
APPENDIX F

HOW TO COLLECT AND PRESERVE SPECIMENS FOR IDENTIFICATION

If your pest problem is common in your area, Cooperative Extension personnel may be able to confirm your identification over the phone just from your description of the organism and/or the damage it caused. Sometimes, 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 good guidelines.

Larger insects (those larger than aphids) or insects with hard bodies should be placed in an appropriately sized plastic container, such as a pill bottle or film canister. Do not use the original cap; instead, stopper the bottle tightly with cotton. (Be careful not to crush the insect with the wad of cotton.) The cotton prevents moisture from accumulating inside the container and encouraging mold that can destroy important characteristics needed for identification. If the captured insects are still alive inside the bottle, place the container in the freezer for a day or two to kill them. If you are mailing the specimen to someone for identification, you must make sure the insects are dead. It is not a good idea to send live insects, because they may escape and cause a pest problem where you are sending them, particularly if they are not already present there. To mail the bottle, gently push the cotton wad down almost to the bottom of the bottle to prevent the insects from rattling around and losing body parts, then place the bottle in a box stuffed with crumpled newspaper.

Smaller organisms or organisms with soft bodies, such as aphids or mites, can be picked up with a paint brush and dropped into a small amount of rubbing alcohol in a container. In a dry container they might escape by tunneling around the cotton stopper or become entangled in the cotton, which can impair identification. 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 and a moist paper towel inside a plastic bag. If you are unable to deliver the specimen in person, place the bag inside a padded mailing envelope. If you cannot mail the specimen immediately, however, it is likely to shrivel or mold. In that case, use the process outlined below.

Preserving a Plant Specimen

Plants preserved in this manner can also be kept in a file for future reference regarding weeds, pest damage symptoms, etc.

Find a stiff index card or piece of white poster board large enough for the specimen, then cut a piece of clear contact paper that overlaps the card 3/4 inch on all sides. A sheet of aluminum foil spread over the work surface will prevent the contact paper from sticking in the wrong place. Separate the backing from the contact paper and lay the paper over the plant, pressing out air bubbles by moving your hand from the bottom to the top.

Cut off the corners of the contact paper, then fold the paper over the back of the card. Write the name of the weed (if known), the date, and the location where it was collected on the back.

Keeping a Record

If you send a sample specimen for identification, we suggest you keep another for your own reference, because samples are not always 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

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- place or address where the specimen was collected
 - specific area where the specimen was collected (e.g., “north side of the house,” “under a stone,” etc.)
 - maintenance practices that might have a bearing on the situation (e.g., “watered lawn two days before”)
 - previous pest control efforts (e.g., “used insecticidal soap spray morning of problem”)
 - host plant, if the insect was found on a plant
 - weather, if it seems relevant (e.g., “rained night before”)
 - time, if it seems relevant

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