

## Sowing success: preventing damping off

Your seeds, soil and containers are ready to go. The final thing is to safeguard against damping off, a fungal disease that attacks the roots of seedlings quickly destroying them.

### Sudden disappointment

Damping off is a disease created by fungi (rhizoctonia spp, fusarium spp, and pythium spp) that inhabits soils, particularly those that are wet and rich in nitrogen. A white mossy growth on the soil or dead seedlings is often the first sign of infection. It's hard to predict damping off problems since you'll only know when your seeds fail to emerge or, even worse, poke through the soil only to suddenly collapse and die shortly afterwards.



### Clean is best

Always start off with clean pots and sterile soil. You can start off fresh by making your own seedlings pots from recycled newspaper. Read our how to directions in [Sowing Success: starting your seeds](#). If you want to re-use your pots make sure they are clean. Wash them out and run them through the dishwasher. You can also spray them with a weak solution of hydrogen peroxide and water: 10 ml (2 teaspoons) of hydrogen peroxide to one litre (1 quart) of water. Let the solution sit for five minutes, rinse off and let dry naturally.

### Check your soil

Avoid using real soils with your seedlings. Instead, go for a special seed-starting mix. There are plenty of organic choices available at garden centers, including the popular NoDampOff soil mix. These composts are typically a combination of peat or peat substitute, or a mixture of sterilized loam and peat. Either way, they're ideal for the task at hand because they are free of bacteria and insects, are moisture retentive, light, and are low in nutrients.

### Make your own

If you're wondering whether your potting soil is organic, check for the OMRI Certification (Organic Materials Review Institute) on your potting mix. The National Sustainable Agriculture Information Service (ATTRA) also has a comprehensive section on [Potting Mixes for Certified Organic Production](#). It lists places selling organic potting soils and includes a host of information about making your own mix. **Stay shallow** Don't plant your seeds too deep as this causes stress on the seedling as they have farther to travel. It can also result in too much of the plant remaining below the soil line.

### Go easy on nutrients

Don't kill your seedlings with kindness by adding extra nutrients. Many contain salts that can damage delicate newborns. Besides, most seeds already have all the nutrients they require for germination.

### An ounce of prevention

Avoid shading your seed trays -- newly emerging plants need light to thrive. Don't over water but allow soil to dry slightly between watering. Watering from the bottom is also a good preventive measure. Remember to add your organic nitrogen fertilizer after the seeds have produced their first real leaves. This is important, as the plant is growing rapidly at this stage and needs extra nutrients.

### Natural anti-fungicide

There are several herbal anti-fungicide sprays to prevent damping off:

- **Chamomile:** Naturally high in sulphur, this popular tea is a fungicide. Make an infusion with three chamomile teabags and allow it to steep for about 20 minutes. Add the concentration to a sterilized spray bottle and mist the seedlings once they start to sprout.
- **Cinnamon:** A natural anti-fungal, sprinkling the soil surface with some ground cinnamon can stop damping off. This needs to be done only once.
- **Hydrogen peroxide:** Add one cup of hydrogen peroxide to one gallon of boiled water. Allow it to cool and mist the seedlings.
- Organic gardeners have reported success using sprays created with **seaweed extracts** or diluted **Neem oil**.
- **Give them space** Nobody likes to be crowded. Overcrowding your seedlings and lack of ventilation creates an overly damp, stagnant atmosphere in which fungi can flourish.
- Sow your seeds carefully and pinch out plants as necessary to prevent damping off.

The war on damping off can be won, but it takes some time and effort.

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