

1 Supporting Statement

**POULTRY SURVEYS**

OMB No. 0535-0004

**B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS**

- Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection has been conducted previously, include the actual response rate achieved during the last collection.**

The respondent universe and response rates for poultry surveys are shown below.

Response Rates for Poultry Surveys 2011						
Survey		Sample Size	Freq.	Total Contacts	Total Responses	Response Rates
Hatchery Surveys						
Hatchery Capacity Report	Annual	325	1	325	272	83.7%
Placement of Pullet Chicks for Hatchery Supply Flocks	Monthly	10	12	120	120	100.0%
Chicken Hatcheries	Weekly	164	52	8,528	8,400	98.5%
	Monthly	52	12	624	442	70.8%
Chicken and Egg Surveys						
December Livestock Survey	December	686	1	686	589	85.9%
Monthly Chicken and Egg Report	Jan - Nov.	481	11	5,291	4,185	79.1%
Turkey Surveys						
Turkey Hatcheries	Monthly	35	12	420	368	87.6%
Turkeys Raised	Semi-annual	889	2	1,778	1,359	76.4%

This docket consists of three groups of poultry surveys conducted by NASS. The poultry industry is somewhat complicated and technical compared to other

livestock industries, primarily because of operations which involve eggs that can be produced for human consumption or for breeding purposes. This section contains a summary of the various surveys and describes relationships among the poultry industries and how the universes are unique.

### **Hatchery Surveys:**

Hatchery Capacity Survey - The Annual Hatchery Capacity Survey is a census of all operations with a minimum hatch capacity of 1,000 turkey or chicken eggs. The capacity survey shows what the maximum possible production is, and allows a measure of how close to capacity hatcheries are operating. A complete census is conducted, with an 83.7 percent response rate for the last survey year.

Placement of Pullet Chicks for Hatchery Supply Flocks - This monthly survey is conducted by NASS Headquarters and obtains chicks hatched data on egg-type and broiler-type chicks intended for hatching flock replacements from leading breeders across the country. It also includes chicks expected from eggs sold during the preceding month by primary breeders. The indication shows the potential number of pullets available for addition to hatchery supply flocks several months before the pullets actually move into the flocks. While the companies may each have facilities in several States, NASS Headquarters collects this specialized data from the companies at the national level only. There was an average of 100 percent response rate for last year.

Chicken Hatcheries Survey - The hatchery surveys for chickens (broiler-type and egg-type) provide current data on the number of eggs set in incubators, the number of chicks hatched and the number of chicks placed. Eggs set, determines the forthcoming chick hatch. The placements in turn correlate to the number of broilers produced. The number of egg-type chicks hatched ultimately affects the table egg layer inventory.

The growing period for broilers is 6 to 7 weeks. Broiler producers and processors lag chick placement data by 7 weeks and have a reliable estimate of forthcoming broiler supplies. Egg set data which are also part of the Weekly Hatchery Survey provide an additional three weeks of lead time for marketers to adjust their marketing strategy. With broilers having such a short production period and the industry made up of large organizations with the capacity to over-produce, the Weekly Hatchery Survey closely monitors forthcoming supplies and contributes to orderly marketing of broilers.

The hatchery universe comprises of all known operations that hatch egg-type or broiler-type chicks on a commercial basis. The Hatchery Capacity Survey (above) is the main tool to establish the universe. The Weekly

Hatchery Survey consists of all broiler-type hatcheries in 19 selected States. The Monthly Hatchery Survey consists of 22 additional States with significant hatchery production. Because of the relatively small universe and the extreme variability between hatcheries, sampling to produce only national estimates would not produce the necessary accuracy needed. Response rates for weekly and monthly chicken hatcheries are 98.5 and 70.8 percent, respectively.

Hatcheries are asked to report the number of broiler chicks delivered to other States. This question alerts the State Field Offices to cross-state movements so that chick placement can be correctly recorded to determine the State in which they were grown for value of production estimates.

### **Chicken and Egg Surveys:**

Chicken and Egg Report and the December Livestock Survey - Voluntary reports from egg flock operators allow NASS to estimate monthly the number of layers on hand, rate of lay, and total egg production by type of flock (table egg flocks and hatching egg flocks). Estimates are made for layers (mature female chickens producing marketable eggs). Estimates of molting percentages are made for layers that are being force molted and those that have completed one or more forced molts. An estimate is also made for pullets (female chickens prior to laying the first marketable egg). Estimates of monthly egg production are based on the indicated daily rate of egg production on the first of the month. Rate of lay during the month is derived and multiplied by an estimate of the number of layers on hand during the month to estimate egg production for the month.

For the December surveys, NASS selects from its list frame: all known producers with operations with 20,000+ table egg layers; a sample of smaller operations that produce table eggs; all operations with hatchery supply flocks, and pullet only operations with 500+ pullets. The list frame for these surveys consists of all known egg producers (stratified as to type) which is maintained on the NASS List Frame. The December 2011 response rate was 85.9 percent.

All of the December contractors and independent producers with 30,000 or more table egg layers, hatchery-supply flocks, and 500 or more pullet operations are surveyed monthly (January through November). Nationally, the population of egg producers is highly skewed toward large producers. NASS makes an effort on each survey to account for all large producers. All hatching type operations are surveyed monthly regardless of size. The response rate for the monthly surveys averages 79.1 percent, accounting for approximately 96 percent of table egg layers. Coverage for operations with fewer than 30,000 table egg layers are estimated each month based on data reported in December.

Rate of lay and number of layers provide a measure of the current status of the nation's laying flock. Monthly laying rate when correlated with historic data provide a very reliable indicator of future rates of lay.

Producers follow the make-up of the December inventory as part of their decision making process to adjust their own inventory. Inventory numbers and rate of lay are watched closely as indicators of future supplies and possible impact on prices.

### **Turkey Surveys:**

Turkey Hatcheries Survey - The monthly turkey hatchery surveys basically provides the same information as described for chicken hatchery. Turkey hatchery survey data are collected for all known turkey hatcheries in the nation (currently this consists of 17 States). The data collected are eggs in incubators on the first of the month, the disposition of the poults hatched and poult placement information from the previous month. The data are published on a regional basis to avoid disclosure of individual operations. These data are used by the industry to evaluate the availability of birds during the year. Combined with the semi-annual Turkeys Raised Survey (below), the information is used to calculate production and value at the end of the year. The universe is defined as any operation in a State that has a turkey hatchery with at least 15,000 poults hatched annually. A census of the targeted turkey hatcheries is conducted with an average 87.6 percent response rate.

Turkeys Raised Survey - Growers are surveyed in September to get information on the number of birds they placed during the year by State which is used to set the number of turkeys raised by State. The growers are surveyed again in February to get information on the number of birds they placed during the year and the associated death loss, by State, to determine the number of turkeys raised by State. The price per pound received for finished birds is asked so a production value can be calculated. Annual estimates of production, disposition, and value are prepared for each State with 1 percent or more of the total U.S. production and no disclosure issues with the State. This survey is a Census of all contractors and large independent growers (1000+ birds). Smaller independent growers are sampled in two groups: medium size operations (50-999 birds) at a rate of 4 to 1 and small operations (49 or less birds) at an average rate of 100 to 1. Based on the turkey sold data from 2007 Census of Agriculture, operations with 1 - 1999 birds accounted 5,529 of the total of 8,284 operations with at least one turkey sold, however these operations accounted for 213,253 birds of the total of 295,793,159 birds sold. Thus since these smaller operations account for less the 1 percent of the total U.S. estimate they are sampled verses a census. The last response rate for this survey was 76.4 percent.

2. **Describe the procedures for the collection of information including:**
- **statistical methodology for stratification and sample selection,**
  - **estimation procedure,**
  - **degree of accuracy needed for the purpose described in the justification,**
  - **unusual problems requiring specialized sampling procedures**

There is very little duplication (overlap) of operations among the chicken hatcheries, turkey hatcheries, chicken growers, and turkey growers. One reason there is so little overlap is the potential for disease. Poultry are very susceptible to disease. Some poultry diseases are incurable and the only way to get rid of the disease is to destroy the entire flock, sanitize the farm, and begin anew. Another reason is that the birds must be cared for virtually around-the-clock seven days a week. Each type of operation is labor intensive and requires its own unique equipment, feed, labor, and housing, making it unfeasible to mix types of operations. Therefore, most operators receive only one type of questionnaire from the group included with this docket.

With the exception of the Chicken and Egg Reports and the Turkeys Raised survey, the universes are very small. These universes are accounted for primarily by mailed questionnaires with telephone follow-ups to non-respondents. Exceptions are situations where the respondents have specifically requested to be telephoned each reporting period rather than being mailed a questionnaire. In some instances, respondents fax the information. The Web reporting option has been made available for most of the surveys included in this docket.

Historically, egg, chicken, and turkey survey data were collected by individual State Field Offices. Within the last year, questionnaires and data collection tools have been standardized to allow for data to be collected from regional data collection centers, along with an increase in internet availability for all of the questionnaires. However, NASS has maintained a variety of data collection methods to accommodate individual respondent's preferences. The two primary data collection methods are the mailed questionnaire and the telephone follow-up for non-respondents which accounts for approximately 85% of the completed questionnaires. The remaining 15% completed questionnaires are done primarily by internet with some face to face interviews.

The Chicken and Egg Report covers all States monthly. For the December 1 survey, questionnaires are mailed to all operations with or expected to have 20,000+ table egg layers; a sample of smaller operations that produce table eggs; all operations with hatchery-supply flocks, and pullet only operations with 500+ pullets. Those not responding by mail are contacted by either telephone or personal interview. For the January -November surveys, only contractors and independent producers with 30,000 or more table egg layers, hatchery-supply flocks, and 500 or more pullet only operations are surveyed. Coverage for

operations with fewer than 30,000 table egg layers are estimated each month based on data reported in December.

Turkey growers are surveyed using a questionnaire mailed to the complete sampled list with a non-response telephone follow-up. In States where the enumeration is not complete, estimates for non-respondents are made by computing a percent change for growers reporting for both the current year and the previous year. The indicated percent change is then multiplied by the previous year's estimate. Data from turkeys hatched is an important indicator of turkeys raised.

The intended placement of pullet chicks for hatchery supply flocks is an exception because it is conducted from NASS Headquarters; questionnaires are mailed from and received there. HQ poultry statisticians summarize the data and prepare it for publication.

- 3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.**

Indications from the chicken and turkey surveys provide reliable estimates. The 29 major chicken egg producing States account for approximately 94 percent of the nation's total egg production. The 21 major turkey producing States, conduct the semi-annual Turkeys Raised Survey. Of these States, the 13 published States account for 85% of the total US production. The remaining 29 minor States are modeled from the 2007 Census of Agriculture, thus allowing NASS to publish a US level estimate.

Survey data are subject to non-sampling errors such as omissions and mistakes in reporting and in processing the data; they are minimized by carefully reviewing all reported data for consistency and reasonableness.

- 4. Describe any tests of procedures or methods to be undertaken.**

Statisticians have frequent contact with egg, chicken, and turkey producers when collecting data and at association meetings. Procedures and methods are discussed with respondents and data users to seek improvements.

- 5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

Survey design and methodology are determined by the Statistical Methods Branch, Statistics Division; Branch Chief is Dave Aune, (202)720-4008.

Sample sizes for each State and support of FO list frame activities for the poultry surveys are supplied by the Sampling Branch, Census and Survey Division; Branch Chief is William Iwig, (202)720-3895.

Data collection is carried out by NASS Field Offices; Eastern Field Operation's Director is Norman Bennett, (202) 720-3638 and the Western Field Operation's Director is Kevin Barnes (202) 720-8220. Survey data are also reviewed and summarized by the State Field Offices. Publications are released from the State Offices and Headquarters.

Data collection is coordinated by the Program Administration Branch, Chief, Christine Messer (202) 690-8747. The survey statisticians are responsible for coordination of sampling, questionnaires, data collection, training, Interviewer's Manuals, Survey Administration Manuals, data processing, and other Field Office support.

The NASS commodity statisticians in Headquarters responsible for the Poultry Surveys are Cody Brockmeyer, Kim Linonis and Mistie Salmon in the Poultry and Special Commodities Section, Livestock Branch, of Statistics Division; Branch Chief is Dan Kerestes, (202)720-3570. Commodity statisticians are responsible for HQ collection of breeder data, national summary data, and publication.

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