

NATIONAL CONSERVATION PRACTICE ADOPTION MOTIVATIONS SURVEY

OMB No. 0535-NEW

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 cropland and livestock target populations for NRCS CPAMS are farmers/ranchers that have cropland and confined livestock, respectively, in the contiguous United States.

The Cropland Sampling Frame comprises active operations in the contiguous states on NASS's List Frame with at least 0.1 acre of cropland (cT300). The targeted crops – used to derive an Enterprise Value of Sales (EVS) - include field crops, vegetables, fruits and nuts^a.

The Livestock Sampling Frame comprises active (contractee, contractor and independent) operations in the contiguous states on NASS's List Frame that raise poultry (broilers (cT767), layers (cT760), pullets (cT760), turkeys (cT770) and/or hatcheries (cT752, cT753, cT754)), hogs (cT633, cT630), dairy cattle (cT615) and/or cattle on feed (cT620)^b with at least \$1 in EVS. Targeted livestock – used to derive an EVS – were poultry, hogs, dairy cattle and cattle on feed.

^a Mushroom, maple, sod, woody crops and Christmas trees were not included as targeted crops

^b If cT620 was not available, K812 using a turn-over factor of 2 was used as the measure of size for cattle on feed.

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 Cropland and Livestock sampling frames states were grouped into NRCS defined Regions and stratified by the following NRCS defined strata boundaries using EVS as a measure of size.

Cropland

Small: $EVS < \$350,000$

Midsize: $\$350,000 \leq EVS < \$1,000,000$

Large: $\$1,000,000 \leq EVS$

Confined Livestock

Small: $1 \leq EVS < \$350,000$

Midsize: $\$350,000 \leq EVS < \$1,000,000$

Large: $\$1,000,000 \leq EVS$

The sample size n necessary for estimating the proportion p of a small finite population of size N with a $(1 - \alpha)$ confidence level and a margin of error no larger than ϵ is:

$$n = \frac{m}{1 + \frac{m-1}{N}}$$

Where,

$$m = \frac{z_{\alpha/2}^2 \hat{p} (1 - \hat{p})}{\epsilon^2}$$

N is the population.

p is the proportion of certain conservation practices motivation, and

ϵ is the margin of error.

The Cropland and Livestock sample sizes based on a 95 percent confidence level, 3 percent margin of error, a conservation practice proportion of 50% and a 60% response rate was 20,350 and 14,850, respectively.

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.

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, Internet, or telephone. If we have not received a response within the allotted time, phone enumerators will be used to contact the respondents. Depending on the status of the COVID-19 pandemic, on the extreme outside chance in person interviews can be conducted safely, limited in person interviews may be conducted.

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

Cognitive testing occurred on all versions during Spring, 2021. The cognitive testing focused on comprehension of questions & retrieval of information from the respondent. Findings from the cognitive testing included:

- Terminology related to agriculture differed from the definitions provided by USDA and what is used by respondents. To keep the respondent focused, improvements to the questionnaire and instruction sheet to clarify the terminology were made.
- Technical terminology was mostly understood from respondents who utilized the practices. There were some respondents who did not utilize the practices that were unfamiliar with the terminology. Improvements to the questionnaire and instruction sheet to clarify the terminology were made.
- Expanded use of the "Not applicable" option (especially on the tables) to decrease measurement error.

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.

Survey administration will be carried out by the Survey Administration Branch, Census and Survey Division; Branch Chief is Gerald Tillman, (202) 720-3895. The survey administrators are responsible for coordination of sampling, questionnaires, documentation, training, data processing.

Sample sizes for each state are determined by the agency's Sampling, Editing, and Imputation Methodology Branch, headed by Branch Chief Mark Apodaca, (202) 690-8141.

Data collection is carried out by NASS Regional Field Offices. The Western Field Operations Director is Troy Joshua, 202-720-9567. The Eastern Field Operations Director is Jody McDaniel, (202) 720-3638.

Data review and summarization are carried out by both USDA-NASS and USDA-NRCS. NASS' Environmental, Economic, and Demographics Branch Chief is Tony Dorn (202) 720-5084. The lead investigator for NRCS is Roger Claassen, Resource Assessment Branch, USDA Natural Resources Conservation Service, (301) 504-3969.

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