How to Scout and Troubleshoot Problems in Crops

Written by: Nancy Gregory, Plant Diagnostician and Jen Rushton, Intern

Revised by: Jill Pollok, Plant Diagnostician

Revision Dates: February 2025 and August 2018

Get Prepared

- Gather tools that will help you acquire a sample
  - Cutters, small shovel, hand lens, plastic bags, marker, etc.
- Go to the field with an open mind and investigate all possibilities!
  - Look at the big picture first, then the details

Know the crop you are working with

- What does the crop normally look like? Is it appropriate for this stage in the planting?
- How does your crop compare

Recall important dates/events

- Planting date
- Any chemical applications
- Weather conditions
  - Throughout the planting
  - During critical events
- When problem appeared
  - Gradual or sudden
- Soil history
  - Previous crop

Assess the site for symptoms

- Single plant/entire planting
- Only certain varieties
- Wet/dry area
- Sun/shade
- Scattered
- Pattern
  - Specific row(s)/edge of field/circular spots

Determine where problem is found on the plant(s)

- Old growth/new growth
- Bottom/top of plant
- Whole plant/one side
- Scattered

A closeup of a hand holding the top of a crop

Identify parts of the plant that are affected

Use a hand lens to closely inspect for insects or spores (underside of leaves)

- Leaves
- Branches/twigs
- Stem/stalk/trunk
- Flowers/fruits/seeds
- Seedlings
- Roots
- Whole plant

Observe Symptoms

- Wilting
- Yellowing/browning
- Distortion/curling
- Leaf spots
- Stunting

Take a Sample

- Include moderate symptoms or margin between healthy and affected
- Fill out: [Diagnostic form /www.udel.edu/content/dam/udelImages/canr/pdfs/extension/sustainable-agriculture/plant-diagnostic-clinic/2021-07-Plant-Diagnostic-Form.pdf](www.udel.edu/content/dam/udelImages/canr/pdfs/extension/sustainable-agriculture/plant-diagnostic-clinic/2021-07-Plant-Diagnostic-Form.pdf)
- Submit to County Cooperative Extension Office