



## Avoiding Plant Disease in the Backyard Vegetable Garden

By Linda Golodner



In springtime, hope springs eternal for a bountiful harvest from the backyard vegetable garden. One risk to productivity, however, is pathogens (disease-causing microbes) transferred from contaminated planting pots and garden tools to vegetables, a form of *cross-contamination*. Here are some tips for avoiding crop loss due to cross-contamination.

### *Recycle Planting Pots, Not Pathogens*

Do you reuse plastic and clay containers for starting seeds indoors? According to the [Philadelphia County Master Gardeners](#) website, by recycling these containers, you may be recycling pathogens, mineral and salt deposits, and last year's weeds. These experts say a visual inspection of a planting pot is not enough: "Spores and bacteria that cause mold, fungus and even root rot can stick to your containers, but hide from the naked eye."

The following tips on sanitizing planting pots before reuse are based on the [Philadelphia County Master Gardeners](#) website:

- Soak pots and other planting containers in warm, soapy water to loosen fragments of matter. Use a scrub brush to scour the pots clean, scrubbing off any debris as well as mineral/salt deposits.
- Use steel wool for difficult to remove stains, and rinse with warm water until all the soap runs off.
- Make a bleach solution: 1 part bleach to 9 parts water. This is equivalent to 1.5 cups of regular strength bleach and 13.5 cups of water. (Our note: if you are using concentrated bleach, use 1 cup of bleach to 14 cups of water.)
- Completely submerge pots and planting containers in the solution and soak for 10 to 15 minutes.
- Upon removing the containers, rinse with warm water.
- Scrub lightly with soapy water (using unscented dish soap) and rinse well until soap runs off and water runs clear. Inspect for remaining residue and repeat the procedure if necessary. (If stains or residue remain after the sanitation process, do not reuse the pot.)

### ***More Tips for Disease-free Vegetables***

**Start with Healthy:** Start with seeds from a reputable company or seedlings that look healthy and vigorous.

**Keep Leaves Dry:** Water plants in the morning so that foliage dries quickly. Use drip irrigation to avoid wetting leaves and splashing pathogens from soil to plants.

**Remove Diseased Material:** Remove and discard diseased plant material as soon as possible; work when the garden is dry, as moisture on plants aids the spread of disease. Do not allow diseased material to overwinter in the garden, as new plants may be affected.

**Rotate Crops:** Rotate plants of the same crop family to different areas of the garden from one growing season to the next. For example, the tomato family includes tomatoes, potatoes, eggplant and peppers.

Based on information from the [Cornell University website](#).

- Lay containers out to dry for 24 hours before using. If possible, dry pots in direct sunlight for some of that time. Exposure to the sun can help to kill off certain bacteria.

### *Don't Spread Disease via Garden Tools*

Sanitize garden tools using the same procedure as planting pots (above), keeping in mind that prolonged contact of metal tool parts with bleach may corrode metal. To avoid rusting, ensure that all bleach has been rinsed from tools following soaking. Dry tools thoroughly and apply oil to metal parts using a cloth. Pay special attention to small areas around hinges or other joints where water may collect.

*May your harvest be abundant!*

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