

## Topic 1 for Scout School:

Introduction to the class, scouting as the cornerstone of IPM, and the basic tools of scouting

February 13, 2024 6:00-7:30 pm

### Feb 13

<https://cornell.zoom.us/j/98248345520?pwd=S1JUci81cm1tWm5nTDZjU2FpUFRoZz09>

Meeting ID 982 4834 5520

Passcode 724050

**Moderated by Stephanie**

### **Only Certificate Participants (6:00-6:30):**

The class will meet on zoom.

**5:30: Zoom opens**

**Team please sign in early so I can assign you as co hosts**

**Betsy turns on record and captioning**

**5:50 practice poll question**

**6:00 – 6:10 (10 minutes):**

- Participants will answer a short question in chat to practice using chat.
- Stephanie will present introductory slides.
- Stephanie will review important navigational aspects of zoom (mute, chat, share screen) in brief introductory slides.
- Stephanie will cover the mechanics of the class. This will include discussing how the online course works, showing the students the Moodle launching page and making sure that everyone is able to access it, subscribing to the forums, expectations for getting the certificate, and any other necessary information.

**\*\*\* this is what it now says on Moodle**

In order to receive a certificate, it is important to participate as much as possible in the course. You must attend or watch all 6 sessions, do at least 5 assignments (but doing them all will give you more practice), and post a question or comment for at least 5 sessions.

6:10 – 6:15 (5 minutes): Introductions – us and them. Stephanie has the intro slide. There are 12 students so maybe they can introduce themselves quickly.

6:15-6:20 (5 minutes or less): Stephanie will discuss the assignment for this week

6:20 – 6:25 (5 minutes): Stephanie will show them the equipment they will receive in their box.

6:25-6:30: Break for certificate students; nothing is planned for this time to allow for the webinar folks to join on zoom.

**Everyone (6:30-7:30):**

6:30 – 6:43(12 minutes – includes questions):

- Stephanie will give a very quick zoom etiquette overview (please mute yourself, post questions in chat – they will be answered at the end, please answer zoom questions to receive pesticide credits).
- She will discuss the goals of scouting and review of tools that are useful in scouting (supplemental videos online to provide more details on this topic are listed below).
- Elise’s video discussing the tools she uses will be played. (if time?)
- Can mention that we will 1) stay a bit later if there are questions and 2) answer questions by email if there are some in the chat that don’t get answered by the end. If people have to leave, that is fine – questions and answers will be included in recording.

6:43-6:45: Betsy will post an attendance question on zoom and will provide some time to switch presentations to Margery. People can type questions in chat

6:45 – 7:08 (23 minutes – includes questions) Margery will discuss root rot diseases caused by fungi and water molds. Also – reference on plant diseases?

7:08-7:10 Betsy will post an attendance question on zoom and will provide some time to switch presentations to John. People can type questions in chat

7:10-7:19 (9 minutes – includes questions) John will discuss identification of fungus gnats, shore flies, drain flies, insects that are lookalikes

7:19-7:20 Switch presentations to Cheryl.

7:20-7:25 (5 minutes – includes questions) Cheryl will discuss identification of biocontrol for these insects.

7:25-7:27 Betsy will post an attendance question on zoom People can type questions in chat

7:27- 7:30+ Questions

## Topic 2 for Scout School

### Mechanics for scouting and record keeping

#### February 20 – Mechanics of Scouting and Record Keeping

- Safety and consistency (Elise)
- Sampling plan and record keeping (Elise and Stephanie)
- Aphids
- Botrytis and other fungal leaf spots

#### Feb 20

<https://cornell.zoom.us/j/92174802736?pwd=Mmp5NVc3N296MnJ2K01EWctzYU1XUT09>

Meeting ID 921 7480 2736

Passcode 587629

#### Moderated by Betsy

5:30-6:00 Zoom open to let certificate students in, check powerpoints, etc.

- \*\*team please sign in early so I can make you co-hosts
- team - All - check forums (assignment and Q&A) for questions posted and not answered before class
- recording and captioning start

6:00 – 6:10 (10 minutes): Q&A - Stephanie

- Student questions from Week 1.
- Questions from Q and A board and questions regarding first activity (all)
- Discuss the second activity (Stephanie).

6:10-6:25 (15 min) Safety and the importance of consistency (Elise).

6:20ish Betsy will let students in from waiting room

6:25-6:30 Break for certificate students, webinar participants let in and checked in

6:30-6:42 (12 minutes – includes questions): Elise and Stephanie

Creating a sampling plan and keeping records

- Include information on where and how many sticky cards,
- other considerations on where to scout

6:42-6:44 (2 min) Attendance poll question and switch presentations to John (Betsy)

People can post questions in chat

6:44 – 6:59 (15 minutes – includes questions) John will discuss identification of aphids

6:59-7:09 (10 minutes – includes questions) Cheryl will discuss identification of biocontrol for aphids

7:09-7:11 (2 minutes) Attendance poll question and switch presentations to Margery (Betsy)  
People can post questions in chat

7:11 – 7:25 (14 minutes): Margery will discuss diseases caused by botrytis and other fungal leaf spots

7:25-7:27 (2 minutes) Attendance poll question  
(Betsy)  
People can post questions in chat

7:27-7:30 + Questions

**Assignment for this topic:**

1. This week, you will get to start practicing your skills as a greenhouse scout. Please visit the greenhouse you will be scouting and place several sticky cards there. (If you are using the very large cards, I would cut them in half or quarters - depending on how many sides you are uncovering.) You can either uncover both sides or leave one side of the card covered. Remember to place them close to the foliage where they insects are most likely to be – and mark the plants so you can find them again. Send us a picture in Moodle showing us your card placement.

2. We would also like you to practice a technique for monitoring fungus gnat larvae in the greenhouse. You'll need a potato for this activity. Cut a ¼" wedge or slice out of your potato. Insert the potato in the growing media of a pot in the greenhouse so that at least one cut surface is in contact with the soil. Here is a link with more information about this: Using potato wedges to detect fungus gnat larvae (Ohio State): <https://doc.presentica.com/11544049/5ebadd6d81de0.pdf> . You can check it after a few days as you might see larvae quickly if there are fungus gnats in the greenhouse.

3. Use your various magnification devices -phone alone (or camera), handlens plus phone, Optivisor plus phone (if you can) and handheld microscope - to take pictures of the same item. It doesn't have to be an insect or disease symptom, although something with some variation in height like a not completely flat leaf and some small characteristic to look at is best. Which one gives you the clearest and closest view? How difficult is it to get a good closeup? Post your comparison pictures and comments.

4. Inspect the plants in your greenhouse – including roots if you can. Do you see any symptoms or evidence of disease or insect pests? Post photos of them. Mark those plants to return to next week. These can be considered indicator plants for population development and evaluating pest management.

## Topic 3 for Scout School:

### Resources and how to find information

#### February 27 – Scouting resources

- Scouting forms and apps (Betsy)
- Scouting resources (Betsy)
- Thrips
- Abiotic disorders

#### Feb 27

<https://cornell.zoom.us/j/97300171889?pwd=QzJMVVRNQkhDRm9ZNEtmVTNQZS9YZz09>

Meeting ID 973 0017 1889

Passcode 052460

Moderated by Cheryl

5:30-6:00 Zoom open to let certificate students in, check powerpoints, etc.

6:00 – 6:10 (10 minutes): Q&A - Stephanie

- Student questions from Week 2.
- Questions from Q and A board and questions regarding second activity (all)
- Discuss the third activity (Stephanie).

6:10 – 6:25 (15 minutes): Betsy – Scouting forms and apps

6:25-6:30 (5 minutes): Break for certificate students, webinar participants let in and checked in

6:30 – 6:42 (12 minutes): Betsy will discuss the types of resources useful in scouting and how to find and use them, including how to prepare materials to send to diagnostic labs

6:42-6:44 (2 minutes): Betsy will post an attendance question on zoom and will provide some time to switch presentations to John. People can type questions in chat \*\* Cheryl can do this if she can access the polls as a co-host

6:44 – 6:59 (15 minutes – includes questions) John will discuss identification of thrips

6:59-7:09 (10 minutes – includes questions) Cheryl will discuss identification of biocontrol for thrips

7:09-7:11 (2 minutes): Betsy will post an attendance question on zoom and will provide some time to switch presentations to Stephanie. People can type questions in chat

7:11 – 7:25 (14 minutes): Stephanie will discuss identification abiotic disorders

7:25 – 7:27 (2 minutes): Betsy will post an attendance question on zoom.

7:27-7:30 + Questions

**Assignment for this topic:**

1. Check your sticky card(s) after one week. What insects are you able to identify? Record the number of each type of insect that you know and post pictures on Moodle. Or post the ones you don't know and see if the rest of the class can help out. Uncover the reverse side of the card (if you only uncovered one side last week) and add a second card in a different area of the same house. If nothing was stuck on the card try to determine if a) the card isn't sticky enough, b) the card was wet (under mist?) or c) there really aren't any pests active yet.
2. Check your potato wedge for fungus gnat larvae and post pictures of what you find. If there aren't any larvae see if you can tell if 1) the wedge is not moist enough or touching the soil on a cut surface or 2) there aren't any fungus gnats. Compare results to your sticky cards. (You can probably dispose of the potato wedge after this.)
3. Pick one crop in your greenhouse and see what information you can find on common insects and diseases. Share that information.

## Activity week for Scout School

**March 5 (1 hour special section)**

<https://cornell.zoom.us/j/98492335486?pwd=VXQ3K1pWMIRWMFgwdlZqL1d5blVtUT09>

**Meeting ID 984 9233 5486**

**Passcode 729254**

6:00 Panel of previous students

Jessica Hutchinson

Kelly Ann Jackson

Nick Petterelli

A little bit about what you are doing now

Are there tools or procedures you learned about and now use?

Was there anything surprising you learned from us or fellow students?

What continues to challenge you in scouting?

Any recommendations for the current students?

6:30- or whenever the panel ends

Kahoot scouting game



## Topic 4 for Scout School

### Overview of Scouting Part 1

**March 12, 2024**

Critical questions while scouting (Cheryl)

Macroview of greenhouse (patterns and considerations) (Betsy)

Mites

Bacterial diseases

<https://cornell.zoom.us/j/91887066673?pwd=Q3ExRFR2S1JRQTVIL2RWdkU3WG5xdz09>

**Meeting ID 918 8706 6673**

**Passcode 072684**

Moderated by Betsy

5:30-6:00 Zoom open to let certificate students in, check powerpoints, etc.

\*\*team please sign in a bit early so I can make you co-hosts

- team - All - check forums (assignment and Q&A) for questions posted and not answered before class
- recording and captioning start

6:00 – 6:10 (10 minutes): Q&A - Stephanie

- Student questions from Week 2.
- Questions from Q and A board and questions regarding second activity (all)
- Discuss the third activity (Stephanie).

6:10 – 6:25 (15 minutes): Cheryl – Critical Questions while scouting.

6:25-6:30 (5 minutes): Break for certificate students, webinar participants let in and checked in

**Everyone (6:30 – 7:30):**

6:30 – 6:42 (12 minutes): Betsy - Macroview of greenhouse (patterns/considerations)

6:42-6:44 (2 minutes): Attendance poll question and switch presentations to John (Betsy)

6:44 – 6:59 (15 minutes) John will discuss identification of mites

Mites feed in the phloem

6:59-7:09 (10 minutes) Cheryl will discuss identification of biocontrol for mites

7:09-7:11 (2 minutes): Attendance poll question and switch presentations to Margery (Betsy)

7:11 – 7:25 (14 minutes): Margery will discuss bacterial diseases  
Are halos more common around lesions in fungal or bacterial diseases?

7:25 – 7:30 (5 minutes): Betsy will post an attendance question on zoom. Questions for all presenters from audience

## Topic 5 for Scout School: Overview of scouting – Part 2

**March 19, 2024**

Weeds (John with Senesac video)  
How to make scouting easier (Cheryl and Elise)  
Mildews, powdery and downy  
Whitefly

<https://cornell.zoom.us/j/94166986428?pwd=QkRNaFBWOFhc1RNTHRXRkVBOGFOQT09>

Meeting ID 941 6698 6428

Passcode 830163

**Moderated by Cheryl**

**Only Certificate Participants (6:00-6:30):**

5:30-6:00 Zoom open to let certificate students in, check powerpoints, etc.

\*\*team please sign in a bit early so I can make you co-hosts

- team - All - check forums (assignment and Q&A) for questions posted and not answered before class
- recording and captioning start

6:00 – 6:10 (10 minutes): Q&A - Stephanie

- Student questions from Week 2.
- Questions from Q and A board and questions regarding second activity (all)
- Discuss the third activity (Stephanie).

6:10 – 6:25 (15 minutes): Andy Senesac recording - Weeds – What lies beneath? (John can do the advancing)

6:20 Cheryl will let students in from waiting room

6:25-6:30 (5 minutes): Break for certificate students, webinar participants let in and checked in

**Everyone (6:30-7:30):**

6:30-6:45 (15 minutes) – How to make scouting easier – which plants show insects and diseases first, sentinel plant, etc. - Cheryl and Elise

6:45-6:47 (2 minutes): Attendance poll question and switch presentations to Margery

6:47 – 7:02 (15 minutes): Margery will discuss identification of mildews

7:02-7:04 (2 minutes): Attendance poll question and switch presentations to John

7:04-7:14 (10 minutes) John will discuss identification of whitefly

7:14-7:24 (10 minutes) Cheryl will discuss identification of biocontrol for whitefly

7:24-7:30 (2 minutes): Attendance poll question. Questions for all presenters.

**Assignment for this topic:**

1. Check your sticky cards again. Anything new? Can you determine if insect numbers are increasing or decreasing over time? If not, how might you change your system to do that? Share what you think.
2. Post your local Extension Office and University or other diagnostic lab (<https://www.nifa.usda.gov/land-grant-colleges-and-universities-partner-website-directory?state=349>). Have you ever asked them a question. Try if you are feeling brave and let us know what you find out.
3. Is there a scouting or pest management resource you have found particularly helpful? Post it in the Moodle Activity space.
4. Scout the greenhouse for weeds. Where did you find them? Can you identify them? Post pictures and we'll see if we can help.

## **Topic 6 for Scout School: How to communicate scouting information to others.**

**March 26, 2024**

Communicating with growers (Cheryl and Elise)  
Scouting through the season (Elise)  
Virus diseases  
Mealybug and scale

<https://cornell.zoom.us/j/98534458836?pwd=M2IIM1JvTU3aVINVUJvcjFaaldtUT09>

Meeting ID 985 3445 8836

Passcode 541433

**Moderated by Betsy**

5:30-6:00 Zoom open to let certificate students in, check powerpoints, etc.

\*\*team please sign in a bit early so I can make you co-hosts

- team - All - check forums (assignment and Q&A) for questions posted and not answered before class
- recording and captioning start

6:00 – 6:10 (10 minutes): Q&A - Stephanie

- Student questions from Week 2.
- Questions from Q and A board and questions regarding 6th activity (all)
- Discuss the last activity (Stephanie).

6:10 – 6:25 (15 minutes): Discussion and time for certificate students to fill out survey

[https://cornell.ca1.qualtrics.com/jfe/form/SV\\_eQaZClg4gHTofMW](https://cornell.ca1.qualtrics.com/jfe/form/SV_eQaZClg4gHTofMW)

6:20 Betsy will let students in from waiting room

6:25-6:30 (5 minutes): Break for certificate students, webinar participants let in and checked in

**Everyone (6:30-7:30):**

6:30-6:50 (20 minutes) – Communicating with growers (Cheryl and Elise)  
Scouting through the season Part 2 (Elise)

6:50-6:52 (2 minutes): Attendance poll question and switch presentations to Margery

6:52 – 7:07 (15 minutes): Margery will discuss identification of virus diseases

7:07-7:09 (2 minutes): Attendance poll question and switch presentations to John

7:09-7:24 (15 minutes) John will discuss identification of mealybug and scale and biocontrol for mealybug and scale

7:24-7:30 (2 minutes): Attendance poll question. Questions for all presenters.

[https://cornell.ca1.qualtrics.com/jfe/form/SV\\_e3uCncacSAm90dE](https://cornell.ca1.qualtrics.com/jfe/form/SV_e3uCncacSAm90dE)