

Linking adaptive management to climate change impacts on diversified vegetable and berry farms in Northern New England

SARE PROJECT GNE17-163

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Objectives

- Identify adaptive management strategies for extreme weather risks in the Northeast region of the U.S that reflect the unique needs and challenges of diversified vegetable and berry farms.
- Capture the emergence of innovative ideas among agricultural information networks and geographic communities.
- Bridge the localized expertise of farmers with scientific research and regionalized outreach experts to identify information critical to supporting climate change adaptation and overcoming the climate information usability gap.
- Facilitate information sharing across farmer networks.

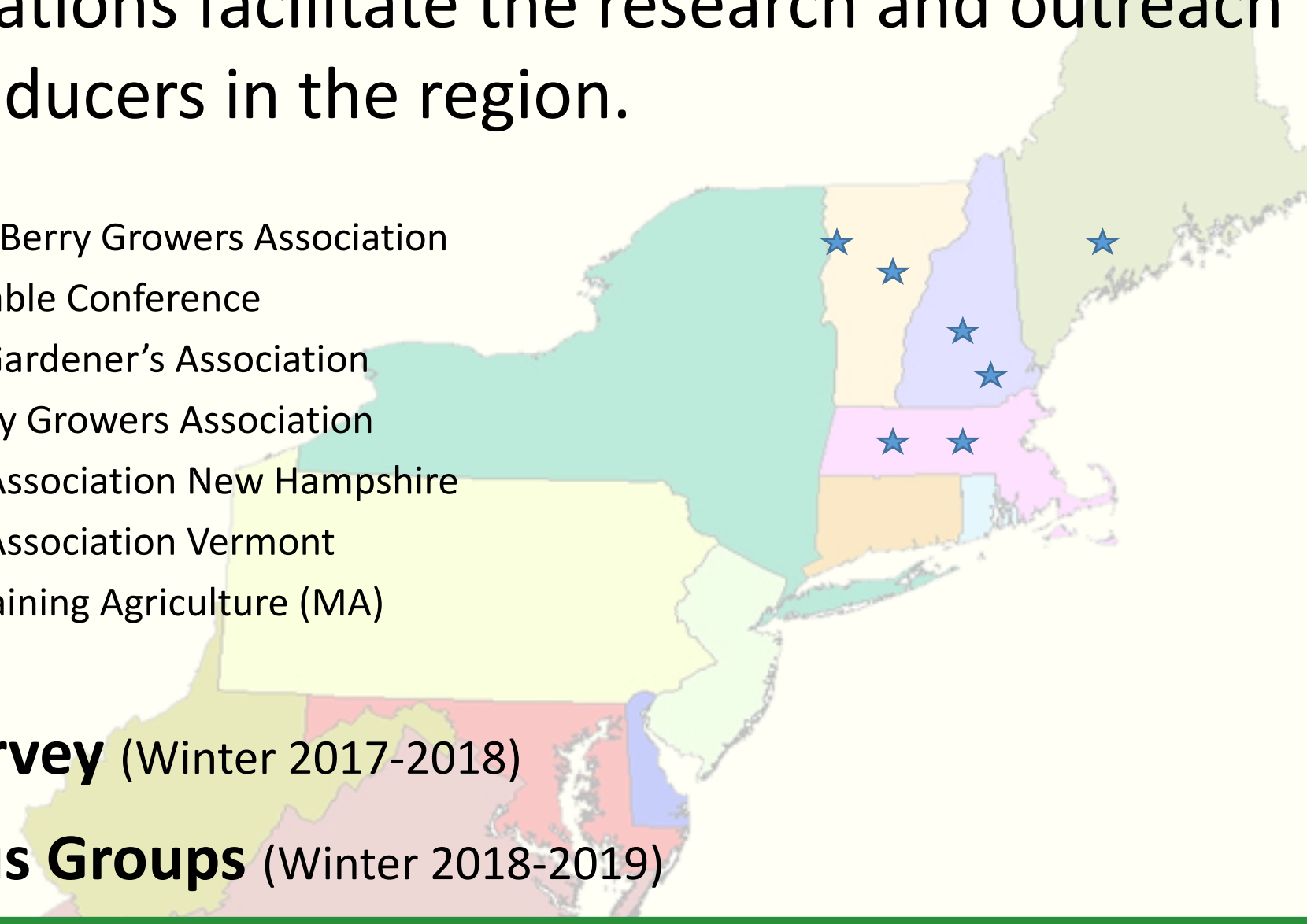
Approach

Boundary organizations facilitate the research and outreach interface with producers in the region.

- UVM Cooperative Extension
- New England Vegetable and Berry Growers Association
- New England Fruit and Vegetable Conference
- Maine Organic Farmer and Gardener's Association
- Vermont Vegetable and Berry Growers Association
- Northeast Organic Farmers Association New Hampshire
- Northeast Organic Farmers Association Vermont
- Community Involved in Sustaining Agriculture (MA)
- Rural Vermont

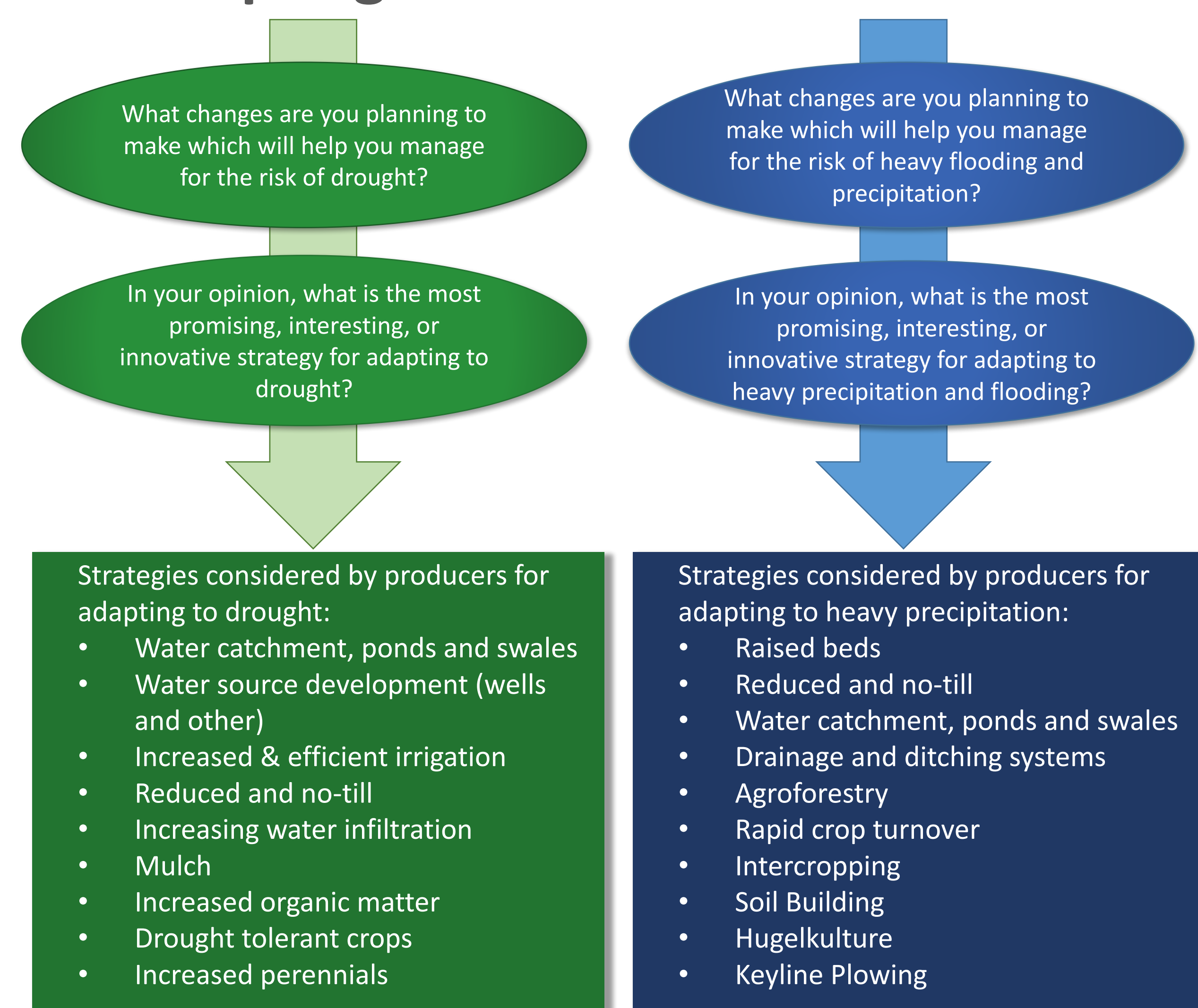
Year 1: Regional Survey (Winter 2017-2018)

Year 2: Farmer Focus Groups (Winter 2018-2019)



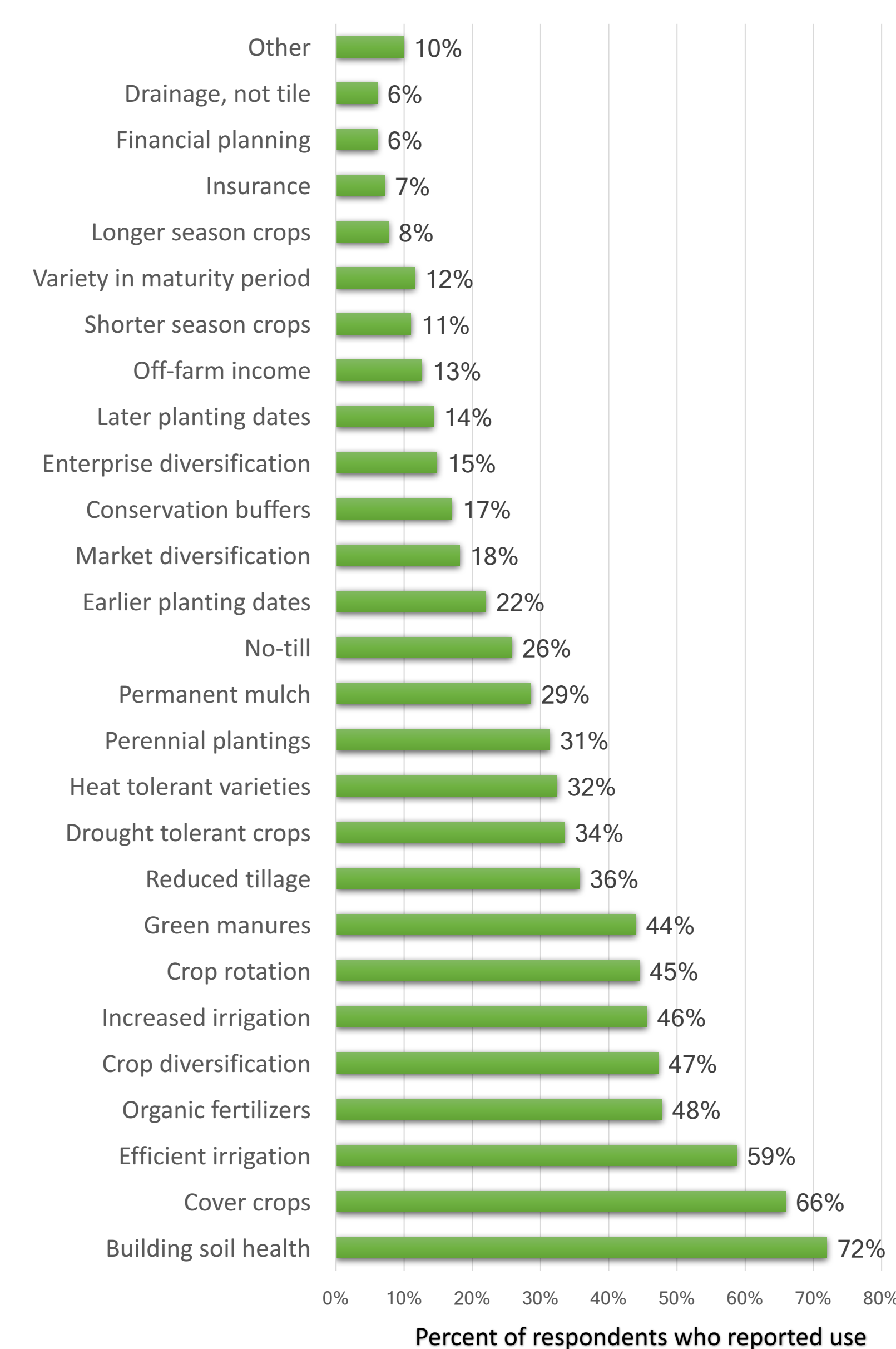
Preliminary Results

Farmers Identify Emerging Strategies for Adapting to Extreme Weather Risks

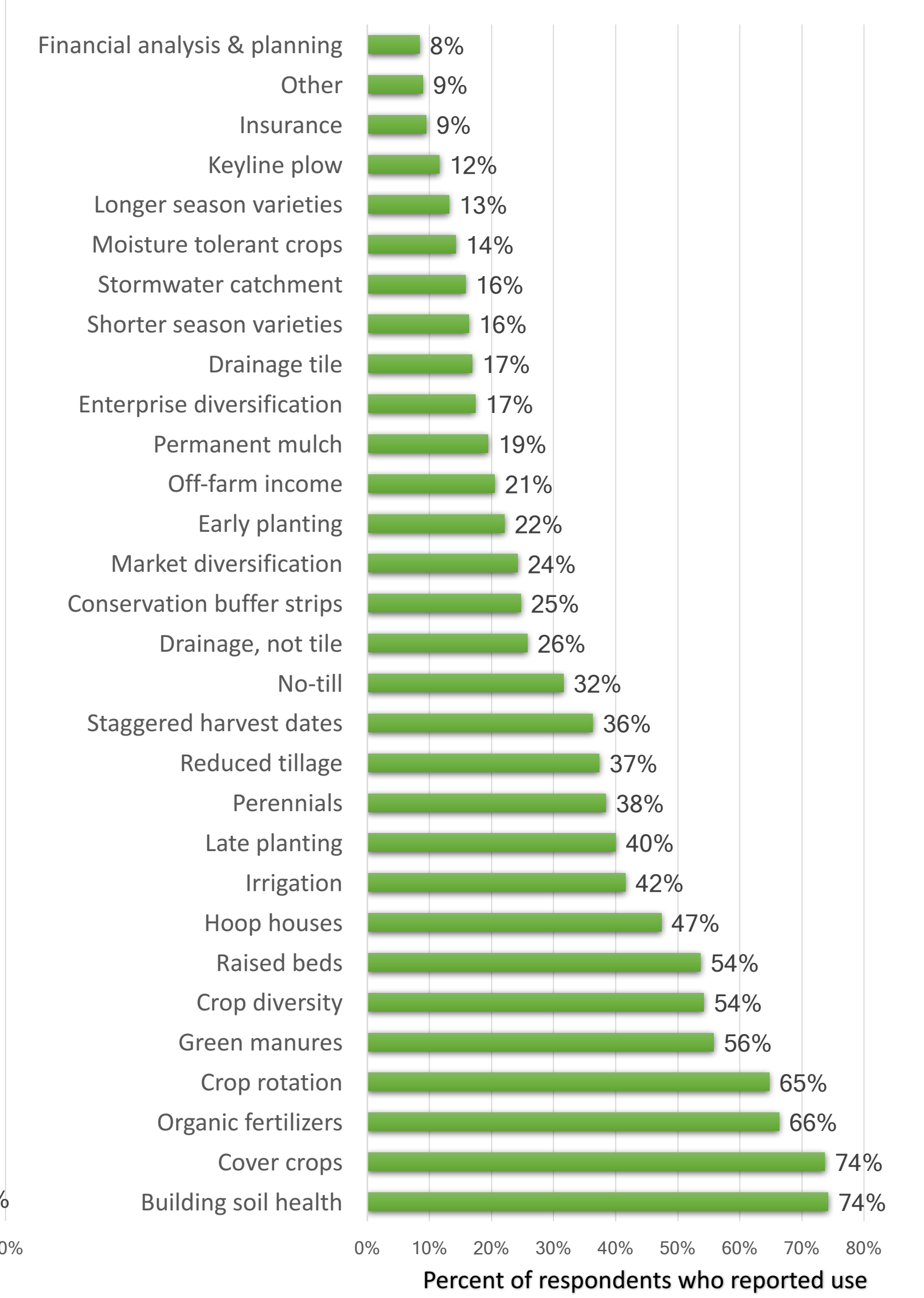


Thematic analysis of 190 farmers' responses to survey questions captures emerging knowledge about adaptation to the projected increased incidence of drought and heavy precipitation in Northern New England.

What practices do you use to manage drought on your farm?



What practices do you use to manage heavy precipitation and flooding on your farm?



Farmers use a diversity of strategies to proactively manage for drought and heavy precipitation events. 190 responses to a regional survey identify which strategies are most commonly employed across all soil types and production contexts for managing drought and heavy precipitation.

Bridging the Climate Information Usability Gap

What information do farmers and outreach professionals need to best support vegetable and berry growers in adapting to the impacts of climate change?

Interviews with 6 Extension Professionals in April 2017 about climate change outreach

One level down. Information is more tangible and usable if it is tied to climate impacts, rather than climate change

Context specific. Information is more useful when it is tailored to unique operating contexts.

About the preliminary results reported from the regional survey

Responses were collected November 2017 through March 2018 in collaboration with local farmer networks and organizations. Producers completed a survey with 77 questions about adaptive management, site characteristics, perceived vulnerability & capability.

n = 190

Demographic of Sample	
Average age	46
Gender	54% Male, 44% Female, 2% Other
Mean total farm acreage in production	27.6 acres
Average years as a decision maker on a farm	13 years

Future Analysis & Outreach

Ongoing analysis of the survey dataset will allow us to answer:

- How does adaptive management differ by soil type?
- How does adaptive management differ by farm production characteristics & demographic?
- How does adaptive management differ by site specific vulnerability?
- How is adaptive decision-making influenced by perceived vulnerability & capability?
- Do information networks or location correlate to emerging adaptive management strategies?

The project is partnering with farmer networks to conduct a multi-faceted outreach effort in conjunction with a listening tour at farmer meetings and conferences next year.