

How to Collect and Preserve Specimens for Identification

You can get help with pest identification from your County Department of Agriculture and University of California Cooperative Extension offices (look in your phone book under County Government). Often the entomology or botany departments of local universities and junior colleges can help.

If your pest problem is common in your area, the identification specialist may be able to confirm your identification over the phone just from your description of the organism and/or the damage it caused. Often, however, they must inspect the specimen directly.

Collecting Insects and Mites for Identification

Whenever possible, ask how your identification specialist would like the specimens preserved, and try to collect more than a single specimen. If you aren't able to ask about preservation before you collect, the following are useful guidelines.

Larger insects (those larger than aphids) or insects with hard bodies should be placed in a plastic container, such as a pill bottle, film canister, or other container with a snap-on lid. Crumpled tissue or cotton in the container can keep the insects from rattling around and losing body parts. Mail or hand-deliver the container to the identification specialist. If you are mailing specimens, it is a good idea to put the container in the freezer overnight to kill the insects before they go through the mail.

Very small insects or mites can be collected on plastic tape. Gently pat the insect or mite with the sticky side of the tape and secure the tape to a sheet of white paper. Be careful not to clutter the tape with extraneous debris. The paper with the tape can be mailed or hand-delivered to the identification specialist. Alternatively, insects and mites, even soft-bodied species such as aphids, can be left to dry out in a container and the identification specialist can rehydrate them for study later.

Collecting Plant Specimens for Identification

If you want to have a damaged plant inspected or a weed identified, place the plant between two sheets of paper and enclose in a file folder or place between two pieces of cardboard. If you are unable to deliver the specimen in person immediately, it is likely to shrivel or mold. In that case, use the process outlined below.

Preserving a Plant Specimen

Lay the plant between two sheets of writing paper and place on a flat surface. Try to spread the plant out so that leaves and stems are not covering each other. On top of the paper set several heavy, flat objects (such as phone books) large enough to cover the plant. Press the plant in this manner until it is completely dry. At this point, the specimen can be mailed in a file folder inside a padded envelope.

Plants preserved in this manner can also be kept in a file for future reference regarding weeds, pest damage symptoms, etc. To preserve the plant for your own file, place it on one half of the inside of a file folder. Cut a piece of clear contact paper the size of half the file folder. Separate the backing from the contact paper and lay the contact paper over the plant and folder, pressing out air bubbles by moving your hand from the inside outward. Write the name of the plant (if known), the date, and the location where it was collected on folder.

Keeping a Record

If you send a sample specimen for identification, we suggest you keep another for your own reference, because samples are rarely returned. Along with the sample, you should send records of potentially important information about the situation or problem surrounding the specimen. Keep a copy of this information for yourself. We suggest you follow this format:

- date the specimen was collected
- place or address where the specimen was collected and type of area (e.g., lawn, parking lot, etc.)
- specific area where the specimen was collected (e.g., “north side of building 1A,” “under a stone,” etc.)
- host plant, if the insect was found on a plant