Growers' Perspectives on Data Sharing and IPM

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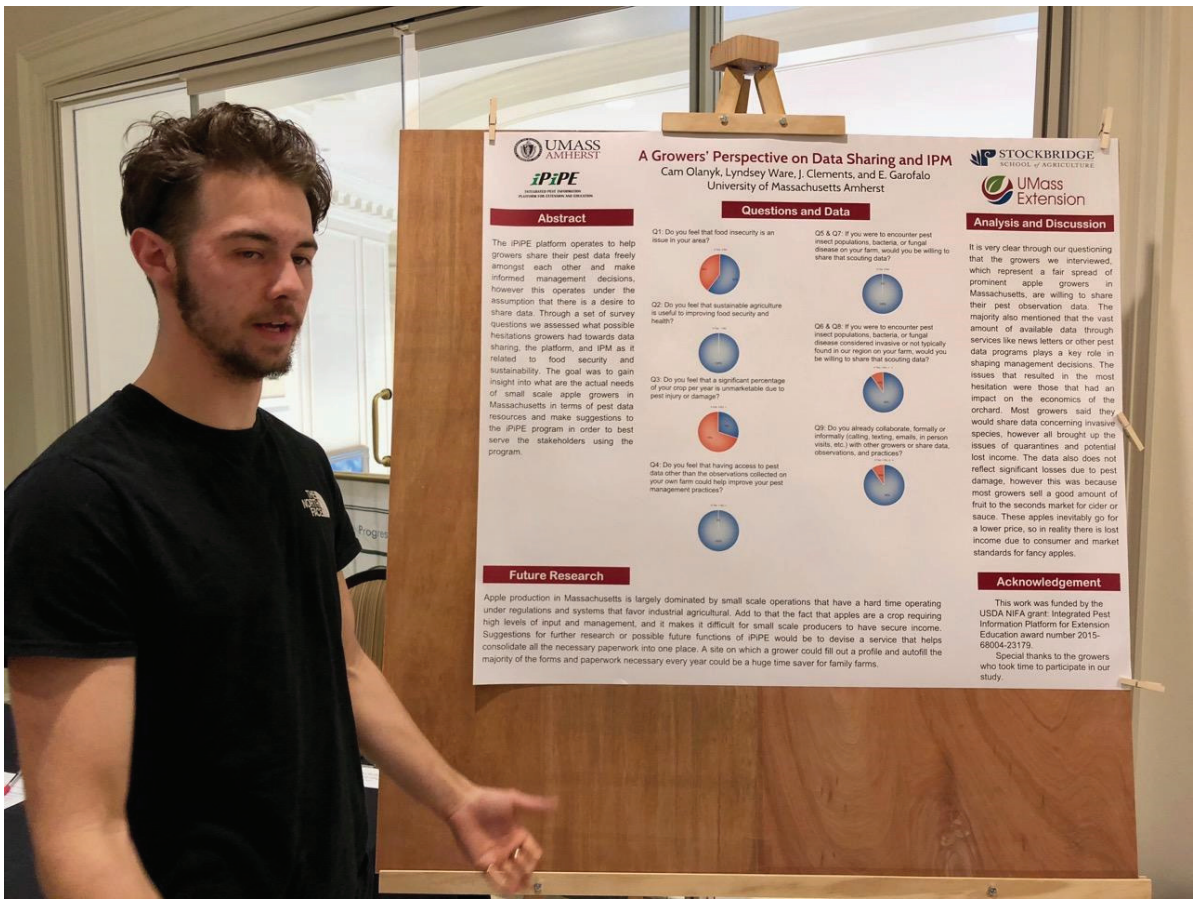
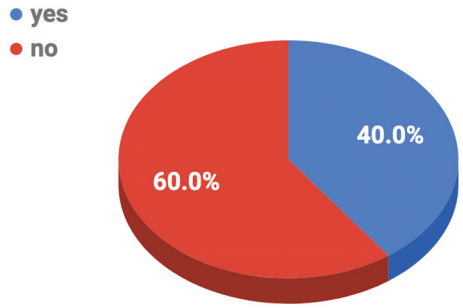
iPiPE is an online portal (ipipe.org) designed to help agricultural professionals, including growers, share pest observation data freely amongst each other to make better, informed management decisions. iPiPE therefore assumes there is a willingness and desire to share data. Through a set of survey questions, we assessed growers' perceptions towards data sharing, the iPiPE platform, and IPM as it relates to food security and sustainability. Our goal was to gain insight into the needs and perceptions of apple growers in Massachusetts in terms of pest data resources to make suggestions and improve iPiPE so it can better meet its objective of "developing a national infrastructure of professionals who routinely monitor crop health and pest incidence then share this knowledge enabling dissemination of mitigation measures to limit food security impairment."

During the 2018 growing season, we worked with Jon Clements and Elizabeth Garofalo as student interns on the iPiPE Northeast Apple Crop Pest Program (CPP). As already mentioned, iPiPE allows growers and other ag professionals to input and observe their own pest data, as well as see the pest data from other growers

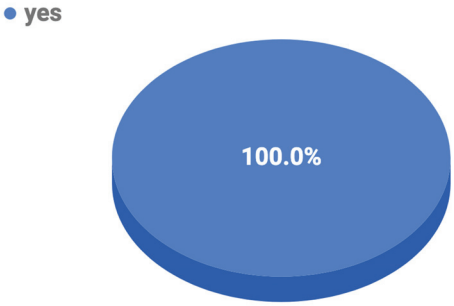


Cam Olanyk presents poster at iPiPE Mixer, North Carolina State University, 5-February, 2019

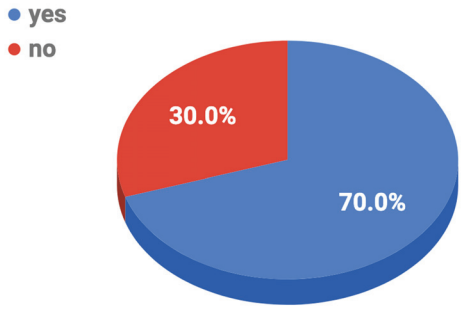
Question 1. Do you feel that food insecurity is an issue in your area?



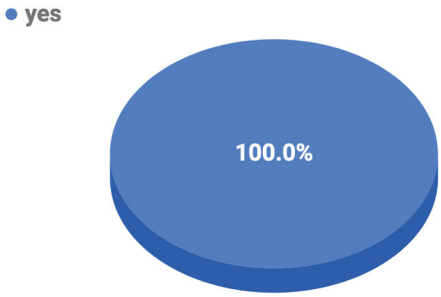
Question 2. Do you feel that sustainable agriculture is useful to improving food security and health?



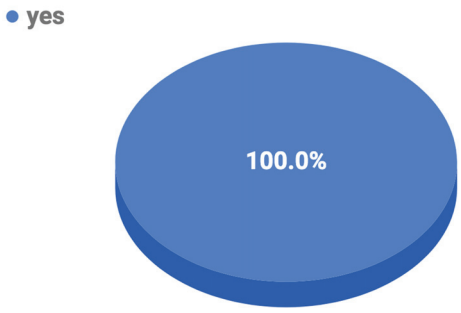
Question 3. Do you feel that a significant percentage of your crop per year is unmarketable due to pest injury or damage?



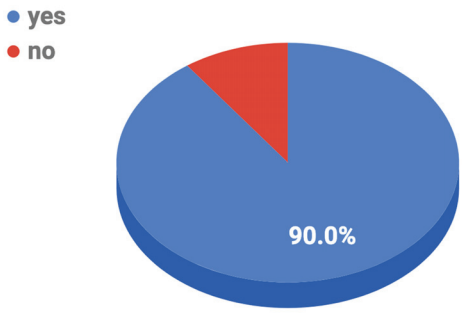
Question 4. Do you feel that having access to pest data other than the observations collected on your own farm could help improve your pest management practices?



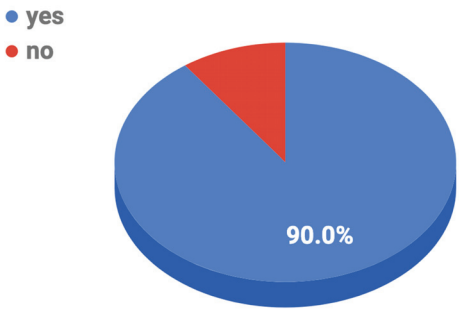
Question 5. If you were to encounter pest insect populations, bacteria, or fungal disease on your farm, would you be willing to share that scouting data?



Question 6. 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?



Question 7. Do you already collaborate, formally or informally (calling, texting, emails, in person visits, etc.) with other growers or share data, observations, and practices?



to help better inform them of pest trends in their area. Part of our role was to scout and check traps in Massachusetts apple orchards and enter and record these pest observations into iPiPE. In addition, we were expected to create a research poster -- to be formally presented at the iPiPE 'Mixer' in February, 2019 at North Carolina State University -- based on something we had learned during our summer scouting and interaction with growers. It was our observation that most growers -- those being fruit growers in Massachusetts and the greater New England region -- seemed generally open to collaboration and sharing of information. To validate this assumption, we conducted an in-person survey in late August 2018 of ten apple growers who we had visited regularly though the growing season to get a more objective indication of their willingness to share pest data in certain situations.

After conducting interviews and compiling the data -- see pie charts -- it was overwhelmingly obvious that growers are more than willing to share information amongst one another and that in the majority of cases they already do just that. All of our growers said they are willing to share insect, bacterial, and fungal pest data, and 90% said they already actively share that information via email, phone calls, or other direct communication with growers in their area. The only time in which there was any hesitation to share data was in the case of invasive pests, and this brought up an interesting concern shared by many growers. How can small growers and family farmers compete against the industrial agriculture system if they have to quarantine their orchard or remove an entire productive block in response to an outbreak of some invasive pest? This may be a minor hurdle for larger scale operation, however, for a small grower this could spell disaster.

The Northeast is arguably the best place in the country for small, local agriculture. There is a long history of support from the community for growers as well as a culture of collaboration and comradery. This seems to be the key to continued success for small growers, that is openly sharing data and information to ensure the success of every farm. And we thank very much the growers who allowed us to survey them and openly answered our somewhat tough questions.

Cam Olanyk and Lyndsey Ware are undergraduate students in the Stockbridge School of Agriculture at UMass Amherst. Elizabeth Garofalo and Jon Clements are Extension Educators in the Center for Agriculture, Food, and the Environment at UMass Amherst. This work was partially funded by USDA/NIFA iPiPE 2015-68004-23179 and Extension Implementation Program 2-14-700006-22579.