

Supporting Statement - Part B

**Nursery and Christmas Tree Production Survey
and
Nursery and Floriculture Chemical Use Survey**

OMB No. 0535-0244

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 following 17 States will be included in the Nursery and Christmas Tree Production Survey. They account for over 70 percent of the nursery production in the United States.

Alabama	Illinois	North Carolina	Tennessee
California	Michigan	Ohio	Texas
Connecticut	New Jersey	Oregon	Virginia
Florida	New York	Pennsylvania	Washington
Georgia			

The universe for the Nursery Production Survey consists of all operations identified on the NASS list frame in these 17 states with indicators of nursery production and sales of \$10,000 or more. All nursery operations that produce the commodities of interest and have a value of sales indicator on the NASS list frame of \$10,000 or greater in the 17 States listed above will be selected for the nursery production survey. The commodities for which NASS will make production estimates include: transplants for commercial vegetable and strawberry production, propagative nursery materials, broadleaf evergreens, coniferous evergreens, deciduous shade trees, deciduous flowering trees, deciduous shrubs, fruit and nut plants, Christmas trees, palms, ornamental grasses, and other woody ornamentals and vines. Operations with current sales of between \$10,000 and \$99,999 will be asked to report total sales area in production and a few basic labor questions. Operations with \$100,000 in sales or more will be asked detailed production data.

The Nursery and Floriculture Chemical Use Survey universe consists of all operations selected for the Commercial Floriculture Survey (OMB# 0535-0093) or this Nursery and Christmas Tree Production Survey. The Chemical Use Survey is a sub-sample of operations selected for either of the two production surveys. Sampling will be across all production areas as identified on the NASS list frame. This includes the nursery categories listed above as well as the following floriculture production categories: cut flowers, potted flowering plants for indoor or patio use, bedding and garden plants, foliage plants for indoor or patio use, floriculture propagation materials, cut cultivated greens, and herbaceous perennials.

Average Response Rates							
Survey	Data Year	Year Survey Conducted	Universe	Sample Size	Percent Response	Percent Refusal	Percent Inaccessible
Nursery and Floriculture Chemical Use ¹	2003	2004	27,500	4,154	76.4	16.4	7.2
Nursery Production Survey	2003	2004	13,399	13,399	83.7	13.1	3.2
Oregon Nursery Production Survey	2005	2006	2,151	787	89.7	10.3	0.0
Oregon Christmas Tree Production Survey	2005	2006	1,993	991	76.0	24.0	0.0

¹ The Floriculture Production Universe consisted of 17,146, the Nursery Production Universe consisted of 13,399. After combining the two universes, we removed 3,047 records because they were in both the Floriculture and Nursery universes, leaving us with the Chemical Use universe.

A small number of operations may be selected in both the Commercial Floriculture Survey and in the Nursery and Christmas Tree Production Survey. These operations will be selected for the chemical use survey and identified prior to data collection to minimize the number of contacts. In addition, operations that are selected in the Chemical Use Survey will be coordinated for one contact so that the production information is collected at the same time as the chemical use data.

2. Describe the procedures for the collection of information.

The Nursery and Christmas Tree Production Survey is designed primarily as a mail survey with phone or personal follow up. Nursery and floriculture production operations that are sub-sampled for inclusion in the Floriculture and Nursery Chemical Use Survey will be personally enumerated; data for both surveys will be collected in the one contact if possible.

Nursery and floriculture production questionnaires that are mailed out will be accompanied by a letter of endorsement from the respective industry associations. A pre-survey letter has also been sent out to the States to use at their discretion. Some States will send it out ahead of the mailing of the questionnaire, some States will send it out with the questionnaire. States will base their decision on when to mail the letters based on previous experiences, to maximize their mail returns. Production questionnaires that match up with the Nursery and Floriculture Chemical Use Survey will be conducted by personal interview.

A publicity flier has been created that the State offices can display at trade shows or include in State trade magazines advertising the importance of the surveys and how this data will be used to help the nursery and floriculture industry.

The nursery production questionnaire will take approximately 35 minutes to complete. The chemical use questionnaire will take approximately 60 minutes of the operators time. With larger operations, the field enumerators have been left with the respondent's records to copy chemical data, while the operator returns to work; thus helping to minimize the burden on the respondent.

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.

Information on the data needs of users is routinely requested and data users are involved in survey content development. The American Nursery and Landscapers Association and the Society of American Florists were consulted frequently during the design of the survey instruments. Data User meetings are held yearly and give all interested individuals the opportunity to express their data needs. NASS makes every effort to accommodate the needs of the U.S. public.

NASS's Marketing and Information Services Office (MISO) is responsible for promoting NASS survey efforts and educating respondents about the need and use for the data they are being asked to provide. MISO works with data users and industry leaders to provide concrete examples of data use. They are also actively publicizing survey activities by generating and distributing news reports and drop-ins for industry publications and news outlets.

The publicity flier, advance letters, industry letters, and news reports are used to encourage response. For non-response, the nursery production mail survey will have telephone or personal follow up. Operations selected for the chemical use survey will be personally interviewed by enumerators with follow-up as needed.

The chemical use sample survey is designed so that estimates are statistically representative of chemical use on nursery and floriculture commodities. The reliability of the survey results is affected by sampling variability and non-sampling errors. Sampling variability is a measure of how the estimates would differ if other samples had been drawn; it is expressed as a percent of the estimate called the coefficient of variation (CV). For the January 2004 survey, the variability of the estimates differed considerably by chemical. In general, the more often the chemical was applied, the smaller the sampling variability. For the more commonly used chemicals, CV's ranged from 5-50 percent at the six-State program level; other, more rarely used items ranged from 50-200 percent. Items with CV's above 200 percent or that had an insufficient number of reports were not published.

Non-sampling errors occur during a survey process but, unlike sampling variability, are difficult to measure. They may be caused by interviewers failing to follow instructions, poorly worded questions, non-response, problematic survey procedures, or data handling mistakes between collection and publication. In this survey all survey procedures and analyses were carried out in a consistent and orderly manner to minimize the occurrence of these types of errors.

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

NASS's experience with previous production and chemical use surveys has been beneficial in designing the surveys covered in this docket. Extensive information gathering interviews have been conducted, the questionnaire has been developed with the assistance of greenhouse operators and nursery growers.

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), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Specifications and survey design were developed by Statistical Methods Branch, Statistics Division; Branch Chief is Dave Aune, (202)720-4008.

The sampling plan was developed by the Sample Design Section of the Sampling Branch, Census and Survey Division; Branch Chief is Bill Iwig, (202)-720-3895.

Data collection and editing is carried out by NASS State Statistical Offices; Deputy Administrator for Field Operations is Marshall Dantzler, (202)720-3638.

The NASS survey statistician in Headquarters for both of these surveys is David Hancock , (202) 690 - 2388 in the Environmental and Economic Surveys Section of the Survey Administration Branch, Census and Survey Division. He is responsible for coordination of sampling, questionnaires, data collection, data processing, and FO support.

The NASS commodity statistician in Headquarters for the chemical use survey is Liana Cuffman, (202) 690 - 0392 in the Environmental and Demographics Section of the Environmental, Economics, and Demographics Branch, Statistics Division. She is responsible for analysis, summary, and publication.

The NASS commodity statistician in Headquarters for the nursery production survey is Doug Marousek (202) 720 - 4215 in the Fruit, Vegetable, and Special Crops Section of the Crops Branch, Statistics Division. He is responsible for analysis, summary, and publication.

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