

NEWS RELEASE
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COLD, WET SOILS FAVOR DAMPING-OFF DISEASES

BACKYARD HORTICULTURE

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With all the recent rain in Mariposa, one would think every seed in the ground would germinate. However, if you have ever planted seeds in your garden and not had any of the seedlings pop through the soil, you may have a “damping-off” problem. According to UC Farm Advisor Ed Perry, the term damping-off refers to a group of soil-inhabiting fungi that kills seeds before they germinate, or attacks young plants at soil line, causing them to collapse.

Various species of damping-off fungi cause decay of seeds, potato seed pieces, sprouts or seedlings. Decay is most likely to occur when you plant old seeds or seed pieces in cold, wet soil. Poor soil drainage, the use of green compost and planting too deeply makes damping-off even worse.

The first hint of the problem is when your seedlings fail to emerge. If seeds are attacked before they germinate, they turn soft and mushy and decay. You may notice a layer of soil clinging to them when you dig them up. The soil near the seed is interwoven with fine, threadlike fungus growth. Germinating seedlings shrivel and may darken; if the seedlings are attacked after they emerge, stem tissue near the soil line decays and weakens, often causing plants to topple and die. Plants with infected roots may continue standing, but remain stunted and eventually die. Seedlings are less likely to be attacked by damping-off as they get older.

The most important way of preventing damping-off is to prepare your planting beds so that the soil has good drainage. You can improve drainage by using raised beds and soil amendments such as wood bark, peat moss, or well-decomposed compost. Composted hardwood bark has been reported to reduce damping-off. Do not use green (undecomposed) compost, since it will only encourage damping-off fungi.

Be sure to plant only when temperatures are favorable for rapid seed germination and seedling growth. More shallow planting speeds up germination when the weather is still too cool for rapid growth. If you use transplants, do not plant into cold, wet soil. Plant only the highest quality seed. If you start your own plants indoors, use steam-treated soil or pasteurized potting mix.

Use light, relatively frequent irrigations to encourage germination and seedling emergence. However, be sure not to overwater. After your plants emerge, thin them so that there is good air circulation around the plants. Avoid applying too much nitrogen fertilizer, since damping-off fungi thrives on succulent plant tissue. Also, avoid planting the same crops in the same spot year after year.

For a free informational leaflet on damping off , call the UCCE Office in Mariposa, 966-2417.

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