

# MENTAL MODELS STUDY OF FARMERS' UNDERSTANDING AND IMPLEMENTATION OF GOOD AGRICULTURAL PRACTICES

OMB No. 0910-NEW

## SUPPORTING STATEMENT

### B. STATISTICAL METHODS

This information collection will not employ statistical methods. It is a qualitative data collection. The information collected can be used to inform a quantitative data collection; however, that is not the current plan. Regardless, we include below information about the sample and how it will be selected, as well as discuss, as appropriate, the methodology in general.

#### 1. Respondent Universe and Sampling Methods

The universe for the study includes leafy green and tomato farmers or growers, GAPs trainers and auditors, and retail buyer and/or grower association representatives. With assistance of some Agricultural Extension Units at two State Land Grant Universities, the Contractor shall complete four (4) on-site, one-on-one interviews with farmers. Additionally, 20 one-on-one, in-depth interviews will be conducted with farmers by telephone. The interviews will be recorded with permission. Interviewees will be categorized by the following commodity groups: leafy greens and tomatoes. For each commodity group, growers will be interviewed in one (or two) States for a total of twenty-four (24) interviews. At least two researchers will comprise the data collection team.

*Table 1. Twenty-four (24) one-on-one interviews with growers*

<i>Location</i>	<i>Leafy Greens</i>		<i>Tomato</i>	
	Telephone	On-site	Telephone	On-site
California (and/or Arizona)	10	2		
Florida			10	2

One-on-one interviews with 36 GAPs trainers and auditors, retail buyers, and grower association representatives will be conducted by telephone using an interview guide developed by the project team with input from the project advisory group. The interviews will be tape recorded with permission.

Table 2. Thirty-six (36) one-on-one interviews with buyers, trainers, and grower assn. rep.

	<i>GAP Trainers &amp; Auditors</i>	<i>Retail Buyers/ Grower Assn. Rep's</i>
<i># of Interviews</i>	24	12

## **2. Procedures for the Collection of Information**

### **2.1 Statistical methodology for collection and sample selection**

When OMB clearance is received, the contractor will recruit interested farmer participants via a purposive convenience sampling technique, which is an accepted sampling technique in qualitative research employing similar methods. FDA will provide the contractors with the names of 3 or 4 key experts who are familiar with and have a formal or informal communication network within the stakeholder community. The contractor will invite these experts to participate in one-on-one discussions in order to identify potential interview candidates that might fit the relevant sample criteria. The contractor will develop a sample of approximately three times the size the cohort required. Potential research participants will then be selected randomly from the sample list, and contacted and invited to participate in the research.

The essential recruiting criteria for the farmers' sample are farming operations having an annual revenue greater than \$250,000 and whose products are not exclusively sold locally, but include sales in multiple states. Care will be taken to ensure a range of farmers along characteristics such as geographic location and diversity of crops. The contractor will contact potential participants by telephone and screen them for eligibility and interest. Participants will be assured of the confidentiality of their participation. To maximize participation, recruiters will attempt to contact each respondent at least five times to screen for eligibility and recruit for participation.

The contractor will recruit trainers and retail buyer participants in collaboration with its collaborators from Ohio State University who is developing sample lists for research within the same groups, based on primary contact expert referrals provided by FDA, coupled with a search of agricultural extension and retail buyer organizations. The contractor will select potential participants randomly from these lists.

Following norms developed in ethnographic and other qualitative research, mental models studies often include a relatively small number of individuals. Mental models research also lends itself to informing the design of more structured surveys that can be administered to a larger sample if greater precision is needed.

### **2.2 Estimation Procedure**

Qualitative data are not to be used to generate estimates, therefore the sample will not be weighted.

### **2.3 Degree of accuracy needed for the purpose described in the justification**

A sample size of 60 is sufficiently large for the qualitative findings to capture a range of depth and width of people's thinking.

### **2.4 Use of specialized sampling procedures**

No specialized sampling procedures are required.

## 2.5 Use of periodic data collection cycles to reduce burden

This is a one time data collection.

### **3. Methods to Maximize Response Rates**

In an effort to increase response rate, the agency plans to take the following measures:

- Perform cognitive interviews and pre-tests to ensure collection procedures are appropriate;
- Use carefully constructed lists of industry from which to draw the sample;
- In the initial communication, carefully explain the import of participating in the survey; and
- Craft an interview guide that is easy to understand and compelling.

### **4. Tests of Procedures or Methods**

Researchers plan to perform cognitive interviews/pretests to minimize collection burden on respondents and improve quality of collected information.

The primary purpose of these interviews is to understand the mental processes that respondents use to answer survey questions. Nine respondents will be interviewed and will be probed on the mental processes they went through in providing the answers. The focus of analysis will be on: (1) comprehension of the meaning of certain questions or words; and (2) strategies used to recall information and to arrive at an answer. We will use these interviews to consider the length of the questionnaire and respondent burden.

### **5. Individuals Involved in Statistical Consultation and Information Collection**

Because this is a qualitative study, we do not employ statistical analysis to analyze the data. The contractor will qualitatively code and interpret the data and prepare a report for FDA that contains the analysis and recommendations. FDA Project Officer, Linda Verrill, Ph.D., telephone 301-436-1765, will guide the research and provide consultation throughout the research process.