 Actual			2016 Enacted			2017 Estimate		
	Wash. D.C.	Field	Total									
SES.....	9	1	10	9	1	10	9	1	10	9	1	10
SL.....	1	-	1	2	-	2	2	-	2	2	-	2
GS-15.....	29	17	46	29	17	46	29	17	46	29	17	46
GS-14.....	56	71	127	56	71	127	56	71	127	56	71	127
GS-13.....	206	90	296	205	90	295	205	90	295	210	90	300
GS-12.....	32	155	187	32	155	187	32	155	187	32	155	187
GS-11.....	19	43	62	19	43	62	19	43	62	19	43	62
GS-10.....	2	3	5	2	3	5	2	3	5	2	3	5
GS-9.....	22	63	85	22	63	85	22	63	85	22	63	85
GS-8.....	12	20	32	12	20	32	12	20	32	12	20	32
GS-7.....	17	106	123	17	106	123	17	106	123	17	106	123
GS-6.....	1	19	20	1	19	20	1	19	20	1	19	20
GS-5.....	3	16	19	3	16	19	3	16	19	3	16	19
GS-4.....	1	13	14	1	13	14	1	13	14	1	13	14
GS-3.....	-	6	6	-	6	6	-	6	6	-	6	6
Total Perm.												
Positions.....	410	623	1,033	410	623	1,033	410	623	1,033	415	623	1,038
Unfilled, EOY.....	-24	-53	-77	-10	-41	-51						
Total, Perm.												
Full-Time Employment, EOY.....	386	570	956	400	582	982	410	572	982	410	572	982
Staff Year Est.....	429	570	999	435	650	1,085	435	655	1,090	439	656	1,095

National Agricultural Statistics Service

Motor Vehicle Fleet Data

The 2017 budget estimate for NASS proposes to maintain the current level of motor vehicles.

All passenger motor vehicles operated by NASS are located at various field offices and are assigned based on approved program needs and geographic region. NASS uses its fleet to conduct agricultural statistics programs through its 12 Regional Statistical Offices and 33 State Statistical Offices that serve all 50 States.

The NASS fleet is comprised primarily of sport utility vehicles (SUVs) that allow for passengers and equipment to easily travel to farms, ranches, and fields. Of the 12 Regional offices and 33 State offices, there are 13 NASS owned and 35 vehicles leased from General Services Administration (GSA). While all 12 NASS Regional offices and 33 State offices require the use of motor vehicles, it is often more cost-effective to acquire vehicles through existing cooperative agreements with the National State Departments of Agriculture, through leases from State motor pools, or via rental agreements. Field offices monitor and track vehicle use and costs. NASS plans to move from owned to lease as owned vehicles are reported excess. Where possible NASS uses short term rental and shared motor pools. The use of common carrier is not feasible. The ability to reach the nation’s farms, ranches, and fields is crucial to the NASS mission and for ensuring accurate data are being collected and reported.

Changes to motor vehicle fleet. At the end of 2015, NASS had 48 vehicles; 13 owned vehicles and 35 GSA leased vehicles. For 2016 and 2017, NASS plans no changes to the motor vehicle fleet total.

Impediments to managing the motor vehicle fleet. There are no identified impediments to managing the motor vehicle fleet in the most cost-effective manner.

Motor Vehicle Fleet Data

Size, Composition, and Annual Operating Costs of Vehicle Fleet

Fiscal Year	Number of Vehicles by Type *							Annual Operating Costs (\$ in 000) **	
	Sedans and Station Wagons	Light Trucks, SUVs, and Vans		Medium Duty Vehicles	Ambulances	Buses	Heavy Duty Vehicles		Total Number of Vehicles
		4x2	4x4						
2014	2	19	21	1	-	-	-	43	\$214
Change	-	+1	+4	-	-	-	-	+5	+10
2015	2	20	25	1	-	-	-	48	224
Change	-	-	-	-	-	-	-	-	+6
2016	2	20	25	1	-	-	-	48	230
Change	-	-	-	-	-	-	-	-	+6
2017	2	20	25	1	-	-	-	48	236

\* Numbers include vehicles owned by the agency and leased from commercial sources or GSA.

\*\* Excludes acquisition costs and gains from sale of vehicles as shown in FAST.

National Agricultural Statistics Service

Appropriation Language

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Salaries and Expenses:

For necessary expenses of the National Agricultural Statistics Service, [\$168,443,000] \$176,639,000, of which up to \$42,177,000 shall be available until expended for the Census of Agriculture: Provided, That amounts be made available for the Census of Agriculture may be used to conduct the Current Industrial Report surveys subject to 7 U.S.C. 2204 g(d) and (f).

Lead-Off Tabular Statement

Budget Estimate, 2017.....	176,639,000
2016 Enacted.....	<u>168,443,000</u>
Change in Appropriation.....	<u>+8,196,000</u>

Summary of Increases and Decreases

(On basis of appropriation)  
(Dollars in thousands)

	2014 Actual	2015 Change	2016 Change	2017 Change	2017 Estimate
Discretionary Appropriations:					
Agricultural Estimates.....	\$116,661	+\$7,905	+\$1,700	+\$8,196	\$134,462
Census of Agriculture.....	44,545	+3,297	-5,665		42,177
Total, Appropriation or Change..	<u>161,206</u>	<u>+11,202</u>	<u>-3,965</u>	<u>+8,196</u>	<u>176,639</u>

National Agricultural Statistics Service

Project Statement

Adjusted Appropriations Detail and Staff Years (SYs)  
(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Agricultural Estimates.....	\$116,661	663	\$124,566	646	\$126,266	646	+\$8,196	-	\$134,462	646
Census of Agriculture.....	44,545	230	47,842	230	42,177	230	-	-	42,177	230
Total Adjusted Approp.....	161,206	893	172,408	876	168,443	876	+8,196	-	176,639	876
Rescissions, Transfers, and Seq. (Net).....										
Total Appropriation.....	161,206	893	172,408	876	168,443	876	+8,196	-	176,639	876
Mandatory-Farm Bill.....	+1,000	-	-	-	-	-	-	-	-	-
Rescission.....	-	-	-	-	-	-	-	-	-	-
Sequestration.....	-	-	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	+146	-	+179	-	+356	-	-356	-	-	-
Recoveries, Other (Net).....	+7,691	-	+4,274	-	-	-	-	-	-	-
Total Available.....	170,043	893	176,861	876	168,799	876	+7,840	-	176,639	876
Lapsing Balances.....	-142	-	-	-	-	-	-	-	-	-
Bal. Available, EOY.....	-179	-	-356	-	-	-	-	-	-	-
Total Obligations.....	169,722	893	176,505	876	168,799	876	+7,840	-	176,639	876

Project Statement

Obligations Detail and Staff Years (SYs)  
(Dollars in thousands)

Program	2014 Actual		2015 Actual		2016 Enacted		Inc. or Dec.		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Agricultural Estimates.....	\$116,519	663	\$124,566	646	\$126,266	646	\$8,196	-	\$134,462	646
Census of Agriculture.....	53,204	230	51,938	230	42,533	230	-356	-	42,177	230
Total Obligations.....	169,722	893	176,505	876	168,799	876	+7,840	-	176,639	876
Lapsing Balances.....	+142	-	-	-	-	-	-	-	-	-
Bal. Available, EOY.....	+179	-	+356	-	-	-	-	-	-	-
Total Available.....	170,043	893	176,861	876	168,799	876	+7,840	-	176,639	876
Mandatory-Farm Bill.....	-1,000	-	-	-	-	-	-	-	-	-
Rescission.....	-	-	-	-	-	-	-	-	-	-
Sequestration.....	-	-	-	-	-	-	-	-	-	-
Bal. Available, SOY.....	-146	-	-179	-	-356	-	+356	-	-	-
Other Adjustments (Net).....	-7,691	-	-4,274	-	-	-	-	-	-	-
Total Appropriation.....	161,206	893	172,408	876	168,443	876	+8,196	-	176,639	876

Justification of Increases and Decreases

Agricultural Estimates Program

1. A net increase of \$8,196,000 for the Agricultural Estimates Program (\$126,266,000 and 646 staff years available in the 2016 Enacted Budget).

Base funding for the Agricultural Estimates Program (AEP) provides objective data essential to both the public and private sectors of the agriculture industry. Base funding for the Agricultural Estimates Program (AEP) will be used to continue collecting integrated surveys and estimates used for over 400 agricultural statistical reports that:

- Directly impacts the market,
- Directly contribute to the Federal Principle Economic Indicators of the United States,
- Provide data for which NASS reports are the only publically available objective sources of information,
- Support USDA program delivery, and
- Have specific legislative requirements for release.

Providing market information was one of the USDA key missions when it was created in 1862. Critical market-sensitive data are used by the commodity and agricultural markets to operate efficiently, providing a fair and equitable environment for price discovery in the marketplace. Without a Federal provision of objective data available for the U.S. and world markets, key market information would be in the hands of a few. Individual producers and ranchers would be at a disadvantage compared to those who have resources to pay for information, and markets could be exposed to manipulation.

Funds will be used for salaries and benefits, travel and transportation, rental payments, communications and utilities, printing and reproduction, goods and services from non-federal and federal sources, research and development, equipment, operation and maintenance of equipment, and supplies and materials.

The NASS AEP is very integrated; most report costs cannot be itemized as separate costs for a single report. For example the June Area, Crops, and Objective Yield surveys provide direct estimates or are a component of data collection and estimation for the following publications: June Acreage; Cattle Inventory; Small Grains Summary; Crop Production Summary; Hogs & Pigs Inventory; Sheep Inventory; Farm Production Expenses; Agricultural Land Values; Farms, Land in Farms, and Livestock Operations.

As does the base funding, the increases and decreases below support the mission, vision, and goals of the agency. The funding changes are requested for the following items:

- a. An increase of \$1,196,000 for a pay cost increase for the Agricultural Estimates Program which includes \$252,000 for annualization of the 2016 pay raise and \$950,000 for the anticipated 2017 pay raise.

This amount will enable NASS to maintain staffing levels which are critical to achieving the agency's principal goal to assist rural communities to create prosperity so they are self-sustaining, repopulating and economically thriving. Approximately 64 percent of NASS' budget is in support of personnel compensation.

- b. An increase of \$3,000,000 for the New and Beginning Farmers Initiative (\$0 available in 2016).

New and beginning farmers and ranchers are a fundamental part of the American and global agricultural marketplace and legacy. However, according to the most recent Census of Agriculture, in 2012, the United States had 522,058 beginning farmers (principal operators who were on their current operation ten years or less). This was 20 percent fewer than in 2007, when the last agriculture census was conducted. Additionally, consistent with the 30 year trend, the average age of a principal operator has continued to rise – and is at 58.3

years old nationwide. While USDA is working to understand additional nuances and gain a deeper picture of all the parts of the next generation of agriculture, these are important trends of note.

NASS will collect data for new and beginning farmers in part to gauge the effectiveness of programs implemented by the Department for new and beginning farmers. This request would entail gathering information from farmers who have been in business for 10 or fewer years. This information would address the following issues:

- How are new farmers utilizing USDA programs?
- Do new farmers have unmet needs or barriers to program access?
- Should USDA be focusing on issues such as access to capital and land, risk management, building market opportunities, education and training or are there other areas that USDA should focus as well?
- How are USDA programs affecting those who use them? Are there increases in financial health and resilience and are there any trends compared to program utilization?

This request would allow NASS to publish key statistics for new and beginning farmers at a regional level. Current data collection does not involve a statistically significant sampling of beginning farmers. This request would create the ability to independently analyze trends within the beginning farmer population.

c. An increase of \$1,000,000 for a Geospatial Improvement Initiative (\$800,000 available in 2016).

This new program will enhance the current satellite-based agricultural statistics monitoring program. Two primary objectives for the program are (1) improved yield estimates early in the growing season and (2) improved crop progress reports. NASA scientific grants have been supporting basic research on crop progress and crop condition; however, new resources are needed to establish a sustainable remote sensing capacity and to increase the scope and pace of research and development.

Currently the NASS Agricultural Statistics Board considers yield estimates for corn and soybean derived from remote sensing and weather data in its estimation process. These models have been developed within NASS and are widely recognized as being state-of-the-art. However, it has become evident that improvements to the current modeling approach will be incremental. The challenge arises from the fact that environmental factors, such as moisture, have a larger impact during some stages of the crop than during other stages. To take the models to the next level, the phenological stage of the crop must be incorporated into the models. Initial progress has been made in identifying critical crop stages from remote sensing. Additional resources are needed to move model development forward rapidly. Once operational the models will allow more precise estimates of yields earlier in the growing season. They will also be able to incorporate information on unexpected natural events, such as flooding or fires, to produce revised estimates in a timely manner. These estimates are closely followed by farmers and others in the agricultural industry.

NASS produces weekly crop progress reports from April through November. The reports provide planting, fruiting and harvesting progress, as well as overall crop condition for selected crops in major producing states. This is one of the most closely followed NASS reports by the agricultural industry. The new program will lead to improved reports specifically, an objective measure of crop condition and soil moisture can be recorded on a local level. This allows farmers to understand their crop progress relative to neighboring areas and the rest of the nation, which could provide a foundation for making management decisions with respect to their crops.

Both efforts will leverage strategic cooperative partnerships with university partners, USDA Climate Hubs and the National Oceanic and Atmospheric Administration Regional Climatic Centers. In addition, the basic statistical information developed in these reports is the foundational information for agricultural, environmental, and climate researchers to have local, factual information on U.S. croplands. The scientific, technological, and methodological capacities now exist for significant improvement to USDA's monitoring and assessment capabilities. Such improvements would expand the NASS remote sensing capacity for timely and accurate statistics in the areas noted above.

Maps are effective in communicating geospatial data effectively. Substantial improvements are needed in the mapping tools that NASS provides to the public. New resources are needed to develop an interface that allows

users to create maps that allow them to fully explore NASS data in a manner that maintains security of the systems.

The proposed research and data products will enhance the evaluation of temporal and spatial responses of climate change impact at local levels on crop production. Understanding the impact helps build our capacity to cope and mitigate the effects through genetics and management practices. For the development of this initiative, NASS will seek experts to add to our staff and scientists to collaborate with at other research institutions. The research and products are new and the initial performance measures are to deliver the following accurate and useful products:

- A crop condition qualitative product to the public within two years and weekly during the crop season for the following years.
- Improved yield models incorporating critical growth stages, leading to more precise yield estimates earlier in the growing season within three years.
- Enhanced mapping capabilities for data products available to the public within two years.
- A soil moisture data layer product within three years and on a weekly basis thereafter with four years

d. An increase of \$2,000,000 for the new Combating Antimicrobial Resistant Bacteria (CARB) Initiative (\$0 available in 2016).

Antibiotics have been a critical public health tool since the discovery of penicillin in 1928, saving the lives of millions of people around the world. Today, however, the emergence of drug resistance in bacteria is reversing the gains of the past eighty years, with many important drug choices for the treatment of bacterial infections becoming increasingly limited, expensive, and, in some cases, nonexistent. The Centers for Disease Control and Prevention (CDC) estimates that each year at least two million illnesses and 23,000 deaths are caused by drug-resistant bacteria in the United States alone.

The loss of antibiotics that kill or inhibit the growth of bacteria means that we can no longer take for granted quick and reliable treatment of rare or common bacterial infections, including bacterial pneumonias, foodborne illnesses, and healthcare-associated infections. As more strains of bacteria become resistant to an ever larger number of antibiotics, we will also lose the benefits of a range of modern medical procedures—from hip replacements to organ transplants—whose safety depends on our ability to treat bacterial infections that may arise as post-surgical complications. Moreover, antibiotic-resistance also threatens animal health, agriculture, and the economy.

The National Action Plan for Combating Antibiotic-resistant Bacteria provides a roadmap to guide the Nation in rising to this challenge. The National Action Plan outlines steps for implementing the National Strategy for Combating Antibiotic-Resistant Bacteria and addressing the policy recommendations of the President's Council of Advisors on Science and Technology. Although its primary purpose is to guide activities by the U.S. Government, the National Action Plan is also designed to guide action by public health, healthcare, and veterinary partners in a common effort to address urgent and serious drug-resistant threats that affect people in the U.S. and around the world.

As part of the President's National Strategy for CARB, USDA is charged with the development of practical mitigation strategies to limit or reduce the prevalence of AMR. To achieve this goal, the Agricultural Research Service (ARS), Animal and Plant Health Inspection Service (APHIS), Economic Research Service (ERS), Food Safety Inspection Service (FSIS), NASS, and the National Institute of Food and Agriculture (NIFA) jointly developed a USDA AMR Action Plan, which calls for these agencies to make combating antibiotic resistance a programmatic and budgetary priority.

Work related to AMR, the programs, and funding are inextricably linked, allowing USDA to maximize efforts, reduce duplication, and leverage the resources across the agencies in the areas of surveillance, research, education, and extension/outreach. The proposed activities of each Agency are dependent upon the partnering agencies fulfilling their proposed activities; this integrated approach allows the most timely and effective response to the AMR issue.

Consistent with the Plan, the agencies propose the following for 2017: NASS and APHIS will continue to collect cross-sectional and longitudinal data on farm practices and animal health. This information will be combined with information from characterization of biologic samples collected by APHIS and FSIS to evaluate and identify changes in antibiotic usage, production practices, and disease status, and to determine if current and future efforts to impact the use of antibiotics result in reduced prevalence of antibiotic resistance in animal food production and the environment. Building upon this, intramural research conducted by ARS, and competitive extramurally-funded research activities funded by NIFA will lead to better understanding and characterization of effective mitigation strategies for AMR throughout the agro-ecosystem. Data generated from ARS research, and from NIFA-funded research, education, and extension/outreach activities, will be used to inform antimicrobial stewardship efforts conducted both within and external to government. Information from these agencies will support ongoing analysis by ERS of the effects of alternative policy scenarios on farm production, profits and market outcomes.

To address this growing problem, NASS proposes new survey instruments to collect data on cattle, hogs, and poultry. This new data can be used to establish a baseline for these livestock and help track this growing problem. The baseline survey will do several things to respond to the CARB problem:

- Establish data to measure the extent of the problem (broad approach);
- Strengthen the knowledge and evidence base to allow for other agencies (that do more in-depth research work) to use NASS collected data as a starting point and go forward with more probing type questions;
- Develop trend analysis;
- Check the status of CARB with annual data collection surveillance to show whether the problem is growing worse, unchanged, or improving.

Survey work proposed by NASS supports the following CARB National Action Plan goal and corresponding sub-objectives:

- Objective 2.4 – Enhance monitoring of antibiotic-resistance patterns, as well as antibiotic sales, usage, and management practices, at multiple points in the production chain for food animals and retail meat.
- Objective 4.1- Conduct research to enhance understanding of environmental factors that facilitate the development of antibiotic resistance and the spread of resistance genes that are common to animals and humans.

e. An increase of \$1,000,000 for a new Farm Structure Study.

This is a new special study that will focus on the modern farm structure and its contributors. Although the vast majority of today's farms continue to be run by a single operator or by spousal partners, the large farms that produce a substantial percentage of the Nation's food tend to have more complex business structures. Moreover, today, farms are now operated by veterans, women, and beginning farmers. The purpose of this new study is to implement the finding from a National Academy of Sciences panel convened in 2015 to explore ways to improve data collection and information reporting on today's complex farm business structures and farmer characteristics. Survey questions will be developed and tested for inclusion in the 2017 Census of Agriculture and the Agricultural Resource Management Survey (ARMS).

NASS will also modify statistical tools to better reflect the changing face of agriculture, especially by including women, new farmers, and veterans on the farm.

Census of Agriculture Program

The Census of Agriculture (COA) is conducted every five years to obtain agricultural statistics for each county, State and the Nation. The Census is the leading source of statistics about the Nation's agricultural production and the only source of consistent, comparable data at the county, State and national levels. The Census is authorized by law under Title 7, U.S. code 2204g and is conducted in close cooperation with the Nation's agricultural user groups and farmer organizations.

## National Agricultural Statistics Service

Data include number of farms; farm characteristics; livestock, poultry and their products; crops; land use; irrigation; operator characteristics; ownership; income; production expenses; direct marketing; farm labor and migrant workers; agricultural activity on Native American Indian reservations; chemical use; computer use and more. Agricultural statistics reports cover the current census, with comparative data for previous census years.

Continuation of the COA Program is critical because funding below the base level would result in:

- A data gap that hinders NASS ability to complete the COA.
- Lack of COA data used by public and private decision-makers, including USDA and Congress, to make sound, well-informed, and effective policy, production and marketing decisions.
- Lack of COA data that is vital to USDA programs in the Economic Research Service, Agricultural Research Service, the World Agricultural Outlook Board, Foreign Agricultural Service, Farm Service Agency, Risk Management Agency, Natural Resource Conservation Service, and Rural Development.
- Difficulty producing other NASS reports. If the COA is not completed, NASS will not have a current list frame for conducting its ongoing surveys in the Agricultural Estimates program, census follow-on surveys, and reimbursable surveys as well.
- The COA Program is conducted over a five year cycle of activities. Annual and Quinquennial Census of Agriculture special study follow-on surveys are a vital part of the Census of Agriculture Program and include: the annual Current Agricultural Industrial Reports; and the Quinquennial Special Studies: the Census of Aquaculture; the Census of Horticulture; the Farm and Ranch Irrigation Survey; the Tenure, Ownership and Transition of Land Survey; Organic Production Survey; and Local Foods Special Study.

The entire COA Program is broken down into five general categories. Due to the cyclical nature of the Quinquennial Census of Agriculture Program, appropriated funds will shift among these five broader categories over the five year cycle of activities. Research, evaluation and analysis are continually being conducted during the entire cycle of the Quinquennial Census of Agriculture throughout all aspects to ensure data quality and efficiency.

### 2. No increase for the Census of Agriculture (COA) - (\$42,177,000 and 230 staff years is available in the 2016).

Funds will be used for salaries and benefits, travel and transportation, rental payments, communications and utilities, printing and reproduction, goods and services from non-Federal and Federal sources, research and development, operation and maintenance of equipment, supplies and materials, and equipment. NASS will continue to collaborate with NASDA in data collection.

Fiscal Year 2017 marks the final year for preparations prior to conducting the 2017 COA in FY 2018. The requested funding will be used to finalize the Census Mail List (CML), collect data to measure coverage of the CML, prepare Census mail packages, and complete all systems requirements. The full staffing of all 230 staff years is required. No follow-on special studies are conducted during the preparation year of the five year cycle of the COA.

During 2017, NASS will finalize the mail list for the COA. NASS mails out a four-page general agriculture screener, previously referred to as the National Agricultural Classification Survey (NACS), to determine whether an operation should be included in the CML. Under this funding amount NASS will mail the NACS to approximately 400,000 potential agriculture operations. NASS will conduct phone follow up for those reports that are not returned by mail.

The Agricultural Coverage Evaluation Survey (ACES) is a separate and vital pre-screener to the COA and is used to update and improve the CML. Extensive efforts are directed toward developing a CML that includes all farms in the U.S. However, some farms are not on the list and some on the list are not farms. NASS maintains a Not on the Mail List (NML) to estimate undercoverage associated with the COA. During the ACES pre-screening operation, each tract is identified as either agricultural or non-agricultural based on the farm definition (“any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year”). NASS also uses the ACES screener to identify minority and socially disadvantaged farmers, to ensure they are properly represented in the 2017 COA.

National Agricultural Statistics Service

NASS also plans to use \$2 million of the base funding for contract services associated with the printing of forms, letters, instructions, and envelopes for the mailing of approximately 3 million records projected as the CML. Data for the COA is predominantly collected via mail. In order to achieve desired response rates and control costs, NASS plans three mailings. With the high volume of records in the CML, it is critical to contract with an outside vendor to produce over 6 million questionnaires in a professional and consistent manner. NASS works with the Census Bureau's NPC under an interagency cooperative agreement and NPC conducts the bidding process for the Print Contract. Due to the time needed to award the contract, perform quality assurance, and produce the contracted materials, NASS needs to obligate the funds for the interagency cooperative agreement with the NPC in October, 2016.

- a. An increase of \$306,000 for a pay cost increase for the COA which includes \$63,000 for annualization of the 2016 pay raise and \$237,000 for the anticipated 2017 pay raise.

This amount will enable NASS to maintain staffing levels which are critical to achieving the agency's principal goal to assist rural communities to create prosperity so they are self-sustaining, repopulating and economically thriving. Approximately 64 percent of NASS' budget is in support of personnel compensation.

- b. A decrease of \$306,000 for Federal Employee Health Benefits (FEHB) for Intermittent Term Employees (\$306,000 in 2016).

This reduction is achieved by converting the National Operations Division (NOD) intermittent term employees from Federal employees to part-time employees employed by NASDA. All salaries and benefits for these employees will be paid through a cooperative agreement that NASS has with NASDA. Conversion of all federal, intermittent term employees is scheduled to be complete in early 2016.

National Agricultural Statistics Service

Geographic Breakdown of Obligations and Staff Years

(Dollars in thousands)

State/Territory	2014 Actual		2015 Actual		2016 Enacted		2017 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama.....	\$211	2	\$234	2	\$234	2	\$234	2
Alaska.....	145	1	147	1	147	1	147	1
Arizona.....	180	2	190	2	190	2	190	2
Arkansas.....	1,792	19	1,816	23	1,816	23	1,816	23
California.....	2,127	21	2,154	21	2,154	21	2,154	21
Colorado.....	2,821	23	2,676	33	2,676	33	2,676	33
Delaware.....	239	1	190	1	190	1	190	1
Florida.....	231	3	227	3	227	3	227	3
Georgia.....	2,360	24	2,525	24	2,525	24	2,525	24
Hawaii.....	141	2	170	2	170	2	170	2
Idaho.....	265	2	270	2	270	2	270	2
Illinois.....	268	2	266	2	266	2	266	2
Indiana.....	311	2	288	2	288	2	288	2
Iowa.....	1,803	18	2,000	18	2,000	18	2,000	18
Kansas.....	275	2	261	2	261	2	261	2
Kentucky.....	2,448	22	2,470	24	2,470	24	2,470	24
Louisiana.....	223	2	215	2	215	2	215	2
Maryland.....	151	2	181	2	181	2	181	2
Michigan.....	2,241	25	2,078	27	2,078	27	2,078	27
Minnesota.....	232	2	230	2	230	2	230	2
Mississippi.....	190	2	193	2	191	2	191	2
Missouri.....	11,353	147	10,627	110	10,627	110	10,627	110
Montana.....	220	5	550	5	550	5	550	5
Nebraska.....	2,262	23	2,163	23	2,163	23	2,163	23
Nevada.....	153	2	144	1	144	1	144	1
New Hampshire.....	251	2	276	2	276	2	276	2
New Jersey.....	323	2	274	2	274	2	274	2
New Mexico.....	219	2	236	2	236	2	236	2
New York.....	223	2	256	2	256	2	256	2
North Carolina.....	228	2	456	4	456	4	456	4
North Dakota.....	292	2	290	2	290	2	290	2
Ohio.....	214	2	230	2	230	2	230	2
Oklahoma.....	247	3	249	3	249	3	249	3
Oregon.....	234	2	238	2	238	2	238	2
Pennsylvania.....	2,381	23	2,530	25	2,530	25	2,530	25
South Carolina.....	417	2	270	2	270	2	270	2
South Dakota.....	638	2	290	2	290	2	290	2
Tennessee.....	205	2	212	2	212	2	212	2
Texas.....	2,496	26	2,681	26	2,681	26	2,681	26
Utah.....	234	2	242	2	242	2	242	2
Virginia.....	220	2	239	2	239	2	239	2
Washington.....	2,320	22	2,320	22	2,320	22	2,320	22
West Virginia.....	51	2	169	2	169	2	169	2
Wisconsin.....	317	2	289	2	289	2	289	2
Wyoming.....	267	2	440	4	440	4	440	4
District of Columbia.....	125,304	429	132,053	428	124,349	428	132,189	428
Puerto Rico.....	-	-	-	-	-	-	-	-
Obligations.....	169,722	891	176,505	876	168,799	876	176,639	876
Lapsing Balances.....	+142	-	-	-	-	-	-	-
Bal. Available, EOY.....	+179	-	+356	-	-	-	-	-
Total, Available.....	170,043	891	176,861	876	168,799	876	176,639	876

National Agricultural Statistics Service

Classification by Objects

(Dollars in thousands)

	2014	2015	2016	2017
	Actual	Actual	Enacted	Estimate
<b>Personnel Compensation:</b>				
Washington D.C.....	\$31,582	\$38,000	\$38,500	\$39,400
Field.....	31,343	32,048	32,000	32,600
11 Total personnel compensation.....	62,925	70,047	70,500	72,000
12 Personal benefits.....	19,245	23,103	23,500	24,000
13 Benefits for former personnel.....	1,118	1,000	1,000	1,000
Total, personnel comp. and benefits.....	83,288	94,150	95,000	97,000
<b>Other Objects:</b>				
21 Travel & transportation of persons.....	3,404	2,065	2,000	2,000
22 Transportation of things.....	1,482	1,455	1,300	1,300
23.1 Utilities.....	619	652	700	700
23.2 Telephone.....	82	128	100	100
23.3 Rent, GSA.....	2,795	7,200	6,855	6,855
24 Printing & reproduction.....	266	268	300	300
25.1 Other Goods & Services from Federal Sources.....	14,401	13,009	7,100	9,100
25.3 Operation & maintenance of equipment.....	1,309	1,300	2,300	2,300
25.4 Contractual Services - Other Non-Federal.....	3,531	3,852	3,845	4,574
25.41 Contractual Services - Other Non-Federal-NASDA.....	40,521	32,021	30,887	34,000
25.5 Research and development contracts.....	8,378	9,249	9,000	9,000
25.6 IT Services & Supplies.....	4,334	5,476	4,000	4,000
26 Supplies & materials.....	857	1,225	1,000	1,000
31 Equipment.....	4,937	4,449	4,400	4,400
42 Insurance Claims & Indemnities.....	9	6	12	10
43 Interest & Dividends.....	-490	0	0	0
Total, Other Objects.....	86,435	82,356	73,799	79,639
Total, new obligations.....	169,722	176,505	168,799	176,639
DHS Building Security Payments (included in 25.3).....	-	780	780	780
<b>Position Data:</b>				
Average Salary (dollars), ES Position.....	\$166,452	\$175,604	\$179,116	\$182,698
Average Salary (dollars), GS Position.....	\$74,702	\$82,363	\$84,010	\$85,690
Average Grade, GS Position (Grade.Step).....	11.5	11.5	11.5	11.5

National Agricultural Statistics Service

Shared Funding Projects  
(Dollars in thousands)

	2014	2015	2016	2017
	<u>Actual</u>	<u>Enacted</u>	<u>Enacted</u>	<u>Estimate</u>
<b>Working Capital Fund:</b>				
Administration:				
Beltsville Service Center.....	\$80	\$119	\$148	\$156
HR Enterprise System Management.....			12	12
Integrated Procurement Systems.....	105	107	109	108
Mail and Reproduction Management.....	101	86	98	75
Procurement Operations.....	1	40	-	-
Subtotal.....	287	353	367	352
Communications:				
Creative Media and Broadcast Center.....	72	53	147	36
Correspondence Management:				
Correspondence Management.....	16	16	13	14
Finance and Management:				
Controller Operations.....	243	243	260	258
Financial Systems.....	511	521	521	521
Internal Control Support Services.....				13
National Finance Center.....	312	346	325	311
Subtotal.....	1,066	1,110	1,106	1,103
Information Technology:				
International Technology Services.....	4	1,663	414	419
National Information Technology Center.....	1,257	1,214	1,196	1,258
Telecommunications Services.....	377	132	231	223
Subtotal.....	1,638	3,008	1,841	1,899
Total, Working Capital Fund.....	3,079	4,541	3,475	3,405
<b>Departmental Shared Cost Programs:</b>				
1890 USDA Initiatives.....	33	28	35	35
Advisory Committee Liaison Services.....	1	2	2	2
Classified National Security Information.....	-	10	7	7
Continuity of Operations Planning.....	23	21	22	22
Emergency Operations Center.....	26	23	25	25
Facility and Infrastructure Review and Assessment.....	5	5	5	5
Faith-Based Initiatives.....	2	4	4	4
Federal Biobased Products Preferred Procurement Program.....	4	-	-	-
FITARA Administration and Operations.....	-	-	55	75
Hispanic-Serving Institutions National Program.....	23	18	24	24
Honor Awards.....	1	1	1	1
Human Resources Transformation.....	20	17	15	15
Identity and Access Management (HSPD-12).....	77	68	70	70
Medical Services.....	20	32	41	41
People's Garden.....	7	7	7	7
Personnel Security Branch.....	13	10	8	8
Preauthorized Funding.....	41	38	43	43
Retirement Processor Web Application.....	7	6	6	6
Sign Language Interpreter.....	28	-	-	-
TARGET Center.....	10	14	15	15
USDA 1994 Program.....	9	7	14	14
Virtual University.....	22	20	21	21
Visitor Information Center.....	3	-	-	-
Total, Departmental Shared Cost Programs.....	375	332	419	440
<b>E-Gov:</b>				
Budget Formulation and Execution Line of Business.....	1	1	1	1
Enterprise Human Resources Integration.....	26	21	20	20
E-Rulemaking.....	12	8	-	-
E-Training.....	32	28	29	-
Financial Management Line of Business.....	2	2	2	2
Geospatial Line of Business.....	0	0	8	12
Human Resources Mgmt Line of Business.....	3	3	3	3
Integrated Acquisition Environment - Loans and Grants.....	22	19	-	-
Integrated Acquisition Environment.....	8	7	13	-
Total, E-Gov.....	106	89	76	38
NASS Total.....	3,560	4,962	3,968	3,883

## NATIONAL AGRICULTURAL STATISTICS SERVICE

### Status of Programs

**USDA Strategic Goal 1: Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.**

### **AGRICULTURAL ESTIMATES PROGRAM**

#### **Current Activities:**

The National Agricultural Statistics Service (NASS) mission is to provide timely, accurate, and useful statistics in service to U.S. agriculture. To achieve this, NASS administers USDA's program of collecting and publishing current national, State, and county agricultural statistics. The Census of Agriculture, conducted every 5 years, provides comprehensive, local level data about agricultural communities across America. The statistical data provided by NASS are essential to both the public and private sectors for making effective policy, production, and marketing decisions on a wide range of agricultural commodities.

The NASS agricultural statistics program is conducted through 12 Regional Field Offices and 34 State offices serving all 50 States. Scientifically designed surveys of farmers, ranchers, agribusinesses, and others provide the basis for developing estimates of production, supply, price, and many other aspects of the agricultural economy. These surveys are supplemented by field observations, objective yield counts and measurements, and other data to provide reliable information. Administrative data available from other USDA agencies and State Departments of Agriculture are also used to produce statistical reports, including monthly livestock and poultry slaughter, egg production, and dairy products reports.

Official USDA national and State reports are issued relating to:

- 1) the number of farms and land in farms;
- 2) acreage, yield, production, and stocks of grains;
- 3) production of
  - a) hay,
  - b) oilseeds,
  - c) cotton,
  - d) potatoes,
  - e) tobacco,
  - f) fruits & vegetables,
  - g) floriculture, and
  - h) selected specialty crops;
- 4) inventories and production of hogs, cattle, sheep and wool, goats and mohair, poultry, eggs, and dairy products;
- 5) prices received by farmers for products, prices paid for commodities and services, and related indexes;
- 6) cold storage inventories;
- 7) agricultural chemical use; and
- 8) Other related items that affect the agricultural economy.

The NASS field offices forward the estimates to Headquarters in Washington, D.C., where they are combined, analyzed, and released at scheduled times to the media and public through free published statistical reports on the NASS Web site, <http://www.nass.usda.gov/>. Annually, NASS publishes close to 400 national agricultural statistical reports, covering over 120 crop and 45 livestock items, complemented by additional State agricultural statistical releases. These basic and objective data are critical to maintain an orderly association between the consumption, supply, marketing, and input sectors of agriculture.

NASS provides timely and accurate agricultural statistics that are used throughout the agricultural sector to evaluate supplies and determine competitive prices for world marketing of U.S. commodities. These statistics promote a level playing field in production agriculture with impartial information available to everyone at a predetermined and publicized date and time.

Statistical data are also provided on chemical use and biotechnology for use in monitoring and evaluating risk assessment to both food safety and food security. Data on agricultural practices, farm and ranch irrigation practice trends, and the geographic information system cropland data layer provide meaningful information on the Nation's resource base and environment.

NASS continues to keep abreast of information needs through a variety of means, including holding data user meetings, and advisory committees, attending industry meetings, and sponsoring outreach activities. Even though most NASS reports consist of specific data series, improvements to reports and databases are constantly being made in terms of additional data breakouts, improved coverage, and improved timeliness. Special reports or additional categories within existing reports are added to best summarize the constantly changing character of agriculture.

### **Selected Examples of Recent Progress:**

- ***Yield Modeling Guidelines and Research.*** NASS continues to pursue the Office of Management and Budget (OMB) issued *Standards and Guidelines for Statistical Surveys, Section 4.1 Developing Estimates and Projections* requiring agencies to use accepted theory and methods when deriving direct survey-based and model-based estimates. Additionally, error estimates must be calculated and disseminated to support assessment of the appropriateness of the uses of the estimates. To meet this requirement NASS is in the implementation stage of models for forecasting crop yields of corn and soybeans. The model incorporates data from the Objective Yield Survey, the Agricultural Yield Survey, and the December Agricultural Survey in addition to auxiliary information about weather and crop progress. The Methodology Division successfully ran parallel programs for corn and soy beans during the 2015 crop production season. Research is ongoing for additional crops within the NASS research division.
- ***Price Indexes.*** In January 2015, NASS replaced the prices received and prices paid 12 month simple average annual index. The previous annual average index for prices received will take into account monthly marketing contributions. The prices paid annual index will be based on annual weights.
- ***Bee and Honey Program.*** In April 2015, NASS began to collect quarterly honey bee colony loss data from operators with 5 or more colonies. Honey bee colony loss data from operators with less than 5 colonies will be collected annually in January of each year.
- ***Final Estimate Bulletins for Crops.*** In October and November 2014, NASS issued 6 Final Estimates bulletins covering 5 years of data for Field Crops; Noncitrus Fruits & Nuts; Rice Stocks; Stocks of Grains, Oilseeds, & Hay; Potatoes & Sweet Potatoes; and Crop Values. This information was also posted to Quick Stats.
- ***Final Estimate Bulletins for Livestock.*** In October 2014, NASS issued three Final Estimate bulletins. The first covering five-years of meat production, disposition, and income data for: cattle, and hogs & pigs. A second publication covering five-years of milk disposition and income. A third publication releasing five-years of poultry production and value for chickens & eggs, and broilers. This information was also posted to Quick Stats.

### **Research and Development**

- ***Model-Based Estimation.*** NASS is examining model-based estimation techniques to improve the statistical reliability of published forecasts/estimates and to provide accurate error measures. Bayesian hierarchical models for corn, soybean, and wheat yields are now running in parallel with NASS operational processes, and the results were provided to the Agricultural Statistics Board for their consideration in producing reports. A Bayesian hierarchical model for cotton yield, which also incorporates multiple data sources, including current and historical data and administrative/auxiliary information, is being developed. A decision support application is also being developed. This should eventually lead to crop phenology being more explicitly accounted for in the yield models, which would result in more precise estimates. Finally, an effort has been initiated to include the capacity to reflect a disruption in the system, such as a disease outbreak, to the livestock time series models, beginning with the model for hogs and pigs. NASS has worked collaboratively with consultants from outside of the agency to develop the methodology for these endeavors.

- **List Frame Annual Maintenance.** 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. An improved method of stratification was used in 2015, which resulted in more uniform strata for the area frame, leading to more precise estimates at no additional cost.
- **Improved Methodology for the June Agricultural Survey.** The Agency's June Agricultural Survey provides estimates of the numbers of farms and land in farm at the national and state levels as well as for other subpopulations of interest. In 2007, these estimates were significantly less than those from the 2007 Census of Agriculture, raising the question of misclassification of farm status. Capture-recapture 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 and land in farms, adjusted for misclassification and nonresponse have been developed and were provided for Board consideration this year. Measures of uncertainty for the resulting estimates were also produced.
- **Response Rates.** NASS has seen declining response rates. Efforts continue to maintain or increase response rates. Alternative data collection procedures are being tested. A Response Rate Review Team has been formed. The team will review existing NASS processes in an effort to identify ways to improve response rates. New approaches, such as the use of previously reported data, are being explored.
- **Improved Imputation Methods.** A multivariate method of imputing missing data was used for the 2014 Agricultural Resource Management Survey (ARMS) in 2015. This approach maintains the relationships among variables better than the conditional mean approach used earlier, resulting in improved estimates of these relationships.

## CENSUS OF AGRICULTURE PROGRAM

### Current Activities:

The Census of Agriculture is conducted every 5 years and provides comprehensive data series at the national, state, and county level. It provides a snapshot of the agriculture economy including the number of farms, characteristics of farm operators, land use, production expenses, value of land and buildings, farm size, market value of agricultural production, acreage of hundreds of crops, inventory of livestock and poultry, and extensive farming practices including irrigation, marketing and utilization of government sponsored programs. The results of the 2012 Census of Agriculture were published in 2014. Reformulations of the data in the form of additional products continued into 2015.

### Selected Examples of Recent Progress:

#### **2012 Census of Agriculture (COA)**

- **COA Special Tabulations.** NASS successfully rolled out a variety of other agricultural statistics products that are reformulations of data available from a complete Census of Agriculture. In response to data user requests and needs to have data provided in different media and tabular formats, NASS has provided the public the following products since the 2012 Census of Agriculture data release in May, 2014:
  - **Watersheds** – Provides data users selected Census of Agriculture statistics for the six digit Hydrological Unit Code.
  - **Specialty Crops** - National and state data on number of farms, land in farms, irrigated acreage, value of sales, and operator characteristics for specialty crops as defined in the Farm Bill.
  - **Specialty Crops for Puerto Rico** – Data on number of farms, land in farms, irrigated acreage, value of sales, and operator characteristics for specialty crops as defined in the Farm Bill.
  - **Typology** – Data reformulation that provides uniform agriculture statistics by category of farms grouped with similar characteristics.

- ***Years on Present Farm of Principal Operator*** - Selected census statistics of farms by the number of years the principal operator operated any part of the operation.
- ***Congressional District Rankings*** – Ranks selected Census of Agriculture statistics by Congressional District.

## 2017 Census of Agriculture

- ***2017 COA Preparations Started.*** NASS continues preparations for the 2017 Census of Agriculture. Planning and development for the 2017 Census of Agriculture was initiated with the formation of two teams: one responsible for the content (Content Team) and one responsible for development and testing of the forms and data collection (Data Collection Testing Team). The following highlights the activities of these two teams in FY 2014.
  - ***Content Team*** – Public solicitation for items to be added to the 2017 Census of Agriculture. Conduct a comprehensive review for all data items on the previous Census of Agriculture to determine their relevance and importance of continued data collection.
  - ***Data Collection Testing Team*** – Evaluation of the data collected on the 2012 Census of Agriculture as well as comments from NASS field offices and other staff to target areas for improvement. Perform cognitive interviews on potential additional content and modifications to existing content items.
- ***List Building for 2017 COA.*** Counting over 2.2 million farms takes a fully implemented and routinely performed list building effort. Beginning in reference year 2014, NASS began developing its Census Mail List. Over the course of three years, NASS will process millions of potential agriculture operation identification report forms through the National Agricultural Classification Survey instrument to determine if they should be included in the 2017 Census of Agriculture.
- ***NASS Solicited Input for the 2017 COA.*** . NASS solicited input to the 2017 Census questionnaire via two press releases, twitter, and materials to National Association of State Departments of Agriculture members at their annual meeting, CBO stakeholders at a NASS sponsored workshop, and to the Communications Officers of State Departments of Agriculture.
- ***Improvements to the 2017 Census of Agriculture.*** In FY 2015 NASS developed the 2015 Census of Agriculture Content Test. This is a large-scale test of questionnaire content, formatting, and processing procedures to be eventually used for the 2017 Census of Agriculture. Feedback from NASS staff, review of the 2012 Census of Agriculture data and requests for new content were used as the basis for the 2015 Content Test forms. The 2015 Census of Agriculture Content Test will utilize six questionnaire versions to compare alternative questionnaire formats. Forms will be mailed to a representative sample of farmers in January 2016. The Content Test will also include a completely redesigned internet data collection instrument. This instrument was designed by a contractor with expertise in developing interfaces for various platforms (conventional computers, smartphones, and tablets). In addition, the Content Test will incorporate an expanded Personal Characteristic section that includes a question on veteran status, several questions that capture person-level decision-making activities, as well as methods designed to improve the reporting of women and beginner farmers. The results of the Content Test will be analyzed and combined with additional smaller scale qualitative testing to determine the most effective questionnaire(s) format for the 2017 Census of Agriculture.
- ***Farm and Ranch Irrigation Survey.*** In November, NASS released the results of the 2013 Farm and Ranch Irrigation Survey (FRIS). This Census Special Study is a follow-on survey to the Census of Agriculture. FRIS occurs every five years in the year after the census and provides detailed data relating to on-farm irrigation practices. The data are reported at national, state and watershed levels. They are the only data complete, consistent and accurate enough to use in benchmarking on-farm irrigation measures over time. FRIS data contribute to water-related programs, economic models, legislative initiatives, market analyses, and feasibility studies. The information helps industry representatives, leaders, and planners chart the best course for future on-farm irrigation.

- **Organics Production Survey.** NASS released the 2014 Organics Production Survey (Certified and Non-Certified Growers) on September 17, 2015. The Organic Production Survey was a follow on survey to the Census of Agriculture.
- **Tenure, Ownership and Transition of Agricultural Land.** In August, NASS released the results of the 2014 Tenure, Ownership, and Transition of Agricultural Land (TOTAL) Survey is a comprehensive study of all landlords of agricultural land. This survey is a part of the Census of Agriculture program. NASS will conduct the TOTAL survey in collaboration with the Economic Research Service (ERS). Two separate data collections efforts will be conducted and the first mail-out began December 23, 2014. An expanded Agriculture Resource Management Survey (ARMS) will collect data on farm operators while a separate instrument will collect data on individuals that are only landlords.
- **Pollinator Reports.** In April 2015, NASS began to collect quarterly honey bee colony loss data from operators with 5 or more colonies. Honey bee colony loss data from operators with less than 5 colonies will be collected annually in January of each year. A May 12, 2016 publication is planned.

In August 2015, NASS published a Federal Register notice for a new survey to measure the cost of honey bee pollination to crop producers. This new survey will collect cost of pollination by commodity.

In August 2015, NASS published a Federal Register notice for a change to the annual Bee & Honey survey. Additional questions to collect cost and revenue information for operators of honey bee colonies is planned.

- **Current Agricultural Industrial Reports. In 2015, NASS published four Current Agricultural Industrial Reports.** They are: Grain Crushing and Co-Products, Flour Milling Products, Cotton System Consumption and Stocks, and Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks.
  - **Grain Crushing and Co-Products: This is a monthly report that covers that consumption of corn and sorghum.** The publication provides data about agricultural commodities consumed for alcohol and other uses as well as the production of co-products and products in the United States.
  - **Flour Milling:** This quarterly report covers all firms in the United States operating wheat and rye flour mills. Type of data collected are amount of flour and mill feed produced from wheat and rye.
  - **Cotton System Consumption:** This is a monthly report, but data are collected weekly. This survey covers all manufacturing plants consuming cotton, manmade fiber staple, and raw linters except consumption of uncut top and other longer fibers on the "American" and other new systems for spinning uncut top. Type of data collected are amount of cotton, manmade fiber staple, and raw linters that are removed from inventory and put into process for carding, spinning, bleaching, etc.
  - **Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks:** This is a monthly report that covers businesses that produce various edible and inedible fats and oils. This report also includes data that covers all establishments crushing or solvent processing vegetable oil bearing materials (oilseeds, beans, nuts, etc.), including establishments using a continuous process that immediately refines the oil. Type of data collected are amount of crop crushed, amount of processed oil and feed produced.

## Research and Development

- **Revised Methodology Implemented.** In 2015, NASS implemented new methodology for the 2014 Organics Survey, a census of organic producers. Based on call-backs, misclassification was identified as an issue leading to undercounts. In addition, under coverage of the NASS list frame was present and had not been traditionally accounted for. Revised methods were developed to adjust the estimates for under coverage, nonresponse, and misclassification, and the appropriate measures of uncertainty for the estimates were developed.

- **Improvements for the 2017 Census of Agriculture Questionnaire.** Based on feedback after the 2012 Census of Agriculture, NASS requested that the National Institute of Statistical Science convene an expert panel to review the information being gathered on women and new/beginning farmers. The panel met in April, 2015, and provided recommendations for improvement, leading to a draft revision in the demographics section of the Census of Agriculture's questionnaire. Cognitive testing was conducted, leading to revisions in the draft demographics section. The new demographics section is included in the Content Tests for the 2017 Census of Agriculture, along with other proposed changes. Additional cognitive tests are being conducted for the full census questionnaire. These, along with the results of the Content Test, may lead to further revisions.
- **Improved Calibration Process.** After the capture-recapture weights are associated with each Census of Agriculture record, the weights are calibrated to known commodity targets. During the 2012 Census of Agriculture, it became evident that the calibration process could be improved. In 2014 collaborative efforts were initiated with Texas A&M University for that purpose. Improved methods for calibration and rounding (so that only whole numbers of farms are reported) have been developed. Now attention is focused on improving the measures of uncertainty.

## ACTIVITIES COVERING BOTH AGRICULTURAL ESTIMATES & THE CENSUS OF AGRICULTURE

### Selected Examples of Recent Progress:

- **Standardization.** NASS is recognized as USDA's statistical agency and works regularly with Office of Management and Budget (OMB) staff to ensure NASS is in compliance with the Paperwork Reduction Act, which requires OMB approval for the censuses and surveys NASS conducts. All censuses and surveys require NASS to submit Information Collection Requests (ICRs) to OMB, which justifies the need for each data collection, as well as provides details on the survey and statistical methodology used. In FY 2015 NASS concluded 22 ICRs. NASS also assists other USDA agencies in the review of their ICRs. In most cases, this involves a thorough review of their survey methodology. In FY 2015 NASS reviewed 13 ICRs for the following agencies: Agricultural Marketing Service, Economic Research Service, Food and Nutrition Service, Food Safety and Inspection Service, and Forest Service.

### Cyber and Physical Security

#### Current Activities:

- **Emphasis on Security.** NASS continues to elevate its users' awareness on the importance of sound security practices and procedures by means of mandatory information security awareness training, role-based security training for privileged users, as well as regular phishing campaigns.
- **LincPass technical Mandatory.** NASS continues to place a high priority for all full-time staff to use their LincPass badges to log in to the NASS network as required by HSPD-12 and USDA mandates. NASS is currently on par with the USDA mandate by requiring 100% of its privileged users, and 87% of all its employees. NASS is on its way to meeting the 95% USDA PIV technical mandatory mandate by the Dec. 2016 due date.
- **USDA ASOC Operational Security Assessment (OSA).** USDA ASOC recently completed its security review of the NASS operational environment. Though a number of findings were identified, there were no glaring weaknesses that could critically undermine the security of agency data. NASS created a group of technical experts to mitigate findings.
- **Continuous Diagnostics and Mitigation Compliance.** NASS is collaborating with the USDA ASOC on implementing phase 1 of the DHS Continuous Diagnostics and Mitigation (CDM) program. NASS expects the delivery of a hardware asset inventory solution sometime in early FY16.

### **Selected Example of Recent Progress:**

- ***Reaccreditation of IT Systems.*** In compliance with Security Assessment and Authorization (SA&A) requirements of the Federal Information Security Management Act (FISMA), NASS completed accreditation on all five of its systems that had expiring Authorizations to Operate (ATO).
- ***Security Awareness and Role-Based Security Training 100% Participation.*** In 2015, NASS once again garnered 100 percent completion rate for both Information Security Awareness, and Role-Based security training requirements. NASS continues to ensure all its employees and contractors complete this requirement.
- ***Remediation, NASS Lockup OIG Audit.*** NASS completed remediation of all findings that OIG identified in its most recent audit of the NASS lockup. NASS continues to implement critical activities, such as annual independent review of NASS lockup security and processes.

### **Stakeholder Engagement**

#### **Current Activities:**

- ***Data Users Meeting.*** The 2015 Data Users Meeting provided an open forum for data users to ask questions and provide feedback about the entire USDA statistics program. It provided an excellent opportunity to learn about the data users' concerns and desires for improvements or changes to the statistics and economics programs. The meeting was hosted by NASS in cooperation with the World Agricultural Outlook Board, Economic Research Service, Agricultural Marketing Service, Foreign Agricultural Service, and the U.S. Census Bureau. The Farm Service Agency also participated in the meeting for the first time this year addressing questions about county level data availability and FSA data release schedules.
- ***Advisory Committee on Agriculture Statistics.*** The Advisory Committee on Agriculture Statistics met in Louisville, KY on November 4-5, 2015. Items of discussion included the NASS budget; 2017 Census of Agriculture; Urban Agriculture & Next Generation Farmers and Ranchers; Agricultural Resource Management Survey and Chemical Use Program Overview; Data Quality and a tour of the National Processing Center in Jeffersonville, IN. Eleven recommendations were forthcoming from this meeting. On April 27, 2015 the Secretary appointed 6 new members to the Advisory Committee on Agriculture Statistics.
- ***EGovernment.*** NASS makes its data available to the public through graphical user interface based query tools that can be downloaded as well as an on-line database that can be queried directly. On-line query tools called Quick Stats and Quick Stats Lite can be found on the NASS Web-site:  
[http://www.nass.usda.gov/Quick\\_Stats/](http://www.nass.usda.gov/Quick_Stats/)

Quick Stats is used for accessing the Census of Agriculture as well as published NASS survey data and can also be found at Data.Gov: <http://catalog.data.gov/dataset/quick-stats-agricultural-database>

An Application Programming Interface (API) allows developers to write applications that directly access data online in the Quick Stats database. This further enhance the usefulness of NASS data and is also available on Data.Gov: <http://catalog.data.gov/dataset/quick-stats-agricultural-database-api>

NASS has shared the methodology and approach for the database structures, metadata composition, and application tools with other government agencies, as well as presented white papers on the topic at technical conferences at home and abroad.

- ***NASS Media Subscription Services.*** Using our media subscription services in 2015, NASS maintained media lists for states and key commodities and distributed 47 news releases and Agricultural Statistics Board (ASB) notices to hundreds of interested media outlets as well as the subscription services provided to individual data users.

- **NASS Email Subscription Lists.** NASS continues to use email subscription lists and social media tools such as Twitter, the USDA Blog and USDA YouTube channel to notify the public about all data products available from NASS and to create two way conversation with our customers.
- **NASS Twitter Following.** In 2015, NASS increased its Twitter following to nearly by 6,306 to over 25,000 followers by sending 1,011 tweets on interesting and timely topics, including graph, chart and map data visualizations. NASS' tweets achieved a potential reach of more than 28.9 million twitter users. In September, NASS launched a #StatChat, inviting Twitter users to ask questions directly to Crops Branch Chief Lance Honig just after the monthly crop progress report.
- **NASS USDA Blog Posts.** NASS contributed nearly 50 blog posts on USDA's blog, contributed to several other posts by REE and AMS, and utilized USDA's YouTube channel to post public service announcements to promote the Census and other surveys such as the Agricultural Resource Management Survey (ARMS). Most of the blog posts were part of the weekly Census blog series featuring a state each week following the initial February 2014 data release.
- **Census Highlights Documents.** In 2015, NASS prepared and distributed nearly three dozen topical Census publications to provide data highlights on specific topics, such as demographics, marketing, and agricultural practices. These 2 to 4 page publications provide an introduction to the data and an entry point for those who want to learn more. They are available on line and are used as handouts at tradeshow and other events.

### OPERATIONAL TRANSFORMATIONS TO STREAMLINE BUSINESS PROCESSES

Over the last six years, NASS has completed several operational efficiency initiatives and has continued to build on what had been put in place for maximum efficiency. All of these changes moved NASS toward constant improvement for using the best practices of a federal statistical agency and fully delivering on the principles and practices for a statistical organization.

#### Current Activities:

- **Data Visualization.** The National Agricultural Statistics Services has partnered with a company that specializes in data visualization products with a deep understanding of NASS data products. The primary goal of this project is to better communicate information clearly and efficiently to users via statistical graphics, plots, information graphics, tables, and charts. Our goal is to make complex data more accessible, understandable and usable for customers. NASS has a target date of December 2015 to release a prototype of an interactive data visualization page related to one of our monthly reports. Over the next few years NASS will use this as a base to expand our data visualization products on the Web.
- **Centralized Services.** NASS recently released a suite of internal services that leverages existing services and centralized databases and replaces a legacy system. It is a set of Case Management Services (CMS) that consumes and delivers services to facilitate data collection and maximize survey response. The CMS services numerous layers, systems, and business functions. The base functionality of the CMS is modeled off a decentralized legacy system that has been sunset.
- **The CMS** comprehensively handles and or interacts with 3 of the 9 [Generic Statistical Business Process Model \(GSBPM\)](#) components, including design (2), build (3) and collect (4). The goal of this system is to consolidate all of the activities associated with survey methodology, sampling, and data collection in a centralized location where it can deliver services to related systems and management of various functional roles. The system is robust with many automated processes and functions, reducing workloads, improving quality, and providing significantly more oversight from all levels of the Agency. NASS over the next few years will continue to enhance, refine, and expand the services available.

## **The National Operations Center**

The National Operations Center (NOC) facility is located in St. Louis, MO opened on schedule in October 2011 and houses four NASS groups; 1) the National Operations Division (NOD), 2) the Heartland Regional Office, 3) a detached group of the NASS's Information Technology Division, and 4) a member of NASS's International Program's Office.

### **Current Activities:**

- ***National Operations Division - Centralizing Telephone Interviewing, Frames Maintenance, Forms Processing, Training, and Survey Instrument Development.*** The National Operations Division, while located in St. Louis, MO, operates independent of the NASS Field Office Division. The NOD provides increased telephone data collection capacity in a centralized environment, centralizes sampling frame activities, consistent training of telephone and field interviewers through focused and deliberate delivery of a standardized training protocol, incoming and outgoing processing of mail and paper questionnaires, and the development of the agency's telephone data collection instruments. Work at the NOD continues to reach full production capability.
- ***Data Collection at the NOD.*** The NOD is designed to complete a large portion of the Agency's telephone data collection. The NOD Call Center includes 154 calling seats, 24 seats for coaches and supervisors, and a 12-station call monitoring room to enhance quality assurance. In 2015, over 1.1 million telephone calls were completed by NOD interviewers on nearly 100 surveys. Over 3,000 incoming telephone calls were received and handled from respondents and the general public. The NOD call center is undergoing a major transition. All call center employees are moving to NASDA management. The transition is nearly 75% complete and all call center enumerators will be under NASDA management by April 1, 2016.
- ***Interviewer Training.*** The Agency's interviewer training program is developed at the NOD and enhanced training protocols have proved efficient in providing interviewers the skills, knowledge, and abilities they need to perform at a high level. At the end of 2015, there were 6 supervisors, 15 coaches, and 150 telephone interviewers on board at the NOD. NASS will continue to select and train well qualified telephone interviewers. Current plans call for the hiring of 100 additional NASDA interviewers in order to maintain staff calling operations six days a week, 15 hours per day. In addition, NASS will continue to improve the training protocols to improve standards, efficiency, and data quality. In 2015, the NOD-Training Group produced NASDA field and telephone enumerator training materials for over 90 different surveys.
- ***Frames Maintenance Group.*** The Agency's national list sampling frame defines a target population for drawing survey samples or conducting a census. This Group's mission is to develop, maintain and allow for efficient sampling of U.S. farms and ranches. They complete record linkage with newly acquired list sources and add newly discovered farm and ranch operator names to increase coverage of the frame. They also perform maintenance on a daily basis to keep the frame as up-to-date as possible. In 2015, the Group 300,246 update requests to make sampling, mailing, data collection, and summarization efforts more efficient. The Group also processed 528,210 records from outside list sources and added 81,746 potential new operations from those lists. From the Federal Tax Information 3,470,167 records were processed and 174,999 potential new operations were added from this list.
- ***Forms Processing Group.*** The Forms Processing Group (FPG) receives the paper-based survey questionnaires that are completed and returned by mail from farmers and ranchers. These respondent-completed forms are tracked and accounted for to make sure the respondents are not contacted again by telephone. Completed forms are scanned for image retrieval and the data are keyed into a centralized database. In 2015, the Group completed these activities for over 436,000 forms. Additionally, FPG creates and mails questionnaires to farmers and ranchers selected for USDA surveys. In 2015, FPG printed and mailed 1,837 jobs with a total of more than 2,500,000 forms. One component of NASS's Objective Yield Survey (OYS) is the harvesting of crop samples from winter wheat, corn, soybean, and cotton field plots. During 2015, FPG processed over 7,900 OYS samples.

- **Survey Development Group.** The Surveys Development Group supports and develops computer-assisted telephone interviewing (CATI) programs used by the Agency's Call Centers to conduct interviews over the telephone with farmers and ranchers. CATI is a complex process that requires survey sample management, call management, scheduling, reporting and call monitoring that requires careful coordination. In 2015, the Group supported over 120 CATI interviewing programs and developed 12 new programs. Additionally, the Group is beginning to transition to a new version of the Blaise software with enhanced capabilities and more robust server processes.
- **Print and Mail Facility.** During 2015, the NOD continued to expand its operational footprint by opening its new print and mail facility to serve the organization's needs. The print and mail facility is designed to gain greater efficiency in the NOD's operational and production practices. Plans are to continue to acquire new technology, equipment, and capabilities that directly support the NOD's ability to provide a broader and more diverse range of print and mail services.
- **Training Workshops.** In 2015, the Training Group planned and administered five training workshops. Using information identified on a skills and training needs assessment conducted by the Group, these workshops targeted nearly 150 staff members and covered a broad range of topics from basic skills for new statisticians to technical survey specific training for experienced staff.
- **Cost Efficiency While Improving Data Quality.** For years beyond, our standardization, training, and scale will allow cost efficiencies while improving data quality. While difficult to show specific savings NASS was able to operate within budget during 2015 to complete the data collection of the Census of Agriculture follow-on surveys and most of the planned surveys for the agency's Agricultural Estimates program.

## Quality Management Program

### Current Activities:

- **Statistical Quality Standards.** In FY2015, NASS worked on the development of a comprehensive and cohesive Quality Assurance Framework of standards and guidelines to help ensure the utility, objectivity, and integrity of the statistical information NASS provides its customers and stakeholders. NASS has developed these standards to promote quality in its information products and the processes that generate them. These standards provide a means to ensure consistency in the processes of NASS's program areas, from planning through dissemination. NASS has begun publishing these standards to its intranet site and will publish the full framework upon completion on its internet site to promote transparency to its data users. This framework of standards and guidelines will also reflect the requirements of the OMB's *Standards and Guidelines for Statistical Surveys* in the context of NASS programs, products, and processes.
- **Analysis of Call History Data.** In FY2015, the NASS Quality Management Office partnered with the Data Collection Center (DCC) Staff in the Census and Survey Division to conduct an analysis of the Blaise call history files. The Blaise Computer Assisted Telephone Interviewing (CATI) system outputs files that contain call history data for each DCC. These files contain various data on each dial or contact attempt to in-sample agricultural operators. Call history data from each quarter of the Crops Agricultural Survey were used to conduct the call history analysis. The DCC call history analysis work helped NASS to get a better understanding of how records are handled in Blaise and to use the data to make informed decisions on where improvements in call efficiencies could be made. Ultimately, in analyzing the call history data, NASS gained a better understanding of calling efforts and determined how best to optimize calling parameters and achieve greater efficiencies, while reducing respondent burden and costs.
- **Quality Control Program for Data Collection in Calling Centers.** In FY 2015, NASS developed, tested, and implemented its electronic Quality Control system in all its Data Collection Centers (DCCs). This system is used by the calling centers during telephone monitoring sessions to document and provide performance metrics to aid supervisors in evaluating and improving enumerator performance. Previously, the Data Collection Center would use paper to document the monitoring sessions. Having the electronic system, the supervisors can easily

see the results of all monitoring sessions for each enumerator and identify enumerators needing additional training or coaching. In addition, NASS worked with the DCCs to develop standardized quality control procedures across all calling centers. Standardized monitoring procedures are essential to ensuring data quality and enumerators are evaluated in a consistent and equitable manner.

- **Computer Assisted Recorded Interviewing.** In FY 2015, NASS researched alternative methods for conducting quality control through Computer Assisted Recorded Interviewing (CARI). Many survey organizations use CARI for quality control and evaluation efforts in their telephone and field data collection operations. CARI software creates audio recordings of interviews and video recordings of automated instrument screens as the interviewer enters in survey data. A CARI vendor was selected and implementation of the software will begin first in the calling center located in the National Operations Center in 2016 with implementation to follow in the other Data Collection Centers. CARI will provide substantial benefits to NASS including improved quality control and data quality, as well as, cost savings by eliminating non-productive time during monitoring sessions. The CARI system will also provide NASS the ability to evaluate the performance of questionnaires and study the interaction between the respondent and interviewer.

## **Computer Assisted Personal Interviewing (CAPI)**

### **Current Activities:**

- The original goals of the CAPI initiative have been accomplished and NASS is currently moving towards leveraging benefits of mobile data collection and survey processes. An independent assessment of the CAPI program verified the critical need to redesign the solution to embrace technical advancements in mobility and to address performance issues. The assessment also identified the urgency for additional resources to effectively manage the scope of the program, which evolved to include all aspects of mobile data collection and mobile survey processes. The name of the section was changed from the CAPI Group to Mobile Survey Services, (MSS) which more accurately describes the duties of the staff. MSS staff, along with contracted development resources, are currently engaged in several initiatives to maximize the benefits of mobile technology, improve performance, streamline processes and create additional efficiencies. These initiatives set the stage for new innovation such as: adaptive design, propensity scoring, and cognitive testing, real time cost analysis, interactive online training and marketing tools.
- **Optimize CAPI.** This development initiative focuses on the optimization of the CAPI technical solution and addresses signal mitigation, management of the device and remote sample management. The entire CAPI solution was rewritten for performance improvement and to incorporate industry best practices and new technical advancements for mobile technology. The new solution, Mobile Optimized Survey Tool (MOST), is slated for deployment later this year. The MOST platform allows enumerators to input survey data into WEB instruments with or without a cellular or WiFi signal while adhering to security requirements that no PII will be saved on the hard drive of the device.
- **Responsive Web Design.** Responsive Web Design will improve usability, dynamically format the questionnaires to fit any device and embrace industry best practices for survey questionnaires and website design. This new design improves usability for smart phones and other mobile devices which opens the door for Bring Your Own Devices (BYOD) while maintaining Section 508 compliance. Development is focused on developing a new automated questionnaire repository system which generates questionnaires for paper, phone, and the Web, while also incorporating new usability functions. Usability features will be tested with a dynamic Census Web Form content test scheduled from January to May. Feedback from the test will be used to improve the Census Form and will be ported across all WEB surveys. Discovery and recommendations for interactive online training materials and administrative forms are also part of this initiative.
- **Large Complex Surveys.** This initiative incorporates the first of the large, complex surveys (June Area) into the optimized mobile data collection solution. This track is a collaborative effort involving the Information Technology Division, the Survey Administration Branch, Mobile Survey Services, development contractors and NASS management. The June Area Survey is a cornerstone of the survey program at NASS and moving to a

mobile platform will present opportunities for significant savings on data collection costs, improved data quality and to streamline business processes.

- **Improved Security.** Password security on the mobile devices was revisited and the process to create, change and reset passwords was automated, while adhering to USDA mandates for complex passwords and defined expiration timeframes. This initiative opens the door for future possibilities such as Bring Your Own Device, storage of data on the hard drive of the device and expansion of device use such as the camera to record Crop Progress or to identify new operations.
- **Management of the Mobile Devices.** This initiative focuses on automating inventory management, disposal of outdated equipment, adherence to security on the device, standardization of the IOS platform and improved customer service through remote desktop management. Managing over 3,000 devices through manual methods became a huge burden on already limited resources and was unreliable for real time information regarding the devices. The limited access to the devices and the enumerator's ability to update IOS versions led to multiple IOS versions in the field with unpredictable interactions with the CAPI solution. In addition, the security profile was not standardized on all devices. The solution deployed utilizes MobileIron which automates inventory management and provides real time dashboards on the devices. This program standardizes the security profile and allows for remote "wipe" for compromised devices. The MobileIron solution deployed was designed for NASS and featured several enhancements not available through the USDA solution. A new pricing structure for MobileIron services was negotiated as well, saving NASS over \$150,000 on an annual basis.
- A new "buy back" program for outdated devices was put into place that gives NASS credit towards the purchase of future equipment. To date, approximately 600 iPad 1s and 2s have been sent to the "buy back" program and credits of over \$16,000 have been issued towards the purchase of new devices.

#### **Selected Examples of Recent Progress:**

- **Passwords on the Fly.** To improve security compliance and automate the creation of passwords, a new system was developed and released. This system requires a complex password with a set expiration period. Passwords are set and confirmed via confirmation of a link sent via a unique user email. Although the initial release of the system involved a small learning curve, users have adapted and accepted the new password system. The new automated system aligns passwords for the CAPI solution with USDA's mandate for complex passwords with a set expiration date, while reducing staff burden by automating the process.
- **MOST Platform.** Staff involved resources in the field to test the solution during development. Feedback and suggestions were incorporated to add additional features such as sorting options for remote sample management. The rollout will be a phased process. First the MOST solution will be released to a testing/practice site for the enumerators to become familiar with the new platform. Regional schools will be conducted to provide formal training. After a suitable period for training and familiarization to occur, the MOST platform will be released into production. Roll out for production is slated for February.

A resource was identified from each region to provide additional support and participate in testing of the MOST platform. These resources, identified as the CAPI Points of Contact, are organized as a Tier One support level for the 3,000 field interviewers that utilize the CAPI solution for data collection. Additional training occurs on a regular basis and a close working relationship with the Mobile Survey Services section has been established.

- **Objective Yield Surveys.** A prototype to collect Objective Form B information for soybeans was developed, tested and deployed to a few select states for production data collection. This solution was developed under an extreme timeline constraint. The feedback and information gained from this production test will be used to develop and deploy all Objective Form B instruments, including Wheat, Cotton and Corn. This prototype is also the starting point to incorporate Form A instruments into the CAPI data collection mode.
- **Mobile Device Management.** Collaboration with MSS staff, Apple, AT&T and MobileIron introduced a new mobile device management solution for the NASS CAPI program. The solution was deployed via the cloud so no physical access to the device was required for HQ staff, saving NASS thousands of dollars in shipping costs

and mitigating any negative impact on CAPI data collection efforts. A regional hierarchy for access to the dashboards for inventory management was put in place allowing each region access to the inventory for their region only. The CAPI POCs were trained and given the responsibility to manage the inventory and monitor for security and IOS violations, freeing valuable MSSS staff to focus on development of the MOST platform. MSSS staff continue to collaborate with Apple, AT&T and MobileIron to deploy remote desktop management for the CAPI iPads. Once this feature is put into place, the support staff will be able to provide improved customer service by reaching out to the devices in real time to address issues while training enumerators how to troubleshoot the device.

## **Research and Development**

### **Current Activities:**

- ***Prototype Data Collection Application Built.*** NASS, working cooperatively with Iowa State University, built a prototype data collection application to collect data for the June Agricultural Survey. The Geographic Information System (GIS) tools initially gave the field enumerators the ability to delineate field maps and collect information on the utilization of the land in hand-held devices. Testing in the summer of 2014 found that field enumerators could not delineate the fields in a reasonable amount of time, resulting in too much of an increased burden for the respondent. Thus, for 2015 testing, the fields were delineated in advance, and the enumerators were asked only to correct the boundaries. Further testing of this approach will be conducted in 2016.

### **Selected Examples of Recent Progress:**

- ***Banff Software Evaluation Completed.*** NASS has completed evaluation of the Banff software, written by Statistics Canada, to improve the efficiency of survey data editing within NASS. Significance editing is defined as statistical data editing and selective editing. This methodology reduces the time and effort spent manually reviewing and correcting survey questionnaires without damaging the quality of the resulting data and focuses the manual effort on the accuracy of the survey respondents that strongly impact the survey results. NASS will run significance editing in parallel with the operational crop stocks survey programs in 2016 with implementation in other survey programs to follow. This research will reduce costs associated with manual editing of questionnaires and result in higher data quality due to a consistent automated edit.

**USDA Strategic Goal 2: Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.**

NASS programs and products generate detailed agricultural statistical data that policymakers and producers use in identifying and managing America's productive working cropland.

## **AGRICULTURAL ESTIMATES**

## **Research and Development**

### **Current Activities:**

#### **Geospatial Program**

- ***Remote Sensing for Enhanced Crop Acreage Estimates.*** NASS has used remote sensing to enhance its crop acreage estimates since the 1970s, when satellite imagery was first used as a major input in constructing the nation's area sampling frame – the statistical foundation for collecting agricultural estimates with complete coverage of American agriculture. The Cropland Data Layer (CDL) is the agency's core remote sensing product; it provides crop-specific land cover information and serves as the basis of acreage and yield estimates. The CDL shows the type and location of crops planted in a particular season using low-cost and free mid-resolution satellite imagery, access to high quality ground reference data, and efficient and robust classification software.

### **Selected Examples of Recent Progress:**

- ***Competitive Grant Work Started.*** George Mason University and NASS have begun work on a National Aeronautics and Space Administration (NASA) competitive grant titled “Remote-Sensing-based Flood Crop Loss Assessment Service System (RF-CLASS) for Supporting USDA Crop Statistics and Insurance Decision Making.” NASS should benefit from the technology developed, which may improve the current web products.
- ***Continued Competitive Grant Work.*** In response to the NASA science grant titled “Fallowed Area Mapping for Drought Impact Reporting and Decision Making”, NASS, in cooperation with the US Geological Survey, NASA, and the California Dept. of Water Resources released geospatial products related to the ongoing California drought. The datasets map the extent of idle agricultural acreage in California since 2011. The datasets highlight steady increases in idle farmland as the drought has extended now into its fourth year. The results of this remote sensing project have provided better quantification of the ongoing drought, visualizing the impacts in near real-time during the growing season over a large geographic area.
- ***Seventh National Cropland Data Layer (CDL) Completed.*** NASS completed its 48-state Cropland Data Layer in 2015 for the 2014 crop year, making seven years of national CDL’s available. This layer provides information on the crops planted and is useful in land cover, animal habitat, and watershed monitoring; soils utilization analysis’ agribusiness planning; addressing biodiversity, crop intensity, and agricultural sustainability concerns; environmental research; and the remote sensing and GIS value-added industry
- ***VegScape.*** NASS continued to provide its 48-state VegScape, which is a geospatial data service offering automated updates of vegetative condition at daily, weekly, and biweekly intervals.
- ***Crop Frequency Layers. The 48-state Crop Frequency Layers were released for the first time in 2015 for the 2014 crop season.*** The Crop Frequency Layers identify crop specific planting frequency are based on land cover information derived from the 2008 through 2014 CDL. Currently, these are produced for corn, soybeans, wheat, and cotton.

**USDA Strategic Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.**

### **WORK PERFORMED FOR OTHERS – REIMBURSABLE PROGRAM**

#### **Current Activities:**

- ***Reimbursable Work for Federal, State, and Private Organizations.*** NASS conducts surveys for and lends technical expertise to other Federal agencies, State governments, and private organizations on a reimbursable basis. Statistics generated meet special needs not covered by the NASS programs. In addition, statistical consultation by NASS staff members contributes to improvements in the overall quality and consistency of statistical information produced for the needs of other organizations. NASS provides support and assistance in the areas of questionnaire and sample design, data collection and editing, analysis of survey results, and training. NASS also provides technical consultation, support, and assistance to foreign countries desiring to enhance their statistical programs.
- ***International Technical Assistance on a Reimbursable Basis.*** NASS works with the U.S. Agency for International Development and other Federal agencies to provide technical assistance and training on a reimbursable basis in all aspects of statistical surveys and data systems to improve and expand a developing or transitioning country’s capacity to produce agricultural statistics and information.
- ***Reimbursable Assistance Benefits the U.S.*** Providing such assistance benefits the United States as well by helping other countries improve their agricultural statistics systems, USDA improves its ability to assess world food and fiber production. In today’s global economy, timely and accurate supply statistics for fair and efficient price discovery in the global market are critical. Establishing strong working relationships with other

agricultural statisticians around the world allows NASS staff to gather and develop new ideas for improving the U.S. agricultural statistics system, while exposure to other cultures and work situations enhances NASS employees' abilities to solve problems.

### **Selected Examples of Recent Progress:**

- ***External Project Agreements.*** NASS partners extensively with external state and Federal governmental organizations, universities, and agricultural commodity organizations to provide high quality, rigorous, and standardized statistical consultation. NASS provides statistical services on a fee-for-service basis and fully recovers all costs. Statistically accepted methods, practices, and processes are administered. These procedures have been streamlined and enhanced to provide maximum flexibility and design adaptability. A variety of agricultural community data needs are requested, which augment the on-going Federally-funded statistical program. Whether economic; environmental; or opinion-based, external clients collaborate with NASS to effectively conduct longitudinal studies; grant-based research; and surveys. The external project agreement program places NASS in a position to be responsive to the changing needs of agricultural data users. NASS continues to strengthen its commitment to external stakeholders by maximizing resources, eliminating duplication, minimizing respondent burden, and leveraging resources which utilize consistent and sound statistical methodology. To date, NASS has worked on more than 540 projects since beginning this centralized process in 2012, which includes about 120 over in FY 2015.
- ***Data Flow Lean Six Sigma Process Improvement Project.*** In FY 2015 NASS expanded its implementation of Lean Six Sigma process improvement by kicking off a project to reduce defects within its database environment. The project is particularly focused on reducing defects in the data flow process that affects the majority of NASS's surveys and censuses. The project is in the early stages of mapping out the process and identifying value and non-value added steps. The project team will be drafting recommendations for improvements and identifying the potential cost savings in the spring of FY 2016.
- ***Agricultural Marketing Service (AMS) Pesticide Data Program (PDP).*** NASS and AMS continue to cooperate in 2015 on the AMS Pesticide Data Program. The PDP is the basis for a broad statistical analysis of pesticide contamination of food commodities intended for human consumption. Each quarter, samples of four groups of fresh commodities are collected from a random sample of distribution centers located in key states. These samples are sent to regional laboratories and tested for the presence and level of the most commonly used agricultural pesticides posing a potential risk for human health. The selection of distribution centers from which commodity samples are taken follows the basic systematic probability-proportional-to-size sampling technique. The Sampling and Frame Development Section in Methodology Division will conduct the sample selection procedures for the AMS, in addition to investigating possible improvements to the current sampling methodology. The data produced by the PDP are reported in an annual summary by AMS.
- ***Agricultural Resources Management Survey (ARMS).*** ARMS is conducted annually in cooperation with the USDA's Economic Research Service (ERS). The survey provides data that enables NASS to publish chemical use statistics and provides ERS the ability to estimate farm income, conduct economic analysis relating to field crop chemical usage, estimate costs associated with producing agricultural commodities, and compile farm business and household financial data. Data collected support both agencies' estimation programs for farm production expenditures. ARMS Phase I was conducted from May to July 2015. The target commodities for ARMS Phase I were oats, cotton, soybeans, winter wheat, spring wheat, durum wheat, and hogs. The ARMS Phase II (September – December 2015) data collection focuses on chemical use, production practices, and cost of production for target commodities. The target commodities for the 2015 ARMS Phase II Production Practices and Costs Report (PPCR) are oats and cotton. The target commodities for the 2015 ARMS Phase II Production Practices Report (PPR) are soybeans, winter wheat, spring wheat, and durum wheat. ARMS Phase III (January – April 2016) data collection focuses on farm finances. Phase III provides information for the financial analyses of farm businesses, farm households, and costs associated with producing agricultural commodities. Cost of production and expenditure data will be obtained for oats, cotton, and hogs in early 2016.
- ***New ARMS Multivariate Imputation Scheme.*** In 2015 a new multivariate imputation scheme will replace the current mean imputation methodology that post-stratifies respondents by region, farm type, and total value of

production. This new methodology is the product of a two year research effort with the National Institutes of Statistical Science and in collaboration with ERS. It will result in much improved survey estimates and variances.

- ***Agricultural Labor Survey.*** In 2011, NASS suspended the Agricultural Labor Survey. However, the information is used by the U.S. Department of Labor, Employment and Training Administration (DOLETA) in the H-2A program to set the Adverse Effect Wage Rates. In 2014, DOLETA and NASS renewed their agreement where NASS would collect data from producers on number of workers, hours worked and wage rates. In 2015, the Agricultural Labor Survey was conducted in April and in October. NASS issued reports from the April data collection efforts on May 21, 2015, and plans to issue a report from the October data collection efforts on November 19, 2015.
- ***County Cash Rents Survey.*** Through the 2014 Farm Bill, NASS was directed to conduct a Cash Rents survey, not less frequently than every other year; whereby survey questions pertain to the most recently completed crop year to establish per acre estimates of county cash rental rates for dry and irrigated cropland and pastureland. Six annual surveys have been conducted providing cash rental rate indications for 2008 through 2014. Cash Rent data was not collected in 2015, but will be collected starting April of 2016. Data are published at the county and/or district level for cash rental rates for all counties with at least 20,000 acres of any combination of dry cropland, irrigated cropland or permanent pasture. Data collected support the Farm Service Agency's administration of payments for the Conservation Reserve Program.
- ***Natural Resource Environmental Indicators.*** NASS received funding from the Natural Resources Conservation Service (NRCS) in 2015 to continue the Conservation Effects Assessment Program (CEAP) surveys. CEAP 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. Project findings are used to guide USDA conservation policy and program development and help conservationists, farmers and ranchers make more informed conservation decisions. The 2015 CEAP study is currently being conducted nationally (excluding Alaska and Hawaii). This is the first national study since 2006. Farm production practices, including pesticide, fertilizer, manure applications, conservation practices, tillage and use of irrigation are being collected for the 2015, 2014 and 2013 crop years. NASS continued collaboration with NRCS and Iowa State University in developing the sample utilizing the Natural Resources Inventory points. NRCS releases the CEAP-Cropland/Watershed reports from data NASS collects.
- ***Produce Post-Harvest Microbial Food Safety Practices.*** NASS received funding from ERS to conduct the Produce Post-Harvest Microbial Food Safety Practices Survey (PPHMFSPS) The purpose of the PPHMFSPS is to assess the levels of food safety awareness, sanitation, and post-harvest practices used by various agribusinesses including canners, chippers, dehydrators, fresh cut processors, packers, juicers, peelers, picklers, and more. NASS will provide ERS with an edited data set from the survey for research. The research will examine the effects of Food Safety Modernization Act (FSMA) across fresh produce supply chains. Depending on response rates, ERS will compare food safety practices for different size farms or post-harvest operations on farms. Primary data collection for the 2015 PPHMFSPS started in September 2015 and will conclude in January 2016. All Regions/States except Alaska and Hawaii, are included in the PPHMFSPS.
- ***Survey Marketing and Promotions.*** NASS significantly increased the number of survey responses through the Internet. During 2014, NASS Public Affairs Section supported collection of data through strategic communications promoting response to surveys including Conservation Effects Assessment Program surveys, Agriculture Resource Management Survey, and the quarterly agricultural and livestock surveys. Preparation included distribution of national news releases, blogs, feature stories, talking points, e-mails, and tweets. NASS created and distributed production story packages with interviews for local radio around the country. NASS Public Affairs conducted a strong public messaging campaign to encourage electronic reporting as quicker, easier, secure, and leading to less mail correspondent burden. This effort contributed to the significantly increased number of survey responses via Internet reporting.
- ***International Technical Assistance Provided.*** NASS provided technical assistance and training to improve agricultural statistics programs in ten countries. Short-term assignments in 2015 supported work in Armenia,

Bangladesh, Brazil, Georgia, Haiti, Mexico, Paraguay, Rwanda, Tanzania, and Uruguay. The technical assistance ranged from basic survey concepts and procedures to complete national Census of Agriculture support. In addition, NASS coordinated and/or conducted training programs in the U.S. for 137 visitors representing 34 countries. These assistance and training activities promote better quality data and improved access to data from other countries, which allows U.S. analysts to better understand the world supply and demand situation. Improved analysis supports trade and more efficient marketing of U.S. agricultural products.

**USDA Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious, and balanced meals.**

## AGRICULTURAL ESTIMATES

### Current Activities

#### Chemical Use Program

- ***Chemical Use Data is Useful to Federal Agencies and State and Local Governments.*** The NASS Chemical Use program provides chemical usage statistics to enable informed, science-based decisions. Through various programs and activities, NASS provides data that other Federal agencies, as well as State and local governments rely on to protect the U.S. food supply, agricultural production and water quality. NASS's agricultural chemical use database is USDA's official source of statistics about on-farm and post-harvest fertilizer and pesticide use and pest management practices. It encompasses surveys looking at chemical use by producers of fruits, vegetables, field crops, livestock, and other animals and crops. The database also includes post-harvest chemical use, obtained by surveying storage facilities, processors, packers and shippers.
- ***Chemical Use Database.*** To create the database, NASS surveys fruit and vegetable producers to determine use of fertilizers, herbicides, insecticides and other pesticides; each chemical produced is classified by its active ingredient. The data collected includes acreage of the targeted commodities grown during the year and treated with chemical applications; the name, amount and method of application of all chemical products applied; and the operation's pest management practices.
- ***Redesigned Chemical Use Program.*** In FY 2011, the National Agricultural Statistics Service (NASS) redesigned the chemical and fertilizer use program to continue, but with a reduced frequency. For 2014, funding was restored and the chemical and fertilizer program returned to full frequency with the Fruit Chemical Use Survey and the Vegetable Chemical Use Survey being conducted in alternating years. In 2014, the Vegetable Chemical Use survey was conducted after last being conducted in 2010. Data from the Vegetable Chemical Use Survey was released in August of 2015. The 2015 Fruit Chemical Use survey is currently being conducted with data collection continuing through January of 2016. The Fruit Chemical Use Survey was last conducted in 2012. Data from the Fruit Chemical Use Survey will be released in August of 2016. The chemical and fertilizer use survey is also coordinated in conjunction with the Agricultural Resource Management Survey (ARMS) for row crops and other crops.

#### Selected Examples of Recent Progress:

- ***Data Users Meeting – American Phytopathological Society.*** NASS conducts at least one data user meeting annually with a focus on chemical use statistics. NASS attended and presented in the August 1–5, 2015 American Phytopathological Society's (APS) annual meeting in Pasadena, CA to share about the Chemical Use program. Each year more than 1,550 of the world's top plant scientists and researchers attend this meeting in order to participate in field trips, workshops, and scientific sessions that highlight the latest research and technological advances in plant pathology. As ongoing outreach, NASS continues working closely with industry groups to share the importance of responding to surveys and ask for feedback on their data needs. NASS receives ongoing feedback from data users through the website:  
<http://www.nass.usda.gov/Surveys/index.asp>

- ***Adoption of Microsoft Project Server Software.*** In FY 2015 NASS advanced its use of Microsoft Project Server software. This software allows NASS to improve the administration of all projects across the Agency. The software provides improved information on tracking staff resources who are involved with multiple projects, as well as a dashboard to allow supervisors and management an easier method to monitor the progress of all projects. In FY 2015 NASS added 13 projects to Project Server, and worked with staff to develop a timeline to ensure all survey and census projects will eventually be in the system.
- ***Farms with High Impact on Survey Results.*** In FY 2015, NASS conducted a project to formalize and document how farms that have high impact on survey results are handled for data collection. The purpose of the project was to determine whether planned customized data collection strategies can be implemented to make survey reporting less burdensome for high impact farm operations. After implementing customized data collection plans with a total of approximately 30 operations, NASS State Statisticians provided specific feedback on how the planned data collection customization methods worked and any difficulties they had implementing them. NASS's Methodology Division is summarizing the feedback to develop guidelines on collecting data from high impact operations. In addition, NASS developed and tested a valuable tool which allows State Statisticians and Regional Field Office staff to easily review the top contributors for all commodities in their states. Having these data readily available will greatly enhance the State Statistician's ability to focus on improving response rates, coordinating surveys, etc. for the impact operations. Using this tool will allow staff to make informed decisions to help improve the quality of NASS's data by focusing on the operations that have the greatest impact on our published estimates.
- ***Sampling Frames and the Frames Methodology Council.*** For each NASS survey, it is necessary to define the sampling population or frame of units to sample. The sampling frame must provide a complete and up-to-date list of agricultural operations, without omissions or duplications. Therefore, the quality of sampling frame has significant implications on the quality of survey data and the official estimates. The Sampling and Frame Development Section (SFDS), the Frames Maintenance Group (FMG) and the Area Frame Section (AFS) are responsible for developing sampling frame policies and providing guidance to the Regional and State Field Offices (RFO/SFO) on creating and maintaining high quality sampling frames. The re-organization into a regional structure and the creation of the Frame Maintenance Group unit was the first step in providing consistent and standardized processes in the development and processing of list sampling frames across all states. These changes thus far, have led to significant improvements in consistency, maintenance and the quality of the list sampling frames which in turn leads to more efficient samples and higher quality estimates. Under the new organizational structure the SFDS, FMG and AFS units require a forum to provide more emphasis on sampling frame methodology and in evaluating current processing procedures. The Frames Methodology Council was established this past year to take the lead in establishing policy and procedures to assure that high quality sampling frames are compiled and maintained for all states.

Recently NASS has been tasked with providing additional statistics in areas such as organic farming, local foods, urban agriculture, women and beginning farmers, farm structure and micro and antimicrobial practices. To meet the needs of our customers in these new areas, NASS has partnered with the Multi-Agency Collaborative Environment (MACE) to explore alternative strategies, such as web crawling, to build and enhance coverage of these subpopulations on our sampling frames.

## CENSUS OF AGRICULTURE

### **Current Activities:**

*NASS received \$3.25 million from the Farm Bill and Congressional appropriations in 2014 for organic data surveys. NASS will use these funds in a variety of ways to expand the public dissemination of organic data.*

- ***Organic Certifiers Survey*** – In 2014, and continuing through 2015, NASS developed plans to conduct a one-time data collection effort to fill a gap in a data series historically provided by the Economic Research Service. The project is aimed at collecting benchmark crop production and livestock inventory data for years 2014 and 2015 from USDA accredited organic certifying entities. Data collection and processing will take place in 2016.

- ***Organic Producers Survey*** – In 2014, NASS developed plans to use the final portion of these appropriated funds in 2016 and 2017 to collect organic price data to assist other USDA Agencies in formulating policy decision for the organic community. Specifically, the organic producer surveys will provide similar data to that was provided through a cooperative agreement with the USDA Risk Management Agency in 2011 and 2015.

National Agricultural Statistics Service

Summary of Budget and Performance  
Statement of Department Goals and Objectives

The National Agricultural Statistics Service (NASS) was established by Secretary's Memorandum No. 1446, Supplement 1, of April 3, 1961, under Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to provide timely, accurate, and useful statistics in service to U.S. agriculture. NASS is has two major programs (1) Agricultural Estimates and (2) Census of Agriculture.

NASS has four strategic goals and five objectives that contribute to the Secretary's Strategic goals.

**USDA Strategic Goal 1:** *Assist rural communities to create prosperity so they are self sustaining, repopulating and economically thriving.*

<b>NASS Strategic Goals</b>	<b>NASS Objectives</b>	<b>Programs that Contribute</b>	<b>Key Outcome</b>
<p><u>Goal 1:</u> Enhance the Competiveness and Sustainability of Rural and Farm Economies</p> <p><u>Goal 2:</u> Create Growth Opportunities in Rural America</p>	<p><u>Objective 1.1:</u> Provide statistical data to promote efficient domestic agricultural production and marketing systems.</p> <p><u>Objective 1.2:</u> Provide statistical data and financial tools to help farmers and ranchers manage risk.</p>	Agricultural Estimates	<p><u>Key Outcome 1:</u> Ensure high quality statistics and data are relevant and useful to stakeholders.</p> <p><u>Key Outcome 2:</u> Ensure timely release of data.</p> <p><u>Key Outcome 3:</u> Ensure optimal Census coverage.</p>
	<p><u>Objective 2.1:</u> Provide statistical data on new agricultural markets.</p>	Census of Agriculture	<p><u>Key Outcome 4:</u> Ensure optimal Census response rate.</p>

**Key Performance Measures**

Actual Performance Goals, Indicators, and Trends	Actual				Target	Actual	Result	Estimate/Target	Target
	2011	2012	2013	2014	2015		2016	2017	
1 Usefulness	1.0%	1.0%	1.0%	1.3%	<1.5%	1.3%	Met	<1.5%	<1.5%
2 Timeliness	99.6%	98.7%	98.8%	99.7%	98.0%	99.7%	Met	98.0%	98.0%
3 Coverage For the Quinquennial Census of Agriculture	N/A	N/A	87.7%	N/A	N/A	N/A	N/A	N/A	N/A
4 Response Rate for Census of Agriculture and Follow-on Surveys	N/A	N/A	80.3%	84.0%	>80.0%	84%	Met	>80.0%	>80.0%

**Allowable Data Range for Met** Target is considered met if actual is greater than or equal to the target.

**Assessment of Performance Data**

**Data Source** The data were gathered from the Agricultural Statistics Board.

**Completeness of Data** The data are complete and reflective of all NASS reports.

**Reliability of Data** The data are complete and based on publicly available information.

**Quality of Data** The annual Agricultural Statistics Board calendar in made public one year in advance and success is measured against the published due dates.

### Analysis of Results

#### Selected Past Accomplishments toward Achievement of the Key Outcome FY2015:

Examples of recent progress are listed in the section on Status of Programs. Past accomplishments toward achievement of the key outcome to ensure high quality statistics and data are relevant and useful to stakeholders; and released on time include:

#### **Agricultural Estimates:**

- Continued county level estimates using agricultural statistical models, as well as continued yield modeling research;
- Attended Data Users Meetings and solicited feedback from stakeholders to ensure relevance;
- Received ongoing feedback from stakeholders from the NASS website: <http://www.nass.usda.gov/Surveys/index.asp> to continue usefulness.
- Published *Agricultural Statistics* each year to meet the diverse need for a reliable reference book on agricultural production, supplies, consumption, facilities, costs, and returns. NASS and various USDA agencies collaborated in furnishing the information in these publications. An agency contact is provided for each table. The chapters of the Agricultural Statistics publications are organized into individual PDF (Portable Document Format) documents. Annual *Agricultural Statistics* are available on this website: [http://www.nass.usda.gov/Publications/Ag\\_Statistics/index.asp](http://www.nass.usda.gov/Publications/Ag_Statistics/index.asp)
- **Introduced new *Quick Stats Lite (Beta)*.** NASS introduced the new, guided interface to the Quick Stats 2.0 database. It is designed to provide a more structured approach to help users get commonly requested statistics from our online database. NASS continues making further improvements to Quick Stats Lite which will be rolled out periodically. Planned changes are: more commodities and views, enhancements to the results section, and usability features to help the user easily change selections or link to the Quick Stats 2.0 interface which offers additional functionality. Users can provide feedback and suggestions for further improvements on the website: [http://www.nass.usda.gov/Quick\\_Stats/](http://www.nass.usda.gov/Quick_Stats/)
- ***Quick Stats 2.0*.** Quick Stats 2.0 is the most comprehensive tool for accessing agricultural data published by NASS. Quick Stats 2.0 allows the user to discover exactly the information desired, whether it is based on commodity, location, or time period. Then the data can be visualized on a map, manipulated and results exported, or saved as a link for future use.
  - **Data By Subject.** Obtain an agricultural statistics profile for a particular subject area or commodity. Data is currently available in the following areas:
    - Crops and Plants
    - Economics
    - Livestock and Animals
  - **Pre-Defined Queries.** NASS developed a listing of requested queries for user convenience based on their timeliness and user feedback.

#### **Census of Agriculture:**

- **Census of Agriculture (COA).** A comprehensive summary of agricultural activity for the United States and for each state every five years. Includes the number of farms by size and type, inventory and values for crops and livestock, operator characteristic, and much more. See: <http://www.agcensus.usda.gov/Publications/2012/>

- **Improved Small and Disadvantaged Farmer Coverage.** With enhanced collaborative efforts from Community Based Organizations NASS improved the coverage of small and disadvantaged farm operations counted in the COA.
- **Beginning Farmers.** In 2012, the United States had 522,058 beginning farmers (principal operators who were on their current operation ten years or less). This was 20 percent fewer than in 2007, when the last agriculture census was conducted. Nevertheless, in 2012, beginning farmers operated one fourth of the 2.1 million U.S. farms.
- **Improved COA Coverage.** NASS improved the coverage of the 2012 COA compared to the 2007 COA.
- **Implemented Improved Weighting Methodology.** NASS Research and Development Division implemented a new weighting methodology reviewed by an outside panel from the National Academy of Sciences. This was the first time that all census estimates were published with standard errors at all levels of geography, including the county level.
- **Increased COA Online Internet Response.** NASS successfully increased the number of COA Internet response from less than 100,000 for the 2007 COA to over 280,000 respondents for the 2012 COA. This ensured an optimal COA response rate and was achieved through great effort with:
  - Increased resources into computing power for the server to enable a larger capacity of online users:
  - More testing with the electronic data reporting in terms of user friendly questions:
  - Enhanced screening questions to determine farm status earlier in the questionnaire: and
  - Highlighted online reporting in NASS public messaging that electronic data reporting is quicker, easier, secure, and leads to less mail correspondent burden.

Selected Accomplishments Expected at the 2017 Proposed Resource Level/Challenges for the Future:

**Agricultural Estimates:**

- **Federal Principle Economic Indicators.** In 2017 NASS will conduct the vital Federal Principle Economic Indicators at the core level. NASS will continue to respond to stakeholders to provide critical market sensitive data needs as they arise. NASS will produce the following essential reports in 2017:
  - Crop Production,
  - Cattle, and Cattle on Feed,
  - Agricultural Prices,
  - Grain Stocks,
  - Hogs and Pigs,
  - Prospective Plantings,
  - Small Grain Summary,
  - Winter Wheat Seedings and Acreage.
- **Pollinator Health Initiative.** NASS will further analyze the improved baseline annual honeybee colony loss and the cost of pollination data to contribute new information to the Presidential Pollinator Health Initiative. This vital new series of honeybee colony loss and pollinator costs information will provide consistent and statistically defensible quantitative data on loss, prevalence of Colony Collapse Disorder (CCD), and possible causal factors of CCD, essential to the industry.

**Census of Agriculture:**

- **Census of Agriculture.** Preparations to ensure a high quality 2017 COA continue. In 2017 NASS will conduct the final of three screening surveys in an effort to expand coverage for all farms. These screeners ensure a quality mail list by improving coverage and eliminating records that don't have agriculture

National Agricultural Statistics Service

activity. During FY 2017, NASS will finalize census content, and refine all systems and processes involved in conducting the COA.

- **Current Agricultural Industrial Reports (CAIR).** NASS will continue producing the annual Current Agricultural Industrial Reports including:
  - Grain Crushings and Co-Products Production
  - Fats and Oils: Oilseed Crushing’s, production, and Stocks
  - Cotton System, Consumption and Stocks
  - Flour Milling Products

**USDA Strategic Goal 2:** *Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.*

<b>NASS Strategic Goals</b>	<b>NASS Objectives</b>	<b>Programs that Contribute</b>	<b>Key Outcome</b>
Goal 3: Help protect and Enhance the Nation’s Natural Resource Base and Environment	Objective 3.1: Provide statistical data to support management of productive working cropland.	Agricultural Estimates  Census of Agriculture	<p><u>Key Outcome 1:</u> Ensure high quality statistics and data are relevant and useful to stakeholders.</p> <p><u>Key Outcome 2:</u> Ensure timely release of data.</p> <p><u>Key Outcome 3:</u> Ensure optimal Census Coverage.</p> <p><u>Key Outcome 4:</u> Ensure optimal Census response rate.</p>

**Key Performance Measures**

Actual Performance Goals, Indicators, and Trends	Actual				Target	Actual	Result	Estimate/Target	Target
	2011	2012	2013	2014	2015		2016	2017	
1 Usefulness	1.0%	1.0%	1.0%	1.3%	<1.5%	1.3%	Met	<1.5%	<1.5%
2 Timeliness	99.6%	98.7%	98.8%	99.7%	98.0%	99.7%	Met	98.0%	98.0%
3 Coverage For the Quinquennial Census of Agriculture	N/A	N/A	87.7%	N/A	N/A	N/A	N/A	N/A	N/A
4 Response Rate for Census of Agriculture and Follow-on Surveys	N/A	N/A	80.3%	84.0%	>80.0%	84%	Met	>80.0%	>80.0%

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**Quality of Data** The annual Agricultural Statistics Board calendar in made public one year in advance and success is measured against the published due dates.

### Analysis of Results

#### Selected Past Accomplishments toward Achievement of the Key Outcome FY2015:

Examples of recent progress are listed in the section on Status of Programs. Past accomplishments toward achievement of the key outcome to ensure high quality statistics and data are relevant and useful to stakeholders; and released on time include:

#### **Agricultural Estimates**

- **NASS Geospatial program.** NASS established the cropland data layer (CDL) as a baseline tool against which to measure climate change adaptation strategies. To track changes in crop production that may occur with future climate change NASS sought to improve the objectivity and detail of crop progress and condition estimates, soil moisture, and natural disasters by developing biophysical modeling with remote sensing techniques.

To aid economic and policy analysis a web-accessible geospatial tool was developed for these data. NASS CDL is disseminated via the web portal, CropScape enabling users to track changes in crop production that may occur with future climate change and aid economic and policy analysis. This state-of-the-art portal features a web-service based interactive map visualization, dissemination, and querying system readily available to anyone with an internet connection. The continuation of this conterminous National CDL and CropScape fills a data gap critical for research, to aid economic and policy analysis, and for decision support for conservation, climate change, and water resources.

- **Cropland Data Layer (CDL).** NASS went back, for historical reference, and processed the 2008 Cropland Data Layer , and adds a new CDL each year covering the contiguous 48 States.
- **CropScape** is a geospatial data service which offers advanced tools such as interactive visualization, web-based data dissemination and geospatial queries and automated data delivery to systems such as Google Earth. And can be queried from the NASS website:  
[http://www.nass.usda.gov/Data\\_and\\_Statistics/index.asp](http://www.nass.usda.gov/Data_and_Statistics/index.asp)
- While Quick Stats is the best source of county level data from NASS, acreage and yield maps of county crop estimates are also available. [http://www.nass.usda.gov/Charts\\_and\\_Maps/Crops\\_County/index.asp](http://www.nass.usda.gov/Charts_and_Maps/Crops_County/index.asp)

#### **Census of Agriculture**

- **Quick Stats 2.0.** Data users may query the Census of Agriculture database to retrieve customized tables with Census data at the national, state and county levels as far back as 1997.  
<http://quickstats.nass.usda.gov/>
- **Ag Census Web Maps.** This COA application makes this information available at the county level through a few clicks. The maps and accompanying data help users visualize, download, and analyze Census of Agriculture data in a geospatial context. The Ag Census Web Maps give researchers, policymakers, planners, lenders, agriculture agencies, agribusinesses, and farmers' easy access to many factors that affect agriculture and farmers in more than 3,000 counties across the country. In collaboration with USDA's Economic Research Service, NASS makes the web maps and associated data available to:
  - Give those who provide services to farmers and rural communities' access to community-level data.
  - Give farmers, businesses, policymakers, and others the data to make informed decisions.
  - Give users the ability to interact with the maps.
  - Provide a spatial overview of various aspects of U.S. agriculture.
  - Show spatial relationships and patterns across regions and topics.

- **Farm and Ranch Irrigation Survey (FRIS).** FRIS is a follow-on survey to the census of agriculture, occurring every five years in the year after the census, and provides detailed data relating to irrigation activities and water use on U.S. farms, ranches, and horticultural operations. The FRIS data are reported at national, State and watershed levels; and aid efforts to develop and promote efficient irrigation practices and ensure long-term sustainability of water resources. They are the only data complete, consistent and accurate enough to use in benchmarking on-farm irrigation measures over time. FRIS data contribute to water-related programs, economic models, legislative initiatives, market analyses, and feasibility studies. The information helps industry representatives, leaders, and planners chart the best course for future on-farm irrigation. There was tremendous demand for the Farm and Ranch Irrigation Survey data in 2013 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. For more information on 2013 FRIS methodology and results, go to: [http://bit.ly/2013Farm\\_RanchSurvey](http://bit.ly/2013Farm_RanchSurvey).
- **Census of Horticulture Specialties.** This is a follow-on survey to the census of agriculture, occurring every five years a year or two after the census, and provides a comprehensive picture of the horticultural sector of the U.S. economy. It is the only source of detailed production and sales data for the U.S. floriculture, nursery, and specialty crop industries, including greenhouse food crops. The recent COA results showed the nursery and floriculture products alone are valued at \$14.5 billion in 2012. Additional information supplied in the 2014 Census of Horticulture is used to improve production, marketing tactics, and other industry developments within this agriculture sector. This effort collects data from any operation producing and selling at least \$10,000 in horticultural crops as reported on the COA. Data are collected in all 50 States.
- **Watershed Publication.** The Watershed publication provides data that supplements the COA. As a service to agricultural and environmental data users, the 2012 data for 38 individual land characteristics are published at the 6-digit Hydrologic Unit Code (HUC) level. For comparison, data from the 2007 Census of Agriculture will also be published in this report at the 6-digit HUC level.
- **Congressional District Profiles and Rankings.** Following each census, reporting farms and ranches are assigned to congressional districts and two products are prepared, district profiles and district rankings. Congressional district profiles provide data on selected farm, economic, and operator characteristics for the farms and ranches assigned to the district. The ranking of congressional districts presents the order of districts from largest to smallest for selected items from the Census of Agriculture. This allows the data user to understand the importance of agriculture activity as it relates to Congressional Districts across the Nation. Rankings are provided for farm and operator characteristics, selected value of agricultural products sold, selected livestock and poultry inventories, and selected crops area harvested. [http://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Congressional\\_District\\_Profiles/](http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Congressional_District_Profiles/)
- **Race, Ethnicity, and Gender Profiles Tabulation.** This product was new to the 2007 Census of Agriculture and came as a result of the Department's focus on supporting socially disadvantaged farms. These profiles provide state and county level farm operator data for women, Hispanic, Native American Indian, Asian American, and Black farmers. The statistics provided in these profiles include number of farms, value of products sold, government payments received, operator and economic characteristics, along with production levels for selected crops and livestock commodities.
- **Specialty Crops Tabulation.** The Census of Agriculture Specialty Crop publication provides data that supplement the Census of Agriculture. This publication complies with Section 10103 of the Food, Conservation, and Energy Act of 2008. As a service to agricultural and economic data users, the 2007 data for specialty crops are published at the U.S. and state-level. A specialty crop is defined by Section 3 of the Specialty Crops Competitiveness Act of 2004 (7 U.S.C. 1621 note; Public Law 108-465) as fruits and vegetables, tree nuts, dried fruits, and nursery crops (including floriculture).

Selected Accomplishments Expected at the 2017 Proposed Resource Level/Challenges for the Future:

**Agricultural Estimates**

- Geospatial Improvement Initiative.** This new geospatial 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 associated with agriculture. This will leverage strategic cooperative partnerships with USDA Climate Hubs and the National Oceanic and Atmospheric Administration Regional Climatic Centers.

This program is meant to extend the monitoring capabilities of both CropScape and VegScape programs and provide new, objective information that supports both the production of agriculture statistics while extending these products to local levels. This basic statistical information is the foundational information for agricultural, environmental, and climate researchers to have local, factual information on U.S. croplands. Additionally, it is anticipated to be of significant benefit to agricultural researchers to have field level geo-referenced data.

**USDA Strategic Goal 4:** *Ensure that all of America’s children have access to safe, nutritious and balanced meals.*

<b>NASS Strategic Goals</b>	<b><u>NASS Objectives</u></b>	<b><u>Programs that Contribute</u></b>	<b><u>Key Outcome</u></b>
<u>Goal 5:</u> Support a Safe U.S. Food Supply and Agricultural Production	<u>Objective 5.1:</u> Provide chemical usage statistics to enable informed, science-based decisions.	Agricultural Estimates  Census of Agriculture	<u>Key Outcome 1:</u> Ensure high quality statistics and data are relevant and useful to stakeholders.  <u>Key Outcome 2:</u> Ensure timely release of data.  <u>Key Outcome 3:</u> Ensure optimal Census Coverage.  <u>Key Outcome 4:</u> Ensure optimal Census response rate.

**Key Performance Measures**

Actual Performance Goals, Indicators, and Trends	Actual				Target	Actual	Result	Estimate/Target	Target
	2011	2012	2013	2014	2015			2016	2017
1 Usefulness	1.0%	1.0%	1.0%	1.3%	<1.5%	1.3%	Met	<1.5%	<1.5%
2 Timeliness	99.6%	98.7%	98.8%	99.7%	98.0%	99.7%	Met	98.0%	98.0%
3 Coverage For the Quinquennial Census of Agriculture	N/A	N/A	87.7%	N/A	N/A	N/A	N/A	N/A	N/A
4 Response Rate for Census of Agriculture and Follow-on Surveys	N/A	N/A	80.3%	84.0%	>80.0%	84%	Met	>80.0%	>80.0%
<b><u>Allowable Data Range for Met</u></b> Target is considered met if actual is greater than or equal to the target.									
<b><u>Assessment of Performance Data</u></b>									
<b><u>Data Source</u></b> The data were gathered from the Agricultural Statistics Board.									
<b><u>Completeness of Data</u></b> The data are complete and reflective of all NASS reports.									
<b><u>Reliability of Data</u></b> The data are complete and based on publicly available information.									
<b><u>Quality of Data</u></b> The annual Agricultural Statistics Board calendar is made public one year in advance and success is measured against the published due dates.									

**Analysis of Results****Selected Past Accomplishments toward Achievement of the Key Outcome FY2015:**

Examples of recent progress are listed in the section on Status of Programs. Past accomplishments toward achievement of the key outcome to ensure high quality statistics and data are relevant and useful to stakeholders; and released on time include:

**Agricultural Estimates:**

- **Annual Fruit and Vegetable Program.** NASS restored the annual Fruit and Vegetable program in 2014 fulfilling data users' requests and to provide acreage statistics necessary in order to conduct the chemical use program. The annual data is required to conduct the fruit and vegetable chemical use surveys.
- **In-Season Forecasts for Fruit and Nuts.** NASS continues 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 (issued in June), and the annual *Cranberries* report (issued in August). Additionally, NASS resumed publishing a preliminary Annual Summary for all noncitrus fruits and nuts in January. The annual data is required to conduct the fruit chemical use surveys.
- **Additional State Forecasts.** NASS Regional Offices continue to collaborate with outside entities in agreements to produce reports containing additional detail for specific crops. For vegetables, NASS resumed publishing in-season forecasts in the September *Vegetables* report. NASS will collect data for these forecasts from producers, processors, and others using a series of grower and processor surveys. NASS will also utilize administrative data whenever available to supplement the survey data. The annual data is required to conduct the vegetable chemical use surveys.
- **Agricultural Chemical Use.** NASS restored the remaining chemical use data series back to the original 2010 level, including data on fruit and vegetables, and major row crops on an alternating year basis. Appropriated funding is necessary for this initiative to ensure equal access to Federal statistics. Additionally, the Fruit and Vegetable survey series are required in order to conduct the chemical use data

series. NASS conducts surveys to provide needed information concerning quantities of chemicals applied to agricultural commodities, livestock, and facilities. Further, NASS has developed requested agricultural chemical use queries from the Quick Stats database system for the user's convenience based on their timeliness and user feedback. See this website: [http://www.nass.usda.gov/Data\\_and\\_Statistics/Pre-Defined\\_Queries/index.asp](http://www.nass.usda.gov/Data_and_Statistics/Pre-Defined_Queries/index.asp)

#### **Census of Agriculture:**

- **Organic Production Survey.** The 2008 Farm Bill provided funding for NASS to “develop surveys on organically produced agricultural products.” The 2008 Organic Production Survey was conducted as a follow-on survey to the 2007 COA during 2009 in response to this mandate. The one-time funding provided by the Farm Bill allowed NASS to develop baseline statistics about this quickly expanding and vital sector of U.S. agriculture. This effort was USDA's first-ever, wide-scale survey of U.S. organic producers. Data were collected for certified organic producers, exempt producers, and those producers in transition to organic production. The overall response rate was 87 percent, 2 percentage points higher than the 2007 COA. Eight percent of the responses were received using Internet reporting.
- **Special Organic Tabulation.** Selected Census statistics of operator and farm characteristics by all farms and farms with organic sales was published by NASS as a special tabulation from the 2012 Census of Agriculture.

#### Selected Accomplishments Expected at the 2017 Proposed Resource Level/Challenge for the Future:

##### **Agricultural Estimates**

- **Combating Antibiotic Resistant Bacteria (CARB).** NASS will collect new baseline data on combating antibiotic resistant bacteria by administering an independent survey program focused on the cattle, hog, and poultry industries. Antibiotics are used to treat active infection in agricultural animals as well as to prevent infection and to promote growth. The U.S. agricultural industry contributes to meeting the food needs of the United States as well as the worldwide great demand for animal protein. The benefits of antibiotic use for agricultural animals must be weighed against the potential risks to the human population of antibiotic resistance. It is clear that agricultural antibiotic use can affect human health. But, it is not clear that antibiotic use in agricultural animals contributes more to antibiotic resistance in humans than from direct human use of antibiotics. More data is needed to help address this growing problem.
- **Agricultural Chemical Use.** 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.

Strategic Goal Funding Matrix

(Dollars in Thousands)

Program / Program Items	2014 Actual	2015 Actual	2016 Enacted	Increase	2017 Estimate
				or Decrease	
<b>Department Strategic Goal 1 - Assist rural communities to create prosperity so they are self sustaining, repopulating and economically thriving.</b>					
Agricultural Estimates.....	\$112,215	\$116,643	\$118,456	+5,660	\$124,116
Staff Years.....	641	599	599	-	599
Census of Agriculture.....	46,454	47,842	42,177	-	42,177
Staff Years.....	200	230	230	-	230
Total Costs, Strategic Goal.....	158,669	164,485	160,633	+5,660	166,293
Total Staff Years, Strategic Goal.....	841	829	829	-	829
<b>USDA Strategic Goal 2 - Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.</b>					
Agricultural Estimates.....	800	800	800	+1,000	1,800
Staff Years.....	-	-	-	-	-
Census of Agriculture.....	4,500	-	-	-	-
Staff Years.....	28	-	-	-	-
Total Costs, Strategic Goal.....	5,300	800	800	+1,000	1,800
Total Staff Years, Strategic Goal.....	28	-	-	-	-
<b>USDA Strategic Goal 4 - Ensure that all of America's children have access to safe, nutritious and balanced meals.</b>					
Agricultural Estimates.....	3,504	7,302	7,366	+1,180	8,546
Staff Years.....	22	47	47	-	47
Census of Agriculture.....	2,250	-	-	-	-
Staff Years.....	2	-	-	-	-
Total Costs, Strategic Goal.....	5,754	7,302	7,366	+1,180	8,546
Total Staff Years, Strategic Goal.....	24	47	47	-	47
Total Costs, All Strategic Goals.	169,722	172,587	168,799	+7,840	176,639
Total FTEs, All Strategic Goals..	893	876	876	-	876

National Agricultural Statistics Service

Full Cost by Department Strategic Goal

(Dollars in thousands)

**Department Strategic Goal 1: Assist rural communities to create prosperity so they are self sustaining, repopulating and economically thriving**

<u>Program / Program Items</u>	<u>2014 Actual</u>	<u>2015 Actual</u>	<u>2016 Enacted</u>	<u>2017 Estimate</u>
<u>Agricultural Estimates</u>				
Salary expenses.....	\$75,740	\$78,510	\$76,165	\$76,165
Data Collection (NASDA).....	21,800	25,000	24,523	28,400
Contracts.....	750	750	800	800
GSA Rent & Security.....	-	6,165	5,251	5,251
Travel/ Transportation.....	1,700	900	900	900
Printing.....	130	128	200	200
Hardware/ Software.....	4,492	2,000	2,217	3,000
Postage/ Shipping/ contingencies.....	2,645	900	2,000	3,000
Indirect costs.....	4,958	2,290	6,400	6,400
<b>Total Costs.....</b>	<b>112,215</b>	<b>116,643</b>	<b>118,456</b>	<b>124,116</b>
FTEs.....	641	599	599	599
Performance Measure:				
<i>Usefulness/a - Agricultural Estimates Goal 1.....</i>	1.0%	1.3%	1.5%	1.5%
<i>Timeliness/b - Agricultural Estimates Goal 1.....</i>	98.8%	99.7%	98.0%	98.0%
<u>Census of Agriculture</u>				
Salary expenses.....	21,850	30,811	22,038	23,133
Data Collection (NASDA).....	13,062	8,274	5,020	4,899
Contracts.....	3,510	3,866	1,474	1,000
GSA Rent & Security.....	-	3,037	2,835	2,835
Travel/ Transportation.....	2,400	2,000	1,500	1,000
Printing.....	-20	30	50	50
Hardware/ Software.....	2,405	2,000	3,500	3,500
Postage/ Shipping/ contingencies.....	250	300	400	400
Indirect costs.....	2,997	1,798	5,360	5,360
<b>Total Costs.....</b>	<b>46,454</b>	<b>52,116</b>	<b>42,177</b>	<b>42,177</b>
FTEs.....	200	230	230	230
Performance Measure:				
<i>Usefulness/a - Census of Agriculture Goal 1.....</i>	1.0%	1.3%	1.5%	1.5%
<i>Timeliness/b - Census of Agriculture Goal 1.....</i>	98.8%	99.7%	98.0%	98.0%
<i>Census Coverage/c - Census of Agriculture Goal 1.....</i>	87.7%	N/A	N/A	N/A
<i>Census Response Rates/d - Census of Agriculture Goal 1.....</i>	80.3%	84.0%	> 80%	> 80%
<b>Total Costs, Strategic Goal 1.....</b>	<b>158,669</b>	<b>168,759</b>	<b>160,633</b>	<b>166,293</b>
<b>Total FTEs, Strategic Goal 1.....</b>	<b>841</b>	<b>829</b>	<b>829</b>	<b>829</b>

a/ - Usefulness – The accessibility, relevance, coherence, comparability, and usefulness of NASS official reports, products, and services as measured by NASS issuing errata for fewer than five percent of Agricultural Statistics Board reports.

b/ - Timeliness - Percent of time official reports are released on the date and time pre-specified to data users.

c/ - Coverage - The Quinquennial Census of Agriculture (COA) Coverage – Percent of United States farms or ranches covered by the Census Mail List (CML) every five years. There is no census coverage in non-census years.

d/ - Response Rate - COA and Follow-on Survey Response Rates – Percent of CML respondents returning a usable report.

National Agricultural Statistics Service

Full Cost by Department Strategic Goal

(Dollars in thousands)

**Department Strategic Goal 2: Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.**

Program / Program Items	2014 Actual	2015 Actual	2016 Enacted	2017 Estimate
<u>Agricultural Estimates</u>				
Salary expenses.....	-	-	-	-
Data Collection (NASDA).....	-	-	-	-
Contracts.....	\$800	\$800	\$800	\$1,800
Travel/ Transportation.....	-	-	-	-
Printing.....	-	-	-	-
Hardware/ Software.....	-	-	-	-
Postage/ Shipping/ contingencies.....	-	-	-	-
Indirect costs.....	-	-	-	-
<b>Total Costs.....</b>	<b>800</b>	<b>800</b>	<b>800</b>	<b>1,800</b>
FTEs.....	-	-	-	-
Performance Measure:				
<i>Usefulness/a - Agricultural Estimates Goal 2.....</i>	1.0%	1.3%	1.5%	1.5%
<i>Timeliness/b - Agricultural Estimates Goal 2.....</i>	98.8%	99.7%	98.0%	98.0%
<u>Census of Agriculture</u>				
Salary expenses.....	2,790	-	-	-
Data Collection (NASDA).....	1,300	-	-	-
Contracts.....	80	-	-	-
Travel/ Transportation.....	100	-	-	-
Printing.....	20	-	-	-
Hardware/ Software.....	110	-	-	-
Postage/ Shipping/ contingencies.....	20	-	-	-
Indirect costs.....	80	-	-	-
<b>Total Costs.....</b>	<b>4,500</b>	<b>-</b>	<b>-</b>	<b>-</b>
FTEs.....	28	-	-	-
Performance Measure:				
<i>Usefulness/a - Census of Agriculture Goal 2.....</i>	1.0%	1.3%	1.5%	1.5%
<i>Timeliness/b - Census of Agriculture Goal 2.....</i>	98.8%	99.7%	98.0%	98.0%
<i>Census Coverage/c - Census of Agriculture Goal 2.....</i>	87.7%	N/A	N/A	N/A
<i>Census Response Rates/d - Census of Agriculture Goal 2.....</i>	80.3%	84.0%	> 80%	> 80%
<b>Total Costs, Strategic Goal 2.....</b>	<b>5,300</b>	<b>800</b>	<b>800</b>	<b>1,800</b>
<b>Total FTEs, Strategic Goal 2.....</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>

a/ - Usefulness – The accessibility, relevance, coherence, comparability, and usefulness of NASS official reports, products, and services as measured by NASS issuing errata for fewer than five percent of Agricultural Statistics Board reports.

b/ - Timeliness - Percent of time official reports are released on the date and time pre-specified to data users.

c/ - Coverage - The Quinquennial Census of Agriculture (COA) Coverage – Percent of United States farms or ranches covered by the Census Mail List (CML) every five years. There is no census coverage in non-census years.

d/ - Response Rate - COA and Follow-on Survey Response Rates – Percent of CML respondents returning a usable report.

# National Agricultural Statistics Service

## Full Cost by Department Strategic Goal (Dollars in thousands)

### Department Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious and balanced meals.

Program / Program Items	2014 Actual	2015 Actual	2016 Actual	2017 Actual
<u>Agricultural Estimates</u>				
Salary expenses.....	\$570	\$2,000	\$2,000	\$1,206
Data Collection (NASDA).....	-	2,000	3,000	5,000
Contracts.....	2,014	1,062	926	400
Travel/ Transportation.....	400	1,000	100	100
Printing.....	20	40	40	40
Hardware/ Software.....	200	400	400	400
Indirect costs.....	300	800	900	1,400
<b>Total Costs.....</b>	<b>3,504</b>	<b>7,302</b>	<b>7,366</b>	<b>8,546</b>
FTEs.....	22	47	47	47
Performance Measure:				
<i>Usefulness/a - Agricultural Estimates Goal 4.....</i>	1.0%	1.3%	1.5%	1.5%
<i>Timeliness/b - Agricultural Estimates Goal 4.....</i>	98.8%	99.7%	98.0%	98.0%
<u>Census of Agriculture</u>				
Salary expenses.....	1,250	-	-	-
Data Collection (NASDA).....	200	-	-	-
Contracts.....	200	-	-	-
Travel/ Transportation.....	200	-	-	-
Printing.....	50	-	-	-
Hardware/ Software.....	100	-	-	-
Postage/ Shipping/ contingencies.....	50	-	-	-
Indirect costs.....	200	-	-	-
<b>Total Costs.....</b>	<b>2,250</b>	<b>-</b>	<b>-</b>	<b>-</b>
FTEs.....	2	-	-	-
Performance Measure:				
<i>Usefulness/a - Census of Agriculture Goal 4.....</i>	1.0%	1.3%	1.5%	1.5%
<i>Timeliness/b - Census of Agriculture Goal 4.....</i>	98.8%	99.7%	98.0%	98.0%
<i>Census Coverage/c - Census of Agriculture Goal 4.....</i>	87.7%	N/A	N/A	N/A
<i>Census Response Rates/d - Census of Agriculture Goal 4.....</i>	80.3%	84.0%	> 80%	> 80%
<b>Total Costs, Strategic Goal 4.....</b>	<b>5,754</b>	<b>7,302</b>	<b>7,366</b>	<b>8,546</b>
<b>Total FTEs, Strategic Goal 4.....</b>	<b>24</b>	<b>47</b>	<b>47</b>	<b>47</b>
<u>Agricultural Estimates</u>				
<b>Total Costs, Strategic Goal.....</b>	<b>116,519</b>	<b>124,566</b>	<b>126,266</b>	<b>134,468</b>
<b>Total FTEs, Strategic Goal.....</b>	<b>663</b>	<b>646</b>	<b>646</b>	<b>646</b>
<u>Census of Agriculture</u>				
<b>Total Costs, Strategic Goal.....</b>	<b>53,204</b>	<b>47,842</b>	<b>42,177</b>	<b>42,171</b>
<b>Total FTEs, Strategic Goal.....</b>	<b>230</b>	<b>230</b>	<b>230</b>	<b>230</b>
<u>NASS Total</u>				
<b>Total Costs, All Strategic Goals.....</b>	<b>169,722</b>	<b>176,861</b>	<b>168,799</b>	<b>176,639</b>
<b>Total FTEs, All Strategic Goals.....</b>	<b>893</b>	<b>876</b>	<b>876</b>	<b>876</b>

a/ - Usefulness – The accessibility, relevance, coherence, comparability, and usefulness of NASS official reports, products, and services as measured by NASS issuing errata for fewer than five percent of Agricultural Statistics Board reports.

b/ - Timeliness - Percent of time official reports are released on the date and time pre-specified to data users.

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d/ - Response Rate - COA and Follow-on Survey Response Rates – Percent of CML respondents returning a usable report.