

## ASK A MASTER GARDENER

## THE DREADED DAMPING OFF

By Trish Grenfell, Placer County Master Gardener

It's time to start thinking about whether I want to go through the trouble of starting seeds early indoors.

Last year I had a 100% failure rate; many seeds didn't sprout at all and the seedlings I did get completely died after a few days. Since I have no idea what happened, I hesitate trying again. Help!

A Many conditions could be responsible for the failure of your seed starts but since you didn't share any information on hydration, growing medium, or available light, I can't give you the reason for this failure. However, you should be aware that what happened last year sounds like a classic case of "damping off." This term is used for a variety of fungal problems that lead to sudden seedling death. Once the process is underway, it's hard to save even a few of your plants. Prevention is the best cure.

Decay is MOST likely to occur when old seeds are planted in a cold, wet unsterilized planting medium and air flow is poor, planting containers are dirty, and seeds are planted too deeply.

Plant seeds in steam-treated or pasteurized potting mix. To sterilize your own soil mix, it must be held at 140° F for at least 30 minutes in a conventional or microwave oven. Better yet—you can purchase soilless seed starting mix or prepare your own with an appropriate ratio of perlite, vermiculite, and peat. Soilless is usually disease free, has better drainage, and is lighter for you to carry.

Put that sterile potting mix into clean planting containers. If you're reusing containers, clean them first with soapy water which is 10% bleach. This is important because spores that cause damping-off can survive in dust, planting medium, or soil particles in flats and pots.

If possible, create a breeze by placing a small fan nearby and tuning it on periodically each day.

Keeping your potting mix barely moist rather than soggy is essential to healthy seedlings. If you water from the top, water between rows of seedlings and try not to drench the tops of the plants. Bottom watering seems to help by keeping the soil surface drier—but after 15 minutes, remember to pour out the excess so plants don't sit in water.

Watering or misting seedlings with an antifungal solution will also help protect your seedlings. One tablespoon of 3% hydrogen peroxide per quart of water is sufficient. According to the University of Minnesota Extension, you can also brew strong chamomile tea and add an ounce or two per quart of water. As per the University of Illinois, a one-time dusting of cinnamon on the soil surface can also be used as an antifungal agent.

## University of California Cooperative Extension



The University of California, in accordance with applicable Federal and State law and University policy, does not discriminate on the basis of race, color, national origin, religion, sex, disability, age, medical condition (cancer-related), ancestry, marital status, citizenship, sexual orientation, or status as a Vietnam-era velteran or special disabled veteran. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action Director, University of California, Agriculture and Natural Resources, 1111 Franklin, 6th Floor, Oakland, California 94607-5200, (510) 987-0098. Unived States Department of Agriculture, University of California, Placer & Nevada Counties cooperating.

**NEVADA COUNTY** 

255 So Auburn Grass Valley, CA 95945 (530) 273-4563 E-Mail: cenevada@ucdavis.edu