Scout training 2024

Last updated April 16th, 2024

Resources/Quick links

- If you have any questions, comments, or concerns about the scouting method or Open Crop Manager please email Miranda DePriest at mnd20@psu.edu.

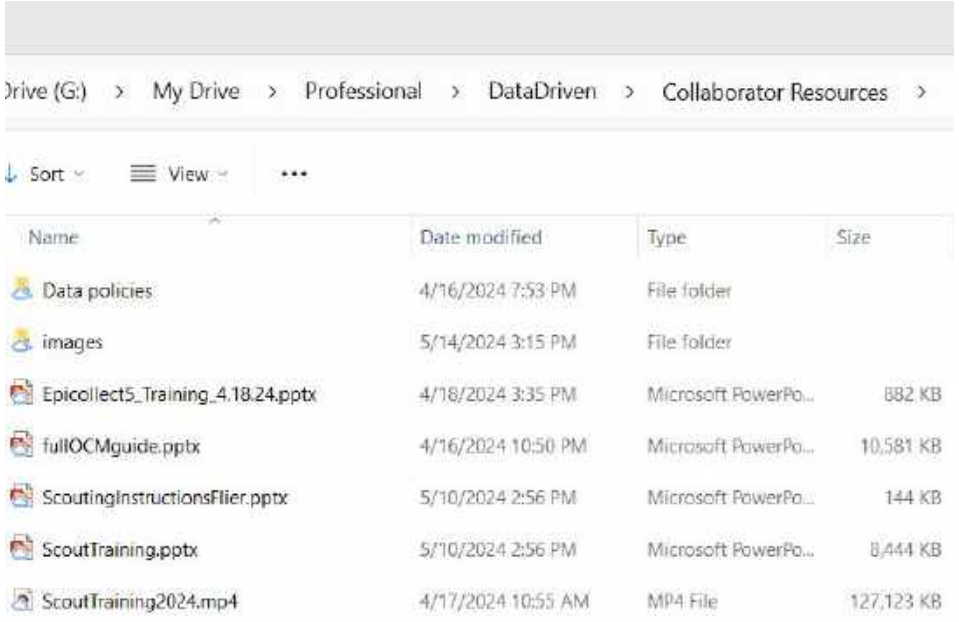
- Open Crop Manager can be found at open-crop.vmhost.psu.edu

- The Collaborator Resource folder

The Collaborator Resources folder

Contains

- this presentation
- a more thorough guide to OCM
- data privacy policy documents
- and more



Found here:

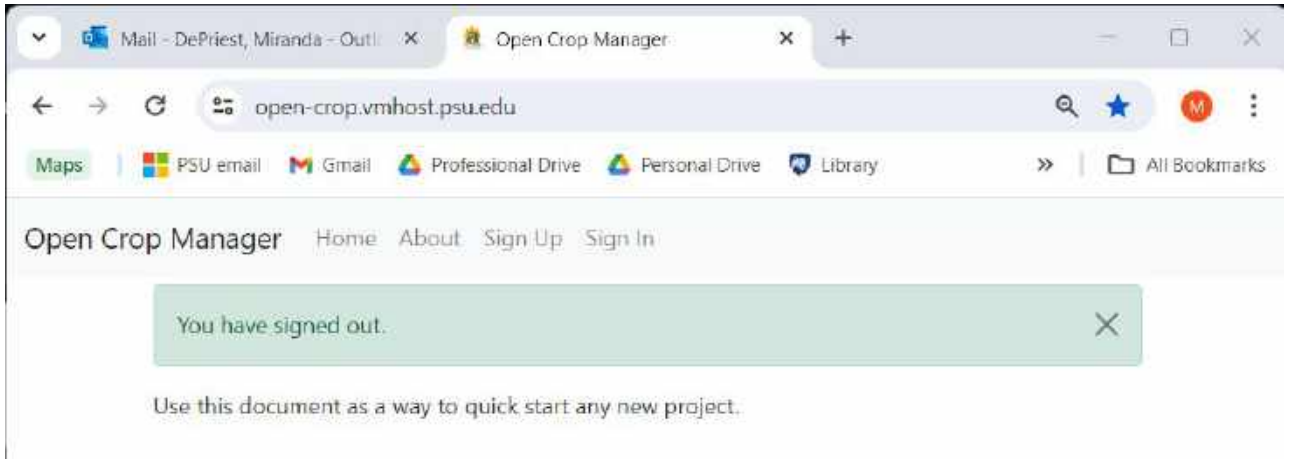
https://drive.google.com/drive/folders/1rGqZmdxQYYPd2TxSaeSL1Gr3NoQGUxdO?usp=sharing

About Open Crop Manager (OCM)

Central repository of field data

This is where we put:

- Field locations
- Scouting reports
- Production surveys & yield files*



open-crop.vmhost.psu.edu

Current status

- OCM browser (open-crop.vmhost.psu.edu) is available
- OCM mobile is coming out in early July
- If you have trouble making reports in remote areas, please use Epicollect5. See the guide.

Data timeline

Beginning of the growing season:

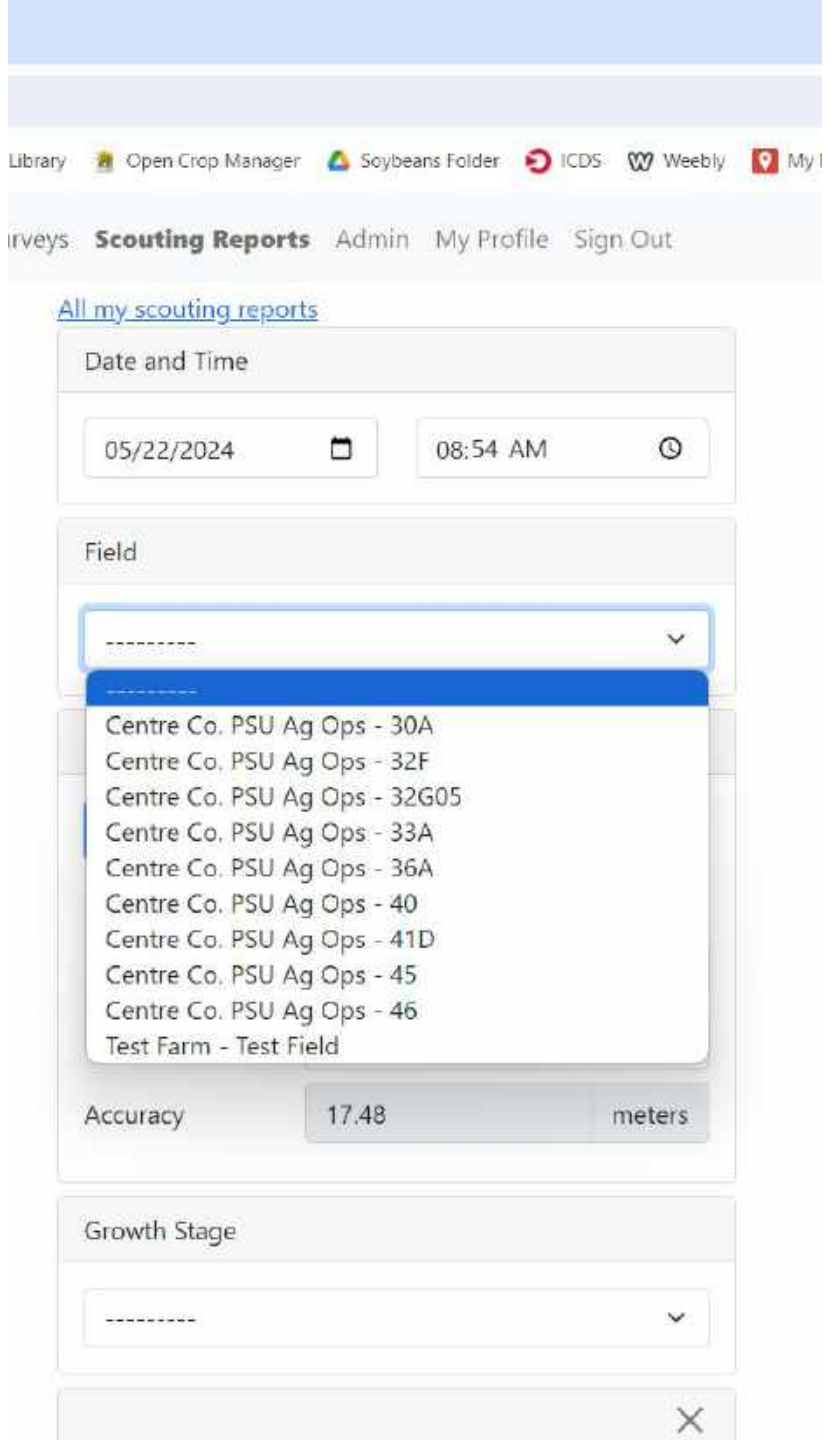
1. Create an account
2. Determine your user type
3. Add your field(s)
4. Add collaborators to your fields

Throughout the growing season

1. Add scouting reports

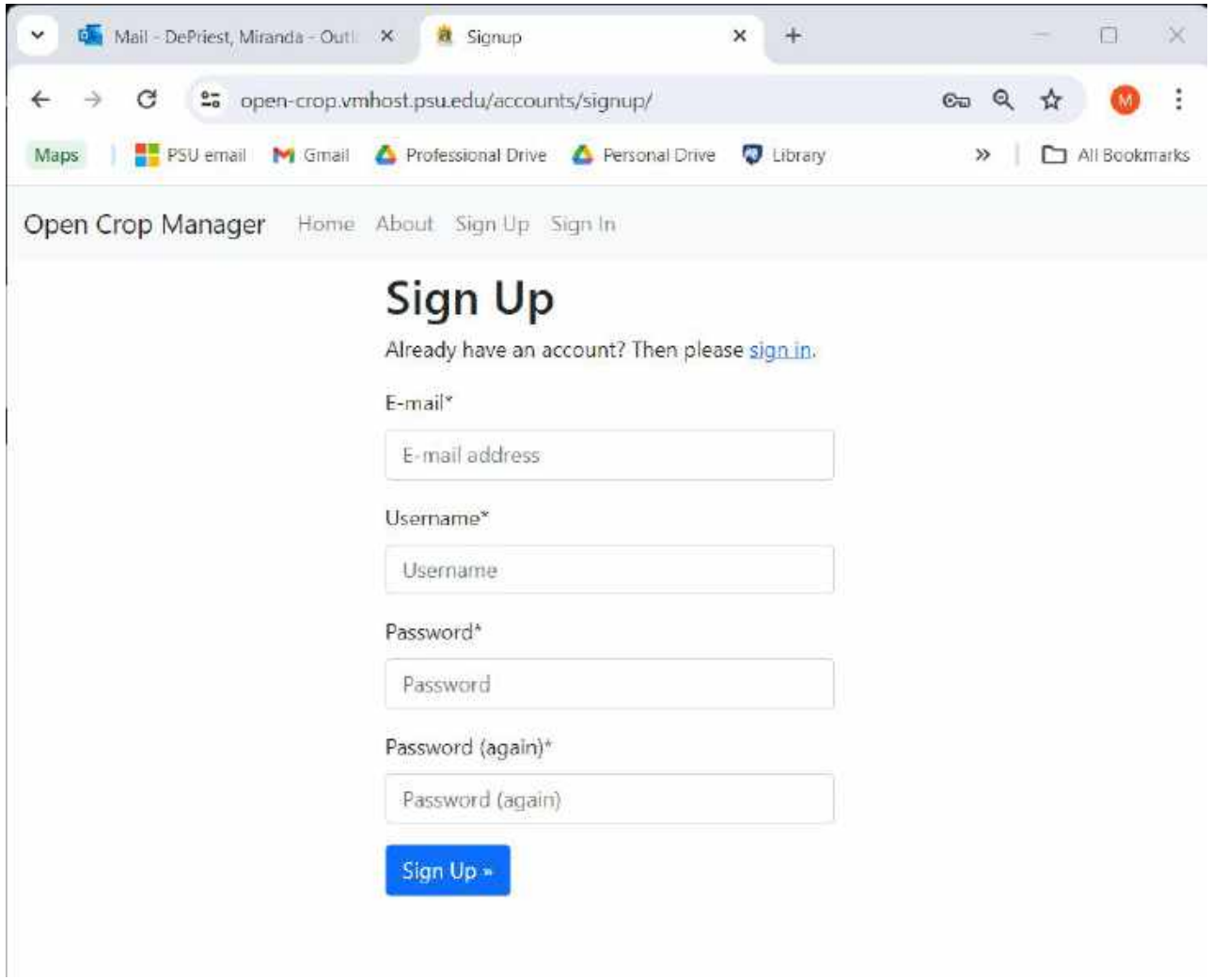
At the end of the growing season

1. Fill out the production survey and submit a yield file, if possible



Create an account

- Go to open-crop.vmhost.psu.edu and choose ‘Sign Up’
- Provide information
- Verify email account
- Sign in



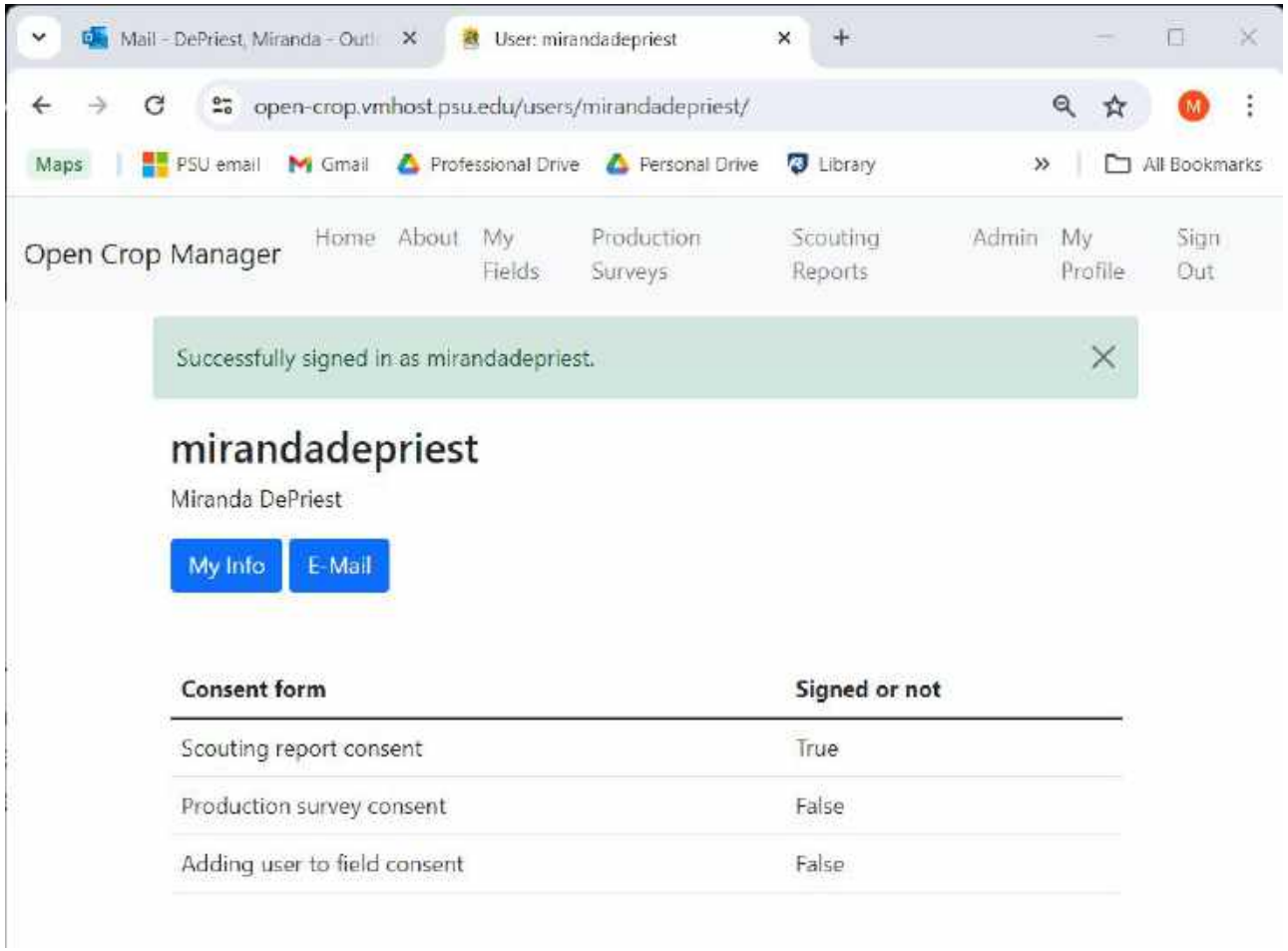
Determine user type

You are automatically a Scout.

If you are someone responsible for managing field data (like pesticides used, planting dates, etc.) please email Miranda DePriest (mnd20@psu.edu) with the following information:

- Your name
- Your job title
- The owner of the field
- The email address of the owner of the field, if applicable

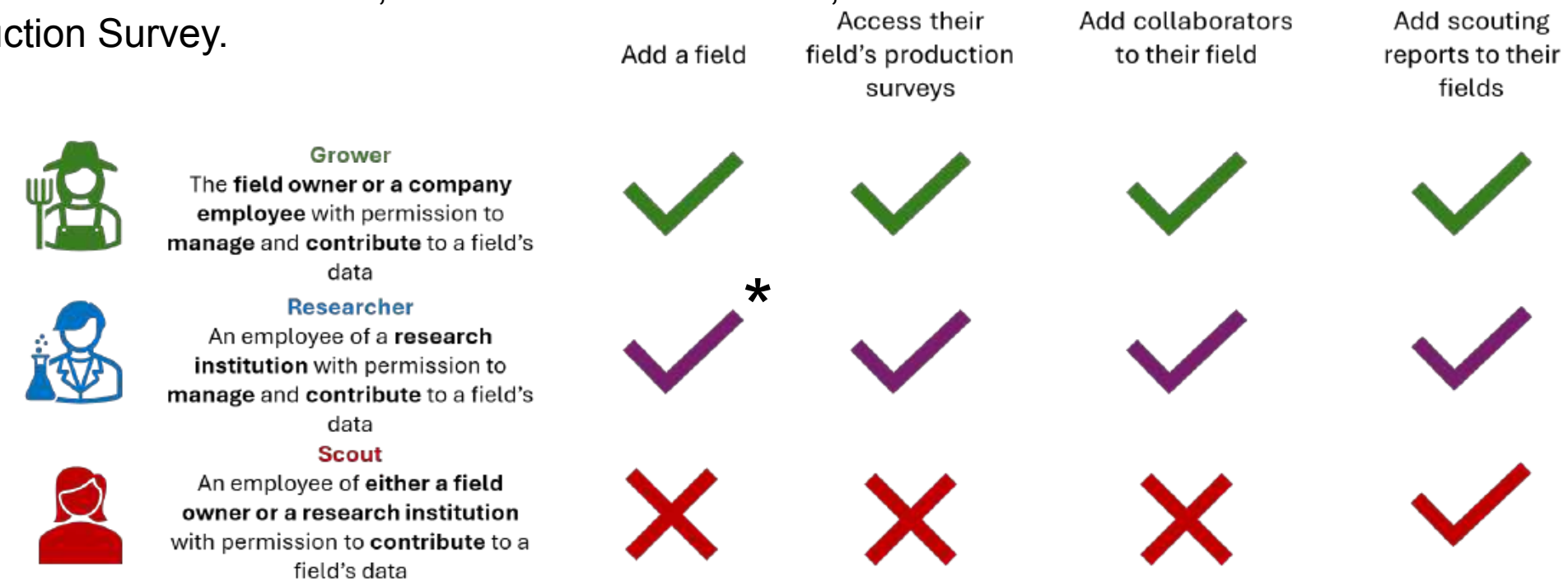
I will change your user type to allow you the ability to add/access certain types of data



Determine user type

To protect data privacy, there are 3 user types: Grower, Researcher, and Scout.

All user types can create Scouting Reports, but only Growers and Researchers can add fields, add collaborators to field, and access the Production Survey.

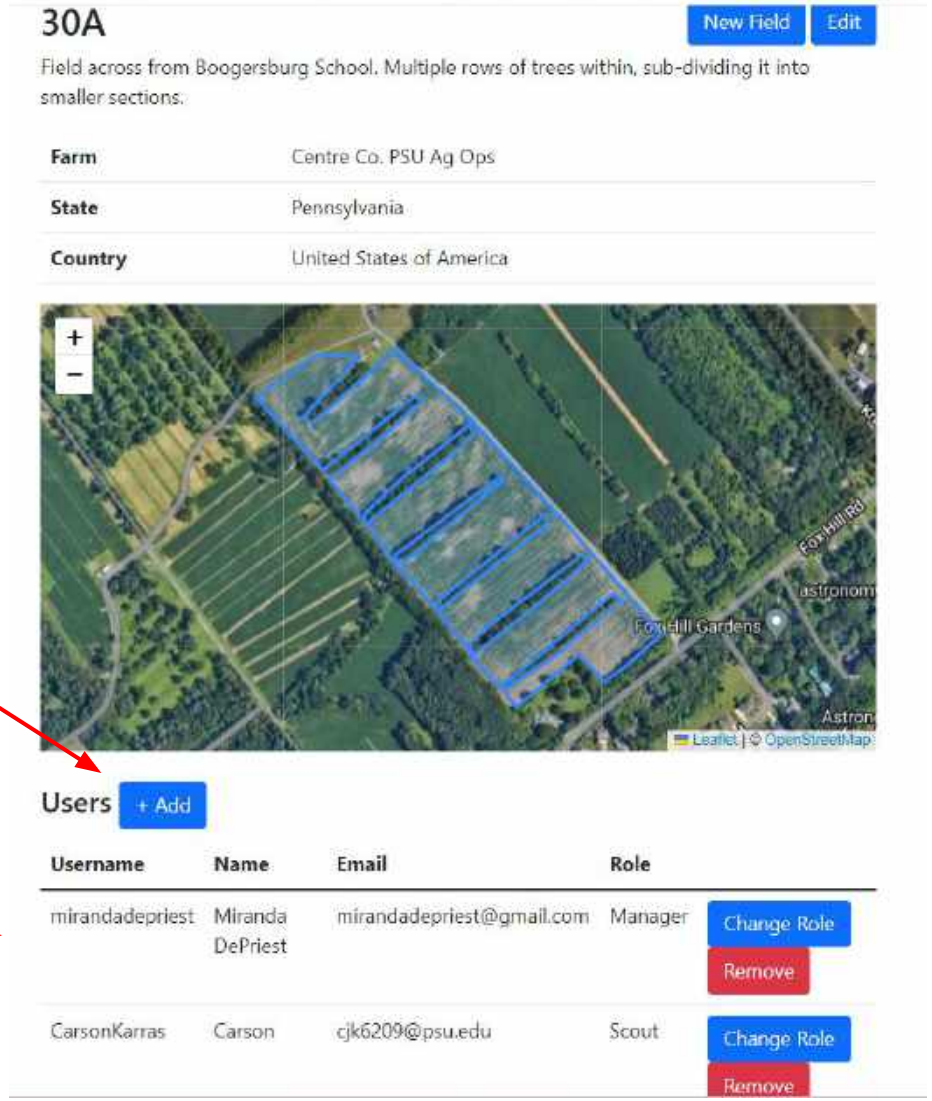


Add a field

- Only available to Growers and Researchers
- Found at OCM → My Fields → New Field
- Please add your fields ASAP. This will allow you to assign Scouting Reports to them.

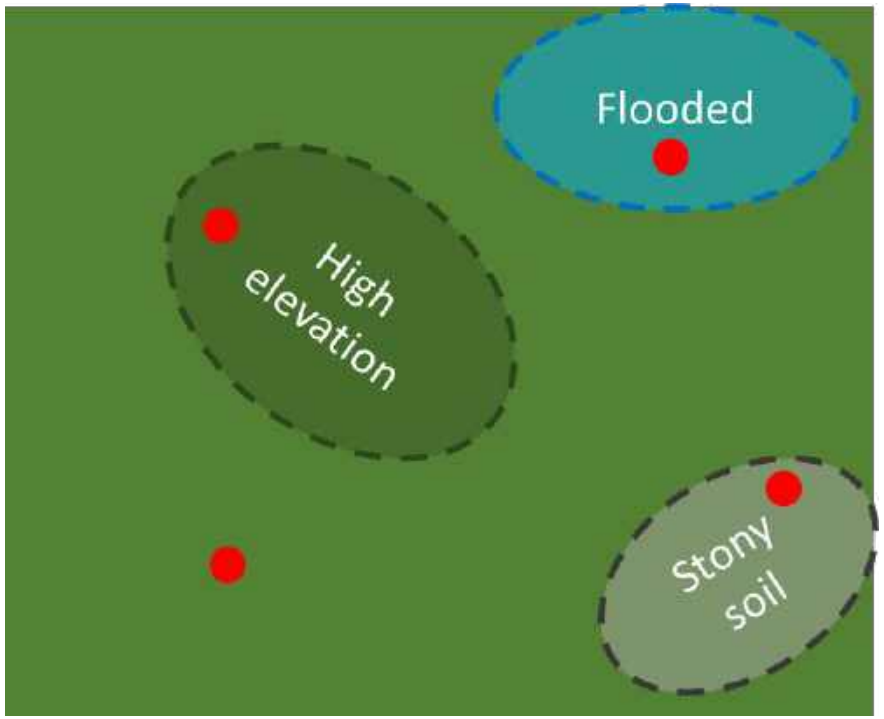
Add a collaborator to a field

- Available **only** to the manager(s) of a field (Grower or Researcher)
- Others can't assign Scouting Reports to your field until you add them to it.
- Found at OCM → My Fields → Add User to My Field
- You can add another manager, or you can add a Scout.
  - The new co-manager can change the field's information, view all of the field's Scouting Reports, add new Scouts, and handle the Production Survey
  - New Scouts can assign Scouting Reports to your field.
- To see everyone added to your field, go to OCM → My Fields → [Name of field] → Users



Scouting Reports

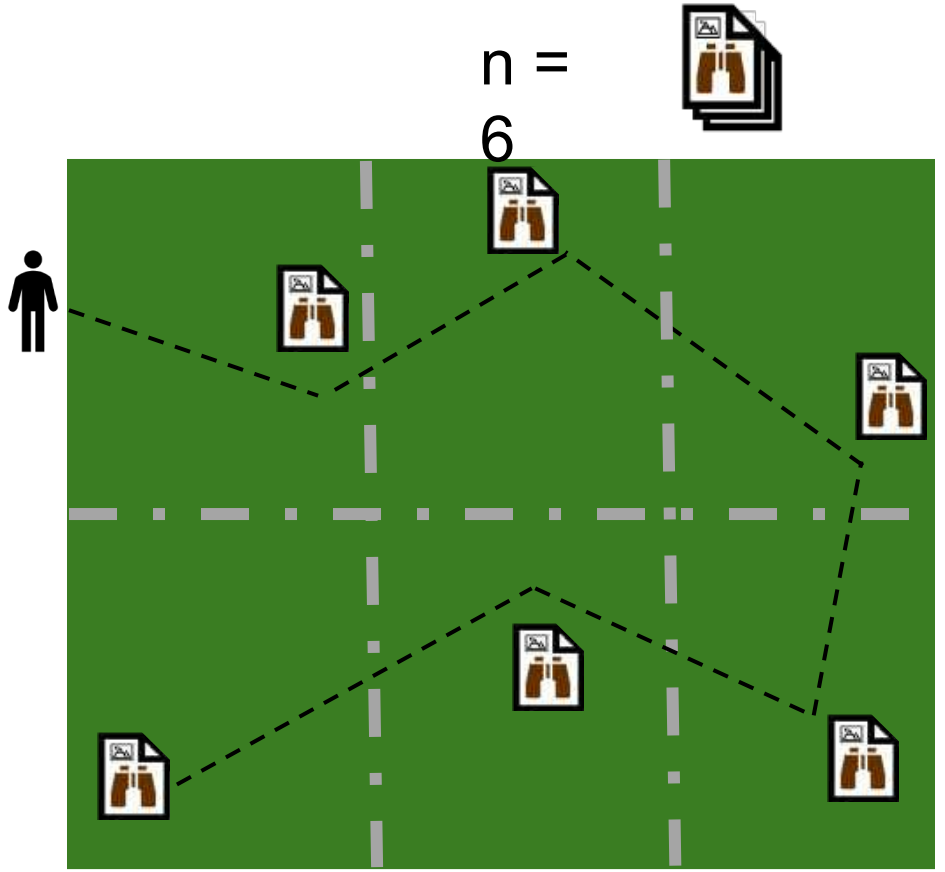
- The goal is to **represent the different regions/conditions *throughout* the field and *throughout* the growing season**
- **Multiple** Scouting Reports are completed **each time** you visit the field
- Ideally, one Scouting Report/5 acres every 2 weeks. Realistically, this depends on the time you have available. **Any reports are better than none.**

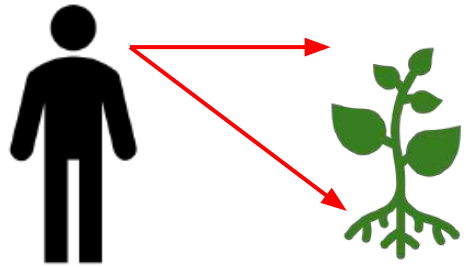


Scouting Reports

<u>Instructions:</u>

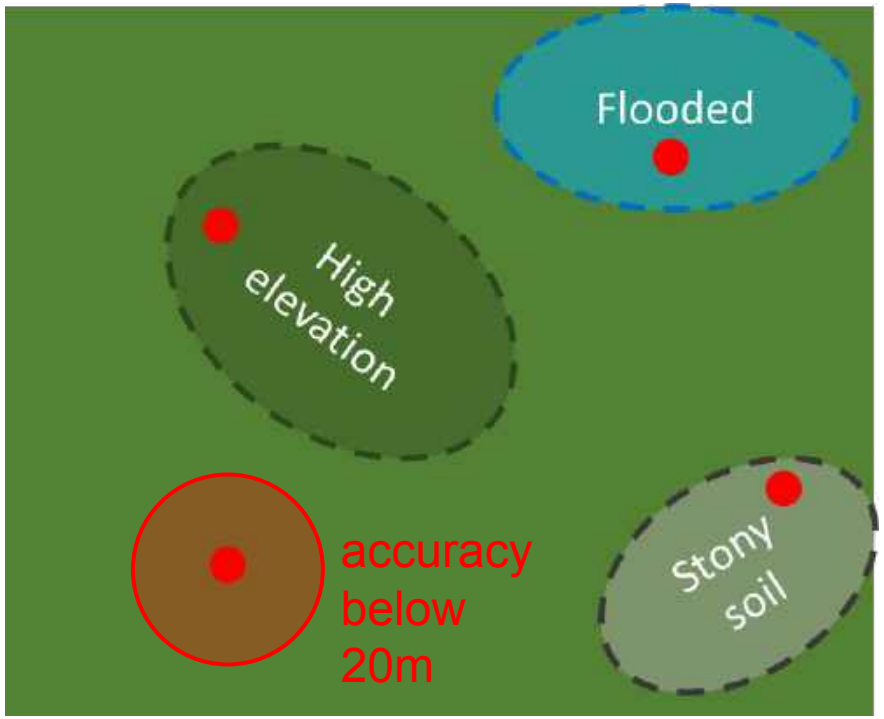
1. Determine the number of reports (n) you have time to complete
   - Each report takes ~5-10 minutes, depending on the height of the plants and the number of stressors
2. Mentally divide the field into n sections
   - Doesn't need to be precise
3. Walk a zig-zag pattern through each section, taking note of that area's conditions
4. Stop and make a report representing that section's conditions. Remember to look BELOW the canopy!
5. You DON'T need to visit the same spot each time.



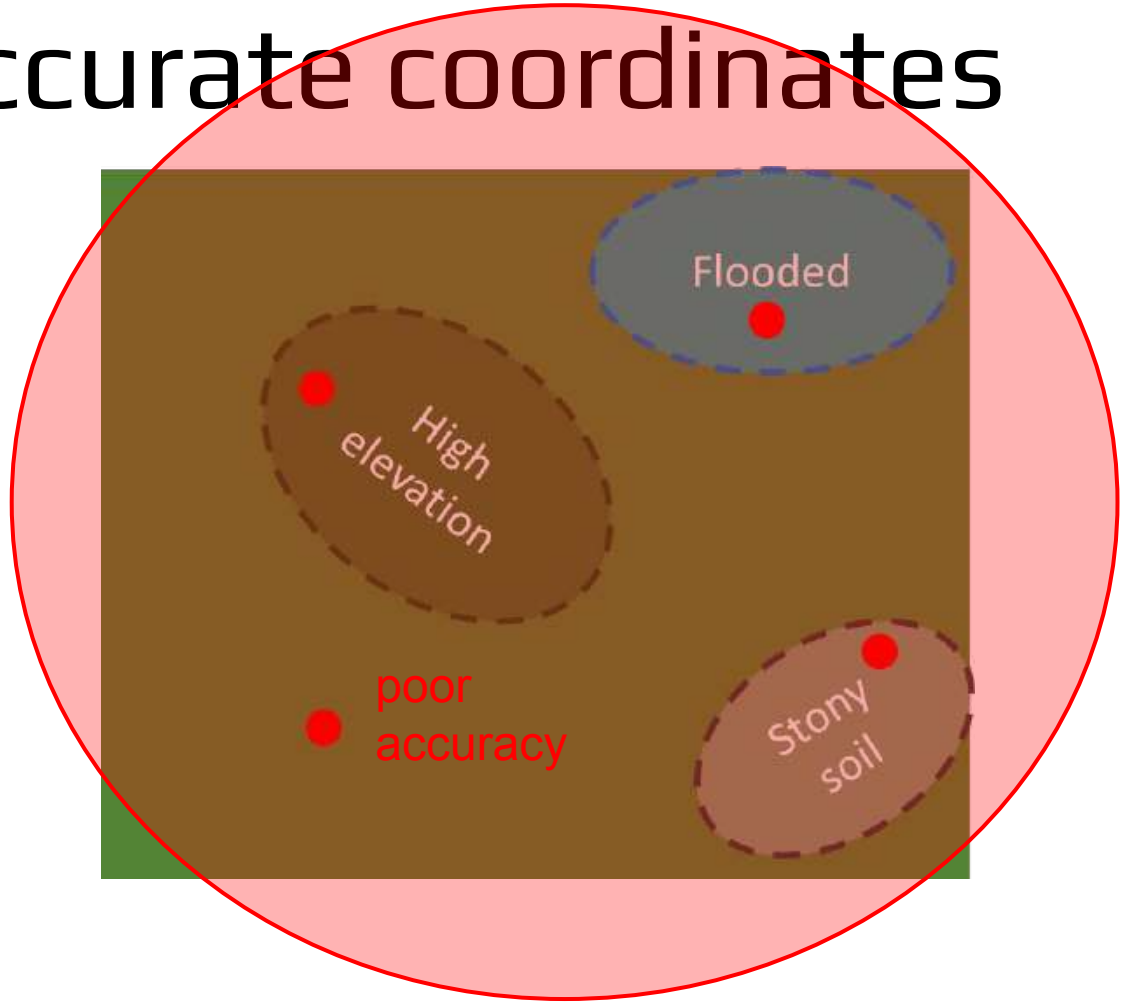


Scouting Reports in OCM

The importance of accurate coordinates



Accurate coordinates can help us understand relationships between field conditions and the stressors that occur



Inaccurate coordinates make it hard to understand these more precise relationships

Adding stressors to scouting reports

Unknown stressors

- If the stressor can’t be identified, choose ‘Other/unknown’ and take a picture. Record any observations about the unknown stressor in the scouting report notes.

About severity ratings

The severity of a stressor is rated on a scale of 1-10

- 1 – the stressor is present, but impacts less than 10% of relevant plant tissues
  - If the stressor is present, it's *at least* a 1
- 2 – the stressor impacts 20% of relevant plant tissues
- …
- 10 – the stressor has/will eliminate 100% of relevant plant tissues

About severity ratings

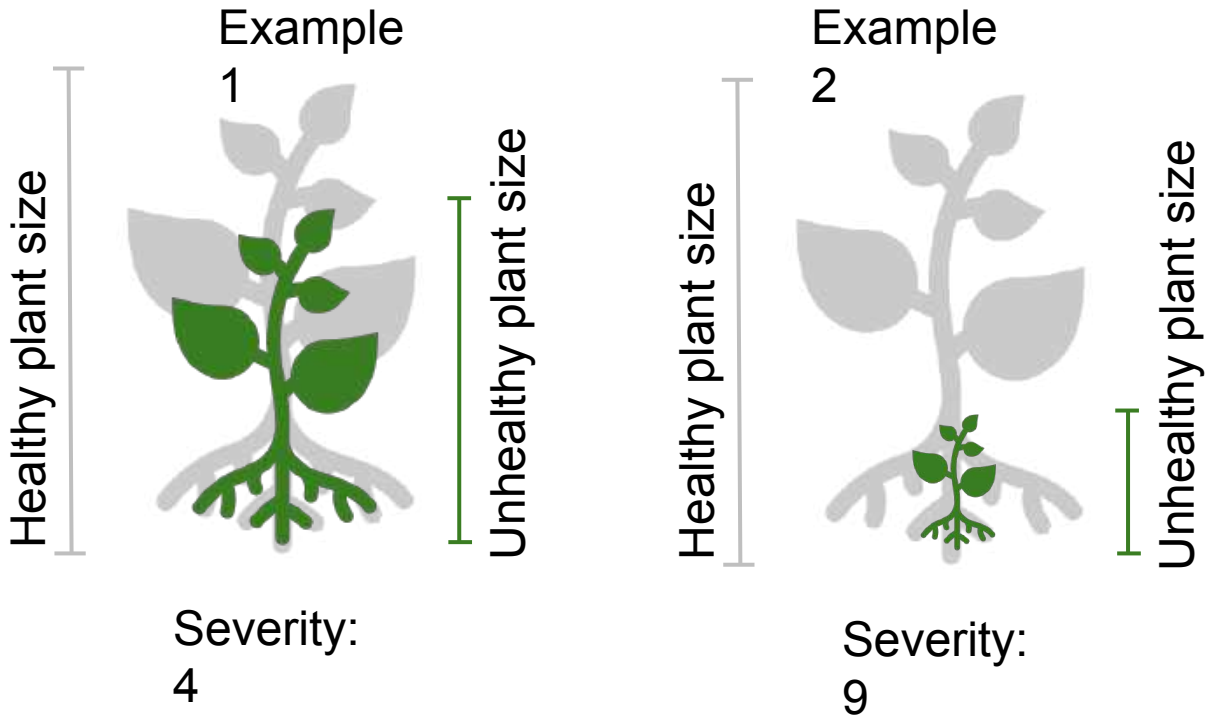
Two general rules for severity ratings:

1. If the stressor results in plant tissue not being present (like poor planting, poor emergence, stunted growth), rate based on the amount of plant mass that *should* be there.

   Example: If the primary symptom of a stressor is stunted growth, rate based on the amount of tissue that should be there

2. If the stressor impacts existing plants, rate based on the %of relevant impacted tissues.

   Example: Rate a foliar disease based on the average % of leaf tissue impacted



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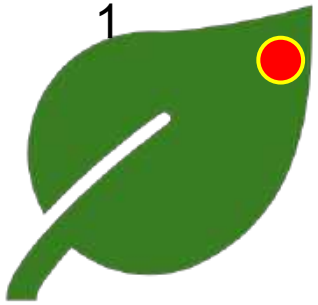
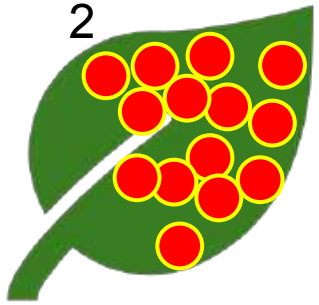
The average leaf in your area

Example 1



Severity: 1
Disease is present, but impacts less than 10% of the average leaf's tissue

Example 2



Severity: 7
Disease impacts roughly 70% of the average leaf's tissue

Examples

Rating: 1

Reason: Japanese beetle damage is present, but the average leaf has less than 10% of its tissue impacted

Examples

Rating: 9

Reason: The weed is so prevalent that very few soybean plants are present. Based on the soybean density in healthier parts of this field, ~90% of soybean plants that could have existed here do not.

E

Poor emergence rating: 1

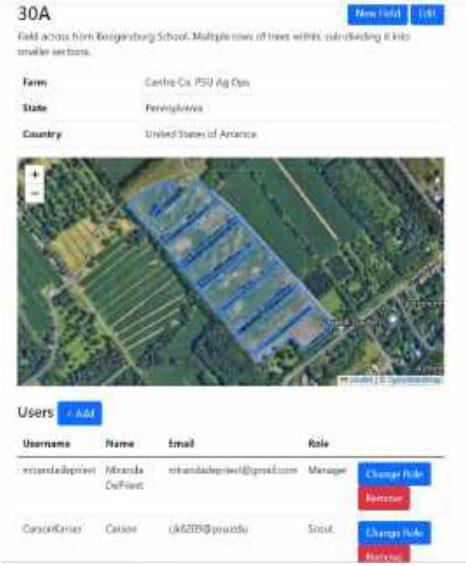
Disease rating: 4

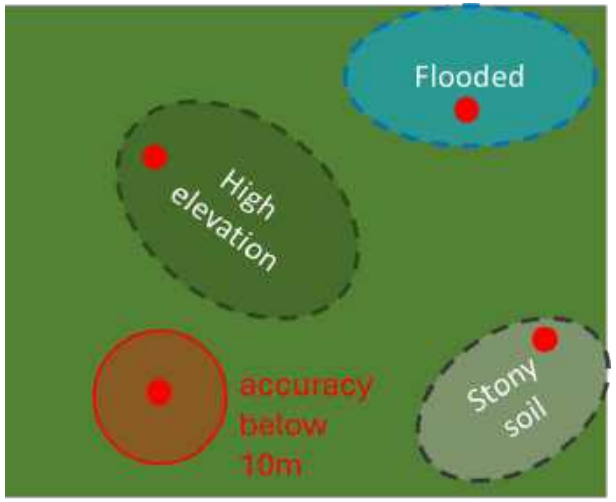
Reason: In this quadrant of the field, roughly 10% of planned soybeans failed to emergence. Of the soybeans that did emerge, the disease impacted ~40% of the average leaf area.

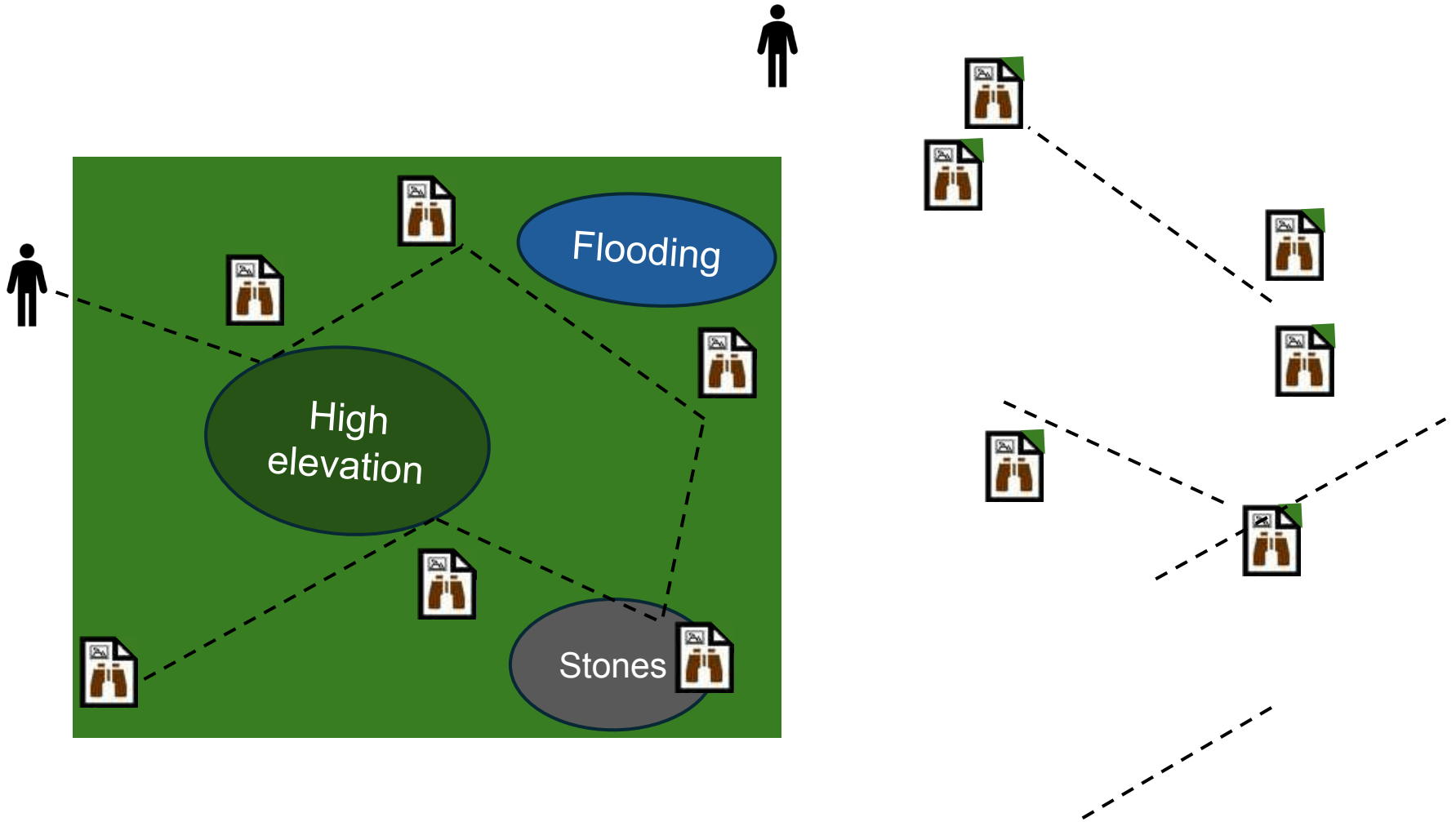
Were these examples helpful to you?

Summary

- Create an account
- If you manage field data, email Miranda at mnd20@psu.edu with the information found on slide 7
- Set up your field information now
- Represent the different areas in your field
- Always update coordinates
- Leave notes/pictures on unknowns






Flooding
High elevation
Stones