

HOME | FOOD SAFETY AND QUALITY | HOME FOOD SAFETY | FOOD PRESERVATION | TOMATOES AND POTATOES INFECTED WITH LATE BLIGHT - ARE THEY SAFE FOR CANNING?

Tomatoes and Potatoes Infected with Late Blight - Are They Safe for Canning?

The following advice should help home canners decide whether or not they should process tomatoes or potatoes that show visible signs of late blight infestation.



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Late blight is a common disease in tomatoes and potatoes caused by the fungus Phytophthora infestans. The disease thrives in cool, moist conditions and can wipe out an entire crop within just a few weeks of infestation.

Symptoms

Tomatoes

Infection initially appears as

water soaked lesions on the leaves and stems. Under cool and moist conditions, the fruits may become infected initially with firm, dark brown lesions that rapidly become enlarged, wrinkled, and somewhat sunken. The rotted areas are usually located on the top of the fruit and may remain firm or become mushy.

Both green and ripe tomatoes can be infected. Green fruit that is picked early and ripened indoors may develop symptoms before it is ready to eat.

Potatoes

Late blight appears as a shallow, coppery-brown, dry rot that spreads irregularly from the surface through the outer 1/8-1/2 inch or more of tissue. Lesions appear on the

potato surface as brown, dry, and sunken while infected tissues immediately beneath the skin appear granular and tan to copper-brown. Symptoms can appear before harvest or after harvest. Tuber-to-tuber spread of late blight during storage can be minimized by keeping tubers under cool, well-ventilated conditions.

Canning recommendations

Tomatoes

The USDA Complete Guide to Home Canning (1994 ed.) recommends that canners select only disease-free, preferably vine-ripened, firm tomatoes for canning. The reason for this recommendation is that fungus infestation may raise the pH of the tomato flesh to a level that makes it unsafe for canning.

Our specific recommendation is that tomatoes showing signs of late blight disease should not be used for canning. This applies even to tomatoes with only minor lesions since we cannot be sure that the infestation has spread to the interior of the fruit and the extent of internal infestation is not always clearly visible.

It is safe, however, to process unblemished tomatoes that are growing on plants with leaves, stems, or adjacent fruit that show signs of infection. But these tomatoes are at a higher risk for developing late blight lesions after they are harvested. Make sure to eat or process these tomatoes as soon as possible after harvesting. Green tomatoes picked early to ripen indoors should be regularly checked for signs of disease.

We also cannot recommend that consumers eat fresh or freeze diseased tomatoes. The disease organism by itself is not harmful to consume. But the tissue damage and rise in pH (decrease in acidity) that occurs can create conditions that promote the growth of other potentially harmful microorganisms.

Some may say that this is an unnecessary waste of food. But anytime you are unsure of the safety of food, remember this saying..."When in doubt, throw it out".

As an extra level of protection for home canners, remember to follow the acidification directions for all tomato products in the USDA Complete Guide to Home Canning.

To ensure safe acidity in whole, crushed, or juiced tomatoes, add two tablespoons of bottled lemon juice or 1/2 teaspoon of citric acid per quart of tomatoes. For pints, use one tablespoon bottled lemon juice or 1/4 teaspoon citric acid. Acid can be added directly to the jars before filling with product. Add sugar to offset acid taste, if desired. Four tablespoons of a 5 percent acidity vinegar per quart may be used instead of lemon juice or citric acid.

Note: Tomatoes that are damaged by frost are also not recommended for canning because the softened tissue may be quickly invaded by fungus. If the home canner insists on recovering a frost damaged crop, the fruit should be picked the morning after the frost and processed that day.

Potatoes

Use firm, disease free potatoes for canning (or freezing). Potatoes showing signs of late blight infection should not be used for home canning. Discard the whole potato rather than cutting off diseased portions since the fungus may spread to the interior. Since potatoes are a low acid food, they should be pressure processed according to directions in the USDA Complete Guide to Home Canning. Acidification procedures are not necessary for potatoes.

References

- Let's Preserve Tomatoes . Penn State Extension.
- Canning Tomatoes Dos and Don'ts. Penn State Extension
- Potatoes, White--Cubed or Whole (Preparing for Canning). Complete Guide to Home Canning. United States Department of Agriculture, Extension Service.

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