

## Supporting Statement – Part A

### AGRICULTURAL RESOURCE MANAGEMENT, CHEMICAL USE, AND POST- HARVEST CHEMICAL USE SURVEYS

OMB No. 0535-0218

This supporting statement requests a three year renewal of a long running data collection series that collects environmental and economic data.

#### **TERMS OF CLEARANCE**

The agency agrees to continue to implement and report upon improvements to the ARMS study, as indicated by the NAS report, and as resources permit.

#### **NASS RESPONSE:**

Since the last OMB approval, NASS has altered its data collection for operations with historic value of sales in excess of \$1 million. These records are now sent exclusively to NASDA Field Enumerators for data collection. Due to the size and uniqueness of many of these operations, NASS was able to obtain more complete data by using this technique.

In addition, NASS has been able to incorporate some of the findings from conducting the Census of Agriculture (0535-0226) cognitive testing to address the handling of the principle operator.

In addition NASS has altered it's training of Field Staff and subsequently Field Enumerators to address any data collection issues that have occurred over the last couple of years.

#### **A. JUSTIFICATION**

This docket is being submitted to renew the authority to conduct the ARMS/Chemical Use Survey programs for a three year period. Types of surveys:

- The Agricultural Resource Management Survey (ARMS) consists of three phases (screening, production practices, and cost/returns) and a supplemental contractor expense survey,
- Field Crop Production Practice and Chemical Use Surveys (separate chemical use surveys in Maryland, Minnesota, Mississippi and Illinois that will be funded by cooperators) (New),
- The Vegetable Chemical Use Surveys,
- The Fruit Chemical Use Surveys,

- Microbial Food Safety Practices – Packer Survey (Discontinued)

ARMS Phase I is used as a screening phase for the other surveys. This has proved to be very cost effective way to draw accurate samples for the other surveys included in this docket. It also helps to reduce respondent burden.

The ARMS Phase II Chemical Use Survey is normally conducted every year and it consists of two versions; the Production Practices and Costs Report (PPCR), and the Production Practices Report (PPR). The PPR component is conducted with NASS-only funding to gather field crop chemical use data. The PPCR is co-funded by a cooperative agreement with the USDA Economic Research Service (ERS). The PPCR component efficiently collects costs associated with the various production practices to complete the cost of production estimates for ARMS targeted crop commodities. The ARMS Phase II-PPCR efficiently collects detailed cropping practice and cost data by focusing on field-level and expanding to whole farm, thus greatly reducing respondent burden while maintaining accuracy of reported data. NASS will continue to reuse these data enabling NASS to produce some chemical use estimates at appropriate geographic level(s) based on extent of coverage.

ARMS Phase III is the economic phase, in which we collect data related to the costs and returns for both the whole farm and for specific commodities raised on each farm. The Phase III is also co-funded by ERS and NASS. The target commodities are on a rotational basis. This rotation allows NASS and ERS to provide detailed data on all the major commodities while minimizing respondent burden. The data from these three phases are combined to give a complete representation of whole farm data. If full funding is provided each year, NASS plans to follow the rotation schedule found in items 12 and 16 below.

The contractor expense survey is a supplemental ARMS survey used to impute costs that a farmer may incur but not be able to report with any detail.

The Field Crop Production Practice and Chemical Use Surveys will be conducted annually (Minnesota, Mississippi, and Illinois) or every two to three years (Maryland) depending on funding from the cooperators:

- Maryland Department of Agriculture (MdDA),
- Minnesota Department of Agriculture (MnDA),
- Mississippi State University Extension Service (MSUES),
- Illinois Department of Agriculture (IDA).

The Fruit and Vegetable Chemical Use Surveys are conducted on a rotational basis. Projected funding for the next three years has allowed for the reinstatement of the annual rotation.

**1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

The primary functions of the National Agricultural Statistics Service (NASS) are to prepare and issue State and national estimates of crop and livestock production, disposition, and prices and to collect information on related environmental and economic factors. Detailed economic and environmental data for various crops and livestock help to maintain a stable economic atmosphere and reduce the risks for production, marketing, and distribution operations. Modern agriculture increasingly calls upon NASS to supply reliable, timely, and detailed information in its commodity estimation programs.

The Agricultural Resource Management Surveys (ARMS) are the primary source of information for the U.S. Department of Agriculture on a broad range of issues related to agricultural resource use, costs of production, and farm sector financial conditions. ARMS is the only annual source of whole farm information available for objective evaluation of many critical issues related to agriculture and the rural economy, such as: whole farm finance data, marketing information, input usage, production practices, and crop substitution or rotation possibilities. This detailed information can be used to set operation level estimates of types of operations, loan commodities, operator's household income, credit/debt levels, and other economic farm/ranch data.

Without these data, decision makers cannot analyze and report on the financial status of farms, the economic circumstances of farm households, the credit position of farmers, the structure and organization of farms, or the input and production alternatives available to farmers when pesticide regulatory actions are being considered. Since producers typically face numerous daily decisions in their farm management practices, information from these surveys will be used to construct producer behavioral models that more realistically reflect the production choices facing producers.

Data from ARMS are used to produce estimates of net farm income by type of commercial producer as required in 7 U.S.C. 7998 and estimates of enterprise production costs as required in 7 U.S.C. 1441(a). Data from ARMS are also used as weights in the development of the Prices Paid Index, a component of the Parity Index referred to in the Agricultural Adjustment Act of 1938 and as amended by the Agricultural Acts of 1948, 1949, 1954, and 1956. These indexes are used to calculate the annual federal grazing fee rates as described in the Public Rangelands Improvement Act of 1996 and Executive Order 12,548 and as promulgated in regulations found in Title 36 CFR 222.51.

Since 2003, when funding was first provided for the development of State-level income estimates for the 15 largest agricultural producing States, NASS has been producing these estimates.

In addition, ARMS is used to produce estimates of sector-wide production expenditures and other components of income that are used in constructing the estimates of income and value-added that is transmitted to the U.S. Department of Commerce Bureau of Economic Analysis, by the USDA Economic Research Service (ERS) for use in constructing economy-wide estimates of Gross Domestic Product. This transmittal of data, prepared using the ARMS, is undertaken to satisfy a 1956 agreement between the Office of Management and Budget and the Departments of Agriculture and Commerce that a single set of estimates be published on farm income.

Congress has mandated that NASS and ERS build nationally coordinated databases on agricultural chemical use and related farm practices; these databases are the primary vehicles used to produce specified environmental and economic estimates. Title 7 USC 136i-2 on collection of pesticide use information requires (a) ...”collect data of statewide or regional significance on the use of pesticides to control pests and diseases of major crops and crops of dietary significance, including fruits and vegetables” and, (b) “collection by surveys of farmers or other sources offering statistically reliable data.” The surveys will help provide the knowledge and technical means for producers and researchers to address on-farm environmental concerns in a manner that maintains agricultural productivity.

**Fruit and Vegetable Chemical Use Surveys** are also mandated by Title 7 USC 136i-2. These data are important because pesticides are the focus of Federal, State, and local legislation to reduce, ban, or otherwise control farm chemical use. A current accounting of farm chemical use, including details on application methods, is essential for evaluating the economic and environmental consequences of farm chemical regulations.

Data collected in the Maryland Pesticide Usage Survey will provide the Maryland Dept. of Agriculture (MDDA) with comprehensive information about what pesticides are being used around the state and future surveys will help determine what trends are developing. The data will also help agriculture and industry professionals understand what is being used, and it will provide public and environmental health experts with information that can help them focus their research and monitoring efforts.

The primary use for the Minnesota Pesticide and Fertilizer Survey data will be to allow the Minnesota Dept. of Agriculture (MNDA) staff to evaluate the effectiveness and adoption levels of the voluntary Best Management Practice (BMP) guidelines by periodically summarizing pesticide and fertilizer use statistics at the county level and MNDA management district levels. County level

detail is needed because there are different BMPs written for specific Pesticide Management Areas (PMA) based on chemical residue found in ground water or surface water through other monitoring means. Fertilizer data will be summarized under different Nitrogen Best Management Practice Regions based on soil types and a separate monitoring program.

Results from the Minnesota Pesticide and Fertilizer Survey will allow the MNDA staff to promote the voluntary nature of the BMPs by demonstrating the adoption levels and practices farmers are using have remained consistent with the BMP guidelines. If verified, this will avoid the need for any mandatory restrictions on chemical use and/or practices.

The primary use for the Mississippi State University Extension Service's (MSUES) Field Crop Production Practice and Chemical Use Surveys will be to create Enterprise Budgets for corn, cotton, rice, wheat, and soybeans. No chemical use data will be published, but chemical use data are an important part of determining Enterprise Budgets.

The Illinois Nutrient Loss Reduction Strategy (NLRS) survey will be conducted on an annual basis through a cooperative agreement with the Illinois Nutrient Research Education Council, developed by the Illinois Department of Agriculture. The goal of this survey is to produce statistically defensible estimates of several "in field" and "edge of field" practices conducted by Illinois farmers. These practices have been shown to positively impact water quality by reducing runoff and leaching of nutrients into the waters of Illinois. And, one of the primary goals of the NLRS is to track implementation of these cultural practices over time to measure implementation of the NLRS.

General authority for these data collection activities is granted under U.S. Code Title 7, Section 2204 which specifies that "The Secretary of Agriculture shall procure and preserve all information concerning agriculture which he can obtain ... by the collection of statistics ... and shall distribute them among agriculturists."

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

This docket consists of three major survey program areas: (1) Agricultural Resource Management Surveys (ARMS); (2) Vegetable and Fruit Chemical Use Surveys; and (3) The Field Crop Production Practice and Chemical Use Surveys will be conducted annually in select states and are dependent on availability of cooperator funding. The cost of the Field Crop Production Practice and Chemical Use Surveys will be entirely funded by the cooperators. The following text provides descriptions of these survey programs.

- (1) **Agricultural Resource Management Surveys.** Farm organizations, banks, commodity groups, agribusinesses, Congress, and the USDA use information from ARMS to evaluate the financial performance of farm and ranch businesses and households and to make policy decisions affecting agriculture. The ARMS provides a robust database of information to address varied needs of policy makers.

NASS continually seeks input from data users at various trade association meetings, often setting up forums at those meetings to discuss surveys relevant to the stakeholder group. Stakeholders can provide feedback or request special tabulations of NASS data through the following website: [https://www.nass.usda.gov/Data\\_and\\_Statistics/Special\\_Tabulations/Request\\_a\\_Tabulation/index.php](https://www.nass.usda.gov/Data_and_Statistics/Special_Tabulations/Request_a_Tabulation/index.php).

If NASS is able to generate the requested data tables and there aren't any confidentiality issues the tables will be made available to the public.

The ARMS briefing room on the ERS Web site:

<https://www.ers.usda.gov/data-products/arms-farm-financial-and-crop-production-practices/> provides an opportunity for stakeholder feedback regarding data characteristics, use of the information for statistical purposes, and questionnaire content. In 2017, ERS received 57 inquiries from this utility; results from these inquiries can be found at <https://www.ers.usda.gov/data-products/arms-farm-financial-and-crop-production-practices/contact-us/>.

ERS staff continue to contact animal scientists, economists, extension staff, other government agencies, and commodity groups during the development of the livestock questionnaire versions, and solicits their advice on pressing issues and specific question formulations.

**Contractor Expense Surveys:** The Contractor Expense Surveys are supplemental surveys to the ARMS Phase III survey. The purpose is to obtain the contractor's portion of the operating expenses for the whole farm. In previous surveys we have found that most contractees cannot report total expenses incurred by the contractor, since the contractor supplies many of the inputs to the farm operator.

The uses of the information collected from ARMS are many:

- Dramatic changes in crude oil prices can have a huge impact on farmers. In addition to the prices for diesel and gasoline, farmers must make decisions on which crops to produce, based heavily on the availability and affordability of fertilizers and pesticides that are petroleum based. Farming practices can also be altered due to the prices of fuels. Farmers may have to investigate practices such as

no till or minimum till crops, crop rotations, selecting more disease and pest tolerant crops, etc. in years when oil prices are trending upward, while using more conventional farming techniques in years when prices are trending downward. The ARMS surveys are crucial in measuring annual changes in doing business (financially, farming practices, and types of inputs used by farmers).

- Severe weather conditions in any given year can cause measurable changes in both farm expenditures/receipts as well as numerous farming practices. For example: drought and flooding conditions felt in different regions of the US in recent years have made a huge impact on farmers and the way they conduct business. In some areas of the country there were restrictions placed on water used for irrigation and farmers had to investigate what kinds of conservation practices they could adopt. In other areas of the country where flooding occurred, farmers had to contend with chemical run off that impacted the types of crops they could re-plant in flooded fields once they dried. The ARMS surveys help to measure the impact and changes that occurred both financially and in farming practices.
- The ARMS surveys are critical for measuring the annual changes to the American farmer. With the increase in bioenergy dependency, farmers are changing their farming practices to accommodate the increased demand for crops that can be converted into ethanol or biodiesel. This is causing some farmers to change from growing crops for food and feed grains to crops that could produce a larger quantity of biofuels than traditional crops.
- Data collected about agricultural fertilizer and pesticide use for major field crops (corn, soybeans, wheat, oats, potatoes, etc.) and selected fruits and vegetables have been used in building a database for the USDA Pesticide Data Program (PDP), used by USDA to evaluate the safety of the Nation's food supply.
- In 1996, the implementation of the Food Quality Protection Act (FQPA) increased the need for actual, reliable chemical use data (type of chemical applied, rate of application, timing and location of application, associated cropping practices, frequency of application, etc.). FQPA requires the Environmental Protection Agency (EPA) to conduct an accelerated review of tolerance levels for re-registration of pesticide products. Part of the EPA review includes using actual chemical usage data that only the grower can provide. If these data are not available, EPA could assume maximum label rates are being applied on all crop acreage which would likely over count the true amount of pesticides being used to produce field

crops. The result could be cancellation of the product's registrations for chemicals on which farmers rely.

Other USDA agencies closely involved with NASS in the PDP, addressing the requirements of FQPA, are Agricultural Marketing Service (AMS), the Agricultural Research Service (ARS) and Economic Research Service (ERS). These agencies collect and analyze agricultural chemical use and residue data to estimate potential human exposure to pesticide residues in the U.S. food supply. The results of their analysis will be used to help make decisions concerning product registration issues, risk assessments, benefit assessments, and for commodities marketing at the State, national, and international level. Growers have a vested interest in the risk analysis because many pesticides they rely on are classified as minor use. Growers often have no alternatives to these chemicals. If re-registration is not allowed on products used on specialty crops, such as mint and hops, there could be serious consequences for both farmers and consumers and the ability to produce and provide the commodity.

- To guide policy makers in the decision-making process, it is necessary to have reliable information about production practices used and the relationship of the practices to changes in water quality and changes in the rate of erosion. Decisions affecting agricultural policy and producers will be made with or without data; it is much better to have factual information to guide the decision process. Farm production covers a major share of the natural resources of the country and, as policy about how to manage production is formed; a better understanding of the production process can prevent uninformed choices. The agricultural community is currently faced with many complex issues concerning the environment, such as the transport of nutrients and pesticides to ground or surface water sources, soil erosion, and the impact of environmental policies on agricultural production. ARMS data are useful in addressing these concerns; for example, fertilizer and pesticide data that are used to study water quality and production practices, crop rotation data to help identify tillage systems and crop residue levels affecting soil erosion.
- The ARMS and Chemical Use survey data are combined to measure changes made within the farming community to help determine if the changes were economically sound. With the development of new hybrid seeds, farmers are able to use different types of pesticides that are more cost effective and less harmful to the environment. The ARMS and Chemical Use surveys can be used to help document these changes.



- The ARMS gathers information about relationships among agricultural production, resources, and the environment. ARMS data provides the necessary background information to support evaluations of these relationships. The data are used to understand the relevant factors in producing high quality food and fiber products while maintaining the long term viability of the natural resource base.
- The ARMS determines what it costs to produce various crop and livestock commodities and the relative importance of various production expense items. The ARMS Phase II Production Practices and Costs Report efficiently collects detailed cropping practice and cost data by focusing on field-level and expanding to whole farm, thus greatly reducing respondent burden while maintaining accuracy of reported data.
- The ARMS helps determine net farm income and provides data on the financial situation of farm and ranch businesses, including the amount of debt. ARMS data provides the only national perspective on the annual changes in the financial conditions of production agriculture. Net farm income information is now available for the 15 largest agricultural States.
- In order to minimize respondent burden while maintaining a comprehensive data set for all major commodities, the crops being surveyed rotate on a regular basis. Some commodities that have little change in production costs or techniques may only be surveyed once every 10 years; while other crops that change on a more frequent basis may be surveyed every 2 to 3 years.
- The ARMS provides the farm sector portion of the gross domestic product for the nation. If ARMS data were not available, the Bureau of Economic Analysis (BEA) would have to conduct their own survey of farm operators to collect these data.
- The ARMS helps determine the characteristics and financial situation of agricultural producers and their households, including information on management strategies and off-farm income.
- Collecting farm/ranch production and expense data to develop an estimate of net farm income each year is necessary because both receipts and production expenses change as production and prices change and as farmers and ranchers use more or less of inputs such as fertilizers or other chemicals. Since farmers and ranchers

buy most of their inputs, data must be collected every year to obtain accurate estimates of annual expenses.

- Numerous requests to ERS and NASS are made from Congress throughout the year to characterize the financial position of various groups of farmers. ARMS data are the only means of answering many of these questions.
- The USDA links receipts and expenses associated with the production and sale of agricultural commodities to measure profit or loss over a calendar year. Three measures of net farm income are developed. First, a net cash income measure shows the difference between the cash earnings and expenses of the operation. Second, the estimate of net cash income is adjusted to show how depreciation and changes in the operation's crop and livestock inventory affect earnings. Components of gross income, such as net rent received and custom or machine work also change annually as cash and share rents adjust in response to market conditions or government programs. Custom work and machine hire are directly affected by weather and other natural events which are unpredictable. These income items are measured through the ARMS. The third income measure is net value added, which reflects production agriculture's addition to the national economic product and represents the sum of the economic returns to all the providers of factors of production: farm employees, lenders, landlords, and farm operators. ERS value-added estimates are used by the Bureau of Economic Analysis (BEA) in the development of the National Income Accounts and for Gross Domestic Products and by the Organization for Economic Cooperation and Development in their international agricultural accounts.
- Congressional mandates exist for the development of annual estimates of the cost of producing wheat, feed grains, cotton, tobacco, and dairy commodities. To ensure accurate and reliable estimates, a comprehensive survey is needed to obtain data on production practices and the amounts of inputs used. Estimates of crop and livestock costs and returns provide a basis for understanding changes in the relative efficiency of crop and livestock production and the break-even prices needed to cover all costs. The ARMS provides the data needed to develop "enterprise" budgets showing costs and input use by size and type of farm in different regions of the country. An "enterprise" is the portion of an operation's resources devoted to producing a specific commodity.

- Responses to ARMS questions about farm assets and debts are used to develop a balance sheet for the farm as well as to provide a variety of financial ratios for measuring financial performance. Changes in the level of income earned affect rates of return and net worth. Purchases and sales of assets such as buildings, machinery, and land; changes in their value; and any associated debt are very sensitive to changes in farm earnings and economic performance as well as to changes in the general economy. The balance sheet can change rapidly from one year to the next and can be adequately monitored only through data collected on an on-going basis. Balance sheet analysis helps identify areas of poor financial performance and pockets of potential financial stress. The ARMS provides the data necessary to develop annual estimates of the farm operation's assets, debts, equity, capital gains, capital flows, and the rates of return to agricultural resources and also identifies how these items (and farm household finances) change from one year to the next.
- Annual information from the ARMS on receipts, expenses, debts, and assets is needed to evaluate the financial condition of farm businesses. The Office of the Secretary of Agriculture, Congress, agricultural groups, the banking industry, and the public look to NASS and ERS for reliable, up-to-date information on the financial performance of farms and ranches by size, type and region. Financial condition analyses involve the ability of an operation to pay bills as they come due. The ability of a farm business to meet financial obligations depends on the amount of debt owed by the farm and the amount of cash receipts and other income available to meet mortgage, interest, and other obligations of the farm. The ability to pay operating costs and the interest and principal due on debts can change very rapidly because of drought, flood, or other circumstances. With ARMS data, the extent and seriousness of financial problems facing farmers are assessed, including the likely consequences of recurring financial stress.
- Farm operators and their households are of special interest for policy purposes because they incur nearly all of the risks of farming and are directly impacted by the government's agricultural policies. Most farms in the U.S. are organized along the traditional lines of one family, or one extended family, operating the farm. However, the largest producing farms are often operated by several partners or shareholders, each of whom receives a share of the profit (or loss) of the business. In addition, the majority of farms are small and, on average, lose money. Households operating small farms rely heavily on off-farm income. Thus, it is necessary to understand the complex relationships between the farm business and the farm

household and between farm work and off-farm work to accurately describe U.S. agriculture today. The Small Business Administration defines most small farms as having gross sales of less than \$750,000 per year.

[https://www.sba.gov/sites/default/files/files/Size\\_Standards\\_Table.pdf](https://www.sba.gov/sites/default/files/files/Size_Standards_Table.pdf)

- ARMS information on farm expenses describes the relative importance of production inputs used by farmers. These data are used to update the prices paid index for commodities, services, interest, taxes, and wage rates, known as the parity index. This index helps determine the parity price for over 100 agricultural commodities. Parity prices have been a part of farm legislation since 1938, when the Agricultural Adjustment Act established that parity prices be computed for agricultural commodities.
- The 'parity index' as of any date, shall be the ratio of (i) the general level of prices of articles and services that farmers buy, wages paid hired farm labor, interest on farm indebtedness secured by farm real estate and taxes on farm real estate, for the calendar month ending last before such date to (ii) the general level of such prices, wages, rates, and taxes during the period January 1910 to December 1914, inclusive.

- (2) **Fruit and Vegetable Chemical Use Surveys.** This information will be used by NASS, EPA, ERS, and other parties to assess the environmental and economic implications of various programs and policies and the impact on agricultural producers and consumers. The basic chemical use and farm practices information will also be used to produce a national chemical use database. This database is an integral source of data for the Water Quality Initiative, USDA's Pesticide Data Program, and the Food Quality Protection Act. These surveys of fruit and vegetable growers provide detailed, comprehensive information on actual chemical use rates, application practices, production practices, and integrated pest management (IPM) practices for a list of targeted fruit and vegetable crops.

The Vegetable Chemical Use Surveys are preceded by a screening survey integrated with the ARMS Phase I and consists of screening the classified population for the commodities being targeted; only operations with the targeted vegetable commodity are eligible for sampling for the following phases. The screening is conducted from May to early July. The main data collection is in the fall and involves contacting the selected respondents and collecting information on chemical use for targeted commodities on the entire operation.

With the use of the Fruit and Vegetable Chemical Use Surveys as with the ARMS surveys, NASS will be able to measure changes in rates and types of chemicals used. Changes will be due in part to the changes in costs of crude oil, restrictions on water usage, and the availability of inputs.

The Vegetable Chemical Use survey was previously conducted in the following 19 States: Arizona, California, Florida, Georgia, Indiana, Illinois, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Washington, and Wisconsin. The commodities of interest have been: asparagus, snap beans, broccoli, cabbage, cantaloupe, carrots, cauliflower, celery, sweet corn, cucumbers, garlic, honeydew, head and other lettuce, dry onions, green peas, bell peppers, pumpkins, spinach, squash, tomatoes, and watermelon. If production trends change, the mix of states and commodities included in the program may be refined.

In the past, the 12 States conducting the Fruit Chemical Use Survey have been California, Florida, Georgia, Michigan, New Jersey, New York, North Carolina, Oregon, Pennsylvania, South Carolina, Texas, and Washington. Commodities of interest are apples, apricots, avocados, blackberries, blueberries, cherries-sweet, cherries-tart, dates, figs, grapefruit, grapes-all, kiwi fruit, lemons, nectarines, olives, oranges-temple, peaches, pears, plums, prunes, raspberries, tangelos, and tangerines. If production trends change, the mix of states and commodities included in the program may be refined.

These data are important because pesticides and fertilizers are the primary sources of ground and surface water contamination in agricultural areas. Farm chemicals are also the primary source of pesticide residues found on fruits and vegetables. They are, therefore, primary targets of Federal, State or local legislation to reduce, ban, or otherwise control farm chemical use. Pesticide use, particularly on fruits and vegetables that are a large part of children's diets, is of particular interest to those charged with enforcing the Food Quality Protection Act. A current accounting of farm chemical use in States producing over 85 percent of the nation's fruit and vegetable production is essential for evaluating the economic, environmental, and public health consequences of farm chemical regulations. The Chemical Use Surveys include all fruit and vegetables with production estimates which are significant and critical to the nation's food supply.

**Chemical Applications Consent Form:** The Chemical Applications Consent Form is a supplemental questionnaire for the Vegetable Chemical Use Survey. Approximately half of the vegetable growers use commercial applicators to treat their vegetable crops. If the farm operator is not able to provide the detailed information required on the chemical

use questionnaire, we will ask the respondent for permission to contact the commercial operation who applied the chemical(s) and collect the data from them, if we are given the operator's permission.

**(3) The Field Crop Production Practice and Chemical Use Surveys** will be conducted to meet research and publication goals for Extension and State Departments of Agriculture described in question one.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.**

The ARMS Phase I (screening) is conducted initially as a mail and internet survey. Operators who do not respond by a certain time will be attempted by either a phone or field enumerator. The phone enumerators will be using a Computer Assisted Telephone Interview (CATI) system which incorporates a BLAISE interactive survey. The field enumerators are being equipped with Apple iPads and will conduct a Computer Assisted Personal Interview (CAPI).

There are currently no plans to develop a Web-based instrument for ARMS Phase II or for the Vegetable Chemical Use Surveys since much of the data collected requires the identification of a specific farm field that is planted to a specific commodity and this field identification cannot be made on the Web. Also, the detailed chemical application data are often copied from farm records by the enumerator during the interview. At present the majority of the data are collected through face-to-face interviews. A Web-based instrument is available for the ARMS economic phase (Phase III) Core questionnaire.

There are no plans to include an internet survey for the Field Crop Production Practice and Chemical Use Surveys. The Minnesota Pesticide and Fertilizer Survey utilizes a Computer Assisted Telephone Interviewing (CATI) instrument. The cooperators requested our programmers and system developer's to concentrate their time on the surveys. At some future date, depending on budget, the cooperators may look into implementing an internet or computer based survey, but for now it will remain as a paper or CATI questionnaire.

**4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.**

NASS is very careful not to duplicate work planned by other Government agencies. NASS field offices are asked to document any State programs that overlap with the surveys contained in this docket. NASS is making every attempt to use existing data and only ask additional questions that are needed. For

example, NASS uses administrative data from the California EPA Mandatory Pesticide Use Reporting System and a similar system in Arizona to utilize reports already available through mandatory pesticide reporting.

Also, internal committees within USDA that include NASS, Economic Research Service (ERS), Agricultural Marketing Service (AMS), Agricultural Research Service (ARS), Cooperative State Research Education and Extension Service, and Natural Resource and Conservation Service (NRCS) have been formed to help coordinate all the different aspects of these data collection efforts. The Integrated Pest Management questions have been aligned to meet all USDA agency needs. USDA's Office of Pesticide Management Policy provides coordination and oversight for the Department with the Environmental Protection Administration (EPA). Other government agencies such as the Food and Drug Administration (FDA) and the U.S. Geological Survey (USGS) are also consulted to avoid duplicating survey projects. The Advisory Committee on Agricultural Statistics, appointed by the Secretary of Agriculture, also provided advice on these program areas; this committee is composed of a diverse representation of agricultural sector expertise.

When State projects are identified, NASS makes every effort to incorporate the data needs from these projects with the NASS surveys. The Field Crop Production Practice and Chemical Use Surveys in Maryland, Minnesota, Mississippi, and Illinois are designed to meet State needs that are not met with the federally funded ARMS and Chemical Surveys. Targeted crops in the federally funded surveys are not collected in that year's Field Crop Production Practice and Chemical Use Surveys.

**5. If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-1), describe any methods used to minimize burden.**

NASS tries to identify only those data items absolutely necessary to answer the needs of data users. Information requested on these surveys may require respondents to refer to their record books for the answers. To minimize the interview time, branching is used throughout the questionnaires to skip those sections not applicable to particular respondents. Another approach to minimize burden has been the continued use of the ARMS core questionnaire that provides high level aggregates to estimate income and expenses; detailed data are eliminated from this version and will be asked only on a subset of the questionnaires. Enumerators also attend State training schools for instruction and practice on using the questionnaires. Data collection for these surveys are coordinated with other surveys to minimize contacts with respondents.

Sampling techniques are applied to minimize burden to individual operations that could potentially be selected in multiple surveys. List frame units selected for other current year NASS probability surveys or the previous ARMS are replaced,

where possible, by similar sample units whose respondent burden is less. This design reduces the number of consecutive ARMS contacts and multiple contacts for different surveys in the same year. The goal is to avoid selecting individual operations for two consecutive ARMS cycles.

Periodically, NASS reviews record keeping systems used by respondents to record and report chemical use data to State agencies, or financial records they keep to be used when filling out their State and Federal Income Tax forms. When possible, NASS will make changes to our questionnaires to emulate these other documents, to help reduce respondent burden and reduce potential reporting errors.

NASS continues to conduct research on potentially new sampling and data modeling strategies to reduce data requirements and respondent burden. NASS has also started looking at the feasibility of using previously reported survey data where appropriate to reduce burden.

**6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

NASS and ERS are charged with the responsibility of providing the Secretary of Agriculture, the Congress, the Executive Branch, farm groups, financial institutions and the public with reliable, up-to-date information concerning the nation's farms and ranches. The ARMS program is the only source of information capable of providing this type of vital information. Collecting economic data is critical to the mission of USDA, Congress, other governmental agencies, and the private sector. It needs to be collected annually so NASS can update the Parity Index for Prices Paid and Prices Received by Farmers so ERS can accurately estimate farm income each year.

Current and projected budgets have allowed for the continuation of the Fruit and Vegetable Chemical Use Surveys to be conducted in alternating years. The Microbial Food Safety Practices - Packer Survey has been discontinued. NASS is responsible for maintaining a chemical use database which is essential for answering fundamental questions about the safety of our nation's water and food supplies. Sound policy decisions cannot be made without good unbiased data.

Working closely with AMS, ERS, EPA, and several other agencies NASS has identified the priority of which commodities have the greatest urgency for data collection. NASS meets regularly with Office of Pest Management Policy (OPMP) and EPA to evaluate annual data reporting requirements. This is important because EPA's models give more weight to current data.

Samples of questionnaires for both current and future data collection cycles by NASS are attached to this docket. As finalized questionnaires are approved



each year the new questionnaire(s) will be submitted to OMB as non-substantive changes.

- 7. Explain any special circumstances that would cause an information collection to be conducted in a manner inconsistent with the general information guidelines in 5 CFR 1320.5.**

There are no special circumstances associated with this information collection.

- 8. Provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8 (d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments.**

The Notice soliciting comments on this information collection was published in the Federal Register on January 22, 2018 (Volume 83, Number 14), on pages 2960 - 2961. No public comments were received for this renewal request.

**Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and record-keeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

NASS, ERS, other USDA agencies, other Federal departments, and State Departments of Agriculture are all contributing to the content of these projects and have been consulted. An Advisory Committee on Agricultural Statistics, appointed by the Secretary of Agriculture, reviews content, methodology, and program benefits for all major survey and estimation programs. EPA's Science Advisory Committee reviews data sources and methodologies used for environmental programs.

In November 2007 the National Academies of Sciences, Committee on National Statistics (NAS-CNSTAT) completed a comprehensive review of the ARMS program. Copies of the report are available via the web at:

[http://books.nap.edu/openbook.php?record\\_id=11990&page=R1](http://books.nap.edu/openbook.php?record_id=11990&page=R1).

Included in this renewal request, NASS is asking for approval to conduct up to 50 cognitive interviews each year for testing purposes. These field tests are primarily for the commodity versions and focus mainly on the research questions that ERS is wanting to add each year to reflect changes within the farming industry for these commodities. The testing is mainly for adding new terminology or questions to the commodity specific versions. NASS and ERS continue the monthly ARMS steering committee meetings per the recommendation from the NAS 2007 report. The committee consists of the NASS and ERS ARMS leads,

each of the ARMS phase experts from both agencies, and others as needed. This committee meets once a month to discuss survey management and data collection of all three phases of the ARMS program. The steering committee discusses integration with other programs, imputation and estimation and relevance of the ARMS program. The topics of discussion depend on issues raised from research papers, data review during the survey or discussion with our enumerators, field office staff, and data users.

With the new Field Crop Production Practice and Chemical Use Surveys in Maryland, Minnesota, Mississippi, and Illinois our Field Offices have talked with growers associations as well as the Extension Service and State Departments of Agriculture and received input from them.

**9. Explain any decision to provide any payment or gift to respondents.**

There are no payments or gifts to respondents.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

Questionnaires include a statement that individual reports are confidential. U.S. Code Title 18, Section 1905; U.S. Code Title 7, Section 2276; and Public Law 107-347, Title V (CIPSEA) provide for confidentiality of reported information. All employees of NASS and all enumerators hired and supervised under a cooperative agreement with the National Association of State Departments of Agriculture (NASDA) must read the regulations and sign a statement of compliance.

Additionally, NASS employees and NASS contractors comply with the OMB implementation guidance document, "Implementation Guidance for Title V of the E-Government Act, Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA)." CIPSEA supports NASS's pledge of confidentiality to all respondents and facilitates the agency's efforts to reduce burden by supporting statistical activities of collaborative agencies through designation of NASS agents, subject to the limitations and penalties described in CIPSEA.

The following confidentiality pledge statement will appear on all NASS questionnaires.

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit:

<https://www.nass.usda.gov/confidentiality>.

All individuals who may access these confidential data for research are also covered under Titles 18 and CIPSEA and must complete a Certification and Restrictions on Use of Unpublished Data (ADM-043) agreement.

**11. Provide additional justification for any questions of a sensitive nature.**

There are no questions of a sensitive nature.

**12. Provide estimates of the hour burden of the collection of information. The statement should indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I. Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.**

The following table contains the estimated burden hours for the surveys by year and the average annual burden. Totals may vary due to rounding. Cost to the public for completing the questionnaire is assumed to be comparable to the hourly rate of those requesting the data. Average annual reporting time of 105,615 hours is multiplied by \$27.50 per hour for a total annual cost to the public of \$2,904,412.50.

NASS uses the Bureau of Labor Statistics' [Occupational Employment Statistics](#) (most recently published on March 30, 2018 for the previous May) to estimate an hourly wage for the burden cost. The May 2017 mean wage for bookkeepers was \$19.76. The mean wage for farm managers was \$38.62. The mean wage for farm supervisors was \$24.11. The mean wage of the three is \$27.50.

All of the ARMS surveys are annual surveys, but some respondents will be contacted for more than one of the surveys. Phase I is the screening phase for both Phases II and III. Less than 10 percent of the Phase I sample will be selected for all three phases. The Phase I survey is also used to prescreen for the Vegetable Chemical Use Survey. The vegetable and fruit chemical use surveys alternate, so both will never occur in the same year. Burden was calculated using the interview lengths and the targeted response rate of 80 percent. Sample sizes are based on estimates of future needs. Annual burden will fluctuate based on commodity mix. However, accumulated total burden is not expected to exceed the accumulated estimated annual average.

The following tables show the data collection cycle for four calendar years. However, the OMB approval is only for 3 years. The current approval expires on

July 31, 2018 which is in the middle of a crop year cycle. The tables below were designed to show the complete data collection cycle.

Respondent Burden for ARMS and Chemical Use Surveys for July 2018 - June 2021 1/												
Survey Year	Survey	Sample Size 5/	Waves of Data Collection	Responses				Non-response				Total Burden Hours
				Resp. Count	Waves X Count	Min./ Resp.	Burden Hours	Nonresp Count	Waves X Count	Min./ Nonr.	Burden Hours	
<b>Agricultural Resource Management Surveys (ARMS) Phases I, II, &amp; III</b>												
2018	Integrated Screening Survey (Phase I) (Mail) 1/ 4/	-	1	-	-	15	-	-	-	2	-	-
	ARMS Screening Survey (Phase I) (Enumeration) 6/	-	1	-	-	15	-	-	-	2	-	-
	Production Practices Report (Phase II) 2/	7,500	1	6,000	6,000	35	3,500	1,500	1,500	2	50	3,550
	Production Practices & Costs Report (Phase II) 2/	5,000	1	4,000	4,000	65	4,333	1,000	1,000	2	33	4,366
	Costs & Returns Report Report (Phase III) (Mail) 3/	-	1	-	-	100	-	-	-	2	-	-
	Costs & Returns Report Report (Phase III) (Enumeration) 3/	-	1	-	-	100	-	-	-	2	-	-
<b>2018 Total</b>		<b>12,500</b>		<b>10,000</b>	<b>10,000</b>		<b>7,833</b>	<b>2,500</b>	<b>2,500</b>		<b>83</b>	<b>7,916</b>
2019	Integrated Screening Survey (Phase I) (Mail) 1/ 4/	100,000	1	20,000	20,000	15	5,000	80,000	80,000	2	2,667	7,667
	ARMS Screening Survey (Phase I) (Enumeration) 6/	80,000	1	60,000	60,000	15	15,000	20,000	20,000	2	667	15,667
	Production Practices Report (Phase II) 2/	7,500	1	6,000	6,000	35	3,500	1,500	1,500	2	50	3,550
	Production Practices & Costs Report (Phase II) 2/	5,000	1	4,000	4,000	65	4,333	1,000	1,000	2	33	4,366
	Costs & Returns Report Report (Phase III) (Mail) 3/	35,000	1	7,000	7,000	100	11,667	28,000	28,000	2	933	12,600
	Costs & Returns Report Report (Phase III) (Enumeration) 3/	30,000	1	22,500	22,500	100	37,500	7,500	7,500	2	250	37,750
<b>2019 Total</b>		<b>100,000</b>		<b>119,500</b>	<b>119,500</b>		<b>77,000</b>	<b>138,000</b>	<b>138,000</b>		<b>4,600</b>	<b>81,600</b>
2020	ARMS Screening Survey (Phase I) (Mail) 1/	110,000	1	22,000	22,000	15	5,500	88,000	88,000	2	2,933	8,433
	ARMS Screening Survey (Phase I) (Enumeration) 6/	88,000	1	66,000	66,000	15	16,500	22,000	22,000	2	733	17,233
	Production Practices Report (Phase II) 2/	7,500	1	6,000	6,000	35	3,500	1,500	1,500	2	50	3,550
	Production Practices & Costs Report (Phase II) 2/	5,000	1	4,000	4,000	65	4,333	1,000	1,000	2	33	4,366
	Costs & Returns Report (Phase III) (Mail) 3/	35,000	1	8,750	8,750	100	14,583	26,250	26,250	2	875	15,458
	Costs & Returns Report (Phase III) (Enumeration) 3/	30,000	1	22,200	22,200	100	37,000	7,800	7,800	2	260	37,260
<b>2020 Total</b>		<b>110,000</b>		<b>128,950</b>	<b>128,950</b>		<b>81,416</b>	<b>146,550</b>	<b>146,550</b>		<b>4,884</b>	<b>86,300</b>
2021	Integrated Screening Survey (Phase I) (Mail) 1/ 4/	100,000	1	20,000	20,000	15	5,000	80,000	80,000	2	2,667	7,667
	ARMS Screening Survey (Phase I) (Enumeration) 6/	80,000	1	60,000	60,000	15	15,000	20,000	20,000	2	667	15,667
	Production Practices Report (Phase II) 2/	-	1	-	-	35	-	-	-	2	-	-
	Production Practices & Costs Report (Phase II) 2/	-	1	-	-	65	-	-	-	2	-	-
	Costs & Returns Report (Phase III) (Mail) 3/	35,000	1	7,000	7,000	100	11,667	28,000	28,000	2	933	12,600
	Costs & Returns Report (Phase III) (Enumeration) 3/	30,000	1	22,500	22,500	100	37,500	7,500	7,500	2	250	37,750
<b>2021 Total</b>		<b>100,000</b>		<b>109,500</b>	<b>109,500</b>		<b>69,167</b>	<b>135,500</b>	<b>135,500</b>		<b>4,517</b>	<b>73,684</b>
<b>Cognitive Testing</b>												
3 years	Testing approximately 50 ARMS and/or Chemical Use questionnaires per year	50	1	50	50	90	75	-	-		-	75

1/ ARMS and Chemical Use surveys are conducted on a cyclical basis that does not follow a calendar year, but instead follows the crop production year. The ARMS phase 1 is conducted in the Spring and early Summer for that crop year. The ARMS II and Chemical Use Surveys are conducted in the Autumn for the current production cycle. The ARMS III is conducted the following year for the previous years expenses and income for both whole farm and commodity specific data.

2/ Phase II surveys are all conducted as face to face interviews. Field enumerators can copy much of the chemical use data from the farm operator's record books. The remainder of the data can be obtained directly from the farm operator. The chemical data is related to a specific field selected of each farm sampled for this survey.

3/ All Phase III questionnaires will be attempted by mail with phone and field enumeration for non-respondents. In 2017 respondents have the option of completing the ARMS III questionnaire and not having to complete the Census of Agriculture. The ARMS III questionnaire contains the same essential questions as the Census.

4/ In 2016 and 2018 the ARMS Phase I Screener will also be used to pre-screen for the Vegetable Chemical Use Survey.

5/ The ARMS Phases II & III are both subsampled from the Phase I Screening Survey.

6/ Phase I is available by internet, mail, phone and face to face enumeration. The questionnaires are mailed out with pre-survey letter and internet instructions. Historically we have received approximately a 20% response rate by mail and EDR combined. This is followed by phone and personal enumeration for non-respondents.

**0535-0218 - Projected Respondent Burden for EPAs in 2018 - 2020**

(External Project Agreement "EPA" are surveys that NASS conducts under cooperative agreements with State agencies.)

State	Commodity	Sector	Survey Name	Sample Size	Waves of Data Collection	Resp. Count	Waves X Count	Min. / Resp	Burden Hours	Non-Resp Count	Waves X Count	Min / Non Resp.	Burden Hours	Total Burden Hours
Mississippi	All (crops)	Growers	Screener	1,350	1	473	473	15	118	878	878	2	29	147
Mississippi	Wheat	Growers	Cropping Practices - Wheat	70	1	56	56	90	84	14	14	2	0	84
Mississippi	Corn	Growers	Cropping Practices - Corn	115	1	92	92	90	138	23	23	2	1	139
Mississippi	Rice	Growers	Cropping Practices - Rice	40	1	32	32	90	48	8	8	2	0	48
Mississippi	Cotton	Growers	Cropping Practices - Cotton	90	1	72	72	90	108	18	18	2	1	109
Mississippi	Soybeans	Growers	Cropping Practices - Soybeans	115	1	92	92	90	138	23	23	2	1	139
Minnesota	Corn, Soybeans, Wheat, Hay	Growers	Pesticide & Fertilizer Use in Minnesota	8,400	1	6,720	6,720	30	3,360	1,680	1,680	2	56	3,416
Maryland	All	Pesticide Applicators	Maryland Pesticide Usage Survey (Mail)	6,800	1	2,040	2,040	45	1,530	4,760	4,760	2	159	1,689
			Maryland Pesticide Usage Survey (Phone Follow-Up)	4,760	1	3,332	3,332	45	2,499	1,428	1,428	2	48	2,547
Illinois	Cultural Practices	Crops	Nutrient Loss Reduction Strategy (1st Mailing)	1,900	1	570	570	25	238	1,330	1,330	2	44	282
			Nutrient Loss Reduction Strategy, (2nd Mailing)	1,330	1	200	200	25	83	1,131	1,131	2	38	121
			Nutrient Loss Reduction Strategy (Phone Follow-Up)	1,131	1	678	678	25	283	452	452	2	15	298

**Publicity Materials <sup>u</sup>**

Cover Letter and/or EDR Instruction Sheet	18,880	1	14,356	14,356	5	1,196	4,524	4,524	2	151	1,347
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**Cognitive Testing**

Questionnaire Testing	30	1	30	30	120	60	0	0	2	0	60
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<b>TOTALS</b>	<b>18,910</b>		<b>14,386</b>	<b>14,386</b>		<b>9,883</b>	<b>4,524</b>	<b>11,744</b>		<b>543</b>	<b>10,426</b>
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<sup>u</sup> The publicity materials for these reimbursable surveys is not included in the publicity materials on the third page. That number is for the Federally Funded surveys only.

Respondent Burden for ARMS and Chemical Use Surveys for July 2018 - June 2021 1/												
Survey Year	Survey	Sample Size	Waves of Data Collection	Responses				Non-response				Total Burden Hours
				Resp. Count	Waves X Count	Min./ Resp.	Burden Hours	Nonresp Count	Waves X Count	Min./ Nonr.	Burden Hours	
<b>Contractor Expense Survey 3/</b>												
2019	Contractor Expense Survey	100	1	80	80	45	60	20	20	2	1	61
2020	Contractor Expense Survey	100	1	80	80	45	60	20	20	2	1	61
2021	Contractor Expense Survey	100	1	80	80	45	60	20	20	2	1	61
<b>Total</b>		300		240	240		180	60	60		3	183
<b>Chemical Use Surveys - NASS Program Only</b>												
2018	Vegetable Chem Use	4,200	1	3,360	3,360	45	2,520	840	840	2	28	2,548
2019	Fruit Chem Use	6,700	1	5,360	5,360	45	4,020	1,340	1,340	2	45	4,065
2020	Vegetable Chem Use	4,200	1	3,360	3,360	45	2,520	840	840	2	28	2,548
<b>Total</b>		15,100		12,080	12,080		9,060	3,020	3,020		101	9,161
<b>Microbial Food Safety Practices -- Packer Survey</b>												
<b>Discontinued</b>	Microbial Food Safety Practices -- Packer Survey	-	1	-	-	30	-	-	-	2	-	-
<b>Total</b>		-		-	-		-	-	-		-	-
<b>Publicity Materials for ALL surveys 2/</b>												
2018	All materials for all versions 4/	16,700	1	13,360	13,360	5	1,113	3,340	3,340	2	111	1,224
2019	All materials for all versions	123,500	1	98,800	98,800	5	8,233	24,700	24,700	2	823	9,056
2020	All materials for all versions	115,800	1	92,640	92,640	5	7,720	23,160	23,160	2	772	8,492
2021	All materials for all versions	100,250	1	80,200	80,200	5	6,683	20,050	20,050	2	668	7,351
<b>Total</b>		356,250		285,000	285,000		23,749	71,250	71,250		2,374	26,123
<b>Quality Control Survey (Telephone Only) - Recontact operators to verify quality of NASDA enumerators. 4/</b>												
2019	Quality Control Worksheet (phone only)	1,500	1	1,500	1,500	5	125	-	-		-	125
2020	Quality Control Worksheet (phone only)	1,500	1	1,500	1,500	5	125	-	-		-	125
2021	Quality Control Worksheet (phone only)	1,500	1	1,500	1,500	5	125	-	-		-	125
<b>Total</b>		4,500		4,500	4,500		375				-	375
<b>Annual Totals 2/</b>												
2018	Annual Totals 4/	35,660	1	27,796	27,796		21,349	7,864	15,924		765	22,114
2019	Annual Totals	125,760	1	100,618	140,876		99,396	25,142	150,604		6,012	105,408
2020	Annual Totals	133,260	1	106,618	148,326		101,799	26,642	159,154		6,228	108,027
2021	Annual Totals	100,150	1	80,120	111,130		76,110	20,030	135,520		5,186	81,296
<b>Annual Averages</b>		131,610		105,051	142,710		99,551	26,559	153,734		6,064	105,615
Average Burden per Respondent per Year		0.80248461			1.35848255		0.6975755		5.78840		0.03944	

1/ ARMS and Chemical Use surveys are conducted on a cyclical basis that does not follow a calendar year, but instead follows the crop production year. The ARMS phase 1 is conducted in the Spring and early Summer for that crop year. The ARMS II and Chemical Use Surveys are conducted in the Autumn for the current production cycle. The ARMS III is conducted the following year for the previous years expenses and income for both whole farm and commodity specific data.

2/ For annual totals the sample size does not include the counts from the publicity materials, since it is the same operators. However, the burden counts do include the burden associated with the publicity materials. The surveys that are attempted by mail will have the publicity materials included with the initial mailing. No publicity materials are sent out with the Contractor Expense Surveys.

3/ Contractor Expense Survey is conducted to collect and summarize the amount of farm input provided by contractors. This data is summarized and used to complete surveys when the farm operator cannot provide the contractor inputs for their farming operation.

4/ Publicity materials are not sent out to sampled operations that were contacted for a quality control survey.

Targeted commodities for this approval cycle:

Year	Survey	Target Commodity
2018	ARMS Phase II (PPCR)	Soybeans
	ARMS Phase II (PPR)	Corn and Peanuts
	Chemical Use	Vegetables <sup>2/</sup>
	ARMS Phase III	Soybeans and Cow-Calf
	Maryland Pesticide <sup>1/</sup>	All
	Minnesota Pesticide & Fertilizer <sup>1/</sup>	All Wheat, All Hay
	Mississippi Cropping Practices Survey <sup>1/</sup>	Corn, Cotton, Rice, Wheat
2019	ARMS Phase II (PPCR)	Cotton, Barley and Sorghum
	ARMS Phase II (PPR)	Wheat
	Chemical Use	Fruit
	ARMS Phase III	Cotton, Barley and Sorghum
	Maryland Pesticide <sup>1/</sup>	All
	Minnesota Pesticide & Fertilizer <sup>1/</sup>	Corn, Soybeans, All Hay
	Mississippi Cropping Practices Survey <sup>1/</sup>	Corn, Soybeans, Rice, Wheat
2020	ARMS Phase II (PPCR)	Corn and Rice
	ARMS Phase II (PPR)	Soybeans
	Chemical Use	Vegetables <sup>2/</sup>
	ARMS Phase III	Corn, Rice and Hogs
	Maryland Pesticide <sup>1/</sup>	All
	Minnesota Pesticide & Fertilizer <sup>1/</sup>	All Wheat, All Hay
	Mississippi Cropping Practices Survey <sup>1/</sup>	Corn, Cotton, Rice, Wheat
2021	ARMS Phase II (PPCR)	Wheat and Peanuts
	ARMS Phase II (PPR)	Cotton
	Chemical Use	Fruit
	ARMS Phase III	Wheat, Peanuts and Dairy
	Maryland Pesticide <sup>1/</sup>	All
	Minnesota Pesticide & Fertilizer <sup>1/</sup>	Corn, Soybeans, All Hay
	Mississippi Cropping Practices Survey <sup>1/</sup>	Corn, Soybeans, Rice, Wheat

PPCR - Production Practices and Costs Report

PPR - Production Practices Report

ARMS Phase III - Costs and Returns Report

<sup>1/</sup> Questionnaire samples that are submitted for the cooperator surveys represent the entire renewal period. Rather than submit the same questionnaires for each year.

<sup>2/</sup> The Vegetable Chemical Use questionnaire that is submitted is a master version and will be used for both years.



**13. Provide an estimate of the total annual cost burden to respondents or record-keepers resulting from the collection of information.**

There are no capital/start-up or ongoing operation/maintenance costs associated with this information collection.

**14. Provide estimates of annualized cost to the Federal government; provide a description of the method used to estimate cost which should include quantification of hours, operational expenses, and any other expense that would not have been incurred without this collection of information.**

The projected total cost to the Federal government to conduct the ARMS and chemical use surveys and prepare estimates is approximately \$18 million for fiscal year 2019, most of which is staff costs.

The projected total cost for the new Field Crop Production Practice and Chemical Use Surveys will be \$554,300 for fiscal year 2019, most of which is staff costs. The costs of these surveys will be reimbursed by the Maryland Department of Agriculture, Minnesota Department of Agriculture, Mississippi State University Extension Service and the Illinois Department of Agriculture. There will be no cost to the Federal government for the Field Crop Production Practice and Chemical Use Surveys.

**15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I (reasons for changes in burden).**

The new average annual burden is expected to be 105,615 hours, an increase of 14,407 hours above the current burden of 91,208 hours due to several program changes and adjustments. The new average number of contacts (296,444) shows an increase of 148,138 from the previous number of 148,306, mostly due to the inclusion of non-respondents in the number of contacts, which previously were not accounted for.

There are three primary program changes that are included in this renewal:

- The Microbial Food Safety Practices – Packer Survey was discontinued.
- The microbial questions have been dropped from the Fruit and Vegetable Chemical Use Surveys this time.
- NASS has been contacted by several State Cooperators and has contracted NASS to collect data for their specialty surveys. These surveys are being totally funded by the cooperators.

There are four primary agency adjustments that are included in this renewal:

- Adjusted samples sizes of the ARMS surveys due in part to the changes in target commodities and in part due to the low response rates previously obtained.
- Adjusted the sample sizes for the contractor expenses surveys.
- Adjusted the sample sizes for the rotation of the Fruit and Vegetable Chemical Use Surveys.
- Adjusted burden for additional publicity materials sent to expanded ARMS samples.
- Finally, to correct an error that occurred in the previous submission for the number of contacts made to non-respondents.

The Table below gives a more detailed breakdown of the adjustments.

<b>Explanation for Changes in Burden and Responses</b>		
	Total Number of Responses	Annual Burden Hours
Overall Beginning Balances	148,306	91,208
<b>Changes to ICR 1</b>		
<b>Program Changes</b>		
Discontinued Microbial Food Safety Survey	(2,400)	(1,200)
Dropped Microbial Fruit and Veg. Questions, Reducing Burden Minutes	-	(1,955)
Added EPA Surveys	14,386	9,883
Subtotal	11,986	6,728
<b>Adjustment</b>		
Adjusted Sample Sizes for ARMS surveys	25,318	6,947
Adjusted Sample Sizes for Contractor Expense Survey	(320)	(240)
Adjusted Burden to Allow for Fruit and Veg. Chem Use Rotation	(667)	(2,455)
Adjusted Burden to Allow for Publicity Materials for Increased ARMS samples		2,110
Subtotal	24,331	6,362
<b>Changes to ICR 2</b>		
<b>Program Changes</b>		
Discontinued Microbial Food Safety Survey	(600)	(20)
Dropped Microbial Fruit and Veg. Questions, Reducing Burden Minutes	-	-
Added EPA Surveys	11,744	543
Subtotal	11,144	523
<b>Adjustment</b>		
Adjusted Sample Sizes for ARMS surveys	21,682	801
Adjusted Sample Sizes for Contractor Expense Survey	(40)	(2)
Adjusted Burden to Allow for Fruit and Veg. Chem Use Rotation	(166)	(5)
Adjustment for Error in Previous Submission for Non-Responses	79,201	
Subtotal	100,677	794
<b>Changes to Totals</b>		
<b>Program Changes</b>		
Program Changes	23,130	7,251
<b>Adjustment</b>		
Adjustment	125,008	7,156
Ending Balances	296,444	105,615

- 16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.**

These tables are a summary of data collection, analysis, and publication dates.

Survey Schedules - Federally Funded Surveys					
Survey Year	Survey	Phase	Begin Data Collection	Conduct Analysis	Publish
2018	ARMS Screening Survey	I	May 2018	July 2018	NA
	Agriculture Resource Management Survey <sup>1/</sup>	II	Sept. 2018	Dec. 2018 - April 2019	May 2019
		III	Dec. 2017	Mar. - June 2018	August 2018
				Dec. 2017	Mar. - June 2018
	Fruit Chemical Use Survey		Oct. 2018	Jan. - June 2019	July 2019
2019	Integrated Screening Survey	I	May 2019	July 2019	NA
	Agriculture Resource Management Survey <sup>1/</sup>	II	Sept. 2019	Dec. 2019 - April 2020	May 2020
		III	Dec. 2018	Mar. - June 2019	August 2019
				Dec. 2018	Mar. - June 2019
	Vegetable Chemical Use Survey <sup>2/</sup>		Oct. 2019	Jan. - June 2020	July 2020
2020	ARMS Screening Survey	I	May 2020	July 2020	NA
	Agriculture Resource Management Survey <sup>1/</sup>	II	Sept. 2020	Dec. 2020 - April 2021	May 2021
		III	Dec. 2019	Mar. - June 2020	August 2020
				Dec. 2019	Mar. - June 2020
	Fruit Chemical Use Survey		Oct. 2020	Jan. - June 2021	July 2021
2021	ARMS Screening Survey	I	May 2021	July 2021	NA
	Agriculture Resource Management Survey <sup>1/</sup>	II	Sept. 2021	Dec. 2021 - April 2022	May 2022
		III	Dec. 2020	Mar. - June 2021	August 2021
	Contractor Expense Survey		Dec. 2020	Mar. - June 2021	NA

1/ All survey years correspond to calendar years, except for ARMS Phase III. ARMS Phase III is mailed out the last week of December and data collection is conducted in Jan-Apr of year following the survey year. E.g.: 2018 ARMS Phase III is conducted in Jan-Apr 2019.

2018	Agriculture Resource Management Survey <sup>2/</sup>	III	Dec. 2017	Mar. - June 2018	August 2018
	Contractor Expense Survey		Dec. 2017	Mar. - June 2018	NA
	Vegetable Chemical Use Survey <sup>2/</sup>		Oct. 2018	Jan. - June 2019	July 2019

Survey Schedules - Cooperator Funded Surveys					
Survey Year	Survey	Phase	Begin Data Collection	Conduct Analysis	Publish
2018	Maryland Pesticide Usage Survey		March 2019	Sept. 2019 - April 2020	May 2020
	Minnesota Pesticide & Fertilizer Survey		Feb 2019	June 2019 - Aug. 2020	Sept. 2020
	Mississippi Cropping Practices Survey	I	Aug. 2018	Aug. 2018 - Sept. 2018	NA
II		Oct 2018	Jan. 2019 - June 2019	July 2019	
2019	Maryland Pesticide Usage Survey		March 2020	Sept. 2020 - April 2021	May 2021
	Minnesota Pesticide & Fertilizer Survey		Feb 2020	June 2020 - Aug. 2021	Sept. 2021
	Mississippi Cropping Practices Survey	I	Aug. 2019	Aug. 2019 - Sept. 2019	NA
		II	Oct 2019	Jan. 2020 - June 2020	July 2020
2020	Maryland Pesticide Usage Survey		March 2021	Sept. 2021 - April 2022	May 2022
	Minnesota Pesticide & Fertilizer Survey		Feb 2021	June 2021 - Aug. 2022	Sept. 2022
	Mississippi Cropping Practices Survey	I	Aug. 2020	Aug. 2020 - Sept. 2020	NA

Examples of the questionnaires and other documents are attached to this submission in the ROCIS system.

In the time tables above, some of the 2018 surveys are already approved under the current OMB approval, and some of the 2021 surveys will be covered under the next approval request. These extra surveys were included in the list to provide the reader with the full picture of the rotation of surveys during this time period.

NASS continues with the practice that was started in 2007 when NASS began discontinuing the printing of complete publications for the ARMS and Chemical Use surveys. This was due mainly to the high costs of printing. In NASS's online Quick Stats database we publish overviews of the data for each of our surveys. If you need more complete data tabulations you can request them from one of our data specialists.

If you have specific questions related to **environmental or economic information** that you would like an expert to respond to, please e-mail Bruce Boess at [bruce.boess@nass.usda.gov](mailto:bruce.boess@nass.usda.gov) or call at 202-720-6146.

Current and historic publications for each of the surveys above can be obtained from the following sources:

Printed copies of our Quick Stats are available from NASS Publications Office by telephone (customer service at 1-800-727-9540 or 202-720-3878). Electronic access is available from the NASS Internet Web-site <http://www.nass.usda.gov>.

Specific publications can be found at the sites listed below.

Agricultural Chemical Use Program

[http://www.nass.usda.gov/Surveys/Guide\\_to\\_NASS\\_Surveys/Chemical\\_Use/index.asp](http://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Chemical_Use/index.asp)

Vegetable Highlights

[https://www.nass.usda.gov/Surveys/Guide\\_to\\_NASS\\_Surveys/Chemical\\_Use/2016\\_Vegetables/ChemUseHighlights\\_Vegetables\\_2016.pdf](https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Chemical_Use/2016_Vegetables/ChemUseHighlights_Vegetables_2016.pdf)

Fruit Highlights

[https://www.nass.usda.gov/Surveys/Guide\\_to\\_NASS\\_Surveys/Chemical\\_Use/2015\\_Fruits/ChemUseHighlights\\_Fruit\\_2015.pdf](https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Chemical_Use/2015_Fruits/ChemUseHighlights_Fruit_2015.pdf)

Agricultural Resource Management Survey (ARMS) Index page

<https://www.ers.usda.gov/data-products/arms-farm-financial-and-crop-production-practices/uses-and-publications/#uses>

Agricultural Resource Management Survey, Phase III (current and historical)

*Farm Production Expenditures*

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1066>

Agricultural Resource Management Survey, Phase II (historical)

*Agricultural Chemical Usage Field Crops Summary*

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1560>

Agricultural Resource Management Survey, Phase II (historical)

*Agricultural Chemical Usage – Livestock and General Farm Use*

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1569>

Chemical Use Survey, Fruit (historical)

*Agricultural Chemical Usage Fruit Summary*

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1567>

Chemical Use Survey, Vegetables (historical)  
*Agricultural Chemical Usage Vegetables Summary*

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1561>

Post-harvest Chemical Use Survey (historical)  
*Agricultural Chemical Usage Post-harvest Applications*

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1571>

In the NASS Quick Stats program, data users can have access to published data from current surveys. Quick Stats provides an overview of the data for most of the major surveys conducted by NASS. In this website users will also have access to predefined queries which will allow them to bring up various data relationships quickly for the commodities of interest.

[https://www.nass.usda.gov/Data\\_and\\_Statistics/Pre-Defined\\_Queries/index.php](https://www.nass.usda.gov/Data_and_Statistics/Pre-Defined_Queries/index.php)

NASS has begun to publish Methodology and Data Quality Measure reports for the public to have and use. The reports that have been completed thus far can be found at the following link:

[https://www.nass.usda.gov/Publications/Methodology\\_and\\_Data\\_Quality/index.php](https://www.nass.usda.gov/Publications/Methodology_and_Data_Quality/index.php)

NASS Research Reports

[https://www.nass.usda.gov/Education\\_and\\_Outreach/Reports,\\_Presentations\\_and\\_Conferences/Reports\\_by\\_Date/index.php](https://www.nass.usda.gov/Education_and_Outreach/Reports,_Presentations_and_Conferences/Reports_by_Date/index.php)

Copies of the November 2007 National Academies of Sciences, Committee on National Statistics (NAS-CNSTAT) report are available via the web at:

[http://books.nap.edu/openbook.php?record\\_id=11990&page=R1](http://books.nap.edu/openbook.php?record_id=11990&page=R1)

A response to the NAS-CNSTAT report can be found at:

[http://www.nass.usda.gov/Surveys/ARMS\\_Progress\\_Report.pdf](http://www.nass.usda.gov/Surveys/ARMS_Progress_Report.pdf).

- 17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

No approval is requested for non-display of the expiration date.

- 18. Explain each exception to the certification statement identified in Item 19, “Certification for Paperwork Reduction Act Submissions” of OMB Form 83-I.**

There are no exceptions to the certification statement.

May, 2018

Revised July, 2018