1 Supporting Statement - Part B

**SOIL HEALTH IN TEXAS**

OMB No. 0535-0264

## 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 universe is all active agricultural producers in a defined twenty-eight county region in the State of Texas, Brazos Valley Watershed. The sample includes producers who reported conservation practices on the 2017 Census of Agriculture, as well as those that do not use conservation practices so that a sample size of 2,900 can be obtained. The universe is determined by active farms on the NASS List Frame for Texas. Telephone follow-up contacts for non-respondents will be done to ensure a high level of coverage for each farm type and county.

This is a new information collection under the Quick Response for Cooperator-funded Surveys Generic Clearance.

**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 Client's project is focused on 28 Counties in the Brazos Valley of Texas: (Austin, Bell, Bosque, Brazoria, Brazos, Burleson, Burnet, Comanche, Coryell, Erath, Falls, Fort Bend, Grimes, Hamilton, Hill, Lampasas, Lee, Leon, Limestone, Madison, McLennan, Milam, Mills, Robertson, Somervell, Waller, Washington, and Williamson).

The USDA-NASS 2017 Census of Agriculture (CoA) will be used as the sampling frame. Likely all positive responses for conservation practices will be included from the 28 counties that reported positive acres for any of the no-till (K3455), reduced tillage (K3454), and/or intensive (conventional) tillage (K3453) items.

The Client's study aims to have a non-proportionate sampling of 200 adopters (A) and 200 non-adopters (NA): These goals were chosen arbitrarily as nice round numbers by the Client. The sample size is expected to be around 2,900 included in the initial mailing, accompanied by a telephone follow-up for non-response. Sample size is expected to exceed the Client's goal of 200A/200NA, and based on preliminary population counts, the sample will simulate estimated breakouts illustrated in the table below. The sample will be marked into 4 strata defined on value of sales categories where $S_1$ and $S_2$ have sales less than $100,000 dollars, and $S_3$ and $S_4$ have sales greater than or equal to $100,000 dollars. The sample will canvass all commodities; both crops and livestock since each industry can participate in various conservation practices.

The table below provides the sample stratification design in the 28 county area:

| Sample | Cons. Adopter | Non-Cons. Adopter | Total |
|---|---|---|---|
| Small (ES<100K) | 775 (~48%) $S_1$ | 930 (~75%) $S_2$ | 1,705 (~59%) |
| Large (ES>=100K) | 875 (~52%) $S_3$ | 350 (~25%) $S_4$ | 1,195 (~41%) |
| Total | 1,620 (~56%) | 1,280 (~44%) | 2,900 |

$S^n$ = strata values

A mail check-in will be performed such that a coverage-oriented non-response sample may be drawn for follow-up. For example, if we received 190 Adopters reporting positive data, and 70 percent were large operators, and we received only 40 Non-Adopters total, then the telephone non-response sample would be drawn such that we had a higher chance of contacting a good size mix of the Non-Adopters, and a larger percent of the smaller-sized Adopters.

**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.**

State Field Office staff routinely visit producers and industry organizations to promote the programs and importance of cooperating. NASS maintains a presence at National industry meetings, often setting up promotional booths at trade shows. Occasionally, letters of endorsement are obtained from industry leaders. Most States conduct a full non-response follow up.

NASS relies on multiple modes for collecting data. The questionnaires are mailed to the respondents who can either return them by postage paid envelope, email, fax, or telephone. If we have not received a response within the allotted time, phone enumerators will be used to contact the respondents.

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

The test survey preparation occurred as follows: First, the Client had two focus groups with farmers, one group who had adopted soil conservation practices and another group who had not. Based on that, the Client developed an initial version of the survey and had a series of meetings in which individuals were asked to complete the survey. The Client then talked through the survey question by question; first with students having significant farming background (3 or 4 separate meetings), then with farmers (2-4 separate meetings). After each such meeting, the Client made corrections/updates to improve clarity and ensure they were getting the information sought. The final version submitted with this packet is the result of these tests, along with the average estimate for respondent burden of completing the questionnaire.

**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.**

Population and sample sizes are reviewed by the Agency's Sampling, Editing and Imputation Methodology Branch, Methods Division; Branch Chief is Mark Apodaca (202) 720-5805.

The NASS survey administration, sampling, data collection, estimation, and publication are carried out by NASS Regional Field Offices; Eastern Field Operation’s Director is Jay Johnson, (202) 720-3638. The survey administrators are responsible for coordination of sampling, questionnaires, documentation, training, data processing.