

Supporting Statement

POULTRY SURVEYS

OMB No. 0535-0004

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

- 1. 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 Stocks Surveys 2008						
Survey		Sample Size	Freq.	Total Contacts	Total Responses	Response Rates
Hatchery Capacity Report	Annual	338	1	338	309	91.4%
Placement of Pullet Chicks for Hatchery Supply Flocks	Monthly	13	12	156	108	69.2%
Chicken Hatcheries	Weekly	180	52	9,360	8,840	94.4%
	Monthly	144	12	1,728	1,548	89.6%
	Annual	12	1	12	6	50.0%
Chicken and Egg Surveys						
December Livestock Survey	December (EO's)	1,075	1	1,075	882	82.0%
Chicken and Egg Report	December (non EO's)	2,591	1	2,591	2,114	81.6%
Monthly Chicken and Egg Report	Jan - Nov.	602	11	6,622	5,615	84.8%
Turkey Surveys						
Turkey Hatcheries	Monthly	35	12	420	392	93.3%
Turkeys Raised	Semi-annual	1,043	2	2,086	1,774	85.0%
Hawaii Chickens						
Chicken and Egg Report – Layers	Monthly	14	12	168	136	81.0%
Chicken and Egg Report – Pullets	Monthly	29	12	348	278	79.9%
Monthly Hatchery and Inshipment Report	Monthly	3	12	36	32	88.9%
Totals		6,079		24,940	22,034	88.3%

This docket consists of six types 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 Capacity Survey - This survey is conducted annually. The universe consists of the chicken and turkey hatcheries included in the weekly, monthly, and annual hatcheries described below. 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 a 91.4 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 a 69.2 percent response rate for the last survey, accounting for approximately 98 percent of the intended placements.

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. At the end of the year, an intensive effort (Annual Hatchery Survey) is made to obtain missing information for hatcheries not reporting during the year and to include a small number of hatcheries in a few minor producing States making estimates only annually. 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, monthly, and annual chicken hatcheries are 94.4, 89.6, and 50.0 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 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 1,600+ 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 by each State Field Office. The December 2008 response rate was 82.0 percent for the large or Extreme Operators and 81.6% for the smaller operators.

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 84.8 percent, accounting for 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.

The Poultry Surveys in Hawaii were separated from the rest of the U.S. in both the Burden Table in Part A and in the Respondent Table in Part B. Although the questionnaires are similar they do ask a few extra questions on each version as a part of a State cooperative agreement with Hawaii. The methodology and burden per questionnaire are the same as it is with the rest of the country.

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 15 States). The data collected are eggs in incubators on the first of the month, the disposition of the poults hatched and poults 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. A census of the turkey hatcheries is conducted with an average 93.3 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 2 to 1 and small operations (49 or less birds) at an average rate of 25 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 than 1 percent of the total U.S. estimate they are sampled versus a census. The last response rate for this survey was 85 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.

Egg, chicken, and turkey survey data are collected by individual State Field Offices, with the exception of the "Placement of Pullet Chicks for Hatchery Supply Flocks" survey. Data collection methods vary by office and by individual respondent within a State office. The basic data collection method is the mailed questionnaire which is an inexpensive and time-tested method. However, some data is collected by telephone, facsimile, personal interview and internet.

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 1,600+ 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 93 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 14 published States account for 88% 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. Most of the surveys are complete enumerations.

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 State Field Offices; Deputy Administrator for Field Operations is Marshall Dantzler, (202)720-3638.

The NASS commodity statisticians in Headquarters responsible for the Poultry Surveys are Sharyn Lavender, Kim Linonis and Troy Marshall 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 survey administration, support for FO activities, HQ collection of breeder data, national summary data, and publication.

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