

# ‘Ceres’ Plant Health Database

P2: Discovery Research - External Benefitters

Code for Canada + OMAFRA

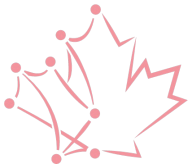


# Background

After interviewing the specialists (covered in P1: Discovery Research - Internal Users), we learned the following:

- Some growers participate in collecting data and/or receiving insights from OMAFRA's crop protection communication
- Grower Organizations and Crop Consultants play a very important role transferring information between the specialists and the growers

Therefore, we decided to interview growers, crop consultants and grower organizations to define the problem further and validate some of the statements we heard from the specialists.



# Approach

External Benefitters (growers, crop consultants and grower orgs) were asked questions via 1:1 remote interviews.

## Research Objectives

- Understand the process of how participants are currently scouting and reporting data
- Uncover the different tools and resources participants use to predict and respond to plant health threats
- Identify any problems or barriers they encounter throughout the data lifecycle
- Learn about their needs, motivations and communication preferences



# Participant Criteria

Due to availability restrictions caused by Covid-19, we aimed for a minimum of 3 users per external user group:

1. Growers (data generators)

Growers who participated in trap networks and collected data

2. Growers (data consumers)

Growers who occasionally or actively utilize and interact with OMAFRA's crop protection communication

3. Grower Supports

Crop Consultants & Grower Organizations



# Persona #1



## The Technologically Aware Grower

Brian - Farmer

*Brian uses technology but is not totally comfortable with it. He finds purpose in participating in trap networks and playing a part in improving agriculture. He tries to stay updated about farming and finds value in sharing his learnings with others.*

### Jobs-to-Be-Done

- When participating in a trap network, I want to **register a new trap and add weekly reports** to monitor pest risk and protect my crops from any possible damage or loss. The process should be easy, clear, fast, and mobile friendly. As a result, I will feel comfortable to use the platform with minimum to no training necessary

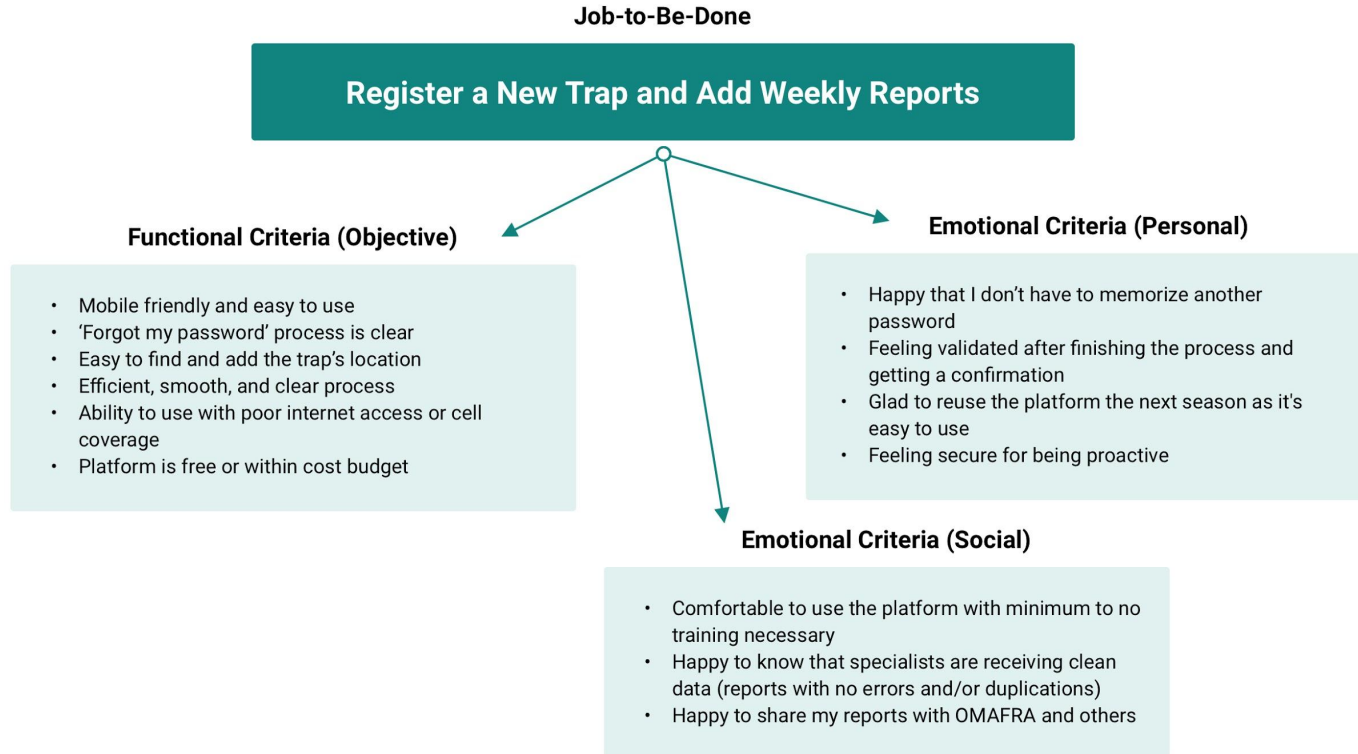
### Behaviors

- Uses smartphone and tablet when he's on road and his laptop when he's in the office
- Follows agronomy blogs and certain agriculturalists in the community
- Doesn't connect his phone to his email

### Pain Points

- Annoyed by the poor internet access or cell coverage in some rural areas
- Struggles with remembering too many passwords
- Finds the trap network confusing when connecting reports to traps
- Finds entering locations confusing and inaccurate
- Frustrated by fat-finger errors when using the app on his phone
- Challenge to manage pests when receiving late results

# Brian - Framer



“

By the time we see [the data] and it shows us the next week's update, it takes a week. So that's part of the challenge with a pest that within 3 days can ramp up from 200 to 400.

”

- Anonymous Farmer

# Persona #2



## The Digerati Adviser

Janet - Crop Consultant

*Janet started her business in 2012. She works with livestock producers and farmers across 13 counties in Ontario. She's a techy, highly educated power user, and an ambitious networker.*

### Jobs-to-Be-Done

- I want to continuously **make sure my staff is well-trained** on processes (how to use different systems) and agronomy to support my clients as needed. The training process should be quick so both my staff and I can focus on other tasks. As a result, I will feel confident about my staff performance and glad to reduce staff training time.
- In and off season, I want to digitally **manage and analyze data** to advise my clients on what to do next. Efficient processes will help give my clients real-time recommendations. The Cloud-based software should be sustainable, and customizable for ease of access, editing, and sharing. As a result, I will feel relief for finding the right product for my business and happy for helping my customers maximize their profit

### Behaviors

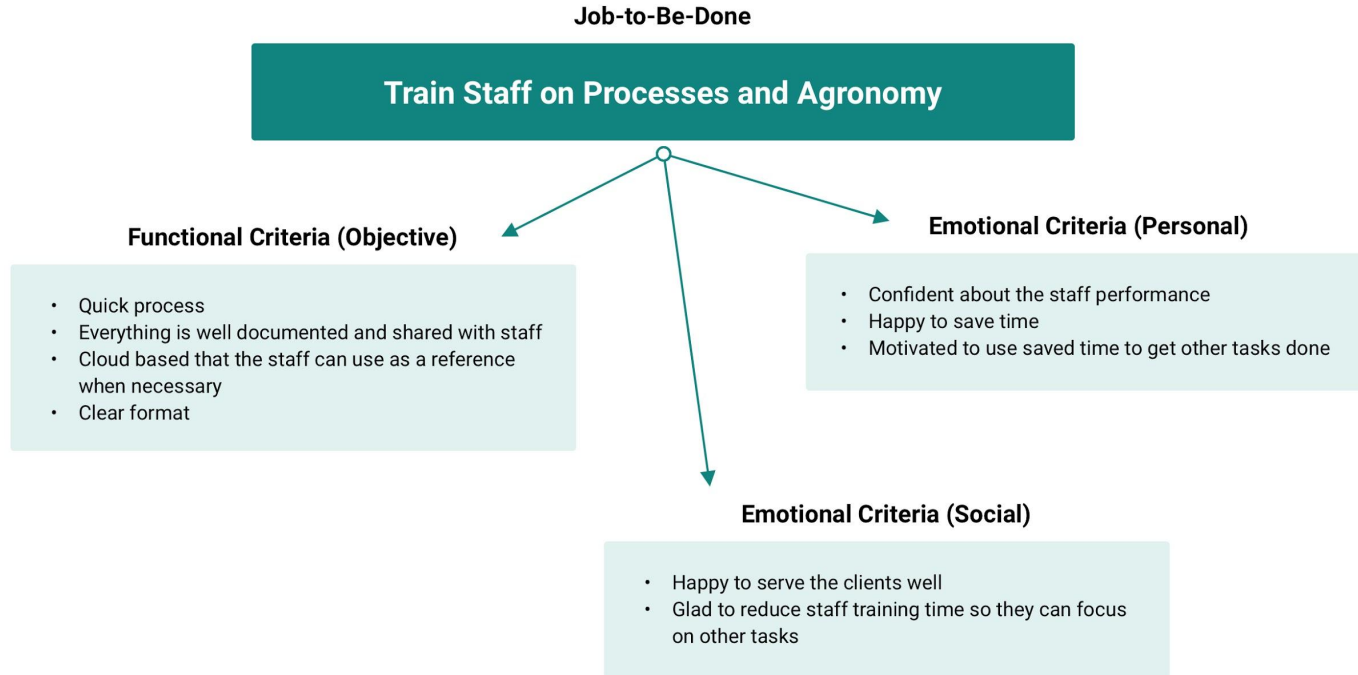
- Uses smartphone and tablet when she's on the road and her laptop when she's in the office
- Saves everything to the Cloud
- Always searches for new tools and new learnings
- Doesn't read agronomy blogs as she finds them opinion based
- Listens to agronomy podcasts while she's on the road

### Pain Points

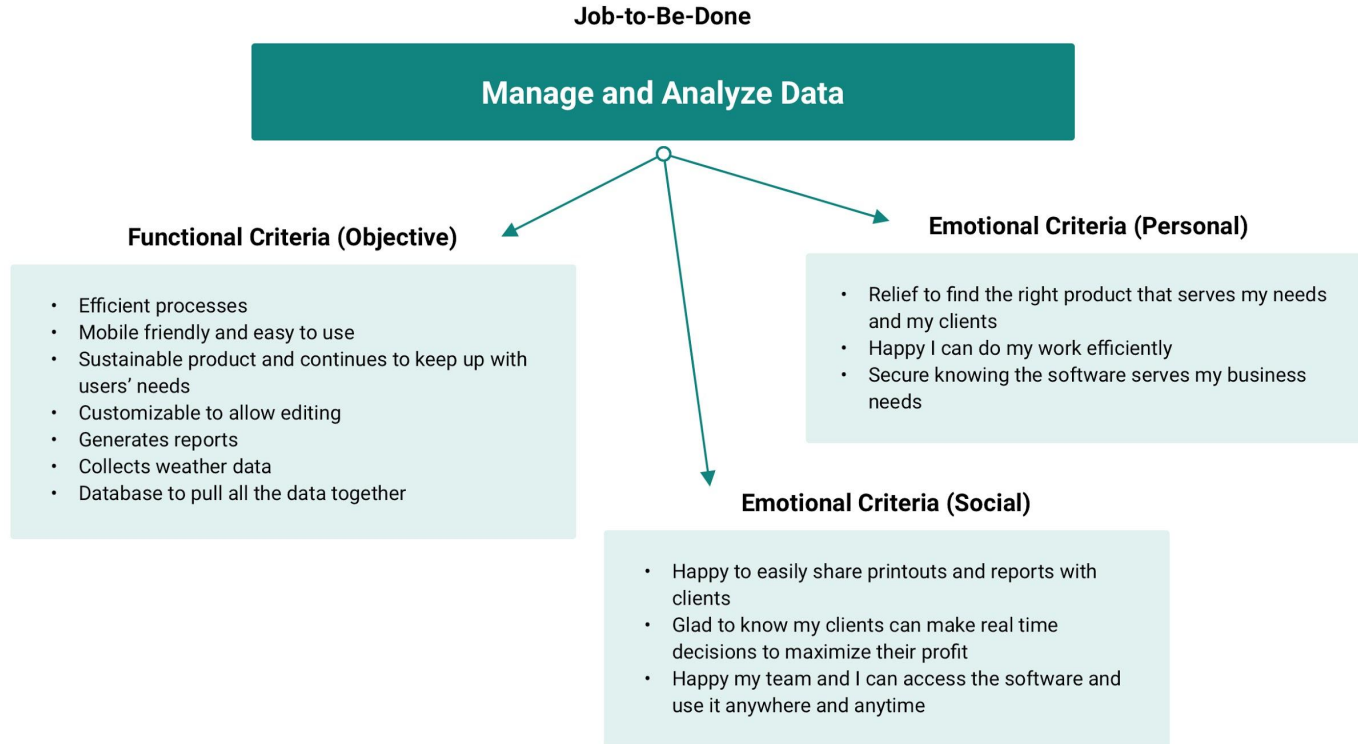
- Struggles with interfacing so many systems on the farm, because they all run differently
- Training staff is very time consuming in a weekly basis



# Janet - Crop Consultant



# Janet - Crop Consultant



# Persona #3



## The Growers' Champion

Lisa - Manager at Grower Org

*Lisa currently works as a Manager for a Grower Organization supporting growers and their needs. She used to work in administration and marketing. She is also in constant communication with OMAFRA staff and consultants to discuss seasonal issues.*

## Jobs-to-Be-Done

- Throughout the year, I want to **communicate issues and learnings efficiently between farmers, consultants, and OMAFRA staff** for faster responses and decision making. One platform should be used to store all the data and track progress, frequency, and location. As a result, I will feel happy that I am doing my work efficiently and replying to farmers faster

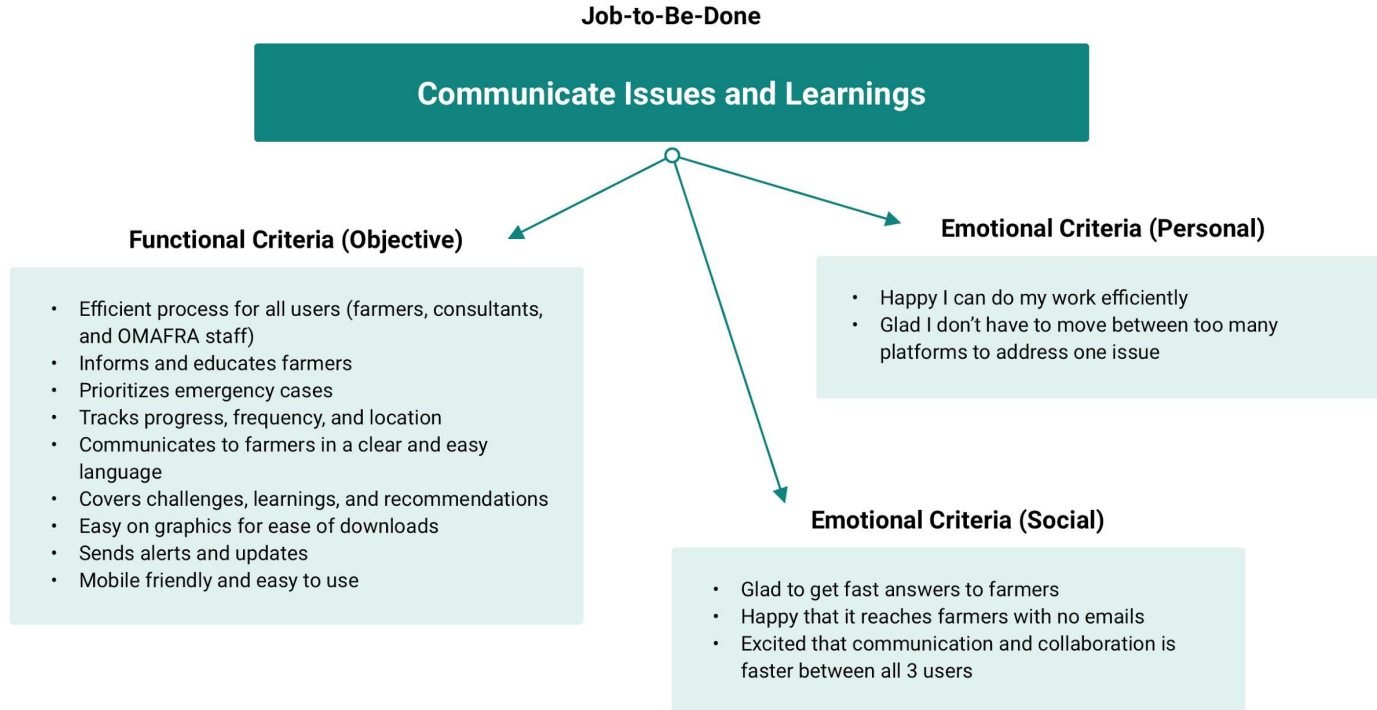
## Behaviors

- Mostly uses the computer for communication, and uses the smartphone on the field
- Always looking for ways to be as efficient as possible
- Actively looking at where the gaps are and the needs within the industry

## Pain Points

- Difficult to function and communicate with farmers with the bad internet service in the rural areas
- Data entry is time consuming as farmers report their storage holdings in different formats
- Challenging to do less print as it's hard on growers to download any of the publications

# Lisa - Manager at Grower Org



# Persona #4



## The Jack of all Trades

Phillip - Crop Consultant & Custom Agronomic Researcher

*Phillip manages a lot of data on a daily basis as a Grower, a Consultant, an Agronomist, and a Researcher. He is well versed in all data collecting makes and models, since he works with a wide range of farmers with different tools and systems.*

## Jobs-to-Be-Done

- In and off season, I want to **manage and analyze data** for different operations to advise my customers on what to do next. Efficient and seamless processes will help give my customers real-time recommendations. As a result, I will be happy for managing my time better and for helping my customers maximize their profit.

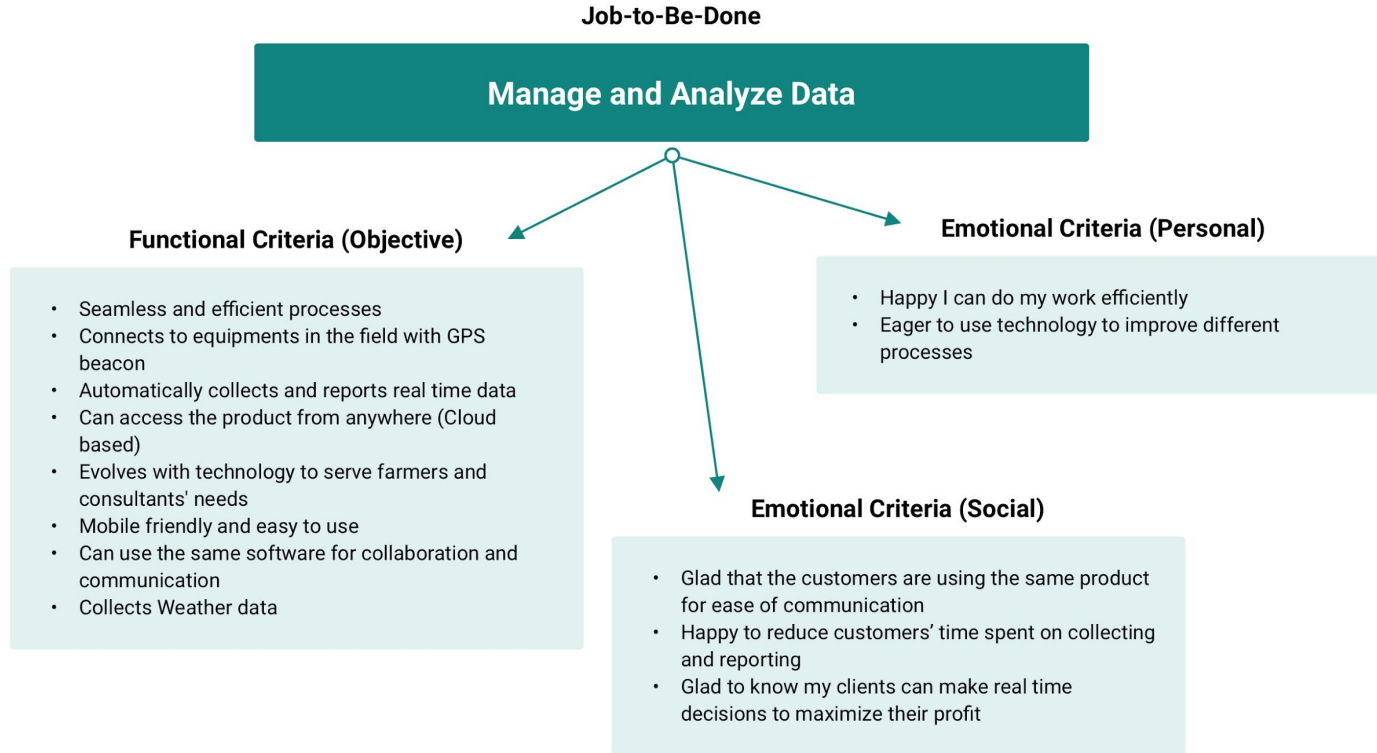
## Behaviors

- Relies a lot on his smartphone
- Relies on data plans even in the office
- Uses technology heavily in his farm
- Prioritizes his tasks to align with the seasonal needs
- Uses his farm for research and experiments to share his learnings with his customers and gain their confidence to make a certain shift
- Reads agronomy websites to find generic recommendations and to educate himself on existing research

## Pain Points

- Doesn't like user generated data that relies on the users' input as it takes so much time and commitment
- Hard to keep some farmers up to date with technology

# Phillip - Crop Consultant & Researcher



# Conclusion

Both internal and external users were recruited for discovery research. As a result of this research, **the product was developed for internal use only.**

External Benefitters are research personas but not user personas, which is why they weren't recruited for the usability testing.

In the far future, external benefitters have potential to become Ceres users (with certain limitations to insure data privacy). However, further user research will be needed by then.

