

Supporting Statement
VEGETABLE SURVEYS

OMB No. 0535-0037

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.**

Sample sizes, responses, and individual response rates for each group of surveys are shown in the table below. These sample sizes were used to estimate future sample sizes in Item #12 in Supporting Statement A.

Asparagus, onion, strawberry, and other fresh market vegetable growers are sampled to represent the State. The asparagus, onion, and strawberry samples are stratified by commodity and size with the larger acreage growers being sampled more heavily than the smaller acreage growers. The Vegetable Growers Inquiry is a Multivariate Probability Proportional to Size (MPPS) designed sample targeting specific vegetable commodities in each State. Data collection is usually by mail and EDR, with telephone follow-up and personal enumeration when needed.

Vegetable processors establish contracts with growers to provide a steady supply of vegetables for processing. As a result, processors decide utilization and are the primary source of information. Complete enumeration of the processing firms is used because of the relatively small number of firms involved in each state.

The response rates for all of the vegetable surveys are expected to increase in future years. Contact to the same producer will be reduced to at most 2 per year with consolidated questionnaires. States will increase the amount of phone and personal enumeration they will be conducting in the coming years. In the past, States would attempt to contact respondents until they reached at least an 80% coverage rate of the commodity. To help strengthen the quality of the data, they are now trying for a minimum response rate of 80%, with special emphasis being placed on the larger growers and processors to try and exceed 90% or more of the target commodity acreage.

Response Rates for Vegetable Surveys						
Survey	QID	Sample Size	Freq.	Total Contacts	Total Responses	Response Rates
Vegetables Forecast						
Asparagus	123371	300	1	300	238	79.3%
Strawberry	123370	2,100	1	2,100	1,531	72.9%
Onion	123372	1,500	1	1,500	1,131	75.4%
Processors	123388	500	1	500	445	89.0%
End of Season Vegetables						
Strawberry	123414	500	1	500	351	70.2%
Onion	123433	1,500	1	1,500	1,178	78.5%
Processors	123441	500	1	500	388	77.6%
Vegetable Grower Inquiry	133501	20,000	1	20,000	14,000	70.0%
Cucumbers for Pickles	123415	200	1	200	152	76.0%
Specialty Surveys						
Chile Grower Survey	QID	500	1	500	417	83.4%
Chile Buyer & Processor Survey	QID	10	1	10	9	90.0%
Vegetable Survey - Delaware	QID	600	1	600	463	77.2%
Annual Specialty Crops Survey - Hawaii	QID	700	1	700	567	81.0%
New England End of Season Fruit & Vegetable Inquiry	QID	3,600	1	3,600	2,520	70.0%
Vegetables End of Season - New Jersey	QID	500	1	500	271	54.2%
Processed Tomato County Estimates - California	QID	27	1	27	22	81.5%

- 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**

Currently, questionnaire content, survey timetables, and survey administration are established by HQ and followed by all States except for State surveys which are administered by the respective Field Offices. The master questionnaires submitted are reduced in size to only include the commodities of interest. Data are gathered by telephone interviews, mail-out/mail-back, faxed questionnaires, personal interviews and EDR. Data accuracy and respondent burden are taken into account in conducting the surveys. The most desirable method is complete enumeration; when this is not possible, a sample is used. Because of the variable nature of the vegetable industry, mail lists are frequently updated to ensure maximum coverage.

As a part of one of the major internal initiatives NASS is undertaking; NASS has begun transitioning towards a centralized database processing environment. While obtaining a centralized environment is a major benefit of this plan, there are several other important benefits to be gained. Benefits derived not only from centralization, but from streamlining the process, upgrading our tools, and

migrating all surveys, estimates, products, etc. to the new environment. Some currently used tools will only need a new communication bridge to the centralized databases, while other tools will need to be completely re-engineered.

NASS is also working to improve the efficiency of our regional data collection centers under another major initiative. With the standardization of questionnaires for specialty commodities, the phone enumerators can be better trained to collect this very specialized data. This should be indicated by a future reduction in unique vegetable survey questionnaires, number of contacts, and respondent burden along with an increase in response rates.

Once the transition is complete, NASS will have a standard series of 'services' and tools available that will perform all project tasks needed from survey inception to publication of estimates. In addition, the current stand-alone business processes, which number in the hundreds, will be reduced to one process with three data collection and editing models. This will not only reduce IT maintenance and employee training on different systems, but will improve the staff's capability of transferring their skills from one survey or commodity to the next. The centralized environment will remove many of the barriers to shifting work activities between work units in different geographic locations. A major long term benefit of the transition will be more time for data analysis and review, rather than spending that time logistically moving the data from system to system.

The fresh market vegetable program consists of one forecast for asparagus, onions, and strawberries followed by annual estimates for the remaining vegetable crops in the major producing States.

The sample for fresh market vegetable survey is selected from the NASS list frame of over 2 million farms. Vegetable control data is captured from Census responses, other NASS surveys and administrative lists which NASS gets from other federal agencies and grower associations. Once all data are updated on the NASS list frame, an MPPS sample is selected by State using the vegetable(s) being published in that State as the targets. For example if NASS is only publishing sweet corn in a State then only the sweet corn acreage will be used in establishing targets. While in another State sweet corn and cabbage are being published, then NASS will sum the sweet corn and cabbage acreage to establish targets to select the sample from.

Vegetable processing firms are contacted by the Field Office (FO) for the State in which the headquarters plant is located. That FO in turn provides the other States with data obtained for plants located in their State. Processors are surveyed in September for acreage of vegetables for processing. In November, processors are asked for final acreage harvested, yield/production, and value for the above crops. California tomato processors are surveyed separately for intended acreage; preliminary acreage; and final acreage, production, and price.

At a minimum, State level questionnaires will contain the commodities of interest for US level estimates. However, as a part of the State Cooperator agreements we have with many State Governments; who have asked us to collect data for additional vegetables not in the Federal program, some of our questionnaires will contain additional crops that do not appear in our national publications. Five examples included here are the Chile Grower Survey, Delaware Vegetable Survey, Hawaii Annual Specialty Crops Survey, New England End of Season Fruit & Vegetable Inquiry, and End of Season Vegetables for New Jersey. To help reduce burden on both the respondent and on Field Office staff, we include these extra crops on existing questionnaires when possible, so we only have to contact the respondent one time each season. The data will be published in State level releases or at a minimum it will appear in the States Annual Bulletin.

- 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.**

Data reported on vegetable inquiries are used by the National Agricultural Statistics Service to estimate acreage, yield, production, and utilization for thirty-three crops. The 33 crops include different types of some commodities like Spring and Summer onions as well as bell and chile peppers. Reports are published in September and at the end of the crop year. Data are used by many State and Federal agencies and Departments, the vegetable industry, agribusinesses, manufacturing, transportation organizations, educational institutions, foreign governments, and international groups.

While seeking these data, the Field Offices (FO) take great care to keep respondent burden to a minimum. Most contacts have a long-standing relationship with the servicing FO. Surveying processors instead of the farmers who grow vegetables for processing greatly reduces respondent burden. Most fresh market farmers who produce multiple crops are sent one questionnaire listing all of the commodities grown so they only need to complete one form. When more than one questionnaire must be mailed at the same time, they are combined into one mailing.

Information for the vegetable surveys (list frame) is collected via mail, internet, telephone interview, and face-to-face interview. The mix of data collection modes is determined by each Field Office according to resources available. Over half of the information is obtained by telephone. Mail and telephone non-contacts are followed up with face-to-face enumeration. The entire sample is accounted for. As a rule, large operations and operations requiring special handling (previous survey refusals and inaccessibles, complex operations, etc.) are contacted for a face-to-face interview only.

Included in the attached sample questionnaires are the "Master" versions. These are comprehensive questionnaires that include all crops that data is collected for, nationwide. States will have shorter versions of the questionnaires that contain only the commodities produced in their State. By customizing these questionnaires NASS is able to keep the respondent burden to a minimum.

Survey data are subject to non-sampling errors such as omissions and mistakes in reporting and in processing the data. While these errors are not measured directly, they are minimized by carefully reviewing all reported data for consistency and reasonableness. An estimation manual helps in maintaining consistency across surveys and Field Offices.

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

The main validation of current procedures is to remain in contact with vegetable growers, processors, and industry leaders and solicit their expert advice. Following each Census of Agriculture (every 5 years), NASS conducts a complete program review of all crop and livestock commodities. NASS verifies which States are included in the different surveys for each commodity in order to produce accurate estimates.

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 are determined by the Data Collection Branch, Census and Survey Division; Branch Chief is Scott Cox, (202)720-6201.

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 vegetable surveys is Debbie Flippin, (202) 720-2157, in the Fruits, Vegetables, and Special Crops Section of the Crops Branch, Statistics Division. She is responsible for the Estimation Manual, national summaries, analysis, presentations to the Agricultural Statistics Board for final estimates, and publications.

The survey administration of the vegetable program is carried out by the Survey Development Support Branch, Census and Survey Division; Branch Chief is Dave Kleweno, (202) 720-2248. His staff is responsible for the coordination of

sampling, questionnaires, data collection, data processing, and other FO support.

February, 2013

Revised June, 2013