SUPPORTING STATEMENT

2019 Census of Horticultural Specialties
OMB No. 0535-0236

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.

Horticultural crops include bedding plants, potted flowering plants, cut flowers, cut cultivated florist greens, herbaceous perennials, foliage plants, trees, shrubs, ground covers, vines, fruit and nut trees, sod, dry bulbs, greenhouse produced vegetables, commercial vegetable transplants, vegetable and flower seeds, Christmas trees, short term woody crops, aquatic plants, unfinished or prefinished plants, propagation materials, and other nursery or greenhouse plants, excluding mushrooms and mushroom spawns.

The potential respondent **universe** for this collection includes all commercial nurseries and/or greenhouse operations identified on the NASS List Frame which includes all operations identified by the 2017 Census of Agriculture and any new operations that have come into business after the census.

The 2019 Census of Horticulture employs a census and a sample to describe this universe. A census is conducted of all commercial nurseries and/or greenhouses which produce and sell, or have the potential to produce and sell, $10,000 or more of the items of interest (that is, they are sampled with certainty). According to the 2017 Census of Agriculture these operations account for approximately 99.5% of all horticulture sales. A random sample of approximately 4,000 horticulture operations with sales of less than $10,000 will be included to account for the smaller operations.

The supplemental names come from list building activities conducted by NASS State and Regional Field Offices, using lists of operations obtained from State Plant Inspectors, growers associations, or from operations that have sold their business and have identified the new operators.

Response rates for the data collection done in 2015 for the 2014 reference period is in the following table.

Census of Horticulture - Response Rates for 2014					
Survey	Sample Size	Freq	Total Number of Respondents Contacted or Attempted *	Total Number of Respondents Who Completed the Survey	Response Rates
Census of Horticulture	40,348	1	30,406	22,421	73.7%

* From the original sample size of 40,348 there were 8,462 operations that were screened out, (no items of intrest, out of business, out of scope, etc.). From the adjusted sample of 30,406 in scope records. NASS received 22,421 records with positive data for a response rate of 73.7%.
With an increase in publicity and promotion with industry organizations, NASS anticipates a higher response rate for the 2019 survey.

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 NASS List Frame (ELMO) will be used to create the sample listing for the 2019 Census of Horticulture. The sample will be comprised of all operations in ELMO with control data indicating that the operation is reasonably likely to be involved with horticulture Sales >= $10,000, plus a sample of records with horticulture sales < $10,000 including operations that indicate they may have horticultural crops. An attempt to contact every such operation will be made. These operations will then be stratified by horticulture sales data from ELMO and non-response weights will be computed to account for anyone who doesn't respond to the Census of Horticulture for each stratum. Non-response adjusted weights will be integerized for summarization.

Operations that were not included in the initial sample master can be added to the sample if they meet the new add rule for Horticulture. These operations either began operating after the 2017 Census of Agriculture or they were farming operations at the time of the Census of Agriculture, but since then they have expanded their operation(s) to include one or more of the target crops listed in item 1 above.

All records determined to be "new-adds" will be placed in a single stratum and given a final summary weight of one (1).

Estimation will occur by simply multiplying individually reported data by the integerized non-response adjusted weight from the Census of Horticulture. Estimates will then be aggregated by State, Region and United States for publication purposes. All estimates will be run through a disclosure algorithm that ensures all published numbers adhere to agency disclosure policies. Any estimate that fails the disclosure test will be suppressed from 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.**

Extensive efforts are used to maximize response and thus reduce the extent of non-response imputation in the census. A public information campaign will again be used for the 2019 Census of Horticultural Specialties. The objective is to make growers aware of the census, its importance to them and to encourage their response. This campaign will work through farm organizations, radio broadcasters, farm press, agribusinesses, and the field and regional offices operated by NASS.

To ensure a high response rate and to eliminate the need for large non-response adjustment NASS will make the questionnaire available by both internet and by traditional mail. NASS will follow up the initial mailing of the questionnaire with a second mailing to non-respondents. Remaining non-respondents will then be attempted by either telephone enumeration or personal visits by one of our field enumerators or Field Office staff. When response cannot be obtained from operations, data will be imputed using the 2017 Census of Agriculture and information from similar operations that responded to the 2019 Census of Horticultural Specialties.

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

Only minor changes have been made to the questionnaires since the 2014 Census of Horticulture survey was conducted. Therefore, NASS will not be conducting any tests of the questionnaire this time.

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.

Sample size for each State is determined by the Sampling Branch, Census and Survey Division; Branch Chief is Mark Apodaca, (202) 720-5805.

Summary programs are prepared by the Agency's Statistical Methods Branch; Branch Chief is Jeff Bailey, (202) 720-4008.

Data collection operations are carried out by NASS Regional Field Offices; Western Field Operation's Director is Troy Joshua, (202) 720-8220. Eastern Field Operation's Director is Jay Johnson, (202) 720-3638.

NASS HQ survey administrator is LaKeya Jones of the Census Planning Branch (202) 690-8764. The Census Planning Branch Chief is Donald Buysse (202) 690-8747.

The Fruits, Vegetables and Specialty Crops Section Head is Jorge Garcia-Pratts (202) 720-2131 in the Crops Branch and the Crops Branch Chief is Lance Honig (202) 720-2127.

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