Colorado State University Extension

Colorado Master Gardener℠ Program

CMG GardenNotes #333

Plant Pathology Worksheet Packet

Symptoms vs. Signs - **Activity 1**

Lilac Leaves

Mrs. Johnson hires ABC Landscape Company to take care of her lawn. They mow and spray for weeds. On a recent visit in August, ABC applied a weed killer to the lawn. A week later, Ms. Johnson notices the leaves on her on her lilac are turning white. She is certain that the weed killer ABC sprayed on the lawn must have caused this damage because the problem appeared so soon after the treatment.

She brings in a sample of the leaves for you to look at to verify her assumption. Given the information we have covered so far in class:

A. What will you look for first? Describe them.
(Hint: chlorosis, necrosis, wilting and stunting are examples)

B. What will you look for next? Describe them if found.
(Hint: spores and fruiting structures are examples)

Symptoms vs. Signs - **Activity 2**

(Currant or Hawthorn leaves)

Well, Mrs. Johnson has another sample to show you. She is still certain that ABC Landscape must have damaged plants in her landscape. Now she shows you some currant (or hawthorn) leaves.

The leaves developed these spots about the same time the lilac problem appeared.

Given the information we have covered so far in class:

A. What will you look for first?
(Hint: chlorosis, necrosis, wilting and stunting are examples)

B. What will you look for next? *(Hint: spores and fruiting structures are examples)*

C. Describe the symptoms:

D. Are there signs present? Describe them if you find them.

Identifying Plant Disease- **Activity 3**

Note: Use the twig sample (or photo provided) and look at the slide.

Carrie purchased a home this summer. As leaves began to drop in the fall, she noticed the strange growths on a Canada red cherry. They are scattered throughout the tree (see picture). She cut off a small branch and brought you the sample.

1. Describe the symptoms.

2. Describe signs if you see them.

3. What is your diagnosis?

4. How can she manage the problem?

Abiotic vs. Biotic- Activity 4
(Aspen or Linden leaves)

Note: use the provided sample.

Next in line to see you is Mr. Roberts. He has an aspen (linden) tree. A*ll of a sudden* many of its leaves began turning brown and dropping off. He wants to know if this problem is caused by a disease or something else. He is in a hurry, so he leaves the sample with you.

A. What do you notice about the *distribution* of the necrosis on the Roberts aspen (linden)?

B. How does the distribution of the necrosis on Mr. Roberts' aspen (linden) compare with the distribution of the damage on Mrs. Johnson's currant (hawthorn)?

Abiotic vs. Biotic- Activity 5

Given the information we have covered so far in class and your examination of the leaf samples:

Determine if the damage on the samples is abiotic or biotic and state *why*.

Plant	Abiotic or Biotic?
Johnson Lilac	Biotic, found signs: fruiting structures, mycelium and random damage
Johnson Currant (Hawthorn)	Biotic, found signs: fruiting structures, random damage
Roberts Linden (Aspen)	Abiotic, no signs found, uniform damage