2016 Explanatory Notes

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 5 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. These scientifically-designed surveys 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 –** The COA is taken every 5 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 Census of Agriculture were released in May 2014.

- **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.

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 State Departments of Agriculture or universities. As of September 30, 2014, NASS had 956 permanent full-time employees, including 386 full-time employees in Washington, D.C., 491 in field offices, and 79 in NOC.

NASS coordinated on USDA OIG Report #26501-0001-12, *Security Review of the National Agricultural Statistics Service's Lockup Procedures*, closing out 10 of 17 recommendations, and anticipates closing remaining 7 in FY15.

Statement of Available Funds and Staff Years (SY)

(Dollars in thousands)

Item	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations - Salaries & Expenses	$179,477	979	$161,206	893	$172,408	979	$180,346	984
Rescission	-4,860	-	1,000	-	-	-	-	-
Sequestration	-7,979	-	-	-	-	-	-	-
Adjusted Appropriation	166,638	979	162,206	893	172,408	979	180,346	984
Balance Available, Start of Year	370	-	146	-	179	-	-	-
Other Adjustments (Net)	14,254	-	7,691	-	-	-	-	-
Total Available	181,262	979	170,043	893	172,587	979	180,346	984
Lapsing Balances	-80	-	-142	-	-	-	-	-
Balance Available, End of Year	-146	-	-179	-	-	-	-	-
Subtotal Obligations, NASS	181,036	979	169,722	893	172,587	979	180,346	984
Obligations under other USDA appropriations:								
Ag. Marketing Service - Pesticide work & data on milk prices, export certification, & base month series	147	1	66	-	60	2	60	2
Agriculture Research Service - Soybean Samples and Wheat & Barley Scab	50	-	111	1	50	-	50	-
Animal and Plant Health Inspection Service - Animal health monitoring system	725	3	1,145	2	800	2	800	2
Economic Research Service - Agricultural resource management & small farms data	7,084	33	10,248	33	7,000	40	7,000	40
Foreign Agricultural Service	1,667	8	1,196	5	1,020	5	1,020	5
Farm Service Agency - Estimates & Surveys	6,548	34	6,403	34	2,595	34	6,400	34
Forest Service - Grazing fees & woodland owners	68	-	68	-	70	-	70	-
Natural Resource Conservation Service & Farm Service Agency - Conservation effects assessment	2,280	9	6,000	10	4,000	-	4,000	-
Risk Management Agency - County estimates	825	4	2,290	3	850	5	850	5
World Agricultural Outlook Board - Lock-up & printing support & cotton objective yield	15	-	26	-	20	-	20	-
Miscellaneous USDA Reimbursements	2	-	4	-	20	-	20	-
Total, Other USDA	19,411	92	27,557	88	16,485	88	20,290	88
Total, Agriculture Appropriations	200,447	1,071	197,279	981	189,072	1,067	200,636	1,072
Other Federal Funds:								
Dept. of Interior, BLM; Survey Fees	67	-	67	-	100	-	100	-
National Institute for Occupational Safety & Health	-	-	837	4	850	4	850	4
Dept. of Labor - Agriculture Labor	1,200	3	1,200	1	1,200	1	1200	1
National Science Foundation - data collection	-	-	100	1	100	1	100	1
National Aeronautics & Space Administration	18	1	12	-	10	-	10	-
United Soybean Council	-	-	40	-	50	-	50	-
Total, Other Federal	1,285	4	2,256	6	2,310	6	2,310	6
Non-Federal Funds								
State Agencies - Survey work	2,738	10	2,362	12	2,400	12	2,400	12
Miscellaneous Reimbursements - Agricultural reports, data, & mailings	0	-	0	-	0	-	0	-
Total, Non-Federal	2,738	10	2,362	12	2,400	12	2,400	12
Total, NASS	204,471	1,085	201,897	999	193,782	1,085	205,346	1,090

NATIONAL AGRICULTURAL STATISTICS SERVICE
Permanent Positions by Grade and Staff Year Summary

Item	2013 Actual			2014 Actual			2015 Enacted			2016 Estimate		
	Wash. D.C.	Field	Total	Wash. D.C.	Field	Total	Wash. D.C.	Field	Total	Wash. D.C.	Field	Total
SES	9	1	10	9	1	10	9	1	10	9	1	10
SL	1	-	1	1	-	1	2	-	2	2	-	2
GS-15	26	13	39	29	17	46	29	17	46	29	17	46
GS-14	53	51	104	56	71	127	56	71	127	56	71	127
GS-13	210	49	259	206	90	296	205	90	295	210	90	300
GS-12	47	158	205	32	155	187	32	155	187	32	155	187
GS-11	29	41	70	19	43	62	19	43	62	19	43	62
GS-10	5	-	5	2	3	5	2	3	5	2	3	5
GS-9	22	35	57	22	63	85	22	63	85	22	63	85
GS-8	13	23	36	12	20	32	12	20	32	12	20	32
GS-7	26	98	124	17	106	123	17	106	123	17	106	123
GS-6	3	24	27	1	19	20	1	19	20	1	19	20
GS-5	5	9	14	3	16	19	3	16	19	3	16	19
GS-4	-	3	3	1	13	14	1	13	14	1	13	14
GS-3	-	-	-	-	6	6	-	6	6	-	6	6
Total Perm. Positions	449	505	954	410	623	1,033	410	623	1,033	415	623	1,038
Unfilled, EOY	-10	-55	-65	-24	-53	-77	-	-	-	-	-	-
Total, Perm. Full-Time Employment, EOY	339	450	889	386	570	956	410	623	1,033	415	623	1,038
Staff Year Est.	518	567	1,085	429	570	999	435	650	1,085	439	651	1,090

Motor Vehicle Fleet Data

The 2016 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 34 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 34 State offices, there are fifteen NASS owned and twenty-eight vehicles leased from General Services Administration (GSA). While all 12 NASS Regional offices and 36 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 2014, NASS had forty-three vehicles; fifteen owned vehicles and twenty-eight GSA leased vehicles and reduced the fleet by two vehicles. For 2015 and 2016, NASS plans no changes to the motor vehicle fleet total.

Replacement of passenger motor vehicles. For 2014 NASS had six vehicles that met the Federal Replacement Standards and four of these older SUVs were replaced with smaller, hybrid SUVs that will be more economical to maintain. NASS plans to maintain the current level of 43 motor vehicles with ten vehicles scheduled for replacement in both 2015 and 2016. NASS follows the Federal replacement policy for agency owned vehicles, and maintains vehicles past the minimum Federal replacement criteria of six years or 60,000 miles when appropriate. NASS complies with GSA fleet managers when replacing leased vehicles, ensuring continued program needs.

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

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	Ambu-lances	Buses	Heavy Duty Vehicles	Total Number of Vehicles	
		4x2	4x4						
2013	2	21	20	2	-	-	-	45	204
Change	-	-2	+1	-1	-	-	-	-2	+10
2014	2	19	21	1	-	-	-	43	214
Change	-	-	-	-	-	-	-	-	+6
2015	2	19	21	1	-	-	-	43	220
Change	-	-	-	-	-	-	-	-	+7
2016	2	19	21	1	-	-	-	43	227

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

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

Appropriations 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, [$172,408,000] $180,346,000, of which up to [$47,842,000] $45,747,000 shall be available until expended for the Census of Agriculture: *Provided*, That amounts made available for the Census of Agriculture may be used to conduct the Current Industrial Report surveys subject to 7 U.S.C. 2204g(d) and (f).

Lead-Off Tabular Statement

Budget Estimate, 2016	180,346,000
2015 Enacted	172,408,000
Change in Appropriation	+7,938,000

Summary of Increases and Decreases

(On basis of appropriation)
(Dollars in thousands)

	2013 Actual	2014 Change	2015 Change	2016 Change	2016 Estimate
Discretionary Appropriations:					
Agricultural Estimates	$108,609	+$8,052	+$7,905	+$10,033	$134,599
Census of Agriculture	58,029	-13,484	+3,297	-2,095	45,747
Total, Appropriation or Change	166,638	-5,432	+11,202	+7,938	180,346

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

Program	2013 Actual		2014 Actual		2015 Enacted		Inc. or Dec.		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:										
Agricultural Estimates	$108,609	656	$116,661	663	$124,566	749	+$10,033	+5	$134,599	754
Census of Agriculture	58,029	323	44,545	230	47,842	230	-2,095	-	45,747	230
Total Adjusted Approp	166,638	979	161,206	893	172,408	979	+7,938	+5	180,346	984
Rescissions, Transfers, and Seq. (Net)	+12,840	-	-	-	-	-	-	-	-	-
Total Appropriation	179,477	979	161,206	893	172,408	979	+7,938	+5	180,346	984
Mandatory-Farm Bill	-	-	+1,000	-	-	-	-	-	-	-
Rescission	-4,860	-	-	-	-	-	-	-	-	-
Sequestration	-7,979	-	-	-	-	-	-	-	-	-
Bal. Available, SOY	370	-	+146	-	+179	-	-179	-	-	-
Recoveries, Other (Net)	14,254	-	+7,691	-	-	-	-	-	-	-
Total Available	181,262	979	170,043	893	172,587	979	+7,759	+5	180,346	984
Lapsing Balances	-80	-	-142	-	-	-	-	-	-	-
Bal. Available, EOY	-146	-	-179	-	-	-	-	-	-	-
Total Obligations	181,036	979	169,722	893	172,587	979	+7,759	+5	180,346	984

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

Program	2013 Actual		2014 Actual		2015 Enacted		Inc. or Dec.		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:										
Agricultural Estimates	$108,529	656	$116,519	663	$124,566	749	$10,033	+5	$134,599	754
Census of Agriculture	72,507	323	53,204	230	48,021	230	-2,274	-	45,747	230
Total Obligations	181,036	979	169,723	893	172,587	979	+7,759	+5	180,346	984
Lapsing Balances	+80	-	+142	-	-	-	-	-	-	-
Bal. Available, EOY	+146	-	+179	-	-	-	-	-	-	-
Total Available	181,262	979	170,043	893	172,587	979	+7,759	+5	180,346	984
Mandatory-Farm Bill	-	-	-1,000	-	-	-	-	-	-	-
Rescission	+4,860	-	-	-	-	-	-	-	-	-
Sequestration	+7,979	-	-	-	-	-	-	-	-	-
Bal. Available, SOY	-370	-	-146	-	-179	-	+179	-	-	-
Other Adjustments (Net)	-14,254	-	-7,691	-	-	-	-	-	-	-
Total Appropriation	179,477	979	161,206	893	172,408	979	+7,938	+5	180,346	984

Justification of Increases and Decreases

Agricultural Estimates Program

(1) A net increase of $10,033,000 and 5 staff years is requested for the Agricultural Estimates Program for a total of $134,599,000 and 754 staff years ($124,566,000 and 749 staff years in 2015 Budget).

Base funding for the Agricultural Estimates program will be used to continue collecting integrated surveys and estimates used for agricultural statistical reports that:

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

The Agricultural Estimates program provides data essential to both the public and private sectors of the agriculture industry. The NASS reports are the only publically available objective source for these data. 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 role in responding to the need to have objective data available for the U.S. and world consumer market key market information would be in the hands of a few. Producers and ranchers would be at a disadvantage with those who have resources to pay for information, and potentially expose markets to manipulation.

The Federal role is essential to provide objective data without bias to facilitate a more fair market system. Further, 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.

NASS is the official data collection agency of the USDA. Official statistics are used by the Department to administer and monitor its programs and strategic successes. The statistical data provided by NASS enhances the competitiveness and sustainability of rural farm economies by leveling the playing field.

Base funding for the Agricultural Estimates Program supports:

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

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.

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

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, and supplies and materials, and equipment.

In addition to the activities and functions specifically described in the budget request, current year and budget year base funds will be used to carry out activities and functions consistent with the full range of authorities and activities delegated to the agency.

a. An increase of $992,000 for pay costs for the Agricultural Estimates Program ($202,000 for annualization of the 1 percent 2015 pay increase and $790,000 for the 1.3 percent 2016 pay increase).

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.

b. An increase of $891,000 for County Estimates for a total of $7,047,000 and 23 staff years is requested to support the County Estimates ($6,156,000 and 23 staff years available in 2015).

The USDA's Farm Service Agency (FSA) relies on NASS county level data. The Agricultural Act of 2014 authorized the Agriculture Risk Coverage (ARC) Program and Price Loss Coverage (PLC) Program, which are administered by FSA. ARC/PLC provides revenue and price loss payments to eligible producers for the 2014 through 2018 crop years. FSA will be using the NASS County Estimates data to enable the administration of the ARC/PLC program. NASS will necessarily need to increase the commodity coverage in the County Estimates program. Additionally, the Risk Management Agency relies on NASS annual county estimates to administer crop insurance programs that provide U.S. farmers a safety net ensuring protection against unpredictable growing conditions. RMA's need for County Estimate data increased with the passage of the Agricultural Act of 2014. The important uses of these data continue to grow.

The County Estimates Survey program was originally designed, administered, and processed at the local NASS Field Office level in support of State cooperative agreements with local governments or universities. As uses of the data have expanded to support USDA administered farm programs, it became apparent that new requirements dictated standards and consistency across all NASS Field Offices. Consequently, NASS began work on developing the infrastructure to support transition to a nationally-administered County Estimates Survey program. Initial work focused on internal processes and tools that support analyses and estimation and has recently shifted toward ensuring consistency in sampling, design, and program execution.

c. An increase of $500,000 and 1 staff year is requested to augment the Colony Loss Surveys and annual Cost of Pollination for a total of $2,500,000 and 7 staff years ($2,000,000 and 6 staff years in 2015).

The Quarterly and Annual Colony Loss surveys and Annual Cost of Pollination survey will fully support the objective of the Presidential Memorandum "Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators" (June 2014) to take "steps to reverse pollinator losses and help restore populations to healthy levels." To this end, NASS is committed to collaborating with USDA and the other departments on a unified and complementary approach to the President's pollinator health initiative, and to deliver consistent, statistically defensible pollinator loss estimates to better inform decision makers.

To better inform the public and the task force outlined in the Presidential memorandum, NASS will add questions to the Bee and Honey Survey (adding questions on management practices and revenues/expenses), and will add the Annual Cost of Pollination Survey. NASS has also added a Quarterly Loss Survey, and an Annual Loss Survey.

The additional surveys will serve to meet the goals of assessing the status of pollinators by collecting colony loss data, stressor data, and cost data. The Quarterly Loss Survey, for instance, will report the "death loss" and the percent change in number of colonies between seasons for operators of larger bee colonies (five or more colonies). The Quarterly Loss Survey will also provide useful data on colony health and stressors. The Annual Loss Survey will serve to capture the same data on smaller operators (less than five colonies). The Annual Cost of Pollination will specifically target the impact on commodities by location by measuring honey bee pollinator service fees; which is information of high interest to the agricultural community, and will inform how colony loss affects pollination prices.

Once the baseline data are collected from these three new NASS surveys (in 2015), additional statistical analyses are planned to examine causes and sequelae of CCD. NASS places a high priority on ensuring the Colony Loss surveys fully support the President's Memorandum. The additional $0.5 million requested in FY 2016 is needed to:

- Enable more analysis of the Colony Loss survey data;
- Determine if a larger sample size is needed for the Colony Loss surveys;
- Discover if and the extent to which pollination costs for any commodities have increased in association with CCD; and
- Enable more analysis of the pollination cost data.

d. An increase of $413,000 and 1 staff year is requested for the *Floriculture Report* (in 2015 the *Floriculture Report* was produced from a subset of the *Census of Horticulture* data).

The commercial Floriculture survey includes cut flowers, flowering potted plants, foliage plants, bedding/garden plants, herbaceous perennials, cut cultivated greens and special Hawaiian crops. Data include area in production, price and value of wholesale sales for 36 selected states and growers having $100,000 or more in sales, and the number of growers and growing area for growers with $10,000 or more in sales.

Commercial floriculture estimates are used by all segments of the industry to plan for the future. Technology has changed production practices, tissue culture propagation has accelerated production, and new products are developed every year. To keep abreast of the rapidly changing industry, growers and suppliers need data. Individual growers can compare their own operation to other operations to help identify state and national trends as they plan the future of their business. These estimates are also used to support industry claims in cases involving unfair trade practices and in trade negotiations. Government agencies use the data collected by this survey to measure the economic impact of the industry. The value of sales of floriculture crops exceeds $5 billion annually, a significant contribution to farm income and the Gross Domestic Product.

Every five years the Census of Horticulture is conducted as a follow-on survey for the Census of Agriculture. During that year NASS does not conduct the Floriculture survey because that would be duplicative. The Census of Horticulture survey includes all the information that the Floriculture survey would have collected and more. The Floriculture Report is then produced from the Census of Horticulture data that year. The other four years of the cycle the Floriculture survey is conducted as part of the normal Agricultural Estimates.

e. An increase of $1,280,000 for a total of $10,215,000 and 43 staff years is requested to support the Fruit and Vegetable Surveys ($8,935,000 and 43 staff years available in FY 2015).

NASS restored much of the annual Fruit and Vegetable program in 2015 fulfilling data users' requests and provided acreage statistics necessary when conducting the chemical use program. NASS will augment the annual Fruit and Vegetable program by providing the in-season forecasts for fruits and nuts. These are needed by industry and include a variety of reports: The monthly *Crop Production* reports, annual *Cherry Production* report (issued in June), and the annual *Cranberries* report (issued in August). Additionally, NASS will resume publishing a preliminary Annual Summary for all noncitrus fruits and nuts in January. The annual data is required to conduct the fruit and vegetable chemical use surveys.

NASS individual State Field Offices will collaborate with outside entities in agreements to produce reports containing additional detail for specific crops. For vegetables, NASS will resume 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.
Constituents will include fruit growers, processors, brokers, extension specialists, grower associations, commodity councils, State Departments of Agriculture, USDA (and other government) agencies, commodity marketing boards, research specialists, universities, and students. Data in these reports are used to align resources (transportation, storage, processing, etc.) with expected supplies, to project market conditions, to evaluate current conditions potential economic impact, for planning purposes, and for educational and research purposes.

f. An increase of $957,000 for a total of $7,503,000 and 61 staff years is requested to support the Chemical Use program ($6,546,000 and 61 staff years available in 2015).

In 1991, NASS began surveying the use of pesticides and commercial fertilizers in response to data needs for water quality and food safety initiatives. Before the NASS program was instituted, there was very little statistically reliable and readily available information on the amounts and types of chemicals used in agriculture. Consequently, neither USDA nor other concerned parties could respond adequately to questions about agricultural chemical use and its possible effects on the environment. The NASS data series is the only free publicly available agriculture chemical use information. Proprietary data sources exist, but are extremely costly to access and must not be disclosed outside the client's purview.

Since 2007 the NASS chemical use statistics have been curtailed due to budget shortfalls in the annual agricultural statistics program. Congress, USDA, and NASS received thousands of inquiries citing the importance of having statistically sound data to ensure a safe food supply for our Nation and the World. Due to budget reductions in 2015 the chemical use program crop rotations were changed so that individual crops were surveyed less frequently. This funding request for 2016 would restore the remaining NASS chemical use data series to the 2010 level, including data on major row crops on an alternating year basis, post harvest chemical use data, and vegetable chemical use data. Appropriated funding is necessary for this initiative to ensure equal access to Federal statistics.

The chemical use data collected by NASS have been used in building a database for the USDA Pesticide Data Program. This database is used by the Department to evaluate the safety of the Nation's food supply. Additionally, the implementation of the Food Quality Protection Act (FQPA), in 1996, increased the need for actual, reliable chemical use data. FQPA requires the Environmental Protection Agency (EPA) to conduct an accelerated review of tolerance levels for re-registration of pesticide products. Part of the review includes using actual chemical usage data that only growers can provide. The absence of these data has created difficulties for EPA and industry to effectively conduct and analyze these reviews. In the absence of actual data, EPA is often in the position to assume maximum label rates are being applied on all acreage which may result in over-estimating actual pesticide usage.

g. An increase of $500,000 is requested to produce Pulse Crop Estimates (no funding available in 2015).

The necessity for pulse crop estimates increased when the 2002 Farm Bill introduced support programs for these crops. Without funding to produce these estimates when the 2002 Farm Bill passed, NASS received funding under a Commodity Credit Corporation (CCC) agreement, managed by the Farm Services Agency (FSA). This funding source has remained until the present time. However, the CCC funds have been subject to sequestration for multiple years now and NASS was forced to reduce some of these acreage, yield, production, stocks and price estimates that were provided previously. In addition to providing an input to programs managed by FSA, the pulse crop industry is an important, growing sector of agriculture and numerous constituents have expressed concern over the loss of these estimates. By requesting funding through appropriations, instead of the CCC program, this will provide stability to the program and allow NASS to produce all necessary estimates each year.

h. An increase of $2,500,000 and 2 staff years for a total of $3,300,000 and 2 staff years for the Geospatial Improvement Initiative ($800,000 available in 2015).

This new program will enhance the current satellite based agricultural statistics monitoring program. It will research and institute systems to provide satellite based crop condition, soil moisture, crop progress (phenological development of crops), and crop yields. This will leverage strategic cooperative partnerships with university partner, 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 which could be used to gain an understanding of trends in the area planted to crops, such as corn and soybeans, over time and subsequently in yield models that they develop.

The valuable *CropScape* and its underlying Cropland Data Layer (CDL) are the foundational data for new geospatial layers on specific crop condition, crop progress, soil moisture, crop yield, and disaster assessment, of agricultural lands. The scientific development of these layers is in various stages of research, operation, or still only conceptual. 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.

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. 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.
- 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.
- A crop yield model for new crops within four years.

i. <u>An increase of $2,000,000 and 1 staff year is requested for the new Combating Antimicrobial Resistant Bacteria (CARB) Initiative</u>.

Microbes, collectively, include bacteria, viruses, fungi, and parasites. For the past 70 years, antimicrobial drugs, such as antibiotics, have been successfully used to treat animals and people with bacterial and infectious diseases. Over time, however, many infectious organisms have adapted to the drugs designed to kill them, making the products less effective. As a result, antimicrobial resistance has developed into a global public health issue; as strains of a variety of pathogens have recently emerged that defy treatment with commonly available therapeutics.

Resistance is typically acquired by gene mutation or lateral gene transfer within or between species. Genetic diversity within populations combined with rapid microbial generation time gives microbes a remarkable adaptability in response to selective pressure from antimicrobials. The pool of preexisting resistance genes available in the microbial world is substantial. Because there is no shortage of reservoirs of resistance genes in microbes dwelling in and on humans, animals, and environmental surfaces, and given the prevalence and transferability of resistance genes, the contest between microbes and antimicrobials will be perpetual.

There is growing concern about how antimicrobial resistance may affect the livestock food supply from cattle, hogs, pigs, and poultry. Many factors exacerbate the growing problem of antimicrobial resistance, including:

- Microbial population density in farms and ranches for animals, which allows transfer of microbes within a community and enables resistance to emerge;

- Medical procedures that carry risks of infection with resistant pathogens;
- Breakdown in hygienic measures, especially hand hygiene;

- Prescribing practices outside approved guidelines for the treatment of infectious diseases;

- Lack of rapid, effective diagnostic tests to identify the infecting agent(s) and their antimicrobial susceptibilities.

For farmers, animal husbandry and the food industry, the loss of effective antimicrobial agents to treat sick animals damages food production and family livelihoods. An additional risk for livestock workers is exposure to animals carrying resistant bacteria. For example, farmers working with cattle, pigs and poultry that are infected with methicillin-resistant *Staphylococcus aureus* have a much higher risk of also being infected with these bacteria. Food is the most important of many vehicles for transmission of resistant bacteria from animals to human beings and human consumption of food carrying antibiotic-resistant bacteria has led to acquisition of antibiotic-resistant infections. Other risks for infection with resistant organisms include exposure to crops treated with antimicrobial agents or contaminated by manure or slurry, and farmyard run-offs into groundwater.

To address this growing problem, NASS proposes to add questions to some of the annual surveys already established for Cattle on Feed, Hogs and Pigs, and develop an annual Poultry survey. This new data can be used to established 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.

Census of Agriculture Program

(2) A net decrease of $2,095,000 for the Census of Agriculture (COA) for a total of $45,747,000 and 230 staff years ($47,842,000 and 230 staff years available in 2015).

The Census is conducted every 5 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.

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, and Puerto Rico; chemical use; and computer use. Reports cover the current census, with comparative data for previous census years.

Continuation of the Census of Agriculture 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 Census of Agriculture 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 Census of Agriculture 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 Census of Agriculture 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.

In addition to the activities and functions specifically described in the budget request, current year and budget year base funds will be used to carry out activities and functions consistent with the full range of authorities and activities delegated to the agency.

a. An increase of $248,000 for pay costs for the Census of Agriculture Program ($51,000 for annualization of the 1 percent 2015 pay increase and $197,000 for the 1.3 percent 2016 pay increase).

   This increase 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.

b. An increase of $335,000 for the Federal Employees Health Benefits (FEHB) for the term employee enumerators with an intermittent work schedule at the National Operations Division.

   Beginning on January 1, 2015, the Office of Personnel Management expanded FEHB coverage to seasonal workers. As finalized in the FEHB Expansion Notice of Proposed Rulemaking (NPRM), agencies are required to expand eligibility for coverage under FEHB to certain temporary seasonal and/or intermittent employees who are identified as full-time employees. As result of the new health care law, term employee enumerators with an intermittent work schedule now qualify for health insurance FEHB, if they work a minimum number of hours a month and meet other criteria.

c. An decrease of $178,000 and a decrease of 5 staff years for the Census base Five General Categories for a total of $37,350,000 and 210 staff years ($37,528,000 and 215 staff years available in 2015).

   NASS will shift 5 staff years over to the new Farm Structure Follow-on and the funding decrease is the result of less publication and dissemination of Census of Agriculture products.

d. An increase of $1,000,000 and 5 staff years for a new Farm Structure Follow-on Survey.

   This is a new special follow-on survey to the 2012 Census of Agriculture on the modern farm structure and its contributors, focusing on women and new farmers. NASS will modify statistical tools to better reflect the changing face of agriculture, especially including women, new farmers, and veterans on the farm.

e. An increase of $2,500,000 and 8 staff years for the Local Foods Special Study (this COAP special study will be conducted every five years as part of the base follow-on surveys).

   Interest is growing in support of local agricultural economies through the purchase of foods from sources that are geographically close to the consuming areas, via channels that are direct from farm to consumer or at most one step removed. Public sector and private sector policy decisions in support of local food systems are driving an intensifying need for data. People increasingly want to know where their food comes from, what's in it, and who grows it. Locally grown food is fresher, contributes to energy savings because of shorter in-transit times, and supports the local economy.

   Many local food systems producers are small or medium-sized farms found in rural areas near urban markets. Whether due to lifestyle choices or land and capital constraints, many producers may be hampered from following the traditional path of expanding the size of their farm operations. To remain economically viable, they will need to seek out scale-appropriate labor and land productivity-improving innovations.

A significant policy push for local food systems occurred with the institution of the *USDA Know Your Farmer, Know Your Food Initiative (KYF*2*)* in September 2009. The development of local food systems is one of the Secretary's 4 pillars for USDA. This Census follow-on survey will:

- Provide comprehensive geographically represented farm-level data,
- Quantify the extent of farmers' participation in local food systems,
- Determine agriculture based on farm characteristics, and
- Identify local market-channel use.

Without this data, federal, state, and local policymakers will increasingly be operating in the dark as policies are implemented in a data and knowledge vacuum. Local market-channel benchmarks would provide information for farmers to evaluate potential marketing costs and profit margins using one or more marketing channels. Moreover, these initial benchmarks would allow researchers to identify best practices by studying future local market-channel innovations.

As a direct response to this new policy push, NASS included a question in the 2012 Census of Agriculture to capture data needed to benchmark the size of the intermediated local foods market. This data works in concert with established content regarding "direct sales for human consumption" to identify a subpopulation. By establishing this subpopulation from which to sample, NASS has positioned itself to capture more detailed data with a Quinquennial Census Local Foods Special Study targeted at this emerging trend. This is important in understanding the overall picture of where our food comes from whether it is the local-farm-to-local–table, rural farms farther away, or other countries, and food trends that affect the economy. This local Foods Special Study relates directly to the Farm Bill and will help evaluate the manner in which local food systems:

- Improve community food security, and
- Assist populations with limited access to healthy food.

f. A decrease of $3,500,000 and decrease of 4 staff years for the Quinquennial COAP Special Study: Census of Horticultural Specialties ($3,500,000 and 4 staff years available in 2015 as part of the COAP base follow-on surveys conducted every five years).

The Census of Horticultural Specialties is planned to be conducted for the 2014 growing season. The Census of Horticultural Specialties is a detailed examination of all operations identified from the Census of Agriculture with sales of $10,000 or more. Production and sales data for fresh cut flowers, potted flowering plants, foliage plants, bedding plants, or cut cultivated greens are summarized. This census also collects data regarding expenses, growing area, and hired labor. This historic data series was also conducted in 1970, 1979, 1988, and 1998. NASS proposes to conduct the Census of Horticultural Specialties every five years as funding permits and the next one is scheduled for FY 2020.

g. A decrease of $2,500,000 and decrease of 4 staff years for the Tenure, Ownership, and Transition of Agricultural Land (TOTAL) Survey ($2,500,000 and 4 staff years available in 2015 as part of the COAP base follow-on surveys conducted every ten years).

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

This Census of Agriculture follow-on survey is normally conducted every 10 years and was last conducted in 1998.

Geographic Breakdown of Obligations and Staff Years
(Dollars in thousands)

State/Territory	2013 Actual		2014 Actual		2015 Enacted		2016 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Alabama	$635	6	$211	2	$211	2	$211	2
Alaska	171	1	145	1	145	1	145	1
Arizona	551	6	180	2	180	2	180	2
Arkansas	1,070	11	1,792	19	1,792	19	1,792	19
California	1,706	24	2,127	21	2,127	21	2,127	21
Colorado	2,006	19	2,821	23	2,821	23	2,821	23
Delaware	143	1	239	1	239	1	239	1
Florida	630	7	231	3	231	3	231	3
Georgia	1,706	16	2,360	24	2,360	24	2,360	24
Hawaii	652	6	141	2	141	2	141	2
Idaho	991	10	265	2	265	2	265	2
Illinois	658	8	268	2	268	2	268	2
Indiana	1,009	9	311	2	311	2	311	2
Iowa	1,371	14	1,803	18	1,803	18	1,803	18
Kansas	524	6	275	2	275	2	275	2
Kentucky	1,619	16	2,448	22	2,448	22	2,448	22
Louisiana	672	7	223	2	223	2	223	2
Maryland	372	3	151	2	151	2	151	2
Michigan	1,434	16	2,241	25	2,241	25	2,241	25
Minnesota	802	7	232	2	232	2	232	2
Mississippi	611	7	190	2	190	2	190	2
Missouri	9,677	186	11,353	147	11,353	227	11,353	228
Montana	821	8	220	5	220	5	220	5
Nebraska	1,704	17	2,262	23	2,262	23	2,262	23
Nevada	179	1	153	2	153	2	153	2
New Hampshire	770	7	251	2	251	2	251	2
New Jersey	677	6	323	2	323	2	323	2
New Mexico	590	5	219	2	219	2	219	2
New York	831	10	223	2	223	2	223	2
North Carolina	605	5	228	4	228	4	228	4
North Dakota	378	4	292	2	292	2	292	2
Ohio	701	6	214	2	214	2	214	2
Oklahoma	757	6	247	3	247	3	247	3
Oregon	387	7	234	2	234	2	234	2
Pennsylvania	1,391	14	2,381	23	2,381	23	2,381	23
South Carolina	664	6	417	2	417	2	417	2
South Dakota	764	7	638	2	638	2	638	2
Tennessee	889	10	205	2	205	2	205	2
Texas	2,239	23	2,496	26	2,496	26	2,496	26
Utah	728	8	234	2	234	2	234	2
Virginia	576	4	220	2	220	2	220	2
Washington	1,709	17	2,320	22	2,320	22	2,320	22
West Virginia	310	3	51	2	51	2	51	2
Wisconsin	1,006	9	317	2	317	2	317	2
Wyoming	565	6	267	2	267	2	267	2
District of Columbia	132,667	402	125,304	429	128,168	435	135,927	439
Puerto Rico	118	2	-	-	-	-	-	-
Obligations	181,036	979	169,723	893	172,587	979	180,346	984
Lapsing Balances	+80	-	+142	-	-	-	-	-
Bal. Available, EOY	+146	-	+179	-	-	-	-	-
Total, Available	181,262	979	170,044	893	172,587	979	180,346	984

NATIONAL AGRICULTURAL STATISTICS SERVICE
Classification by Objects
(Dollars in thousands)

		2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Personnel Compensation:					
Washington D.C.		$37,499	$31,582	$37,000	$38,000
Field		31,936	31,343	37,000	37,000
11	Total personnel compensation	69,435	62,925	74,000	75,000
12	Personal benefits	26,740	19,245	23,000	23,640
13	Benefits for former personnel	1,129	1,118	1,000	1,000
	Total, personnel comp. and benefits	97,304	83,288	98,000	99,640
Other Objects:					
21	Travel & transportation of persons	7,568	3,404	2,000	2,000
22	Transportation of things	3,273	1,482	2,000	2,000
23.1	Utilities	460	619	700	700
23.2	Telephone	29	82	100	100
23.3	Rent, GSA	9,599	2,795	9,000	9,000
24	Printing & reproduction	213	266	200	200
25.1	Other Goods & Services from Federal Sources	17,748	14,401	7,109	7,000
25.3	Operation & maintenance of equipment	751	1,309	1,000	1,000
25.4	Contractual Services - Other Non-Federal		3,531	4,000	4,000
25.41	Contractual Services - Other Non-Federal-NASDA	33,143	40,521	30,000	34,696
25.5	Research and development contracts	7,149	8,378	9,000	11,000
25.6	IT Services & Supplies		4,334	4,000	4,000
26	Supplies & materials	784	857	1,465	1,000
31	Equipment	3,010	4,937	4,000	4,000
42	Insurance Claims & Indemnities	4	9	12	10
43	Interest & Dividends	1	-490	1	0
	Total, Other Objects	83,732	86,435	74,587	80,706
	Total, new obligations	181,036	169,723	172,587	180,346
Position Data:					
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

Shared Funding Projects
(Dollars in thousands)

	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Working Capital Fund:				
Administration:				
Beltsville Service Center	$82	$80	$147	$148
Integrated Procurement Systems	105	105	107	107
Mail and Reproduction Management	121	101	103	105
Procurement Operations	1	1	-	-
Subtotal	309	287	357	360
Communications:				
Creative Media and Broadcast Center	36	72	80	177
Correspondence Management:				
Correspondence Management	18	16	18	18
Finance and Management:				
Controller Operations	448	243	243	254
Financial Systems	532	511	521	333
National Finance Center	204	312	346	345
Subtotal	1,184	1,066	1,110	932
Information Technology:				
International Technology Services	14	4	5	4
National Information Technology Center	1,515	1,257	1,179	1,197
Telecommunications Services	349	377	335	321
Subtotal	1,878	1,638	1,519	1,522
Total, Working Capital Fund	3,425	3,079	3,084	3,009

Shared Funding Projects
(Dollars in thousands)

	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Departmental Shared Cost Programs:				
1890 USDA Initiatives	$33	$33	$30	$30
Advisory Committee Liaison Services	10	1	2	2
Classified National Security Information	-	-	11	11
Continuity of Operations Planning	23	23	21	21
E-GOV Initiatives HSPD-12	75	77	68	68
Emergency Operations Center	26	26	24	24
Facility and Infrastructure Review and Assessment	5	5	5	5
Faith-Based Initiatives	4	2	4	4
Federal Biobased Products Preferred Procurement Program.	4	4	-	-
Hispanic-Serving Institutions National Program	22	23	20	20
Honor Awards	1	1	1	1
Human Resources Transformation (includes Diversity)	18	20	18	18
Medical Services	16	20	46	48
People's Garden	7	7	7	7
Personnel and Document Security	12	13	10	10
Preauthorized Funding	39	41	37	37
Retirement Processor Web Application	6	7	6	6
Sign Language Interpreter	43	28	-	-
TARGET Center	10	10	15	15
USDA 1994 Program	9	9	8	8
Virtual University	23	22	20	20
Visitor Information Center	10	3	-	-
Total, Departmental Shared Cost Programs	396	375	353	355
E-Gov:				
Budget Formulation and Execution Line of Business	1	1	1	1
Enterprise Human Resources Integration	28	26	26	22
E-Rulemaking	-	12	12	5
E-Training	24	32	32	28
Financial Management Line of Business	2	2	2	2
Geospatial Line of Business	1	-	-	3
Human Resources Mgmt Line of Business	3	3	3	3
Integrated Acquisition Environment - Loans and Grants	15	22	22	19
Integrated Acquisition Environment	8	8	8	7
Total, E-Gov	82	106	106	90
NASS Total	3,903	3,560	3,543	3,454

NATIONAL AGRICULTURAL STATISTICS SERVICE

Status of Programs

USDA 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) old 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.*** NASS follows 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 estimates, as well as model-based estimates and projections that use survey data. Error estimates must be calculated and disseminated to support assessment of the appropriateness of the uses of the estimates or projections. Agencies must plan and implement evaluations to assess the quality of the estimates and projections.

- ***NASS Yield Modeling Research.*** NASS has been researching model-based estimation techniques with an accompanying error measurement to meet this OMB requirement. The models for forecasting crop yields of corn and soybeans have been developed and are ready for implementation and transfer from research to the operational units. 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 2014 crop production season.

- ***Data Users Meeting – Conservation Districts.*** NASS attended and exhibited at the National Association of Conservation Districts Annual Meeting in Anaheim, CA. Data made available and presented by NASS was well received by conference participants, specifically from the Conservation Effects Assessment Project (CEAP) Survey and from the 2012 Census of Agriculture.

- ***Price Indexes.*** In January 2014, NASS updated the base reference year for price indexes to 2011 from the previous 1990-1992 base reference period. This updating process was more technically complex than past reference year updates because improved weighting and rebasing methodology was applied.

- ***Prices Received.*** Another improvement was that, for the first time in the history of NASS, the prices received commodity groups were aligned closely to international industrial classification systems. Realignment of the commodity groups provided national and international data users with a comparable data series. Additionally, price index sub-groups were stabilized by distributing commodities with more stable prices into more volatile index sub-groups.

- ***Final Estimate Bulletins for Citrus and Vegetables.*** In August 2014, NASS issued Final Estimates bulletins covering 5 years of data for Citrus fruits and Vegetables. This information was also posted to Quick Stats.

- ***Final Estimate Bulletins for Livestock.*** In September 2014, NASS issued six Final Estimate bulletins covering five-years of data for: cattle, chickens & eggs, hogs & pigs, honey, milk cows and production, and sheep and goats. 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 and soybean yields are now running in parallel with NASS Board traditional processes, and the results

were provided to the Board for their consideration in producing reports. Bayesian hierarchical models for wheat and cotton yield, which also incorporate multiple data sources, including current and historical data and administrative/auxiliary information, are being developed. 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. The Agency's area frame estimates of the numbers of farms for 2007 were less than those from its dual-frame 2007 Census of Agriculture, raising the question of misclassification of farm status by field enumerators during the pre-screening of the June Agricultural Survey segments from the area frame. 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 for misclassification have been developed and were provided for Board consideration this year. Measures of uncertainty for the resulting estimates were also produced.

- ***Nonresponse Burden.*** NASS continued exploring methods to identify operations for which it is most unlikely to obtain responses in future surveys during data collection. Classification tree models have been developed for the Crops/Stocks and Agricultural Resource Management Survey (ARMS) surveys to assign Nonresponse propensity scores to survey samples. Methods to use this information in adaptive design strategies to manage data collection have been fielded and tested with the goal of collecting responses more efficiently. Testing is continuing to evaluate the effectiveness of alternative data collection procedures. In addition, research through a cooperative agreement with the University of Michigan has been initiated to further evaluate the potential impact of alternative adaptive design data collection strategies. Future research will evaluate the use of propensity scores in statistical estimation.

- ***Response Burden.*** NASS continued exploring methods to reduce the response burden for large and impact farms**.** A survey of operators of large and impact farms was conducted. The results indicated that the approach needs to be customized to the operation. NASS continues to develop methods of providing this customization in an effort to reduce response burden and to improve response rates. NASS state statisticians have been asked to nominate initial operations for inclusion in the program and program oversight has moved from NASS Research and Development Division to the Methodology Division.

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 after the release and will continue into 2015.

Selected Examples of Recent Progress:

2012 Census of Agriculture (COA)

- ***2012 COA Preliminary Release.*** NASS successfully released preliminary results of the 2012 Census of Agriculture in February 2014. After the government-wide shutdown in October 2013, NASS responded to data

user requests to have data available at the Agriculture Outlook Forum. NASS highlighted national-level results such as number of farms, land in farms, along with a host of operator characteristic statistics.

- ***2012 COA Final Release.*** NASS successfully released the final results of the 2012 Census of Agriculture in May 2014. Following the preliminary release in February, NASS completed its final analysis and data review of state and county data. This marked the fourth census of agriculture conducted by NASS. The following are products provided to the public on the day of the final release:

  - ***Volume 1- Geographic Area Series - Part 1-51*** – Provides uniform and comprehensive agricultural statistics for the U.S., all 50 states, and over 3,000 counties or county equivalents.

  - ***Quick Stats*** – Electronic database providing data users the ability to customize data queries and download aggregated data in a format that allows for additional data analysis.

  - ***Agricultural Atlas Maps*** – Visual representation of selected data items made available in static maps.

  - ***Rankings of Market Value of Agriculture Products Sold*** – Data tabulations that profile every state's key agriculture commodities.

  - ***Agriculture Census Highlights*** – Topical fact sheets regarding characteristics, conditions, and trends in U.S. farms and farmers.

- ***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:

  - ***Puerto Rico Census of Agriculture*** - Provides uniform and comprehensive agricultural statistics for the Island and its 78 municipios.

  - ***State and County Profiles*** – Highlights key agriculture production, farm and farmer characteristics, and practices for each state and county in the U.S.

  - ***Congressional District Profiles*** - Highlights key agriculture production, farm and farmer characteristics, and practices by Congressional District.

  - ***Race, Ethnicity and Gender Profiles*** - Highlights key agriculture production, farm and farmer characteristics, and practices for Women, Hispanics, American Indians, Asian, and Black farm operators by State.

  - ***American Indian Reservations –*** Provides key agriculture production and demographic reservation-level data for all farms on American Indian reservations.

  - ***2012 Census of Agriculture Web Mapping*** – Online application provided to users to access key Census of Agriculture data through a collection of interactive maps.

  - ***Organic Production Tabulation*** – Highlights selected Census of Agriculture statistics of operator and farm characteristics for operations with organics sales.

- ***NASS continues to analyze and review additional Census of Agriculture products that will be made available in 2015.*** These products include:

- ***Watersheds*** – Provides data users selected Census of Agriculture statistics for the six digit Hydrological Unit Code.

- ***Typology*** – Data reformulation that provides uniform agriculture statistics by category of farms grouped with similar characteristics.
- ***Congressional District Rankings*** – Ranks selected Census of Agriculture statistics by Congressional District.

- ***Race, Ethnicity, and Gender County Profiles by County*** – Similar statistics released at the National and State levels will be produced to county level for every state.

- ***Specialty Crops*** – National and state data on number of farms, land in farms, value of sales, and operator characteristics for specialty crops as defined in the Farm Bill. Data will be provided for both the U.S. and Puerto Rico.

- ***CBO Workshop***. A workshop was held with representatives of community based organizations (CBOs) in September 2014 to highlight the results and solicit feedback for the Census of Agriculture Program. NASS continues to seek input and assistance from CBO leaders to spread the message to help promote trust among respondents and provide tools for advancement of traditionally under-represented minority farmers.

2017 Census of Agriculture

- ***2017 COA Preparations Started.*** NASS has begun 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.

- ***List Building for 2017 COA.*** NASS has begun preparations to continue its list building efforts for the 2017 Census of Agriculture. 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 the next 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 2014 NASS entered into a Cooperative Agreement with survey methodology experts at Washington State University to improve the 2017 Census of Agriculture data collection instruments. The principal investigator along with other survey experts, will provide recommendations to a planned short paper form for the 2017 Census of Agriculture that will both improve response rates and data quality. They will also provide recommendations to improve the Internet version of the 2017 Census of Agricultural form to increase response on that mode, as well as improve data quality.

- ***Census of Aquaculture.*** NASS released the 2013 Census of Aquaculture results on September 29, 2014. The Census of Aquaculture was a follow on survey to the Census of Agriculture. It was last conducted in 2006 for the reference year 2005.

Research and Development

- ***Weighting Methodology Implemented.*** In 2014 NASS implemented new weighting methodology for the 2012 Census of Agriculture, making revisions to the methods as needed. The new methodology, based on capture-recapture methods, was reviewed by a panel of outside experts, which was convened by the National Academy of Sciences in December 2012. Adjustments were made for Nonresponse, undercoverage, and (for the first time) misclassification of farm status. To implement the capture-recapture methodology, the 2012 June Area Survey was utilized as the independent survey and matched to the 2012 Census of Agriculture mail list. Separate models were developed to calculate the various probability components and then the probabilities were combined to form the weights for the in-scope census records. This was the first time that all census estimates were published with standard errors at all levels of geography, including the county level.

- ***Research for the Future:*** Review of the 2012 Census of Agriculture reported data has progressed, including follow-up interviews with producers who may have reported inaccurate data. In addition, comparisons of errors in reported data in the 2007 and 2012 censuses are being used to assess potential areas for future improvement to the census report form or data collection procedures. The 2017 Census Testing team is developing forms for testing proposed changes in the content and design of the 2017 Census questionnaire, including a review of the online form. Testing will include both small scale qualitative testing and a large field test.

- ***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 and initial results are encouraging.

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 and agencies on Information Collection Requests (ICRs). In addition to evaluating and assuring each NASS survey meets sound statistical methodology guidelines, 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 2014, NASS assisted the following agencies with ICR reviews: Forest Service, Food and Nutrition Service, Agricultural Marketing Service, and the Economic Research Service.

- ***Compliance with OMB Internal Revenue Code (IRC) Process.*** NASS places a high priority, as required by the OMB IRC process, on receiving input from both data users and farm operators with regard to improving data collection processes, as well as data timeliness, quality, and usability. Input and suggestions are received from numerous data users through the renewal of the OMB docket process which utilizes a public comment period. In addition, our state and regional directors meet with grower's associations and data users from around the country to solicit input on program and policy changes that will strengthen the agricultural industry. NASS also receives input from the Agricultural Advisory Committee, which represents a wide-spectrum of agricultural leaders. NASS is pro-active in incorporating improvements into our programs through the OMB docket process. Through the *OMBOfficer@nass.usda.gov* mailbox, NASS received numerous requests from people from around the world who were interested in the data NASS collects as well as our survey methodologies. NASS responded to all of these inquiries through email conversations.

Cyber and Physical Security

Current Activities:

- ***Reaccrediting IT Systems.*** In compliance with Assessment and Authorization (A&A) requirements of the Federal Information Security Management Act (FISMA), NASS started reaccrediting five of its NASS Information Technology systems. NASS is anticipating renewal of all system authorities to operate (ATO) by December of this year.

- ***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, as well as role-based security training for privileged users.

- ***Emphasis on LincPass.*** 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 making preparations to ensure compliance with the technical mandatory requirements that are expected to be put in place sometime in 2015.

- ***Continuous Diagnostics and Mitigation Compliance.*** NASS started populating the USDA Continuous Diagnostics and Mitigation (CDM) reading room in compliance with Department of Homeland Security (DHS) CDM mandates. Phase 1 activities will follow shortly, in accordance with USDA's CDM implementation schedule.

Selected Example of Recent Progress:

- ***OCIO Phase 1 Concurrency.*** Two NASS systems passed USDA Office of the Chief Information Officer (OCIO) Phase 1 concurrency review and are now on Phase 2. The other three are on Phase 1 and will be up for concurrency review in early 2015.

- ***Security Awareness and Role-Based Security Training 100% Participation.*** In 2014, 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.

- ***LincPass Compliance > 80%.*** NASS monthly LincPass usage is above the 80% USDA usage requirement. NASS is currently working with the Department on getting the part-time staff LincPass badges.

- ***USDA Reading Room Progress.*** NASS has completed populating its portion of the USDA reading room and is now awaiting further guidance from the Department for Phase 1.

Stakeholder Engagement

Current Activities:

- ***Data Users Meeting.*** The 2014 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, Agriculture Marketing Service, Foreign Agricultural Service, and the U.S. Census Bureau.

- ***Advisory Committee on Agriculture Statistics.*** The Advisory Committee on Agriculture Statistics met in St. Louis, Missouri on November 13-14, 2013. Items of discussion included the NASS budget; status of the NASS reorganization; and a status update on the 2012 Census of Agriculture. Nine recommendations were forthcoming from this meeting. On December 31, 2013, the Advisory Committee on Agriculture Statistics welcomed back 19 incumbents and 1 newly appointed Committee member. In September of 2014 the Secretary re-established 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. The on-line query tool, also called Quick Stats, can be found on the NASS homepage: *http://www.nass.usda.gov/Data_and_Statistics/index.asp*

  This tool 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*
  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.

- ***Quick Stats Lite.*** NASS has another tool, Quick Stats Lite, which queries the Quick Stats database and presents data in a streamlined format that data users had requested. An Application Programming Interface (API) released in mid-2013 continues to allow developers to write applications that directly access data online in the Quick Stats database. This should further enhance the usefulness of these data and is also available on Data.Gov at: *http://catalog.data.gov/dataset/quick-stats-agricultural-database-api*

- ***NASS Media Subscription Services.*** Using our media subscription services in 2014, NASS maintained media lists for every state 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.

- ***NASS Twitter Following.*** In 2014, NASS increased its Twitter following to nearly 20,000 followers by sending daily tweets on interesting and timely topics. NASS' tweets achieved more than 10 million impressions this year. In June, NASS held a crop-weather twitter chat with NASS' Statistics Division Director and USDA's meteorologist.

- ***NASS USDA Blog Posts.*** NASS had 38 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).

- ***NASS Employee Newsletter in Blog Format.*** In 2014, NASS transitioned its employee newsletter to a blog format, moving away from the quarterly print edition used previously. The new format allows the agency to better maintain two-way communications between its employees, while also reducing costs by reducing the newsletter design and print costs.

OPERATIONAL TRANSFORMATIONS TO STREAMLINE BUSINESS PROCESSES

During 2014, NASS completed several operational efficiency initiatives and 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.

Field Office Structure

- ***Multifaceted Reorganization to Maximize Efficiency and Ability to Respond.*** The National Agricultural Statistics Service has deployed a multifaceted transformation over the past five years that focused on making the organization more nimble to respond to data needs in support of American agriculture. The process was driven by focusing Agency resources to review the current business model, organizational structure,

infrastructure, and statistical practices. NASS continues to improve the new *regionalized* structure with *standardized* processes applications and a business model focused on providing relevant solutions.

- ***Centralization and Standardization.*** The advances in infrastructure, adoption of standardized survey processing, and integration of program enhancements based on Agency-driven research positioned NASS to further reduce its staffing level, and consolidate primary Agency functions to 12 regional locations and 34 State offices serving all 50 States. The newly established, Regional Field Office structure provides for continued statistical analysis, report preparation, special State statistical products and services in a centralized, streamlined environment. This new structure will also allow the staff in each of the State offices to focus on serving that State, maintaining relationships with producers, and working one-on-one with producers to collect data.

The National Operations Center

The National Operations Center (NOC) facility is located in St. Louis, MO opened on schedule in October 2011 and houses three NASS groups; 1) the National Operations Division (NOD), 2) the Heartland Regional Office, and 3) a detached group of the headquarters Information Technology Division employees working at the NOC.

Current Activities:

- ***National Operations Division - Centralizing Telephone Interviewing, Frames Maintenance, Forms Processing, and Training:*** 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, and incoming and outgoing processing of mail and paper questionnaires. 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 2014, nearly 1,500,000 telephone calls were completed by NOD interviewers and over 5,000 incoming telephone calls from respondents.

- ***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 2014, there were 6 supervisors, 24 coaches, and 189 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 125 additional intermittent 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.

- ***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 2014, the Group updated more than 411,000 records to make sampling, mailing, data collection, and summarization efforts more efficient.

- ***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 2014, the Group completed these activities for over 450,000 forms. Additionally, FPG creates and mails questionnaires to farmers and ranchers selected for USDA surveys. In 2014, FPG printed and mailed 897 jobs with a total of more than

1,220,000 forms. One component of NASS's Objective Yield Survey (OYS) is the harvesting of grain samples from winter wheat, corn, soybean, and cotton field plots. In 2014, FPG processed 8,676 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 2014, the Group supported over 140 CATI interviewing programs and developed 21 new programs. Additionally, the Group is developing six additional Current Agricultural Industrial Report (CAIR) programs and four programs for the Census of Agriculture Special Studies for early 2015.

- ***New Print and Mail Facility.*** During 2014, 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.

- ***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 the 2014 continuing resolutions and sequester to complete the data collection of the 2012 Census of Agriculture and most of the planned surveys for the Agricultural Estimates.

Quality Management Program

Current Activities:

- ***Quality Management Model.*** To help ensure the utility, objectivity, and integrity of the statistical information NASS provides its customers and stakeholders, NASS developed and documented a quality management model. While it will take some time to fully implement the model, NASS continued work on several components, including the development of a comprehensive and cohesive Quality Assurance Framework of standards and guidelines. This framework will reflect all the requirements of the OMB's *Standards and Guidelines for Statistical Surveys* in the context of NASS programs, products, and processes.

- ***Data Quality Assurance.*** One of NASS quality management objectives is to ensure our data quality through sound quality assurance programs. NASS began work to develop an automated and standardized quality assurance system for field enumeration. This effort will facilitate electronic data capture; improve sampling methods; reduce bias; improve documentation; facilitate tracking, analysis, and reporting of results; lead to greater efficiencies; and ultimately improve data quality.

- ***Continued Improvements.*** NASS continues to research better ways to measure and improve its processes, data products, and services. For example, NASS began work to evaluate its *Blaise* Survey software call history data to understand how to best set calling parameters to balance respondent burden, cost, and quality. Using data and quality metrics to manage and improve processes and products will help NASS achieve greater efficiencies, shorter cycle times, reduced costs, and improved data quality.

Computer Assisted Personal Interviewing (CAPI)

Current Activities:

Contractors were engaged to begin development work along with collaboration from the Information Technology Division and current CAPI staff. Four tracks are currently in the discovery and development stage.

- ***Track One, Optimize CAPI.*** Track one 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 will be streamlined for performance improvement and will incorporate new technical advancements for mobile technology.

- ***Track Two, Responsive Web Design.*** Track two, Responsive Web Design, will improve usability, dynamically format the questionnaires to fit any device which improves usability for smart phones and, other mobile devices which opens the door for Bring Your Own Devices (BYOD), include industry best practices for survey questionnaires and website design while maintaining Section 508 compliance. The contractors for this track will rewrite the automated questionnaire repository system which generates questionnaires for paper, phone, and the Web. Discovery and recommendations for interactive online training materials and administrative forms are also part of this track.

- ***Track Three, Large Complex Surveys.*** Track three will incorporate 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, the CAPI group, 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.

- ***Track Four, Mobile Mapping Functionality.*** Track Four will provide mobile mapping functionality across all surveys available for mobile data collection. The initial need is to replace the aerial maps generated for the June Area program and provide a computerized copy on the CAPI device. Unique functionality to draw off fields and complete crop information will be required for the June Area survey. However, the initial scope has been broadened to provide a mobile mapping solution that will work for all surveys.

Selected Examples of Recent Progress:

- ***CAPI Training.*** Efforts for the Computer Assisted Personal Interview (CAPI) program focused on training enumerators challenged by the technology and training NASS staff moved into new positions that had no previous experience with the CAPI program. In addition, out dated technology (iPad 1s and 2s) were replaced with iPad 4s and Air iPads. Four development tracks were identified and approved to move the CAPI program forward and to begin the process of incorporating large, complex surveys into the solution. The original goals of the CAPI initiative have been accomplished and NASS is currently moving towards leveraging benefits of mobile data collection, including enhanced remote sample management, electronic administrative functions and online training for users. A proposed staff structure to provide the foundation for the future of mobile data collection was presented and approved.

- ***Mobile Data Collection.*** The scope of the initiative for a CAPI solution has expanded into leveraging benefits of mobile data collection. New features for device management, signal mitigation, remote management of the sample, and maximization of benefits of the program are being explored. This phase provides the foundation for the incorporation of large complex enumerative surveys where NASS will realize additional quality and cost benefits. This phase sets the stage for new innovation such as: adaptive design, propensity scoring, and cognitive testing, real time cost analysis, interactive online training and marketing tools. Leveraged with other efficiency initiatives, CAPI/ Mobile Data Collection provides limitless opportunities to streamline business processes.

- ***Collaboration Utilizing CAPI.*** The CAPI program continues to provide inter-department expertise by collaborating with the U.S. Department of Commerce, and the U.S. Census Bureau in the development and deployment of a 2020 Census Mobile Solution. In addition, the NASS CAPI solution has been shared with mobile technology industry leaders, both Federal and private, through numerous speaking engagements at multiple conferences.

Research and Development

Current Activities:

- ***Research Cooperative Agreement.*** A final year remains on the cooperative research agreement with Iowa State University. In this effort, work has continued on the modernization of the agency's Area Sampling Frame and acreage estimation. Some activities include: 1) development of automatic stratification models based on multiple response variables of interest and an algorithm to minimize sample variance; 2) revisions in the proposed permanent grid after testing an earlier version in three states; 3) further acreage model development to combine the Cropland Data Layer information, June Agricultural Survey estimates, and the bias-adjusted Farm Service Agency data.

- ***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 give 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 was designed to assess the feasibility of the use for real-time data collection and to determine whether the farmer reported acreage differs from the GIS calculated acreage. Based on this work, revisions have been made in the field protocol, and the revised methods will be tested in 2015.

Selected Examples of Recent Progress:

- ***Quality Control Strengthened***. NASS continued to strengthen the quality control program for telephone data collection**.** NASS implemented its electronic Quality Control system in both the National Operations Center (NOC) and Wyoming Call Center to document monitoring sessions and provide performance metrics to aid supervisors in evaluating and improving enumerator performance. NASS will continue to implement this system in all its Data Collection Centers. In addition, NASS is researching alternative methods for conducting quality control through Computer Assisted Recorded Interviewing (CARI) and targeted re-interview programs.

- ***Self-Assessment Questionnaires Developed.*** NASS developed self-assessment and customer satisfaction questionnaires to assess the quality of its processes and products, and identify process improvement opportunities. NASS conducted a self-assessment of its frames maintenance process area, as well as obtained feedback from customers working with the frames maintenance area in the Regional Field Offices. This effort helped NASS establish baseline measures and identify process improvement opportunities. By improving the process by which frames are established and updated, this process improvement effort aids in reducing sampling error rates and increasing the percent of agriculture operations represented (coverage) in the sampled population of NASS's surveys.

- ***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 2015 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.

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 truth, and efficient and robust classification software.

- ***Cropland Data Layer Accessible to Most Geospatial Information Systems.*** The CDL is a popular and freely available data layer that most geographic information systems (GIS) can access, analyze and integrate with other information. It is useful in land cover, animal habitat, and watershed monitoring; soils utilization analysis' agribusiness planning; addressing biodiversity, crop intensity, and agricultural sustainability concerns; and remote sensing and GIS value-added industry.

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.

- ***Sixth Cropland Data Layer (CDL) Completed.*** NASS completed its sixth 48 state Cropland Data Layer in 2014 for the 2013 crop year, making six years of CDL available.

CENSUS OF AGRICULTURE Follow-On Surveys

- ***Census of Aquaculture*** - In September, NASS released the results of the 2013 Census of Aquaculture. The census of aquaculture collects detailed information relating to production methods, surface water acres and sources, production, sales, point of first sale outlets, and aquaculture distributed for restoration, conservation, or recreational purposes. NASS solicited input from the aquaculture industry, the National Aquaculture Association, and the National Oceanic and Atmospheric Administration. In response to the suspension of this program in 2010, NASS prioritized the conducting of this special study immediately following the data collection phase for the 2012 Census of Agriculture.

- ***Farm and Ranch Irrigation Survey (FRIS)*** – NASS completed the data collection and analysis phases of the Census Special Study**.** FRIS is a follow-on survey to the Census of Agriculture, occurring every five years in the year after the census that 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. Results were released on November, 13 2014 and are available online at: www.agcensus.usda.gov

- ***Census of Horticultural Specialties (CHS)*** - The content and forms design have been completed for the 2014 Census of Horticultural Specialties survey. NASS solicited input from the floriculture, nursery, and horticulture industries for the content and design of the survey. NASS is making final preparation and plans for the 2014 CHS survey and sent out the initial mail-out on December 15, 2014.

- ***Tenure, Ownership, and Transition of Agricultural Land*** – 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.

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. The Fruit Chemical Use surveys were last performed in 2012 and will return to an every other year rotation, as long as full funding continues. Data from the Vegetable Chemical Use survey will be released in summer of 2015. 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 10–12, 2014 American Phytopathological Society's (APS) annual meeting in Minneapolis, MN to share about the Chemical Use program. Each year more than 1,500 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*

- ***Microsoft Project Server Software.*** In 2014 NASS procured Microsoft Project Server software. Once installed and implemented, this software will allow NASS to improve the administration of all projects across the Agency. The software will provide 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.

- ***Farms with High Impact on Survey Results.*** In 2014 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 work towards increasing the level of survey cooperation and minimizing respondent burden for high-impact farms. Using procedures and materials developed in 2013, State Statisticians in 30 states were trained on conducting non-survey contacts with high-impact farm operations in order to develop a customized data collection plan for each operation. After completion of the interviews, State Statisticians provided specific feedback on a variety of elements of the project including their experiences recruiting high-impact farms to participate; their opinions about the materials and procedures used; and details on the current, requested, and planned data collection customization methods being used. NASS Methodology Division summarized the feedback and presented it to others in the Agency. Recommendations from the project included developing a standard way to define and identify high-impact farms; better tracking mechanisms to record data collection plans; formal guidelines on data requirements for high-impact farms; and possibly changing the level of staff responsible for collecting data from impact farms in the future.

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 Tabulation*** – In 2014 NASS provided a special tabulation related to organic production from the 2012 Census of Agriculture dataset. These data highlight selected statistics of operator and farm characteristics for operations with organics sales.

- ***Census of Certifiers*** – In 2014 NASS developed plans to develop a new program aimed at collecting benchmark crop production and livestock inventory data on an annual basis from USDA accredited organic certifying entities.

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

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 420 projects since beginning this centralized process in 2012.

- ***Race, Ethnicity, and Gender Statistics (REGStats).*** NASS continued to support the USDA interagency team for the on-line, searchable, *REGStats* tool. New data were loaded for the farm counts from the 2012 Census of Agriculture. The tool provides public access to summary statistics by race, ethnicity, and gender, on applicants and participants for programs administered by the Farm Service Agency, the Risk Management Agency, the Natural Resources Conservation Service, and Rural Development. Providing *REGStats* met the requirements of Sections 14006 and 14007 of the Food, Conservation, and Energy Act of 2008 (7 U.S.C. 2279-1).

- ***Agricultural Marketing Service (AMS) Pesticide Data Program (PDP).*** NASS and AMS continue to cooperate in 2014 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 three (seasonally varying) groups of fresh commodities and one group of processed 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 target commodities for the 2014 crop year were corn and potatoes. Phase II target commodities for the 2013 crop year were rice and peanuts for production practices, cost, and return data. The 2013 ARMS Phase III, conducted in the winter of 2014, focused on calendar year 2013 farm financial data for all types and sizes of farms, in addition to the rice and peanut enterprise production costs.

- ***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 2014, the Agricultural Labor Survey was conducted in April 2014 and in October of 2014. NASS issued reports:

    - From the April data collection efforts on May 22, 2014, and
    - From the October data collection efforts on November 20, 2014.

- ***County Cash Rents Survey.*** Through the 2008 Farm Bill, NASS was directed to conduct an annual Cash Rents survey 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. Data are published at the county and/or district level for cash rental rates for all counties with 20,000 plus 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. Survey results can be view at: *http://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/index.asp*

- ***Natural Resource Environmental Indicators.*** NASS received funding from the Natural Resources Conservation Service (NRCS) in 2014 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. NASS continued collaboration with NRCS and Iowa State University in developing the sample utilizing the Natural Resources Inventory points. NRCS released the CEAP-Cropland reports from data NASS collected on:

    - **Croplands**: Assessment of the Effects of Conservation Practices on Cultivated Cropland in the Delaware River Basin, published November 5, 2014
      http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/

    - **Watersheds**: CEAP Watershed Studies in Indiana and Ohio find that tile drains are a major path for phosphorous loss, October 3, 2014. For more information: *https://www.agronomy.org/science-news/tile-drains-major-path-phosphorus-loss-studies-find*

- ***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 2014 supported work in Armenia, Bangladesh, Benin, Brazil, Georgia, Haiti, India, Malawi, Senegal, and Tanzania and Uganda. 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 82 visitors representing 13 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.

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.

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

Selected Past Accomplishments toward Achievement of the Key Outcome**:**

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;
- Developed **Computer Audio Recorded Interview** (CARI) system and successfully deployed;
- 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*

- **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/*

- ***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 Census of Agriculture.

- **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 Census of Agriculture 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,
- 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 2016 Proposed Resource Level**:**

Agricultural Estimates:

- **Federal Principle Economic Indicators**. In 2016 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 2016:
  - Product Prices,
  - Crop Production,
  - Cattle, and Cattle on Feed,
  - Agricultural Prices,
  - Cotton Ginnings,
  - 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 Census of Agriculture continue. In 2016 NASS will conduct the second 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 activity. During FY 2016, NASS will also conduct the census content test which serves as a dry run for all systems and processes involved in conducting the census of agriculture. The census content test also serves as the final test for new questions and modifications to existing questions.

- **Current Agricultural Industrial Reports (CAIR).** NASS will continue producing the annual Current Agricultural Industrial Reports including:
  - Fats and Oils: Production, Consumption and Stocks,
  - Fats and Oils: Oilseed Crushing's,
  - Consumption on the Cotton System and Stocks, and
  - 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.

NASS Strategic Goals	NASS Objectives	Programs that Contribute	Key Outcome
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	Key Outcome 1: Ensure high quality statistics and data are relevant and useful to stakeholders. Key Outcome 2: Ensure timely release of data. Key Outcome 3: Ensure optimal Census Coverage. Key Outcome 4: Ensure optimal Census response rate.

Selected Past Accomplishments toward Achievement of the Key Outcome**:**

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*

- 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*

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.*

- **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 Census of Agriculture. Data are collected in all 50 States.

- **Watershed Publication.** The Watershed publication provides data that supplements the Census of Agriculture. 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/*

- **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 2016 Proposed Resource Level**:**

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.

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

Selected Past Accomplishments toward Achievement of the Key Outcome:

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*

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 Census of Agriculture 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 Census of Agriculture. 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 2016 Proposed Resource Level**:**

Agricultural Estimates

- **Combating Antibiotic Resistant Bacteria (CARB).** NASS will collect new baseline data on combating antibiotic resistant bacteria from additional questions added to surveys already established for Cattle on Feed, Hogs and Pigs, and an added annual Poultry survey. 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	2013 Actual	2014 Actual	2015 Enacted	Increase or Decrease	2016 Estimate
Department Strategic Goal 1 - Assist rural communities to create prosperity so they are self sustaining, repopulating and economically thriving.					
Agricultural Estimates	$104,007	$112,215	$116,464	+5,533	$121,997
Staff Years	646	641	688	-7	681
Census of Agriculture	72,507	46,454	48,021	-2,274	45,747
Staff Years	323	200	230	0	230
Total Costs, Strategic Goal	176,514	158,669	164,485	+3,259	167,744
Total Staff Years, Strategic Goal	969	841	918	-7	911
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.					
Agricultural Estimates	800	800	800	+2,500	3,300
Staff Years	-	-	-	+10	10
Census of Agriculture	-	4,500	-	-	-
Staff Years	-	28	-	-	-
Total Costs, Strategic Goal	800	5,300	800	+2,500	3,300
Total Staff Years, Strategic Goal	-	28	-	+10	10
USDA Strategic Goal 4 - Ensure that all of America's children have access to safe, nutritious and balanced meals.					
Agricultural Estimates	3,721	3,504	7,302	+2,000	9,302
Staff Years	10	22	61	+2	63
Census of Agriculture	-	2,250	-	-	-
Staff Years	-	2	-	-	-
Total Costs, Strategic Goal	3,721	5,754	7,302	+2,000	9,302
Total Staff Years, Strategic Goal	10	24	61	+2	63
Total Costs, All Strategic Goals	181,035	169,723	172,587	+7,759	180,346
Total FTEs, All Strategic Goals	979	893	979	+5	984

Key Performance Measures and Targets:

NASS performance measures are based on its mission to provide timely, accurate, and useful agricultural statistics. Census coverage and response rates contribute to accuracy and usefulness. Each objective of the USDA Strategic

Plan to which NASS contributes has a measure for each of the Investment Criteria: Usefulness (relevance), accuracy (quality), and timeliness (performance). These performance measures can be summarized into 4 generic measures:

Measure 1. Usefulness – The accessibility, relevance, coherence, comparability, and usefulness of NASS official reports and products and services as measured by NASS issuing errata for fewer than five percent of Agricultural Statistics Board reports. These performance measures vary by goal, but get to the root of why NASS is considered the Federal leading provider of agricultural statistics. Precision of data are necessary for stakeholders to be able to rely on the data to make day-to-day management decisions and eliminate unnecessary chaos in the market.

Measure 2. Timeliness - Percent of time official reports are released on the date and time pre-specified to data users. Agricultural statistics are at the core of many decisions made in the agriculture sector. If these data are not timely, the disruption and chaos generated would be immeasurable. This performance measure is the same for all of the goals and will be calculated across all NASS reports.

Measure 3. Census Coverage – Percent of United States farms or ranches covered by the census mail list (CML) every five years. NASS strives to build the CML that covers a maximum number of farms and ranches nationwide. NASS devoted tremendous resources to the 2012 census to maximize coverage rates and nearly tripled the Internet reporting as compared to the 2007 COA at less than 100,000 to over 280,000 Internet respondents for the 2012 COA. NASS continually strives to maintain or improve upon this for the 2017 census. NASS success 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,
- Highlighted online reporting in NASS public messaging that electronic data reporting is quicker, easier, secure, and leads to less mail correspondent burden.

Measure 4. Census Response Rates – Percent of census mail list respondents returning a usable report. NASS mails census questionnaires to over 3 million potential farms and ranches. NASS strives to maximize the response rates using multiple approaches to data collection. Even though response rates are historically trending downward, NASS strives to maintain or improve its' response rate from the previous Census of Agriculture.

	Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Target
1	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.	1%	1%	1%	1%	1.3%	< 5%	< 5%
2	Timeliness - Percent of time official reports are released on the date and time pre-specified to data users.	99.8%	99.6%	98.7%	98.8%	99.7%	98.0%	98.0%
3	Coverage - The Quinquennial Census of Agriculture Coverage – Percent of United States farms or ranches covered by the Census Mail List (CML) every five	N/A	N/A	N/A	87.7%	N/A	N/A	N/A
4	Response Rate - Census of Agriculture and Follow-on Survey Response Rates – Percent of CML respondents returning a usable report./a	/b	/c	/d	80.3%	80.5%	> 80%	> 80%

/a –In 2014 Census of Aquaculture had 90.2% and Farm and Ranch Irrigation Survey had 77.8% response rates.
/b – Response Rates Census of Horticulture and the On-Farm Renewable Energy Production were 89% and 94% respectively.
/c– No follow-on surveys were conducted in 2011 due to budget constraints.
/d –No follow-on surveys are conducted in the reference year of the Census of Agriculture (2012). All employee and funding resources are needed for the final planning and preparations to conduct the data collection, processing, and analysis during the following year.

NASS Efficiency Measure: The increase in the data collection costs per sample unit divided by the annual rate of inflation (measured by the Employment Cost Index) is less than one.

NASS measures timeliness, accuracy, and usefulness. NASS strives to maintain high quality statistics by continually looking to improve, while working to keep costs down when compared to inflation. NASS works to ensure internal policies and procedures continue to support on-time release of over 400 agricultural statistical national reports each year.

NASS continually monitors and develops contingency plans to ensure each of the over 400 reports are prepared and released as scheduled. This ensures everyone has equal access to vital sector information. In the rare instance of an unavoidable technical difficulty that results in the delay of a report, NASS is transparent by notifying all stakeholders of the delay and the rescheduled release date and time. NASS constantly looks for opportunities to maximize available data in producing relevant data series.

NATIONAL AGRICULTURAL STATISTICS SERVICE
Full Cost by Strategic Objective
(Dollars in thousands with rounding to three decimals)

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

Program / Program Items	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Agricultural Estimates				
Salary expenses	$72,709	$75,740	$78,510	$76,165
Data collection (NASDA)	20,000	21,800	25,000	24,167
Contracts	550	750	750	800
GSA Rent & Security	-	-	6,165	6,165
Travel/ Transportation	1,160	1,700	900	1,700
Printing	93	130	128	600
Hardware/ Software	370	4,492	2,000	3,000
Postage/ Shipping/ contingencies	5,546	2,645	900	3,000
Indirect costs	3,579	4,958	2,111	6,400
Total Costs	104,007	112,215	116,464	121,997
FTEs	646	641	688	681
Performance Measure:				
Usefulness/a - Agricultural Estimates Goal 1	1.0%	1.3%	< 5%	< 5%
Timeliness/b - Agricultural Estimates Goal 1	98.8%	99.7%	98.0%	98.0%
Census of Agriculture				
Salary expenses	24,026	21,850	30,990	19,400
Data collection (NASDA)	13,143	13,062	4,000	4,000
Contracts	5,500	3,510	3,866	4,000
GSA Rent & Security	-	-	3,037	3,037
Travel/ Transportation	9,281	2,400	2,000	6,000
Printing	100	-20	30	50
Hardware/ Software	559	2,405	2,000	3,500
Postage/ Shipping/ contingencies	12,800	250	300	400
Indirect costs	7,098	2,997	1,798	5,360
Total Costs	72,507	46,454	48,021	45,747
FTEs	323	200	230	230
Performance Measure:				
Usefulness/a - Census of Agriculture Goal 1	1.0%	1.3%	< 5%	< 5%
Timeliness/b - Census of Agriculture Goal 1	98.8%	99.7%	98.0%	98.0%
Census Coverage/c - Census of Agriculture Goal 1	87.7%	N/A	N/A	N/A
Census Response Rates/d - Census of Agriculture Goal 1	80.3%	80.5%	> 80%	> 80%
Total Costs, Strategic Goal 1	176,514	158,669	164,485	167,744
Total FTEs, Strategic Goal 1	969	841	918	911

/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.

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

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	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Agricultural Estimates				
Salary expenses	-	-	-	1,000
Data Ccollection (NASDA)	-	-	-	70
Contracts	800	800	800	1,600
Travel/ Transportation	-	-	-	100
Printing	-	-	-	100
Hardware/ Software	-	-	-	20
Postage/ Shipping/ contingencies	-	-	-	300
Indirect costs	-	-	-	110
Total Costs	800	800	800	3,300
FTEs	-	-	-	10
Performance Measure:				
Usefulness/a - Agricultural Estimates Goal 2	1.0%	1.3%	< 5%	< 5%
Timeliness/b - Agricultural Estimates Goal 2	98.8%	99.7%	98.0%	98.0%
Census of Agriculture				
Salary expenses	-	2,790	-	-
Data Ccollection (NASDA)	-	1,300	-	-
Contracts	-	80	-	-
Travel/ Transportation	-	100	-	-
Printing	-	20	-	-
Hardware/ Software	-	110	-	-
Postage/ Shipping/ contingencies	-	20	-	-
Indirect costs	-	80	-	-
Total Costs	-	4,500	-	-
FTEs	-	28	-	-
Performance Measure:				
Usefulness/a - Agricultural Estimates Goal 2	1.0%	1.3%	< 5%	< 5%
Timeliness/b - Agricultural Estimates Goal 2	98.8%	99.7%	98.0%	98.0%
Census Coverage/c - Census of Agriculture Goal 2	87.7%	N/A	N/A	N/A
Census Response Rates/d - Census of Agriculture Goal 2	80.3%	80.5%	> 80%	> 80%
Total Costs, Strategic Goal 2	800	5,300	800	3,300
Total FTEs, Strategic Goal 2	-	28	0	10

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

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

Program / Program Items	2013 Actual	2014 Actual	2015 Enacted	2016 Estimate
Agricultural Estimates				
Salary expenses	570	570	2,000	2,200
Data Ccollection (NASDA)			2,000	3,000
Contracts	2,231	2,014	1,062	1,062
Travel/ Transportation	400	400	1,000	1,100
Printing	20	20	40	40
Hardware/ Software	200	200	400	400
Indirect costs	300	300	800	1,500
Total Costs	3,721	3,504	7,302	9,302
FTEs	10	22	61	63
Performance Measure:				
Usefulness/a - Agricultural Estimates Goal 4	1.0%	1.3%	< 5%	< 5%
Timeliness/b - Agricultural Estimates Goal 4	98.8%	99.7%	98.0%	98.0%
Census of Agriculture				
Salary expenses	-	1,250	-	-
Data Ccollection (NASDA)	-	200	-	-
Contracts	-	200	-	-
Travel/ Transportation	-	200	-	-
Printing	-	50	-	-
Hardware/ Software	-	100	-	-
Postage/ Shipping/ contingencies	-	50	-	-
Indirect costs	-	200	-	-
Total Costs	-	2,250	-	-
FTEs	-	2	-	-
Performance Measure:				
Usefulness/a - Census of Agriculture Goal 4	1.0%	1.3%	< 5%	< 5%
Timeliness/b - Census of Agriculture Goal 4	98.8%	99.7%	98.0%	98.0%
Census Coverage/c - Census of Agriculture Goal 4	87.7%	N/A	N/A	N/A
Census Response Rates/d - Census of Agriculture Goal 4	80.3%	80.5%	> 80%	> 80%
Total Costs, Strategic Goal 4	3,721	5,754	7,302	9,302
Total FTEs, Strategic Goal 4	10	24	61	63
Agricultural Estimates				
Total Costs, Strategic Goal	108,529	116,519	124,566	134,599
Total FTEs, Strategic Goal	656	663	749	754
Census of Agriculture				
Total Costs, Strategic Goal	72,507	53,204	48,021	45,747
Total FTEs, Strategic Goal	323	230	230	230
NASS Total				
Total Costs, All Strategic Goals	181,036	169,723	172,587	180,346
Total FTEs, All Strategic Goals	979	893	979	984

EVIDENCE AND EVALUATION

Agricultural Estimates Program

NASS regularly collects and monitors performance information on the timeliness of releases and accuracy of agricultural statistics. The Agricultural Statistics Board tracks the timeliness of the scheduled releases on a daily basis. Releases include information on the quality of the survey process and estimates that provide accuracy of agricultural data released to data users. Internally, the NASS Program Planning Council and the Senior Executive Team meet on a regular basis to review performance information, modify and implement new program changes, and manage allocation of limited program resources. This effort improves performance, responds to feedback from data user and stakeholders needs, and continually pushes the agency to meet program goals. Quarterly reviews are conducted by senior NASS management with our National Association of State Departments of Agriculture partners to monitor performance for its data collection cooperative agreement work.

Stakeholders and data users provide frequent dialog on the importance of specific statistical data and reports. Balancing needs of varied data users is difficult within tight budget levels.

Census of Agriculture Program

The Advisory Committee recommends that NASS follows the 5-Year Operational Plan, which allows the Agency the opportunity to focus its efforts, above maintaining the current operational programs, towards the attainment of successfully completing identified and agreed upon incremental changes to better align the current business model, systems, and process to the long-term goals. This plan should be reviewed annually, successes documented and revisions made that reflect necessary change in order to provide a clear vision to NASS staff as they navigate forward.

In 2009, NASS was structured with 46 Field Offices that were staffed with more than 600 employees and 5 Headquarters units that facilitated the development and oversight of NASS programs. Over the past five years, NASS has undergone a significant period of transition that has incorporated the benefits of numerous efficiency initiatives, two reorganizations, and increased investments in statistical research. In October 2013, the culmination of these efforts resulted in the new organization that will benefit from centralized processing at the National Operations Division, enhanced integration of research into the business process through the newly developed Methodology Division, and a new field structure that enhances career opportunities for staff while increasing data quality at a reduced cost. With the installation of high quality video teleconferencing equipment, a centralized network utilizing thin client machines, a centralized processing center, enhanced remote data collection, and a substantial progress in re-engineering more than 30 applications for survey data collection and processing, NASS was positioned to become a more nimble organization that could complete survey processes that will produce better data quality at a lower cost.

Following the acceptance of the recommendations from the Secretary of Agriculture, the Strategic Planning Office will finalize the Agency's 5-Year Operational Plan, and establish the annual reporting and revision cycle to ensure incremental change is accomplished to accommodate the identified long term goals of the organization.

The Advisory Committee recommends that NASS receive "base funding" which would include a flat line budget appropriation, covering the cost of doing the quinquennial (five-year) Census of Agriculture plus additional incremental funding that would be used to conduct census follow-on surveys.

The Advisory Committee recommends that once the Census of Agriculture is funded through the aforementioned steady base funding level scenario, Census follow-on programs should be conducted in the following order for Fiscal Years 2015 and 2016:

Tenure, Ownership, Transition of Agricultural Land: NASS requested for 2015
Horticulture: NASS requested for 2015
Local Foods: NASS will request in 2016
Energy – either Co-Products or Biomass: NASS will request in 2016

Organic Products: Congress appropriated for 2014
Current Agricultural Industrial Reports (annual COA reports): Congress appropriated in 2014

As a means to remain relevant and respond to emerging trends in agriculture, NASS utilizes the Census of Agriculture to identify subpopulations for potential special studies or follow-on surveys. NASS has reached out to many groups, including the Advisory Committee, for stakeholder feedback regarding which follow-on surveys may provide the most benefit to the agricultural community. Agritourism has come up before as a means for farms, especially small farms, to remain sustainable. Agritourism can be linked to local foods since communities of small farms can work together to support one another through their "specialty" or niche consumer. Information on agritourism would help determine some of the social and economic characteristics of local foods and information on local foods would help determine geographical, social, and economic divides.

As part of the "suite" of subsequent follow-ons to the 2012 Census of Agriculture, NASS proposes a data collection effort aimed at addressing the impact of regional food systems. Content was added to the 2012 Census that will provide NASS a complete population for which to conduct a special study. NASS staff has participated actively in USDA's "Know Your Farmer, Know Your Food" initiative. Meeting with this group has shed light on the need for more data for informed policy decisions. NASS will continue to reach out to this group and others to capture data needs, and has the means to identify the subpopulation to include content related to agritourism.

Based on meetings with industry and Department stakeholders, NASS has identified key areas of interest where data collection would provide beneficial information for program development and energy research. With annual funding NASS could establish a series of surveys on these key energy areas of interest:

- Surveys of on-farm energy production, i.e. operations producing biomass crops;
- Maps of county level on- and off-farm biomass storage facilities with overlays of ethanol plants;
- Maps of county level production with overlays of major transportation grids;
- Surveys on utilization of biomass materials (switchgrass, stover, etc.) to promote cellulosic energy production;
- Surveys to measure the capacity of on- and off-farm biomass storage facilities to meet bioenergy industry needs.

The development of technology to produce bioenergy also brings challenges of ensuring facilities are located in areas which allow profitability and sustainability of these entities. For example, ethanol plants must be efficient in the use of their inputs and outputs. The transportation of the fuel that is produced, and the byproducts that result from this production, are both critical for these plants to remain profitable. Additional information is needed on optimal locations of commodity production and transportation grids to ensure the long-term success of future plants.

A Review of the USDA NASS Prices Program

BACKGROUND AND OVERVIEW

In April 2008, the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) asked the Council on Food, Agricultural & Resource Economics (C-FARE) to assemble a panel of expert social scientists from academia, government and the private sector to conduct an "independent, comprehensive and objective review" of the NASS Agricultural Prices Program. The purpose of the Review was to identify the strengths and weaknesses of the Agricultural Prices Program and to recommend changes.

The collection and publication of statistics on agricultural prices have a long history in USDA. Collection of prices received data began in 1866. Prices paid data were first collected in 1911, as USDA and the Congress began to examine economic conditions in the farm sector more closely. The collapse of agricultural commodity markets after World War I and the onset of the Great Depression in 1929 gave new impetus to analyses of the well-being of farmers and to the generation of statistics to support those analyses. At that time, the concept of parity appeared. It established a relationship between prices received by farmers for the commodities they sold and prices paid for the inputs they purchased. The parity concept was used to define public policy objectives until the 1980s, in some cases. The inclusion of the concept of parity prices for farm commodities into the Agricultural Adjustment Act

(AAA) of 1938, a permanent act, effectively mandated USDA and the predecessor agencies to NASS to collect and publish statistics necessary to define parity indexes as well. Over the ensuing decades, coverage of commodities sold and of inputs purchased has expanded, and index base periods and item weights have been updated periodically.

Because of the modernization of agriculture and changes in farm policies, the need to calculate parity measures, while still mandated by law, is no longer the primary reason for producing price statistics. Today, price statistics produced by NASS are heavily used in the administration of Federal programs, the calculation of various economic indicators, analyses of commodity markets and in a host of other ways by public and private users. Despite the critical importance of price statistics, they have had to compete for limited resources in recent years. It appears that price statistics have received lower priority than other more market sensitive commodity production statistics produced by NASS. It is in recognition of the need to reexamine and revitalize the Agricultural Prices Program that NASS requested this Review.

The three major components of the NASS Agricultural Prices Program were the subject of this Review:

1. Prices received (for agricultural commodities);
2. Prices paid (for inputs to agricultural production); and
3. Price indexes (for prices received, prices paid, and parity).

Sub-panels of the larger Review Panel were organized around these three components. Each addressed objectives and uses of the statistics, as well as statistical issues such as data sources, sampling, collection, processing, analysis, and index construction. Considerable attention was paid to transparency and documentation of all aspects of the Agricultural Prices Program, including program purposes. For its part, NASS provided the Review Panel with data and information requested, but did not in any way intervene in the Review Panel's deliberations. NASS also gave the Review Panel the freedom to consider issues not specifically included in the charge, but at the same time made clear that the Agency is constrained in its ability to respond to recommendations on issues outside the scope of the review.

For example, NASS is not at liberty to dictate policies to other agencies whose data are important to the NASS Agricultural Prices Program. Finally, NASS committed to publish this report without alteration or comment and make it available to the public. It is the intent of the Review Panel that the recommendations in this report, and the text which explains and supports those recommendations, be useful to NASS as it develops vision, purpose and content of the Agricultural Prices Program to meet the needs of the 21st century. All the recommendations are also intended to improve the quality of NASS price statistics.

COMMON THEMES AND GENERAL RECOMMENDATIONS

Several common and important themes emerged from the Review Panel's deliberations on needed improvements in the NASS Agricultural Prices Program. For the most part, the common themes cut across all components of the Program. The themes pertain to:

1. Transparency and documentation,
2. he critical importance of research,
3. The use of data from external sources,
4. NASS's response to changes in agriculture and demands of modern statistical systems,
5. The importance of specificity in defining attributes of items for which prices are collected, and
6. Index construction (treated in Chapter 7 of the report).

The key findings of this Review are:

- NASS needs a fresh vision for the prices program,
- Fundamental improvements are needed in the conceptual basis for prices and price indexes,
- NASS must address the responsibility that goes with heavy dependence on data and indexes from other agencies,

- To address these needs, NASS must commit to a stronger program of future oriented research to support the operations program,
- Increased transparency is essential to all aspects of the Agricultural Prices Program.

For more information the full report is located on the NASS website under the **Independent Reviews** section and listed as *CFARE Review of the Agricultural Prices Program*: http://www.nass.usda.gov/Surveys/index.asp

GENERAL AND CROSS-CUTTING RECOMMENDATIONS

Dramatic changes in the organization and management of agriculture, new opportunities and challenges imposed by revolutionary changes in information technology, the impending retirement of many NASS staff and the reallocation of already-limited statistical research resources to meet needs of current operations all argue for major new investments in NASS's human capital, research capacity and access to supplemental expertise. Without such an investment, the quality and relevance of the COA and NASS's other statistical activities will quickly erode. The planning period for the 2017 COA, which began 2012, is the critical time for such investment.

The Agricultural Resource Management Survey (ARMS)

The Agricultural Resource Management Survey is the federal government's primary source of information on the financial condition, production practices, and resource use on farms, as well as the economic well-being of America's farm households. ARMS data are important to the U.S. Department of Agriculture (USDA) and to congressional, administration, and industry decision makers when they must weigh alternative policies and programs that touch the farm sector or affect farm families.

ARMS was initiated in 1996 as a synthesis of existing USDA surveys on cropping practice, chemical use, and farm costs and returns. The survey is managed jointly by two USDA agencies: the Economic Research Service (ERS) and the National Agricultural Statistics Service (NASS). The three-phase annual survey is large, complex, and costly, with a budget of nearly $19 million in fiscal year 2006.

The Agricultural Resource Management Survey is unique in several respects. As a multiple-purpose survey with an agricultural focus, ARMS is the only representative national source of observations of farm-level production practices, the economics of the farm businesses operating the field (or dairy herd, greenhouse, nursery, poultry house, etc.), and the characteristics of the American farm household (age, education, occupation, farm and off-farm work, types of employment, family living expenses, etc.). No other data source is able to match the range and depth of ARMS in these areas.

American agriculture is changing, and the science of statistical measurement is changing as well. As with every major governmental data collection with such far-reaching and important uses, it is critical to periodically update the survey.

ARMS Program Changes

USDA's National Agricultural Statistics Service (NASS) and Economic Research Service (ERS) jointly conduct an Agricultural Resource Management Survey (ARMS) that collects production practices and cost of production data on selected commodities. Conducted in three separate phases, the survey also collects detailed whole farm financial information from a representative sample of farms and ranches across the country. The results of this survey are the only source of information available for objective evaluation of many critical issues related to agriculture and the rural economy.

In 2008, the Committee on National Statistics of the National Research Council released the findings and recommendations of an independent review of the ARMS program. NASS and ERS requested the review as part of the agencies' ongoing effort to improve the program.

Following are some of the key changes to ARMS that NASS and ERS implemented as a result of the committee's recommendations. For more information the full report is located on the NASS website under the **Independent Reviews** section and listed as *ARMS Progress Report*: http://www.nass.usda.gov/Surveys/index.asp

DATA COLLECTION & INTEGRATION

NASS has conducted ground-breaking research on the propensity of some groups to not respond. NASS continues this research to identify the effect on data quality and to identify ways to increase response.

NASS and ERS successfully aligned the concepts and questions on the 2012 ARMS and the 2012 Census of Agriculture and thereby shortened the form.

DATA ANALYSIS

Both agencies have hired and continue to recruit new staff with skill sets directly related to ARMS data analysis. ERS is developing an ARMS User's Guide, which combines existing documentation, memos and programs with new material and an annotated table of contents along with an executive summary.

SURVEY MANAGEMENT & QUESTONNAIRE DESIGN

NASS will conduct an annual review of ARMS and update the members of the NASS Advisory Committee on Agriculture Statistics at its annual meeting.

NASS is working on a cross-agency USDA initiative to synchronize administrative data. As these become available, NASS will assess their use, as well as use of its geospatial data, in ARMS and other survey programs.

In addition to the progress NASS and ERS have already made, the agencies have also developed the following research plan timeline. The research that the agencies will conduct will help ensure that ARMS continues to evolve and improve. The ARMS research results will also help both agencies further improve the general foundation for statistical and survey research. For more information the full report is located on the NASS website under the **Independent Reviews** section and listed as *ARMS Progress Report Summary*: http://www.nass.usda.gov/Surveys/index.asp

ARMS Research Plan Timeline (2012 through 2016)

2012

- Testing – Annual questionnaires are routinely pretested to ensure that respondents can understand and answer ARMS items. For 2012, conducted cognitive tests for soybeans and wheat.
- Nonresponse bias analysis – Annual studies are now part of the operational process by NASS statistical methods staff; in 2012, evaluated 2011 data.
- Tested iterative sequential regression imputation methodology.
- Large and complex farm project – Initial planning begun and continues.
- ERS and NASS collaborated on research to explore the implications of expanding the value codes used in ARMS.
- ERS and NASS analyzed differences in questionnaire reporting for specific items related to mode of data collection (mail versus personal interview).

2013

- Large and complex farm project -- Began testing for ARMS and Census of Agriculture.
- Testing – Annual questionnaires were routinely pretested to ensure that respondents could understand and answer ARMS items. For 2013, conducted cognitive tests for vegetables, rice, and peanuts.

- Nonresponse bias analysis – In 2013, evaluated bias in 2012 data.
- Parallel tested iterative sequential regression imputation methodology.
- Began computer audio-recorded interviewing (CARI) system development, integration, and testing.
- Developed three-phase response rate for ARMS.

2014

- Begin animated graphical Internet displays for ARMS work.
- Testing – Annual questionnaires are routinely pretested to ensure that respondents can understand and answer ARMS items. For 2014, conduct cognitive tests for cotton and oats.
- Nonresponse bias analysis – In 2014, evaluate 2013 data.
- Initiate research on linking ARMS data to administrative data available through USDA's Acreage/Crop Reporting Streamlining Initiative (ACRSI).
- Complete historic census data conversion for complex analysis.
- Implement iterative sequential regression imputation methodology.

2015

- Begin to implement computer-assisted personal interviewing (CAPI) for ARMS questionnaires with table in Blaise IS (Internet Services) software for 2015 data.
- Testing – Annual questionnaires are routinely pretested to ensure that respondents can understand and answer ARMS items. For 2015, the questions/commodities to be cognitive tested are still to be determined. Conduct census and ARMS evaluation for census year.
- Assess the coordination effort to synchronize ARMS questions with the 2012 Census of Agriculture report form. Use data from both the census of agriculture and ARMS to determine edit and imputation rates and evaluate nonresponse.
- Nonresponse bias analysis – In 2015, evaluate 2014 data.

2016

- Use CARI for quality control in ARMS.
- Testing – Annual questionnaires are routinely pretested to ensure that respondents can understand and answer ARMS items. For 2016, the questions/commodities to be cognitive tested - to be determined.
- Nonresponse bias analysis – In 2016, evaluate 2015 data.
- Automate collection of ARMS paradata.