A Growers' Perspective on Data Sharing and IPM

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iPiPE — INTEGRATED PEST INFORMATION PLATFORM FOR EXTENSION AND EDUCATION

STOCKBRIDGE SCHOOL of AGRICULTURE

UMass Extension

Abstract

The iPiPE platform operates to help growers share their pest data freely amongst each other and make informed management decisions, however this operates under the assumption that there is a desire to share data. Through a set of survey questions we assessed what possible hesitations growers had towards data sharing, the platform, and IPM as it related to food security and sustainability. The goal was to gain insight into what are the actual needs of small scale apple growers in Massachusetts in terms of pest data resources and make suggestions to the iPiPE program in order to best serve the stakeholders using the program.
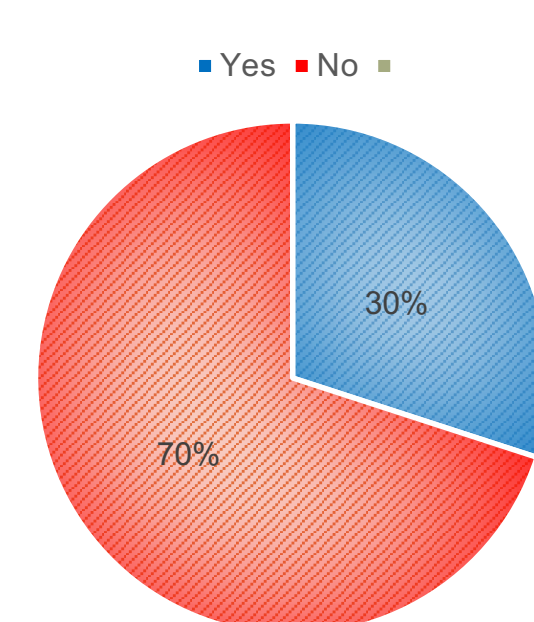
Questions and Data

Q1: Do you feel that food insecurity is an issue in your area?

Yes 60% / No 40%
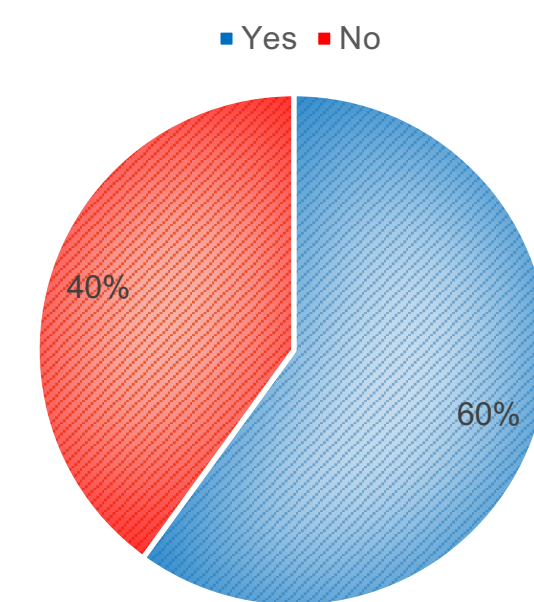
Q2: Do you feel that sustainable agriculture is useful to improving food security and health?


Yes 100%
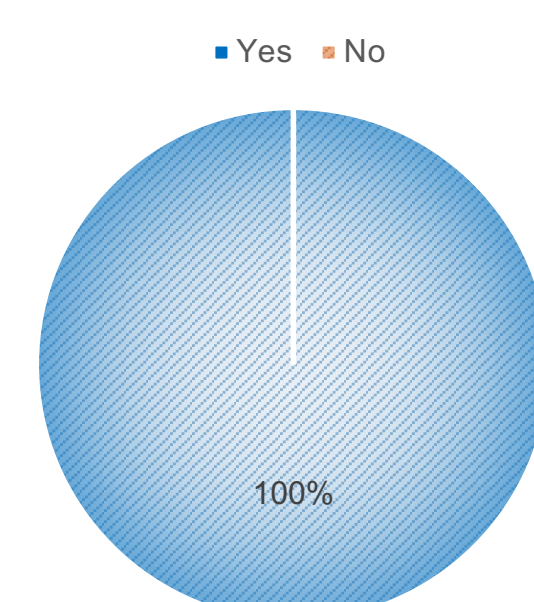
Q3: Do you feel that a significant percentage of your crop per year is unmarketable due to pest injury or damage?


Yes 30% / No 70%

Q4: Do you feel that having access to pest data other than the observations collected on your own farm could help improve your pest management practices?


Yes 100% / No 0%
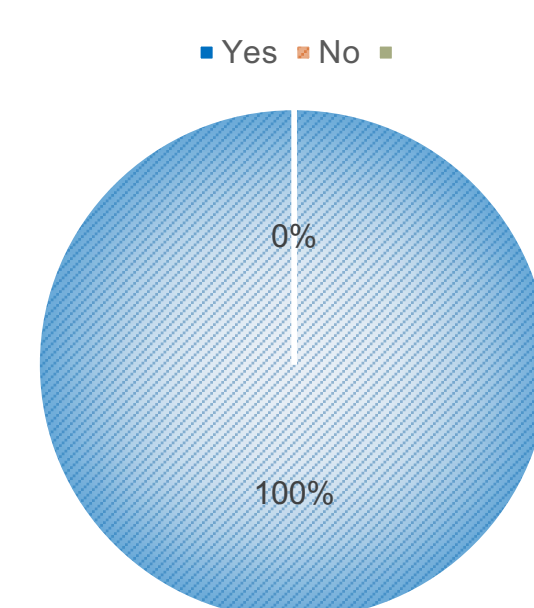
Q5 & Q7: If you were to encounter pest insect populations, bacteria, or fungal disease on your farm, would you be willing to share that scouting data?

Yes 100% / No 0%
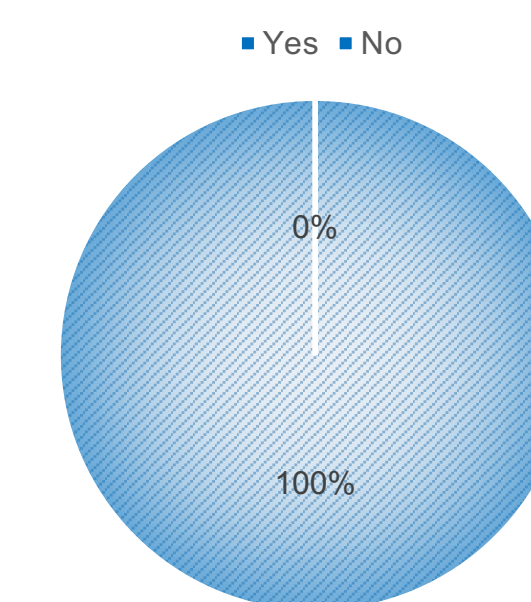
Q6 & Q8: If you were to encounter pest insect populations, bacteria, or fungal disease considered invasive or not typically found in our region on your farm, would you be willing to share that scouting data?

Yes 90% / No 10%
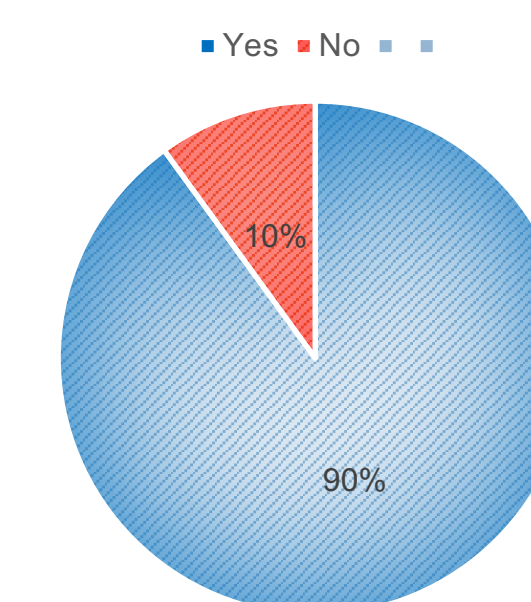
Q9: Do you already collaborate, formally or informally (calling, texting, emails, in person visits, etc.) with other growers or share data, observations, and practices?

Yes 90% / No 10%
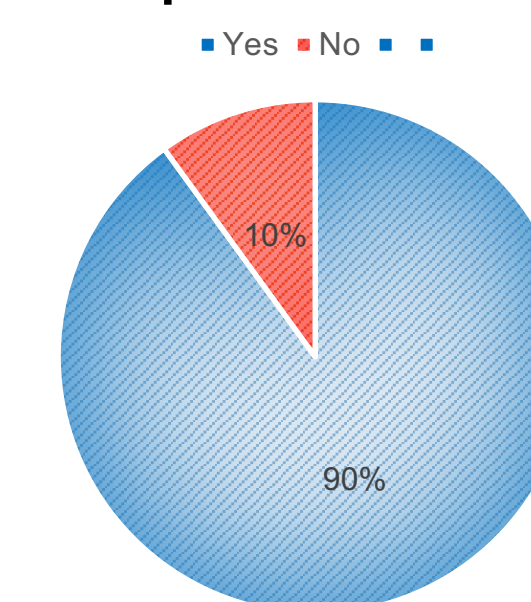
Analysis and Discussion

It is very clear through our questioning that the growers we interviewed, which represent a fair spread of prominent apple growers in Massachusetts, are willing to share their pest observation data. The majority also mentioned that the vast amount of available data through services like news letters or other pest data programs plays a key role in shaping management decisions. The issues that resulted in the most hesitation were those that had an impact on the economics of the orchard. Most growers said they would share data concerning invasive species, however all brought up the issues of quarantines and potential lost income. The data also does not reflect significant losses due to pest damage, however this was because most growers sell a good amount of fruit to the seconds market for cider or sauce. These apples inevitably go for a lower price, so in reality there is lost income due to consumer and market standards for fancy apples.

Future Research

Apple production in Massachusetts is largely dominated by small scale operations that have a hard time operating under regulations and systems that favor industrial agricultural. Add to that the fact that apples are a crop requiring high levels of input and management, and it makes it difficult for small scale producers to have secure income. Suggestions for further research or possible future functions of iPiPE would be to devise a service that helps consolidate all the necessary paperwork into one place. A site on which a grower could fill out a profile and autofill the majority of the forms and paperwork necessary every year could be a huge time saver for family farms.

Acknowledgement