



Office of Sustainability

UNIVERSITY OF WISCONSIN - MADISON

# What Farmers Think About Climate Change

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Wisconsin Sustainability Forum 2014  
Climate Change in Wisconsin: Where do we go from here?

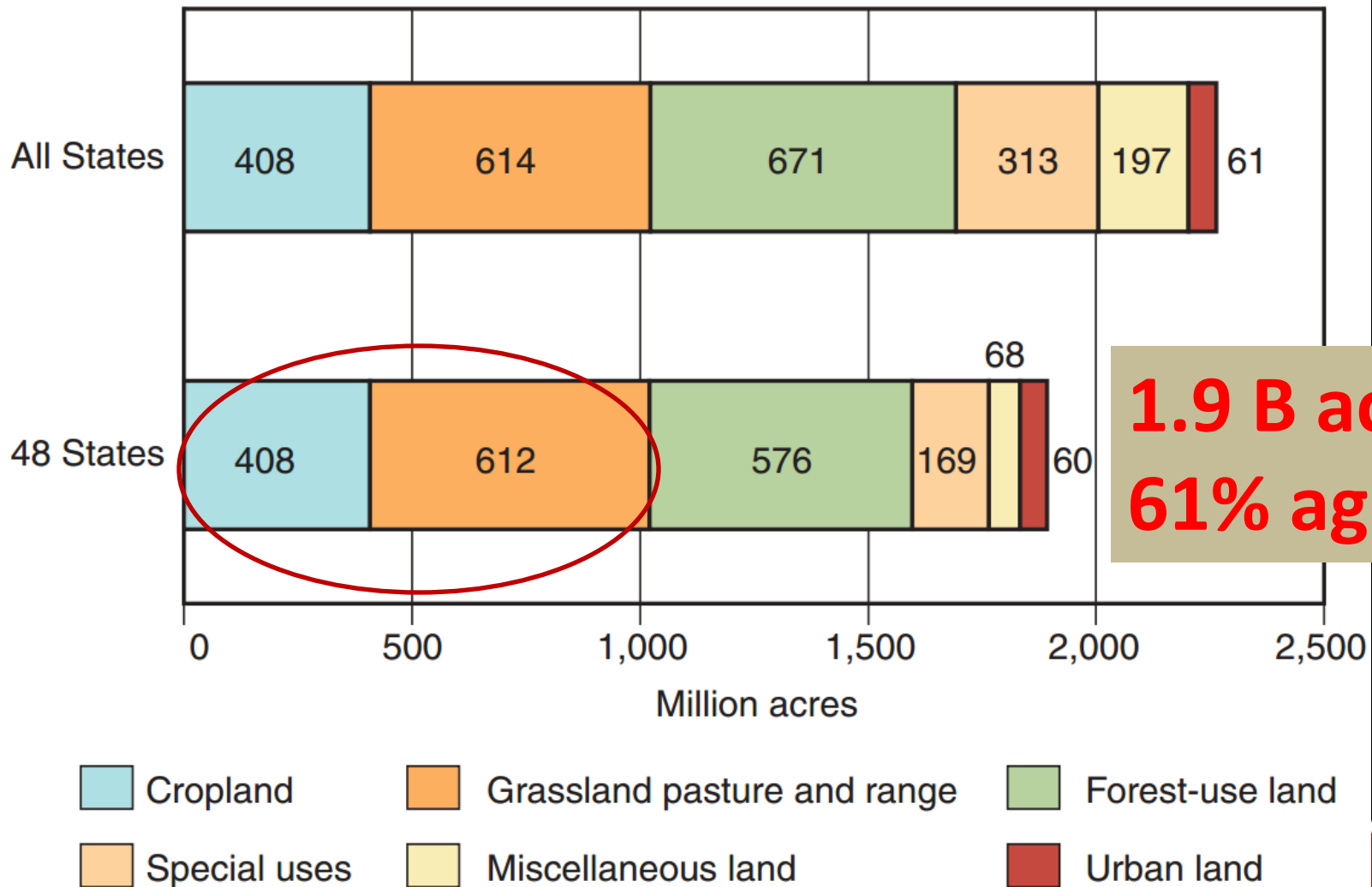
# Farmers are at Ground Zero for Climate Change

- Dietzler Farms, Elkhorn, WI
- WI Buffer Initiative, Pecatonica River Basin



# They manage much of the land

Major uses of land, 2007



**1.9 B acres,  
61% ag use**



# They are vulnerable to the effects of climate change

- Drought, Floods, Cold, Heat, Hail
- 2012: \$17.4 B in indemnities





# They will Implement Mitigation and Adaptation Policies on Their Land

- Biofuels, Wind Farms, Sequestration, Livestock, Nitrogen Fertilizer, ...



# Why don't researchers ask farmers what they think about climate change?

- We were doing a farmer survey and looking for topics to address
- Technology, Farm Policy, Risk Management, ...
- Why not Climate Change?
- Very few people asking farmers what they think about climate change: **Why?**

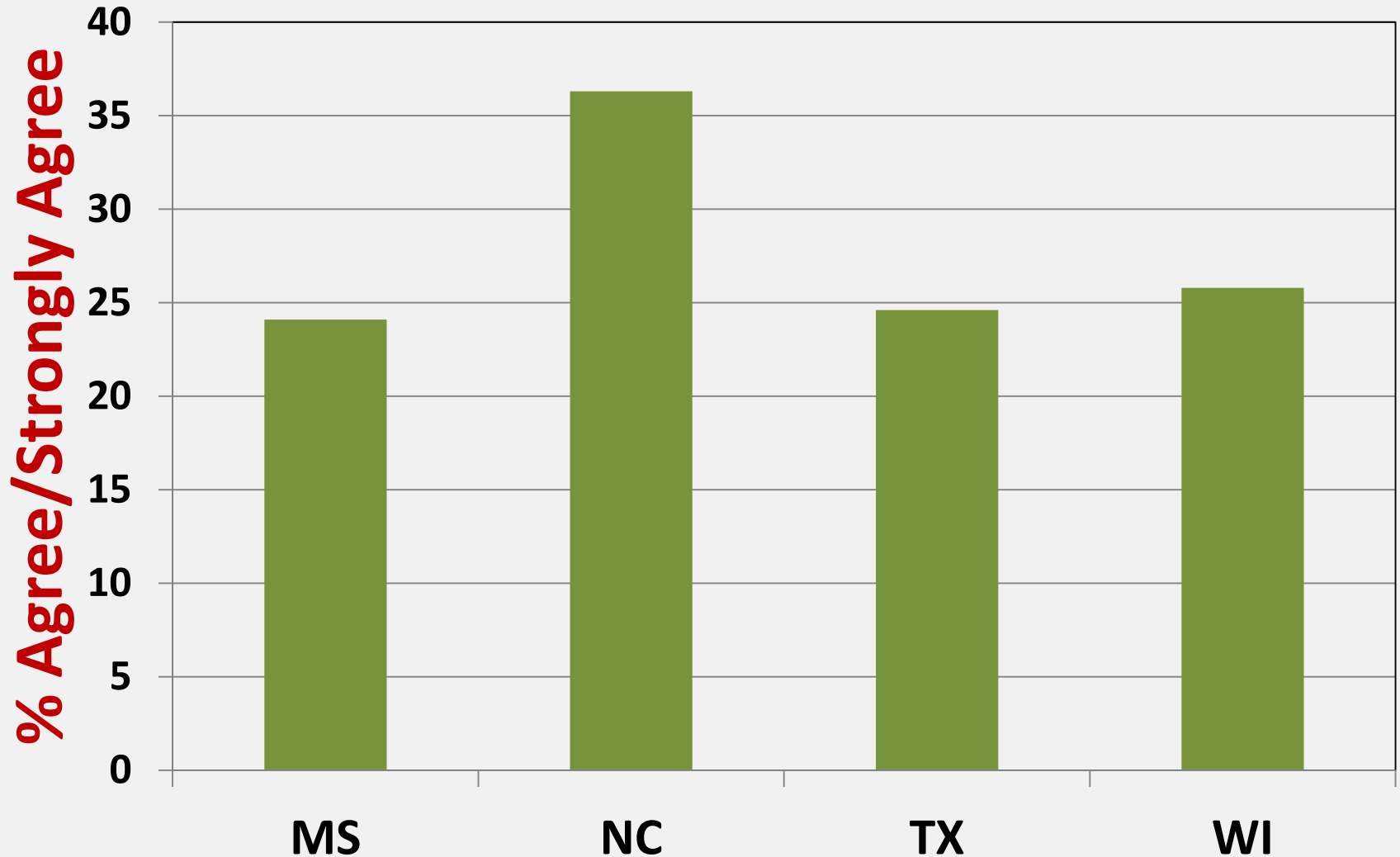


# Let's Ask Farmers!

- Rejesus, Mutuc-Hensley, Mitchell, Coble, and Knight. 2013. U.S. Agricultural Producer Perceptions of Climate Change. J. Agricultural and Applied Economics 45:701-718
- Mail survey in **2009**, 1050 farmers
  - MS: 166, NC: 215, TX: 281, WI: 388

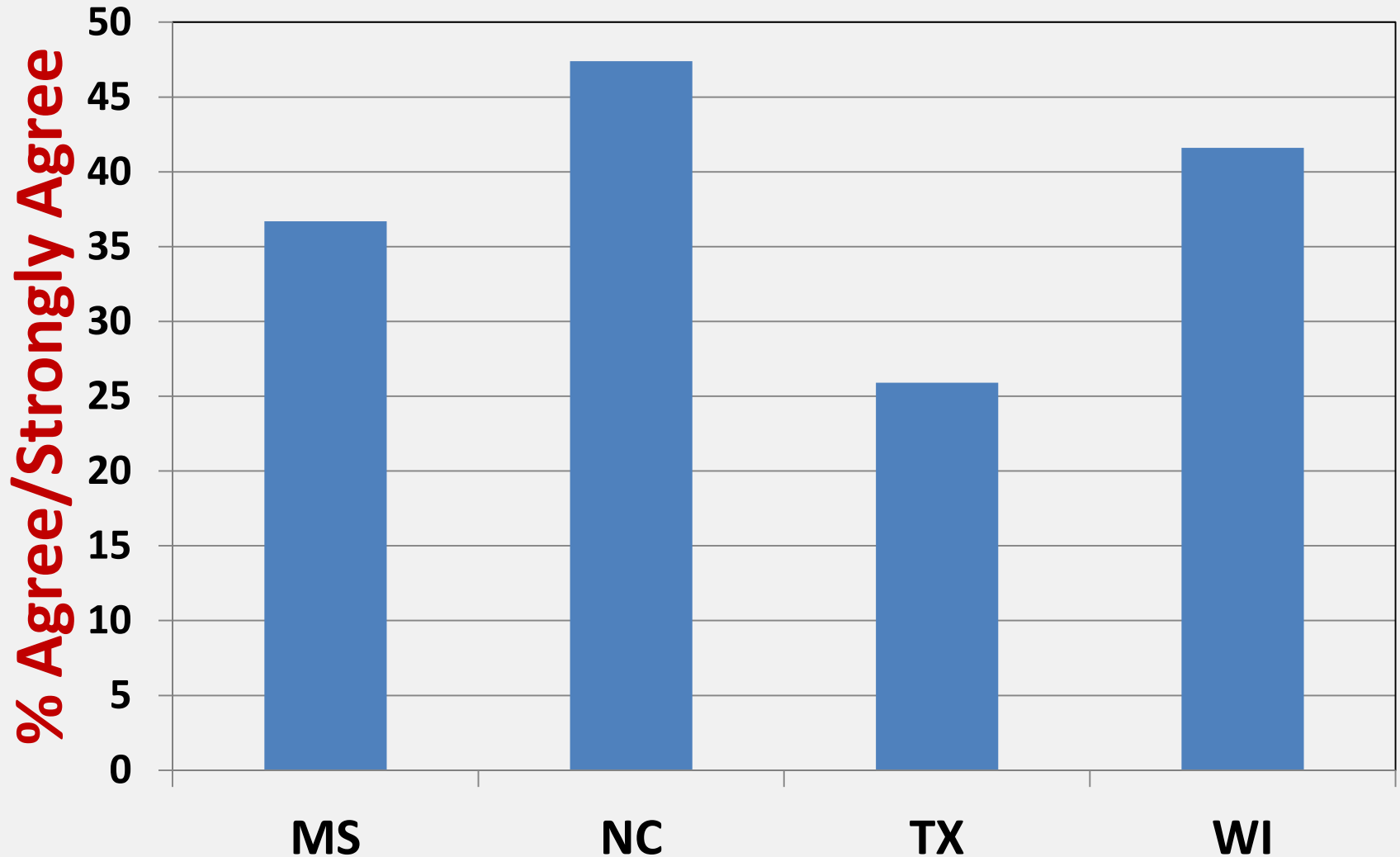


# Climate Change is Scientifically Proven

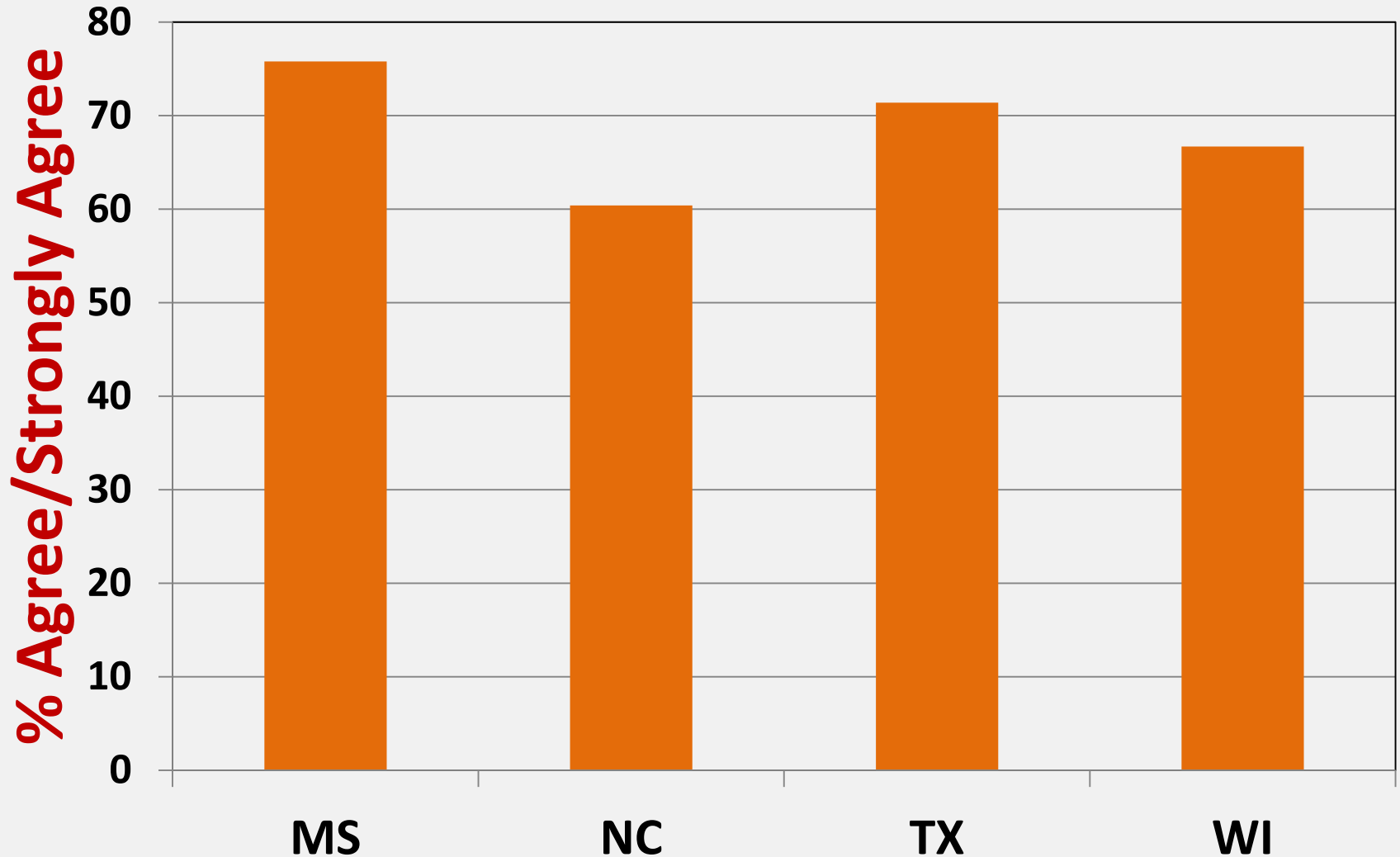




# Humans are Changing Earth's Climate



# Normal Weather Explains Recent Events



# Consistent with Other Research

- National survey of 5,000 farmers in 2012
  - (Arbuckle et al. 2013)
- 8% Climate change mostly human caused
- 33% Climate change equally human & natural
- 25% Climate change mostly natural
- 31% Uncertain about climate change
- 4% Climate change is not happening

**60%**



# US Agriculture and Climate Change

- Farmers are climate change skeptics
- My experience suggests that most members of the ag industry are climate change skeptics
- My opinion: Climate change has been made into a political position, not a scientific debate





# What does this mean?

- Climate change mitigation and adaptation must engage farmers and agriculture where they are at, not where you want them to be
- This engagement is necessary for success
- This engagement will change you!
- Can't just out source engagement



# What does this mean?

- Climate change needs relevant professors
- Being relevant will change you and your research

**SundayReview** | OP-ED COLUMNIST

**The New York Times**

## Professors, We Need You!

FEB. 15, 2014



**Nicholas  
Kristof**

SOME of the smartest thinkers on problems at home and around the world are university professors, but most of them just don't matter in today's great debates.

The most stinging dismissal of a point is to say: "That's academic." In other words, to be a scholar is, often, to be irrelevant.





# NISA

**Common Ground  
Uncommon Commitment**

**[nisa.cals.wisc.edu](http://nisa.cals.wisc.edu)**

Engages with farmers to help them define sustainable cropping practices for their region, analyze the self-assessment data, give specific recommendations for improvement, and communicate advancements along the supply chain

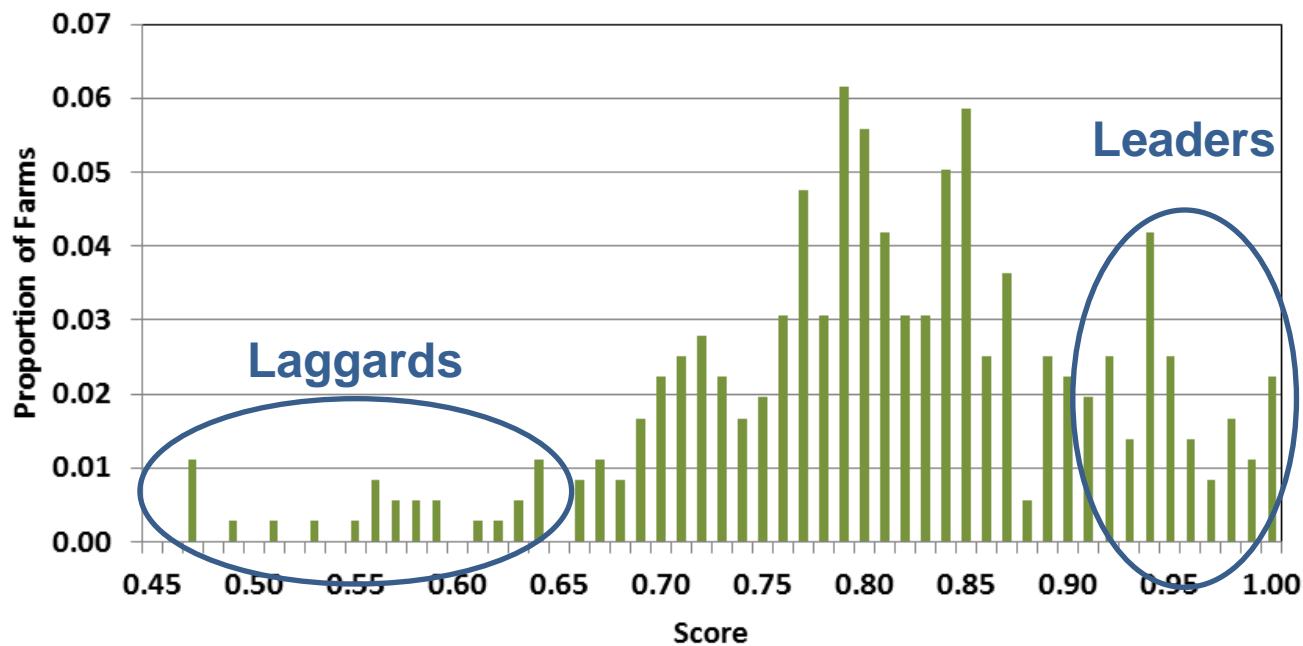
# NISA

- Scores farmers relative to their peers in terms of sustainable practice adoption, using practices they choose to measure themselves by
- Accomplishments: Cranberries, soybeans, sweet corn and green beans, WI potatoes, mint, ...
- **400,000 crop acres & 970,000 whole farm acres**

SUSTAINABLE VEGETABLE PROCESSING IN THE MIDWEST







#### SCORE COMPARISON

Survey Practices	Below Average	Average	Above Average	Actual Score
Soil Health	X			72%
Pest Management			X	93%
Disease Management		X		89%
Weed Management		X		84%
Technology Use		X		82%
Community		X		88%
Water Use			X	92%
Record-Keeping & Planning	X			77%
Energy Use			X	87%
Natural Areas			X	95%
Professional Development	X			74%
Employee Management	X			76%
Economics	X			78%

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- Aldo Leopold “The Farmer as Conservationist” *American Forests* (June 1939)



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