



Measuring producer trust and attitudes about climate change

J. D. Wulfhorst (jd@uidaho.edu) UI, Leigh A. Bernacchi UI, Bob Mahler UI, Liza Nirelli McNamee UI, Monica Reyna, UI, and Susie Irizarry UI

How do producers learn about climate change? If we know what sources of information about climate change they trust and how they perceive climate change, we can more effectively reach out to these central stakeholders.

From November 2012 to March 2013, REACCH and the Social Science Research Unit (SSRU) of the University of Idaho (UI) administered a mail survey to agricultural producers in the REACCH region counties in the inland Pacific Northwest. The

IMPACT

Successful adaptation to climate change has social and community components related to producers' levels of trust in information from various sources. What you know is often a function of who you know and trust. We surveyed producers to see who they trust and what they know about climate change in order to better communicate our research with their trusted sources.

National Agricultural Statistics Service (NASS) provided a county-level sample of 2,000 producers who each grew more than 50 acres of wheat in 2011. The survey included perceptions of climate change, management practices, and demographics, as well as maps on which to mark parcels farmed.

We received 900 completed and eligible surveys, 4 undeliver-

able surveys, and 38 ineligible recipients, resulting in an overall response rate of 45%. We followed all standard statistical and ethical practices.

A variety of sources provide information about climate change. Farmers were asked about their levels of trust in general information as well as climate change information provided by the following sources (see Figure 1): (1) other producers in their county (Prod. in Co.), (2) crop advisors associated with a particular company (Co. CA), (3) university extension (U. Ext.), (4) local Soil and Water Conservation Districts (SWCD), and (5) state-level Natural Resources Conservation Service (NRCS). With respect to general information, relatively high levels of trust exist for other producers in the county, company-based crop advisors, and university extension personnel, with lower levels for SWCD and NRCS personnel.

From previous analyses, we know that the majority of producers either strongly agree or somewhat agree that they have observed changes in weather patterns over their lifetime. However, we also wanted to understand whether the dominant pattern of observing changes in weather has a relationship to trust. As shown in Figure 1, producers have the highest level of trust in general information from other producers in the county, yet their level of trust in climate change information from other producers

is substantively lower. As such, we cross-tabulated producers' level of agreement with the statement "I have observed changes in weather patterns over my lifetime" with their level of trust in other producers from the county (Figure 2). Of those who agree with the statement about observed change in weather, 85% indicated trust in other producers, while 6% who disagreed with the statement indicated trust in other producers. This result reveals a strong correlation between trust in other producers and the

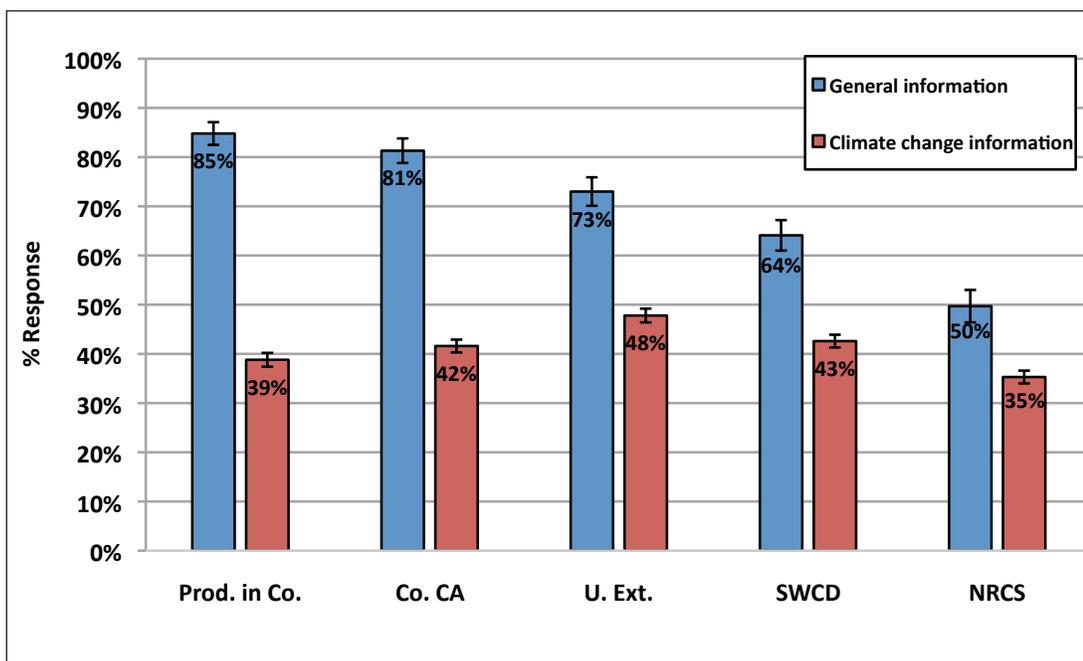


Figure 1. How trustworthy do you find general information vs. climate change information from Producers in your country (Prod. in Co.), crop advisors from a particular company (Co. C.A.), University Extension (U. Ext.), Soil and Water Conservation Districts (SWCD) and Natural Resource Conservation Service (NRCS).

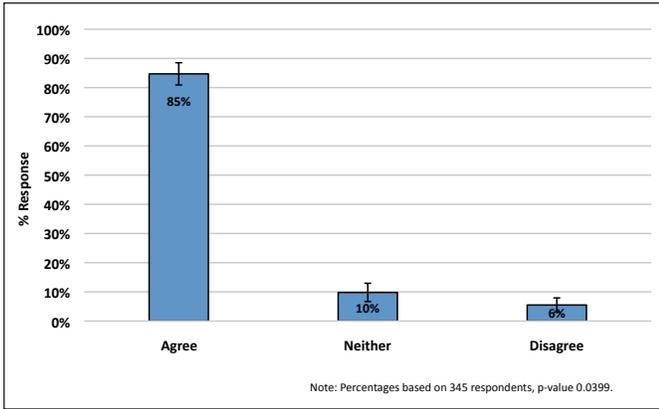


Figure 2. Percentage who trust climate change information from other producers in county by level of agreement with the statement “I have observed changes in weather patterns over my lifetime.”

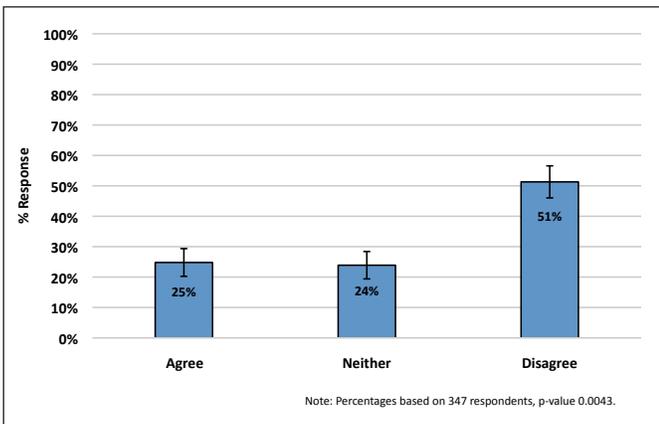
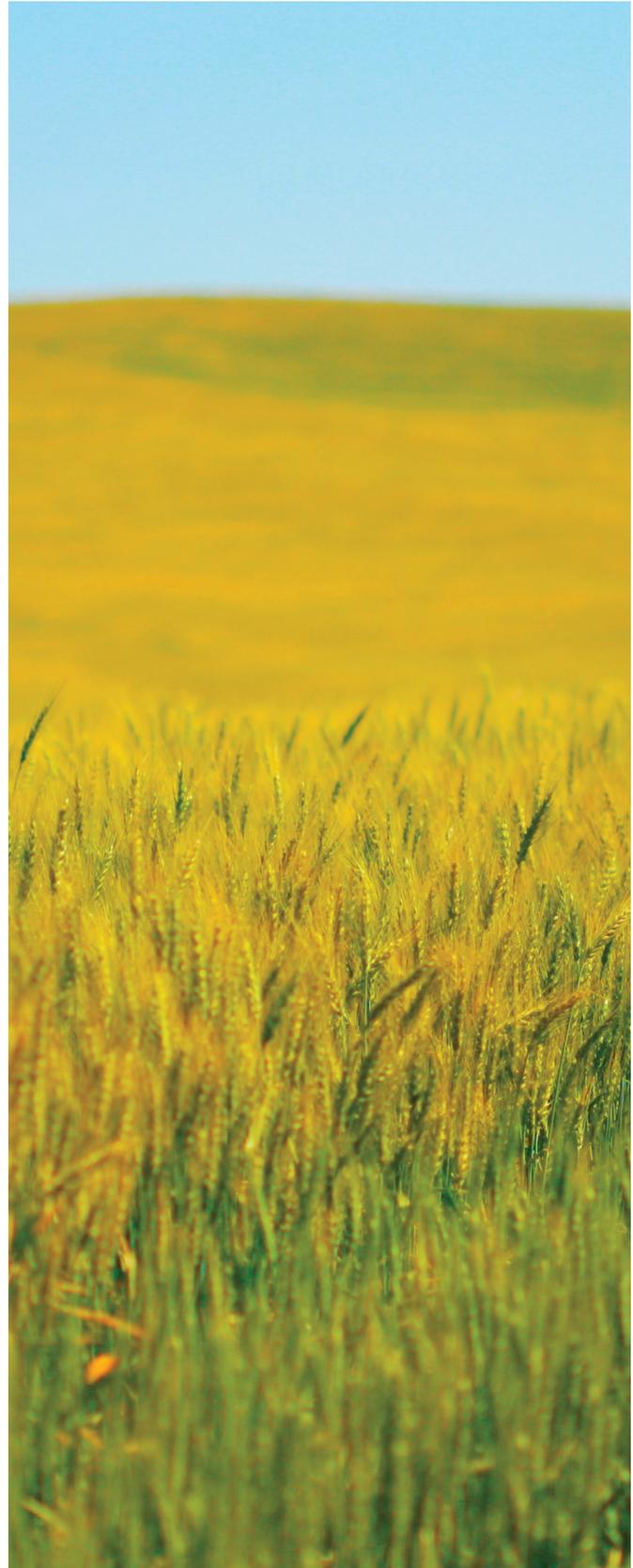


Figure 3. Percentage who trust climate change information from other producers in county by level of agreement with the statement (collapsed) “Human activities are the primary cause of climate change.”

observation of weather change.

Similarly, we cross-tabulated the level of trust in other producers from the county with another statement about whether human activities are the primary cause of climate change (Figure 3). The results of this analysis revealed a different pattern, with only 25% of those who agree that climate change is human caused also indicating trust in other local producers and over half (51%) of those who disagreed that climate change is primarily human caused indicating distrust for other local producers.

The results of these base analyses indicate the need for further and more complex study of the role of trust in processing climate change information and adaptive behavior within the producer community. Insofar as producers trust each other the most about general information, an opportunity exists for direct community-based interactions to affect local behaviors in the most effective contexts. However, different dimensions of beliefs about climate change (e.g., whether it is occurring, its root causes, etc.) appear to suggest the need for a broader network of interactions between different sources of expertise and input.



Wheat field 5 miles south of Uniontown, WA on July 14th, 2014. Photo by Brad Stokes.