

# How to Collect a Good Plant Specimen for Disease Diagnosis



Let's say your apple trees have dark, sooty looking branches. Or the iris leaves along your house are yellow and droopy. Perhaps you'd like to know what gray sticky gunk is on your grape leaves. Call us and explain your problem. One of our staff or specially trained volunteer Master Gardeners will try to get you an answer right away. Or better yet, bring in a specimen so that we can actually see the problem. For best service, when collecting a specimen to bring in, follow the guidelines below:

Select plant material showing the symptoms you are actually concerned about. If possible, also bring in a healthy sample to compare it to. For small plants, bring all parts of the plant, including roots when possible. Enclose the roots and soil in a plastic bag. If it is not practical to bring in an entire plant, include several affected portions of the plant (branches, for example). Individual leaves are not very helpful.

If the disease involves wilting or if verticillium wilt or Dutch Elm disease is suspected, bring several branch sections (one inch in diameter and 12 inches long) from branches with wilting or yellow leaves. Put samples in a plastic bag to prevent drying. Turfgrass samples should be taken from the edges of affected areas. Collect one or two 3-by-3-inch squares of sod with an inch-deep attachment of roots and soil. Wrap each section in a slightly damp paper towel, then wrap with newspaper and bring in. Do not let the sample dry out.

When collecting fleshy specimens, such as fruit or potatoes, bring those with both early and intermediate disease symptoms. Wrap specimens separately in dry towels or newspaper. Do not put in plastic. Just as when you go into the doctor, you will need to give some basic information, along with your diseased plant specimen, including:

- Where the sample came from. Your vegetable garden? Lawn? Greenhouse?
- When did you first notice the disease?
- What is the plant's immediate environment (shade vs. sun; clay vs. loam; windy vs. protected)?
- How is the plant being cared for? Overhead watering? Drip irrigation? Fertilizer? Pesticides?
- What are the symptoms of the undiagnosed ailment?

This article adapted from Cooperative State Research, Education and Extension Service, USDA. Please contact the Farm Advisor's office at [cdcavalaveras@ucdavis.edu](mailto:cdcavalaveras@ucdavis.edu) or 754-6477 with your agricultural questions. Talk to a certified Master Gardener every Wednesday, 10:00-12:00, 754-2880. To speak with a Master Gardener in Tuolumne County, please call 209 533-5696.