FARM SERVICE AGENCY:
NATIONAL SURVEY ON CLIMATE AND WEATHER

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Key Points

65% of FSA employees who responded to the survey believe that it is important for producers to adapt to climate change to ensure the long-term viability of U.S. agriculture.

14% of respondents agreed or strongly agreed that they personally have the knowledge to help producers deal with weather-related threats.

Opportunities for future collaboration between FSA and other agency partners include outreach and education on climate- and weather-related issues by linking them to existing programs that help producers to reduce climate-related risks.

Project Overview

In November/December of 2016, a survey collaboratively designed by the USDA Climate Hubs, FSA, and the University of Vermont was administered to capture FSA field staffs’ beliefs and attitudes related to climate change and potential impacts, as well as their perceptions about the risk that weather variability poses for U.S. farmers. The survey also investigated the types of climate and weather tools FSA staff currently use in their work with land managers. Over 10,000 FSA staff throughout the U.S. were contacted for the survey; in total 4,621 FSA staff responded (response rate = 42%, calculated using the RR4 method of the American Association for Public Opinion Research, AAPOR).

Figure 1: FSA respondents’ percent agreement with climate and weather statements (n=3,572).
Survey Result Highlights

FSA employees reported using weather and climate resources when discussing the following topics with producers: crop rotations/field assignments (32% of respondents); crop variety choices (35%); purchasing crop insurance or enrolling in the Noninsured Crop Disaster Assistance Program (NAP) (51%); and planting or harvest schedules (42%). One third (33%) of respondents do not use historical weather trends and/or forecasts for any of the topics listed in the survey. Respondents do not use or are not familiar with many of the weather-related resources listed in the survey, with the exception of U.S. Drought Monitor (74% use this resource) and livestock heat indices (42% use these resources, which are often state-specific). Nearly one-third of respondents report using the Farmers’ Almanac as a weather resource in their professional service.

When asked to rank level of concern for 18 different climate and weather effects, the majority of states and territories (40 out of 53) reported the most concern with longer dry periods and drought (Figure 2). Most respondents agree or strongly agree that there is increasing variable and unusual weather in their areas (59%), and that to cope with increasing climate variability, farming practices will need to change (54%). Additionally, nearly half (42%) agree or strongly agree that extreme weather events in recent years have affected the long-term management goals of producers, and that there is increased need for FSA’s programs in their service area due to changing weather patterns (42%). One-third agree or strongly agree that they would like climate or weather forecasts to inform the services they provide in the future, while 61% agree or strongly agree that producers use climate information when making farm-related decisions.

Adapting to changing weather conditions is something the majority of respondents agree is important (Figure 1). Over half of respondents agreed or strongly agreed that producers should take additional steps to protect their operations from increased weather variability (61%), and that it is important for producers to adapt to climate change to ensure the long-term viability of U.S. agriculture (65%). However, only 14% agree or strongly that they personally have the knowledge to help producers deal with weather-related threats.

Discussion

The mission of the Climate Hubs is to develop and deliver science-based, region-specific information and technologies, with USDA agencies and partners, to agricultural and natural resource managers that enable climate-informed decision-making, and to provide access to assistance to implement those decisions. Based on the findings from this national level survey, we have identified three potential areas of future collaboration between the Climate Hubs and FSA: (1) provide training and support for FSA employees to work with and understand weather and climate data, tools, and resources; (2) better integrate specific weather and climate tools into specific FSA program areas; (3) hone outreach and education on climate- and weather-related issues by linking them to existing programs that help producers to reduce climate-related risks on farm (such as the Conservation Reserve Enhancement Program).

Count of Respondents

- 1
- 100
- 200
- 300
- 350

Climate or Weather Concern

- Excessive moisture
- Increased flooding
- Increased heat stress on crops
- Increased incidence of hurricanes or tropical depressions
- Increased insect pressure & higher incidence of crop disease (tie)
- Increased soil erosion
- Increased weed pressure
- Longer dry periods and droughts
- More frequent extreme rain events

Figure 2: Most common climate or weather concern of FSA field staff per state (n=3,571). Eighteen climate and weather trends were rated on a Likert scale (1=not concerned; 2=slightly concerned; 3=concerned; and 4=very concerned).

Figures by Sarah Wiener. Photography credits: Rachel Schattman