

## *How to collect a good plant sample for plant pathology diagnosis or viewing*

*Checklist: Did you...*

- *fill out the specimen information form thoroughly and for each sample?*
- *select a large enough specimen showing both symptoms and healthy tissues?*
- *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?*

### *Selecting and Packaging Plant Disease Material*

- *Select plants showing symptoms of concern*
- *When possible, collect several plants showing a range of symptoms*
- *Please do not collect 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 a dry paper towel around leaves*
- *Enclose entire plant in a 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*

### *Leaf, Stem and Branch Samples*

- *Send several affected parts*
- *Cut stem/branch samples so that a 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*

### *Root Samples*

- *Collect a handful of roots (about 1-2 cups) from multiple locations around the plant.*
- *If only one side of the plant is affected, collect roots from the side of the plant showing symptoms.*
- *Select a mix of large roots and fine feeder roots showing root rot symptoms (necrosis, sloughing).*
- *Sample live and dead roots. If roots are completely dead, keep in mind that we may no longer be able to detect root rot pathogens, even if they were responsible for plant death.*

#### *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.*

#### *Bacterial Leaf Scorch Samples*

- *Collect foliar cuttings (stems and leaves) showing marginal necrosis/chlorosis of the leaves.*
- *Select material from symptomatic areas of the canopy (you may need arborist to collect out of reach samples).*

#### *Turfgrass*

- *Please do not send completely dead turfgrass*
- *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*

#### *Mushrooms*

- *Do NOT identify mushrooms for edibility, but evaluate mushroom samples associated with plant problems.*
- *Package mushroom samples in brown paper and a crush-proof box.*
- *Include photos of the mushroom with your sample, including images of the underside of the mushroom.*