

**HONEY SURVEY**

OMB No. 0535-0153

**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 target population for the Bee and Honey Survey is all U.S. commercial apiaries with five or more colonies. NASS maintains a list qualifying apiaries which serves as the sampling frame for the survey.

Most states have lists of beekeepers in the Office of the State Apiarist. These lists are reasonably complete and current. Beekeeper lists are also received from trade groups and other government agencies. Every five years, NASS conducts the census of agriculture of all farms. A comprehensive list building and review effort precedes each census. A few additional commercial apiaries may be discovered from census responses. Number of colonies is captured for each apiary and maintained for use in stratification. These control data are refreshed after each Bee and Honey survey and after each census. The sampling frame is considered to have good coverage of the target population.

The sample to be selected from these lists is stratified by size groups using number of colonies. The sample also is stratified using standard strata definitions listed below. States enumerate all large producers and those with cross-state operations with certainty. The remaining producers are sampled.

<b>Bee &amp; Honey Strata Number and Definitions</b>		
99	New Add	EO
98	Multi-state Operation	EO
89	Operations with $\geq 2\%$ of total honey producing colonies within a state with more than 5 honey producing colonies.	EO
88	Operations with $<2\%$ and $\geq 1\%$ of total honey producing colonies within a state with more than 5 honey producing colonies	
87	Operations with $<1\%$ of total honey producing colonies within a state with more than 5 honey producing colonies.	
79	Operations with $\geq 1\%$ of total colonies within a state with more than 5 total colonies but less than 5 honey producing colonies.	EO
78	Operations with $<1\%$ within a state with more than 5 total colonies but less than 5 honey producing colonies.	

EO = Extreme Operator, or the largest producers.

In 2012, the population count per the sampling frame was 10,579 of which 6,064 were preselects based on size and cross-state operations. The remaining operations were sampled at a rate of about 1 in 3. The total sample size was 7,565. The pre-selects represent about 79 percent of the frame total number of colonies.

2012 Response Rates					
Survey	Sample Size	Freq.	Total Contacts	Total Responses	Response Rate
Bee and Honey	7,565	1	7,565	5,788	76.5%

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**

The sample design associated with the Bee and Honey Survey is a basic stratified sample design, where the strata are based on the number of colonies per operation. Strata boundaries are custom by State, depending on the distribution and size of operations. The survey is conducted in all States. Most States have 300 or fewer operations and all eligible operations are included in the Bee and Honey sample.

Questionnaires are mailed in mid-December and data collection is completed by mid-February to reflect the December 15 honey stocks. Beekeepers not responding by mail or internet will be attempted by telephone or in person. The telephone enumerators conduct the interviews using computer assisted telephone interviews (BLAISE). In-person contacts are used if requested by the operator or if there were reporting difficulties such as with cross-State producers. Headquarters acts as the clearing house for multi-State data between FO's.

All states execute a survey summary prepared in Headquarters. Review of summary results and preparation of estimates by Field Offices are completed by early March and sent to Headquarters. Survey estimates are based on direct expansions and ratio estimates from matched reports to the previous year's survey. The census of agriculture provides a benchmark every five years to evaluate survey performance.

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.**

NASS has well-established, long-term relationships with the larger operations and respondents are familiar with the instrument and purposes of the survey so there is a good response. Some operators make special arrangements with NASS FOs to report by phone or personal interview. The mail response for the 2012 survey was 36.3 percent. Telephone follow-up is conducted for the non-respondents. NASS employs a staff of experienced phone enumerators in 5 calling centers. All Bee and Honey calling was done by two of these calling centers. Calling is performed by a core set of enumerators who are trained to administer this survey by phone and are monitored by supervisors for quality control. Non-respondents were attempted up to 10 times.

After data collection closes, non-respondents in strata labeled as "EO" preselects are manually imputed and the remaining strata are reweighted. In 2012, the preselects accounted for 75 percent of the total honey production. In general, state level CVs range from 0.5 to 10.0 with the larger producing states under 2.0. As a general rule, NASS designs surveys to produce CVs under 5 for the large states and under 10 for the smaller producing states. Ten states with disclosure issues are collapsed and published as "Other States". With non-response follow-ups, the resulting estimates provide reliable and useable measures of this industry.

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

No test of procedures is proposed for this survey.

**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.**

The sample size for each State is determined by the Sample Design Section, Census and Survey Division; Section Head is Eric Porter, (202)720-5269.

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.

The NASS commodity statistician in Headquarters for the bee and honey survey is Lakeya Jones, (202)720-0585, in the Poultry and Specialty Commodities Section of the Livestock Branch, Statistics Division. The Livestock Branch Chief is Dan Kerestes (202)720-3570. Commodity statisticians are responsible for national and regional summaries, analysis, presentations to the Agricultural Statistics Board for final estimates, publication, and the Estimation Manual.

The NASS Survey Administrative Statistician in Headquarters for the Bee and Honey Survey is Amy Bailey (202) 720-0305, in the Commodity Surveys Section of the Survey Administration Branch, Census and Survey Division; Branch Chief is Barbara Rater, (202) 720-3895. The Survey Administrator is responsible for coordination of sampling, questionnaires, data collection, training, Interviewers Manual, Survey Administration Manual, data processing, and other Field Office support.

The national summary is the responsibility of the Statistical Methods Branch, Statistics Division; Branch Chief is Dave Aune, (202)720-4008.

April 2013

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