# Diagnosing Plant Problems Scenarios

**Time:** 35 Minutes

**Supplies:**

- For each small group one envelope with up to 5 scenarios.

**Learning Objectives:**

- **Be familiar** with the basic steps of the systemic approach to diagnosing plant problems
- **Use the five step approach** to determine if example plant problems are caused by abiotic or biotic factors.
- **Recognize** the importance of accurate, early detection of introduced and invasive pathogens.

**Directions:**
Break into small groups of not more than 5 people. Each team will collectively practice the last three steps of the five-step systemic approach by using role playing with the scenarios.

Each time you move on to a new scenario, identify one person to be the Community Member (client). This person is asking for help with the question/problem/issue from the rest of the group (diagnostic team).

The team's goal is not to solve the issue but to practice asking the right questions. Use these prompts to guide you through the process. Wrap up each scenario consultation by producing a synthesis of the information you have gathered for the individual and provide them with some reliable references or details on when and how you will follow up.

- **Get a history of the problem.** Is this new? Has it occurred on these plants before? How long have you noticed it? When did you first notice it?

- **Track the development of damage over time.** Have you noticed a development of the damage over time? (Step 3 of Systematic Approach)

- **Get a record of all sprays and fertilizers.** Have you sprayed or fertilized the plant before? Or near the plant?

- **Find out the site history.** Has the site where the plant is growing always been a garden space? What other types of plants have been grown in the site?

- **Find out the environmental conditions.** What have the weather conditions been like? Any extreme temperatures?

- **Is there a pattern to the symptoms?** Within the community? On an individual plant? On individual plant parts? Are environmental conditions different in areas containing the affected plants? Are they in low areas of the field prone to flooding? Other microclimates?

- **Be patient, don't jump to conclusions.** As experts we feel we have to give a quick answer, don't feel pressured to answer quickly.

- **Other things to consider:**
  - Don't ignore the root system.
  - Beware of secondary pathogens and insects.

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References: Cornell Plant Disease Diagnostic Clinic http://plantclinic.cornell.edu/
Diagnosing Plant Problems: A systemic approach to diagnosing plant damage, revised by Karen L. Snover-Clift, 2010.