A Survey of Florida's Potato Stakeholder Engagement:
Understanding their willingness to share information

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Abstract

Promoting the sharing of plant pest observations and information is the iPiPE's core mission. This can be an incredibly useful resource to agriculture's food security, pest management practices and profitability. To better understand the iPiPE's value to Florida's producers, a survey was compiled to measure stakeholder willingness to share information. Agricultural production systems across the U.S. vary in their willingness to share information and adapt to technology. Florida's producers face many unique pest management challenges due to climate and weather that causes them to be cautious with how they share information. Our survey was completed by twenty-two stakeholders identified as producers, consultants, industry representatives and extension personnel. A summary of the results shows that a majority (96%) of the respondents were willing to share information through mobile and web-based applications. However, the type of data and its important varied among the respondents. The future goal is to expand this survey to better understand potato producer and consultant's information sharing preferences, and how tools like the iPiPE can be effectively integrated into their decision management process.

Methods

During a 2018 extension meeting attendees were asked to fill out a written survey (Fig. 1) that measured their willingness to share data related to the following areas:

1. Weeds
2. Nematodes
3. Insects
4. Disease
5. Crop type
6. Farm location
7. Market price received
8. Personal weather data
9. Management used
10. Planting dates
11. Crop yield
12. Drone imagery

The respondents were also asked how likely they were to use mobile apps and web-based tools, what tools are they currently using, what monetary return value they would consider for using these tools and sharing data, and to provide back ground information on their relation to agirculture (e.g. consultant, extension, producer). Some respondents indicated what incentives they would be interested in acquiring for using this technology. All completed surveys were summarized in Excel (Microsoft) and graphed to show respondent distributions.


Fig. 1. The 2018 cabbage field day at the Hasting Agricultural Extension Center in Hasting, FL. Stakeholders were surveyed at this location after presentations on production management and agricultural technology.

Result of the Survey

- A total of 22 respondents answered this survey from extension (11), industry (5), government (2), producers (2), consulting (1) and home gardener (1).
- 96% of the respondents indicated they were willing to share information, but for 41% it was dependent on the type of information and situation (Fig. 2).
- All respondents were willing to use a mobile app or web-based tool, but the likelihood varied among them (Fig. 3).
- Most (> 60%) respondents were interested in disease, insects and weeds data, but only half were interested in nematode data (Fig. 4).
- Respondents (>70%) were willing to share data about disease presence, crop type, personal weather and planting date (Fig. 5)
- Some respondents were already using popular agricultural applications (e.g. Tank Mix Calc. and SoilWeb) with a few (2) using applications specific to their crops.
- Incentives found to be important were yield savings, crop price and reduced costs. Government support programs and certifications were consistently ranked the lowest of the incentives listed.
- A minimum savings of $1,000 to $10,000 to use a tool indicated

Share Data
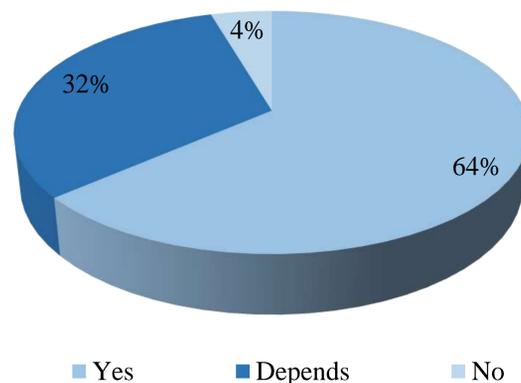
Fig. 2. This pie chart shows the percentages of the stakeholder's responses to the survey questions: "Are you willing to share information on these tools or gathered automatically by these tools?" Tools being mobile applications and web-based resources.

APP Usage
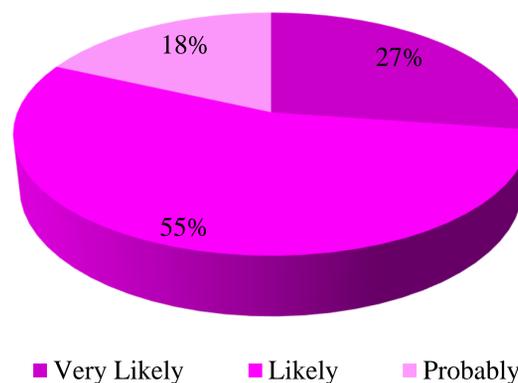
Fig. 3. This pie chart shows the percentages of the stakeholder's responses to the survey questions: "How likely are you to use a mobile app or web-based pest management resource" The answer choices provided for this question ranged from 'not at all' to 'very likely.'

## Concluding Thoughts and Perspectives

- These results indicate that the iPiPE could potentially be well accepted in Florida's potato production systems.
- The type of information stakeholders are willing to share varied, however, pest presence was generally an acceptable information source.
- Respondents indicated that there is a limit to the number of electronic resources they will use, which was between 3 and 4.
- Limitations exist in this survey as only 2 respondents were producers. Thus, future surveys will be targeted towards producers and consultants. An electronic survey will also be administered to increase sample size around the state.
- Research is being conducted in 2019 to examine how the combination of the iPiPE and Late Blight DSS from Ukko Agro will be used by producers and if the information shared and gained meets their expected product values.

Data Most Interested In?
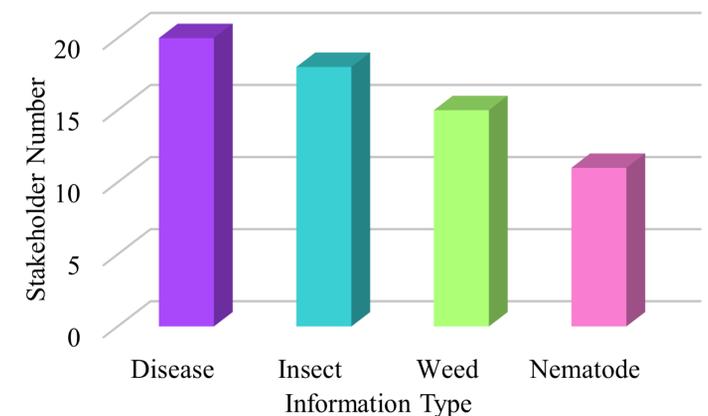
Fig. 4. A bar chart that shows the number stakeholders that choose each of the four categories listed on the x-axis in response to the survey question: "When it comes to pest management, what types of data are you interested in (Circle all that apply)".

Data Willing to Share?
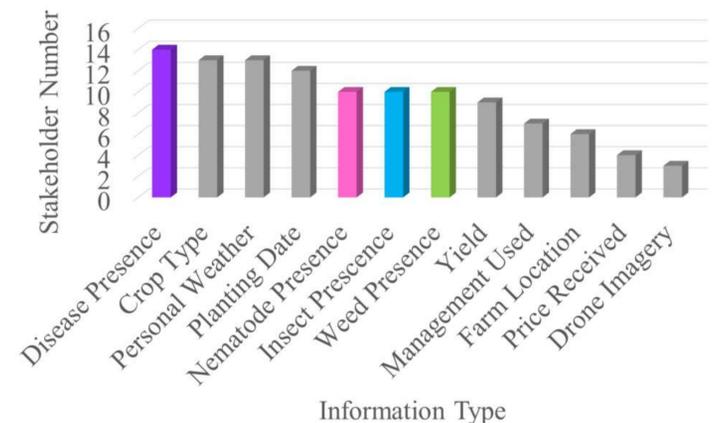
Fig. 5. A bar chart that shows the number stakeholders that choose each of the categories listed on the x-axis in response to the survey question: "Circle all the information types that you would or might be willing to share". The sample size was 17.