

Please carefully follow the instructions below to select, package, and mail the plant disease specimen. The accuracy of diagnosis depends upon the quality of the information provided, the plant material selected, and the condition of the specimen when it arrives at the Plant Disease Clinic.

Checklist: Did you...

- ✓ Fill out the specimen information form thoroughly and for each sample
- ✓ Select a large enough specimen with symptoms
- ✓ Read the appropriate submission instructions (below) for the type of specimen being submitted
- ✓ Package the contents correctly, using *dry* paper towels if needed, enclosing any roots, and placing them in a plastic bag
- ✓ Protect the sample with newspaper, cardboard or other material to prevent crushing if necessary
- ✓ Mail promptly

(1) Specimen Information Form

- ◆ Complete the specimen information form as *thoroughly* as possible
- ◆ Fill out a separate form for each plant specimen submitted
- ◆ Form should be separated from the plant material by plastic or other waterproof barrier

Commercial growers: Please note in the 'Additional Comments' area of the clinic specimen information form if you suspect that the sample being submitted could contain fungal toxins (such as those found on moldy wheat or corn samples, or moldy paper containers used in greenhouses), or could harbor a USDA-APHIS designated select agent (such as *Ralstonia solanacearum*, race 3, biovar 2 or soybean rust).

(2) Selecting and Packaging Plant Material

- ◆ Select plants showing symptoms of concern
- ◆ When possible, send several plants showing a range of symptoms
- ◆ Avoid sending *dead, dried* samples
- ◆ **Do not add water or wet paper towels to the package**

When possible, send entire plants including roots

- ◆ Place root ball in plastic bag and fasten around stem
- ◆ Place dry paper towel around leaves
- ◆ Enclose entire plant in larger plastic bag

Vegetables and Fleshy Fruit Samples

- ◆ Select firm specimens that show early and intermediate stages of disease
- ◆ Wrap each specimen separately in dry, absorbent paper, such as toweling
- ◆ Pack individually to avoid crushing

MAKE SURE TO INCLUDE:



Leaf, Stem and Branch Samples

- ◆ Send **several** affected parts
- ◆ Cut stem/branch samples so that a short piece of live, healthy tissue is attached to the diseased portion
- ◆ Wrap the specimen(s) in a plastic bag with a few small ventilation holes
- ◆ Protect tender leaf/stem samples by placing between cardboard/heavy paper

Dutch elm disease, Verticillium wilt, and Oak wilt specimens

- ◆ Select specimens from branches having wilted, yellowing or dying leaves
- ◆ Cut and send **several** branch sections that are **½ to 1 inch** in diameter and about **6 inches** long
- ◆ Wrap in aluminum foil to prevent drying; do not allow samples to be exposed to high temperatures; **PLEASE DO NOT SEND DEAD WOOD**

Turfgrass

- ◆ **PLEASE DO NOT SEND COMPLETELY DEAD TURF GRASS**
- ◆ Collect two or three squares (each 3x3 inches square), with at least one inch of attached soil and roots, from the edges of affected areas
- ◆ Include both dying and apparently healthy plants
- ◆ Wrap each sample in one thickness of slightly dampened newspaper or paper toweling, then in dry newspaper. Aluminum foil can also be used to wrap turf samples
- ◆ Turfgrass diseases can be very difficult to diagnose accurately, so include as much information about the problem as possible
- ◆ Photographs of the lawn are also VERY helpful. Please include the photographs with the sample or email them to **srm183@psu.edu**

Nematode Soil Samples

Note: The Plant Disease Clinic does not perform nematode assays for commercial samples (orchards, vineyards, etc.). Contact the clinic for more information on where to send samples (814-865-2204).

- ◆ Collect at least one pint of soil from the root zone of the affected plant
- ◆ Any living roots should also be submitted
- ◆ Place the soil and roots in a plastic bag, seal, and properly label
- ◆ After the soil sample is collected, it should be kept cool and sent as quickly as possible
- ◆ Samples should not be allowed to dry, freeze, or be exposed to high temperatures
- ◆ Do not store nematode samples in sunlight or in a parked vehicle because temperatures above 100°F can kill nematodes

(3) Mailing

- ◆ Use strong containers such as corrugated cardboard boxes or mailing tubes that will not crush in transit when mailing large samples
- ◆ Fill empty spaces in mailing cartons with crushed or shredded paper to strengthen the carton and protect specimens
- ◆ Mail promptly! Avoid weekend and holiday layovers by mailing the specimens early in the week
- ◆ Mail to: Plant Disease Clinic
The Pennsylvania State University
220 Buckhout Laboratory
University Park, PA 16802