

Is Tomato/Potato Late Blight Possible in a Dry Year?

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Is tomato/potato late blight possible in a dry year? Yes, indeed! Late blight is the fungus-like disease that has caused devastating losses to tomato and potato gardeners and growers in some recent years. It develops and spreads rapidly in a wet year. But high relative humidity is all late blight needs to develop, not rain. Weather favorable for late blight development has already occurred in spots scattered across Western NY and the Finger Lakes Region. Spores from local infections can be carried on the wind as far as 30 miles to start new infections. Growers have been advised to apply regular sprays of a fungicide such as chlorothalonil, or copper if they are organic. Gardeners are advised to do the same, especially if late blight is confirmed in Western or Central NY.

In a dry year infection is most likely to start on lower leaves and stems. Plantings in areas protected from drying winds, and those with lots of weeds, are at more risk, since humidity stays high longer there. Staked and pruned tomatoes are at less risk. Because late blight was present in 2015 it likely overwintered on potato tubers in cull or compost piles, or in the soil. It only takes one small

plant from an infected tuber to start an epidemic since each late blight lesion (dark spot) can produce up to 350,000 spores, each capable of starting a new infection. It takes four days for infections to become visible.

If you see dark spots on your tomato or potato plants that noticeably increase after a few days, especially if there is rain, high humidity or dew, take a closer look. If the spots are caused by late blight there will be very dark, irregular, water-soaked spots on otherwise healthy green leaves and stems in the early morning. Late blight lesions produce very fine, white, sporulation (fuzz) on the undersides of leaves surrounding the dark spot if extended high humidity occurred. Later, on a warm, sunny day the dark spots will dry up but a wide yellow-green margin may remain. In a day or two the lesion will expand into



and beyond that margin. On potato tubers and tomato fruit late blight causes a mottled brown, sunken dry rot that extends as much as an inch into the flesh.

If you think you might have late blight act immediately to reduce the risk to your other tomato and potato plants, and to local gardeners and farmers. Don't be a "Typhoid Mary!" Put a **fresh** stem with several green leaves with dark lesions into a gallon size plastic bag, blow up the bag, and seal. Keep the sample at room temperature and bring to the Cornell Cooperative Extension office as soon as you can. If you can't bring it in within a day or two then collect a fresh sample when you can. Close up, well focused digital photos of a few leaves with lesions, taken early in the morning, can be used for diagnosis. Late blight cannot be diagnosed from dead foliage.

If late blight is diagnosed, and it affects less than 5% of the leaf area, apply a fungicide spray immediately and repeat at 5-7 day intervals. In wet or humid weather once 5% of the leaf area in a tomato or potato planting is infected it's likely that all of the planting will be infected and killed, even with fungicides. In that case gardeners and growers are encouraged to destroy all green foliage ASAP to reduce the spread of the disease. Bag and put in the trash, cut at the soil line, or bury plants. Late blight cannot survive on dead tissue. If potato tubers are present, and they've been well covered, wait 3 weeks after the foliage is dead and dry before harvesting, and do so on a sunny day. Pick up and discard all culls in the trash.

To reduce the risk of late blight in the future always use disease certified potato seed. Do not save tubers to plant! Use locally grown tomato plants, or plants that have been inspected and proven disease-free. Late blight occurs in Florida and other parts of the south every year, beginning in the winter.

Resistance is an excellent pest management tool when available. There is resistance to late blight in tomatoes, including: Defiant PHR F1, Jasper, Lemon Drop, Matt's Wild Cherry and Mountain Magic F1, which are resistant; Aunt Ruby's German Green, Black Krim, Black Plum, Mountain Merit, Mr. Stripey, Prudens Purple, Red Currant, Yellow Currant and Yellow Pear, which are moderately resistant, requiring fewer fungicide sprays; and Legend and Plum Regal F1 which are a little less susceptible than other varieties.

There is little resistance to late blight in potatoes: Elba, Kennebec and Sebago have moderate resistance, requiring fewer fungicides, but Allegany, Rosa, Defender, Jacqueline Lee, Ozette, Castile, Dorita, Green Mountain and Russet Burbank are only a little less susceptible than other varieties.

For videos on identifying late blight go to: <http://usablight.org/node?page=2>.



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