

## AQUACULTURE SURVEYS

OMB No. 0535-0150

### 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.**

Trout and Catfish Growers: NASS Field Offices maintain a list of all known trout and catfish producers. An attempt is made to obtain a response from every operation on the list during each survey period. The list frame is updated as NASS learns of new operations, including those from the Census of Agriculture. Other list sources are state government departments, the USDA Natural Resource Conservation Service, universities, and industry associations and publications.

Trout: A Trout Production Survey is conducted each January in 25 states (Arkansas, California, Colorado, Connecticut, Georgia, Idaho, Massachusetts, Michigan, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming) to collect previous year trout sales from farmers and distributed fish totals primarily from state and federal hatcheries. It is mailed to all trout operations.

Catfish: A Catfish Production Survey is conducted each January in 9 states (Alabama, Arkansas, California, Georgia, Louisiana, Mississippi, Missouri, North Carolina, and Texas) to collect inventory, water area, and previous year sales. It is mailed to all catfish operations. The three major catfish producing states (Alabama, Arkansas, and Mississippi) also conduct a survey in July of each year to collect mid-year inventory and water area.

Annual Aquaculture Survey – Hawaii: This annual survey is conducted for producers of both fresh-water and salt-water commodities. This survey collects data on aquatic foods (fish, mollusks, crustaceans, etc.) and aquatic ornamental items (aquarium plants, koi, sea horses, algae, etc.). Data collected include size category of items sold, quantity of items sold, and total value of sales for each item.

Annual Aquaculture Survey – Pennsylvania: This annual survey is conducted through a cooperative agreement with the State of Pennsylvania. A listing of names is obtained from the Pennsylvania Department of Agriculture. Operations that are licensed to produce aquaculture products by artificial propagation or who sell aquatic animals are required by Pennsylvania State Law No 1998-94, Subchapter B, to respond to this survey annually. Data are collected for the following categories: food fish, baitfish, ornamental/aquarium fish, sport/game fish, mollusks, crustaceans, and other aquaculture.

Aquaculture Loss Survey: As part of NASS's Continuing Operations Program, this questionnaire was created in 2011 in anticipation of future needs. In the event of a natural disaster, such as a hurricane or drought, or a man-made disaster, such as an oil or chemical spill, the survey is readily implementable.

Response Rates for 2018 - 1	
Survey	Sample Size

**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**

All known producers of the target commodities for a specific survey (trout or catfish, for example) in each of the target states are surveyed. NASS Field Offices maintain a list of all known producers and use known sources of producers to update this list. Each respondent is given the opportunity to respond by mail (and internet, for the national trout and catfish surveys) if they choose. Any operation that has not responded by mail or internet may be contacted by phone or in person.

All data are analyzed for unusual values. Data from each operation are compared to their own past operating profile and to trends from similar operations. Missing data for large operations are estimated based on similar operations or historical

data. Summary expansions account for the remaining nonresponse operations. NASS Regional Field Offices prepare these estimates by using a combination of survey indications and historical trends. Individual state estimates are reviewed by the Agricultural Statistics Board for reasonableness.

In published states, estimates are based on a census of all known active producers and therefore, have no sampling variability. However, estimates are subject to errors such as omissions, duplication, and mistakes in reporting, recording, and processing the data. While these errors cannot be measured directly, they are minimized through strict quality controls in the data collection process and a careful review of all reported data for consistency and reasonableness.

Aquaculture Loss Survey: If it is necessary to conduct this survey to quantify the amount of loss or damage to the aquaculture industry following a natural or man-made disaster, it is assumed that the survey will be limited to a single or small number of states. NASS would attempt to conduct a complete census of the targeted area, if possible.

- 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.**

Prior to the beginning of data collection, survey coordinators in each of the Field Offices will review their samples. Any operator who has given us instructions on when, where, or how they would like to be contacted for future surveys will be handled accordingly. Comments received on previous data collections are captured on NASS's List Frame and are available to the survey coordinators for subsequent surveys. This helps to minimize respondent burden and keep response rates from falling.

State Statisticians and Regional Directors maintain contacts with the different growers' associations and attend their annual meetings. This interactive approach allows NASS to maintain high participation rates in these surveys. When conducting phone or personal follow-up interviews, efforts are concentrated on larger operations in order to measure as much of the target commodity as possible.

Survey data are subject to non-sampling errors such as omissions and mistakes in reporting and in processing the data. While these errors cannot be measured directly, they are minimized by carefully reviewing all reported data for consistency and reasonableness.

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

NASS did not conduct any testing this past year, but we have put in an allowance in Supporting Statement for up to 50 cognitive tests to be conducted if the need arises.

- 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.**

Specifications and survey design were developed by Summary, Estimation, and Disclosure Methodology Branch, Methodology Division; Branch Chief is Jeff Bailey (202) 690-8141.

The sampling plan was developed by the Sampling, Editing, and Imputation Methodology Branch, Methodology Division; Branch Chief is Mark Apodaca, (202) 690-8141.

Data collection is carried out by NASS Regional Field Offices; Eastern Field Operation's Director is Jody McDaniel, (202) 720-3638 and the Western Field Operation's Director is Troy Joshua (202) 720-8220.

The NASS Livestock Branch Chief is Travis Averill (202) 692-0069. The commodity statisticians are responsible for coordination of sampling, questionnaire design, data collection and processing, and other Field Office support for all Catfish and Trout surveys.

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