

Perceptions and Willingness of Pennsylvania Farmers to Adapt to Climate Change

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Introduction

- ❑ As climate change receives more attention and debate continues amongst scientists, educators, policy makers, meteorologists, and others, the agricultural sector feels the impacts from the changing climate in all spheres:
 - ❑ Food production
 - ❑ Food security
 - ❑ Water resources
 - ❑ Temperature etc.

- ❑ Due to these impacts, major shifts in agriculture are altering the livelihoods of farmers in developed and developing countries around the globe.

- ❑ As world bank data indicates: “Addressing climate change requires an unprecedented global cooperation across borders (The World Bank, 2016).”



Purpose

- ❑ The information gained from this study will be used along side results of a Capacity Discovery survey (Tobin et al. 2015) which examined climate change work of Extension specialists and educators, and researchers from the colleges of agriculture in the Northeast, U.S.
- ❑ The purpose of this study is to compare Pennsylvania corn/grain growers and tree fruit producers' perspectives on climate change. Specifically, this study examined the similarities and differences in response to changes they have experienced due to climate change and their beliefs regarding climate change.



Methodology

Focus Group Sessions

- Interview guide was developed using panel of experts and piloted at the Pennsylvania Association for Sustainable Agriculture (PASA) annual conference
- Moderator from Social Science Research Institute
- One hour long recorded sessions, transcribed and analyzed
- IRB Approval from Penn State (Study# 00003928)

Participants:

- Adams County Extension Tree Fruit producers (N=4)
- Pennsylvania Corn Growers (N=8)



Methodology

Interview Guide:

- Demographic information completed by participants.
- Seven questions examining the associations with weather changes on their farms that the following had
 - observations
 - changes
 - risk
 - challenges and
 - information channels
- A final question asked specifically about their climate change beliefs.



Tree Fruit Producers

Interview Guide:

- ❑ Demographic information completed by participants

“A lot of the changes we see in varieties are not driven by weather...you can hardly plant trees fast enough and then the public changes their perception on what they want” TF

“But the speed that the lack of education moves today is a real, real big challenge for us.” TF



Conclusions

Similarities

- There is doubt in the reality of climate change
- More public education on farming practices is needed
- “Mother Nature” will always win

Differences

Tree Fruit Producers

- Producers’ timeline doesn’t match adaptations
- Public Perception is a more pressing concern than climate change

Corn Growers

- Poor portrayal in the Media
- The market is being controlled by the Midwest



Corn Growers

Interview Guide:

- ❑ Demographic information completed by participants.

“I think what’s most frustrating for the growers out here is like we have a bad year, instead off the supple and demand, you know, low supply that are a higher price. We don’t control any of that. It’s all the Midwest.” CG

“We can’t complain about the weather patterns, but, at the end of te day, we can’t control them...and we hope Mother Nature gives them to us because we can’t control them.” CG

Conclusions: Similarities

- ❑ Both groups have doubt in the terminology of 'climate change'.
- ❑ More public education on the realities of farming and common farming practices.
- ❑ There is a reverence towards the power of "Mother Nature," with a sentiment of not being able to adapt to changes felt from the climate.



Conclusions: Differences

Tree Fruit Producers

- ❑ Participants operate on a season by season basis, depending on market demand.
- ❑ The public perception has unrealistic expectations of what producers can achieve.
 - ❑ i.e. types of agricultural good available, regulations needed, etc.

Corn Growers

- ❑ The media creates a negative image of producers.
 - ❑ i.e. the use of GMOs, the image of big agricultural monocrops, etc.
- ❑ The market for corn growers is controlled by the larger farms in the Midwest.



Next Steps

- ❑ Conduct the state-wide survey incorporating findings from this study
- ❑ Compare the data to get a comprehensive view of Pennsylvania farmers' willingness to adapt
- ❑ Connect with key researchers, Extension specialists and educators to develop adaptation strategies in line with producers' timeline
- ❑ Analyze results in conjunction with Capacity Discovery report (Tobin et al, 2015) therefore understanding all key stakeholders
- ❑ Use findings from this study to develop needed tools and information channels
- ❑ Examine ways to clear the doubts farmers' have on climate change



Any Questions?

Thank You!

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