

Client Tips When Visiting CSU Extension for Diagnosing Plant, Insect, Disease Issues

- Place plant samples in plastic bag. Do not add water or wet paper towels.
- when you arrive at the office, you'll be asked to complete a horticulture contact/sample form.
 - **The more information provided, the better!**
- Please send photos in addition to bringing a sample. (See other side for contact information.)
- Residential client inquiries are handled by volunteer Master Gardeners. Volunteers are not available every day, but you will be contacted as soon as possible.

Tips for Samples

TREES & SHRUBS

- Bring a **large enough sample**, such as a 12-24 inch branch with leaves attached (if applicable).
- The sample should show **transition from healthy to affected foliage**. We generally cannot provide diagnosis with only browned/dead plant parts.
- A **fresh** sample (not dried) is usually required. **Bring it in the day you collect it.**
- Include **as many plant parts as possible** – entire plant, leaves, twigs, flowers, fruit and roots.
- A single leaf is not sufficient.

TURF & LAWN

- Take roughly a **6x6 – 8x8 inch** sample (About the size of a shoebox or pie plate).
- Dig 3-4 inches down (or as deep as the grass roots will hold soil) using cup cutter, knife, or shovel, **showing the transition from healthy to affected turf**. Wrap the bottom of the sample in foil. Place in box.
- We cannot provide diagnosis with only brown or dead turf or from a small sample or a few blades of grass. We can return the sample to you if you'd like to place it back in your lawn.

SOIL

- We can test soil and compost salinity at the offices – Bring at least a cup of dried soil or compost.
- When taking the sample, remove the top inch of soil. This removes any sediment or concentrations and extra organic matter from the sample.
- Place soil in a zip-top bag or other container.
- For more comprehensive soil testing, contact the local Extension office to discuss options.

PLANT IDENTIFICATION

- A **fresh sample** (not dried) is usually required.
 - NOTE If the plant is not on your property and you do not have permission to collect, please take photos of the whole plant and zoom in if possible. See the tips on taking photos.
- For **suspected weeds on your property** or **property where you have permission** to collect a sample, dig up the **entire plant**, including its root system if possible.
- If bringing the whole plant is not possible, **bring as many plant parts as you can**: flowers, fruits, leaves, seed heads, buds, and young stems.
- Place the plant in a bag with a dry paper towel and seal.

INSECTS

- Insects should **not be squashed or dried**. Look for immature and mature forms.
- Place insects in vials or other **rigid containers**. Larvae should be placed in rubbing alcohol, if possible.
- **We do accept bedbugs, ticks, and arachnids.**
 - **If the sample is a suspected bedbug/tick, place sample in ziptop bag and place in freezer.**
- **NOTE:** CSU Extension CANNOT accept samples taken FROM the human body (or animals)– e.g., skin, hair, scabs, stool, blood, mucous, saliva, etc.
- If the insect/arthropod is in or on the client's body and is causing harm, contact a medical professional. CSU Extension Tri-River Area cannot assist in these cases.

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From April to October, Master Gardeners are available on a regular basis to assist with yard and garden questions. At other times of year, assistance is provided by staff.

Mesa County

2775 US 50, Grand Junction, CO 81503 (located within the Mesa County Fairgrounds. Follow signs to CSU Tri-River Extension)

Hours: 8:00 a.m. – 5:00 p.m., Monday–Friday
(970) 244-1834

Master Gardener Help Desk
(970) 244-1836 | mastergl@mesacounty.us

Master Gardener shifts are daily during the growing season, but there may not be a Master Gardener in every day.

Delta County

525 Dodge Street., Delta, CO 81416

Hours: 7:30–11:30 a.m. & 12:30–4:30 p.m., (closed for lunch 11:30–12:30), Monday–Friday
(970) 874-2195

Master Gardener Help Desk
(970) 874-2195 | deltamastergardener@gmail.com

Master Gardeners are in the office Wednesdays from 9:00–10:00 a.m. during the growing season.

Montrose & Ouray Counties

949 N 2nd Street., Montrose, CO 81401

Hours: 8:00–11:30 a.m. & 12:30–5:00 p.m. (closed for lunch 11:30–12:30), Monday–Friday
(970)249-3935

Master Gardener Help Desk
(970)249-3935 | mgdeskmontrose@gmail.com

Master Gardeners are in the office Fridays, 1:00–3:00 p.m., during the growing season.

Tips for Photos for Identification and Diagnosis of Insects & Disease

Good photos can aid in identification of plants, insects, and diseases, and diagnosis of plant, insect, or disease problems.

FOR IDENTIFICATION

- For plants, show the **leaf/branch pattern** (alternate, opposite, whorled), **bark, flowers, or fruit** (if present). **Include at least one photo of the whole plant in its setting.**
- For **insects**, take photos of both **mature** and **immature** forms, if possible. **If they are in focus, close-up images can be helpful** – legs, antennae, head, body. Take photos of **any feeding and/or damage** (chewed leaves, damage to bark, distorted foliage, etc.). If you see **egg cases, cast skins, frass (insect poop)**, or other **signs or symptoms**, document those as well.

DIAGNOSING A PLANT, INSECT, OR DISEASE PROBLEM

- Take photos of the **healthy parts** of the plant **AND** any **damaged parts**.
- Take a photo of the entire landscape, including the plant.**
- Photograph the **whole plant, including its base**, as well as **close-up images** of the problem area. This gives a sense of the plant in its setting and the problem area(s) for diagnosis. **For diagnosing problems with trees, seeing where the trunk meets the ground is critical.**
- If the **problem area is on a leaf, take a photo of the top surface of the leaf and of the underside.**
- Use an object like a **coin, pen, or ruler** to show scale.
- Place the object next to insects, plant parts, or damaged areas.
- Take **several photos**. As long as they are in focus, close-up photos can be useful.
 - If you are using a smartphone and can't zoom in for a sharp photo, simply take a less zoomed in photo.
 - Zoom out enough on your phone until you can get a shot in as sharp focus as possible and submit that.

Mesa County: mastergl@mesacounty.us

Delta County: deltamastergardener@gmail.com

Montrose & Ouray Counties:
mgdeskmontrose@gmail.com

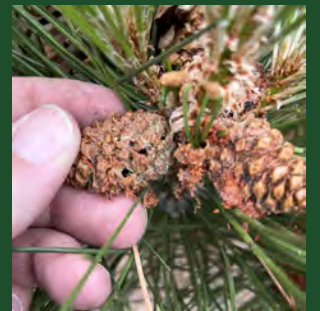
EXAMPLES OF GOOD IMAGES



Insect Identification (Winged ant)



Plant Identification: Safflower



Holes in cones: Possible Western Pine Cone Beetle or Pine Coneworms



Insect Identification:
mottled tortoise beetle



Diagnosing lawn issues

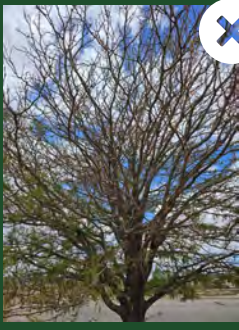
Photos for Plant, Insect & Disease Diagnosis and Identification



COLORADO STATE UNIVERSITY
TRI-RIVER AREA EXTENSION



Base of tree is visible



Base of tree not visible



Multiple plant parts submitted for plant identification



Multiple views of insect



Too far away for identification. Need additional, closer-up photo



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