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## Blight wiping out tomatoes, potatoes

### Experts advise steps to slow spread of disease

*By Matt Sutkoski, Free Press Staff Writer*

A fungus called late blight is damaging tomato and potato crops throughout Vermont, and experts say the problem will likely get worse as the summer wears on.

The blight is the same fungus that led to the Irish potato famine nearly 150 years ago, said Vern Grubinger, a vegetable and berry specialist with the University of Vermont Extension. The problem is widespread this summer throughout the Northeast, he said. "We're at the cusp of a serious epidemic."

Late blight is devastating to tomatoes and potatoes but does not harm other vegetables. It is also not dangerous to human health. 

It is, however, dangerous to the financial health of farmers growing tomato and potato crops.

Some vegetable growers, like Full Moon Farm in Hinesburg, have already lost their entire tomato crop. Rachel Nevitt, who co-owns the farm with David Zuckerman, said some of the farm's 600 tomato plants began to look a little peaked around July 22. Five days later, virtually all the plants were dying of the late blight, with most of the vines showing tell-tale black marks and lesions.

The tomato crop loss at Full Moon Farm amounts to about \$10,000, Nevitt said. The loss would have been worse, but Full Moon Farm has a community supported agriculture program. Customers buy shares of the farm early in the season, and in return receive vegetables grown there. Nevitt said customers may be disappointed they will not get tomatoes, but other crops on the farm are doing well and people are receiving those crops.

Late blight appears occasionally in Vermont, but this year's outbreak is the worst in decades. "It's been 20 or 30 years since there's been a serious late-blight outbreak," said Tim Schmalz, the plant pathologist for the Vermont Agriculture Department.

A "perfect storm" of events conspired to launch the outbreak, Schmalz said. Some infected plants from a major distributor were sold at large national retail chains, which might have distributed some of the spores associated with the blight to backyard gardens, Schmalz said. The infected plants were recalled by the distributor, but some might have been sold before the recall, he said.

Due to the recession, more people are raising backyard gardens, and many of these neophyte gardeners are unfamiliar with the blight and how to deal with it, he said.

"Then the weather stinks," Schmalz said. The cool, wet weather common this summer encourages the rapid spread of late blight, he said.

Once tomato and potato plants become infected with the blight, gardeners and farmers should quickly destroy the plants because leaving them untouched encourages more fungus spores to grow and spread to other farms and gardens. Sometimes crops can be saved with fungicide, though Schmalz cautioned gardeners to read and follow fungicide label directions carefully. Organic gardeners can try spreading copper-based fungicide on their vines to cripple the fungus.

At Full Moon Farm, all tomato plants were uprooted and left to rot. Late blight can survive only on living plant material, so killing the plants prevents further growth of the fungus, Nevitt said. The dead tomato vines at Full Moon Farm will be tilled deep into the soil, destroying any chance spores could survive, she said.

Nevitt says farmers and backyard gardeners should watch carefully for signs of late blight so they can take steps to prevent the spread of the disease.

Jim Flint, executive director of Friends of Burlington Gardens, said he has been spreading the word about late blight this week. "This is an urgent situation, and it's time to take action on it," he said.

Flint said backyard gardeners should put infected tomato vines in plastic garbage bags and take them to the landfill. The material should not go in compost piles because he thinks there is a slight chance the spores could survive in the warmth of a compost bin.

Potatoes can be saved by cutting off the plant at ground level, then carefully digging out existing potatoes on a dry day for consumption, Flint said.

It is impossible to tell how extensive the late blight epidemic will get during the rest of the summer. Hot, dry weather would kill off much of the blight, slowing its spread. But if cool, rainy weather continues, the disease will continue to spread rapidly, Schmalz said.

Much of the damage is already done. "There's going to be a lot fewer tomatoes this year," Schmalz said.

The good news is that if normal summer weather returns next year, late blight won't be nearly as big a problem as it is now, Schmalz said.

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## Additional Facts

### FIGHT THE BLIGHT

Ann Hazelrigg of the Plant Diagnostic Clinic at the University of Vermont has these tips for dealing with late blight and minimizing its long-term effects. For more about late blight, see Hazelrigg's posts on the Vermont Master Gardener Web site at [www.uvm.edu/mastergardener](http://www.uvm.edu/mastergardener):

- Symptoms include large half-dollar size spots on foliage that is greasy black/green. When humidity is high or it is wet, you will see white spores on the underside of leaves.
- Simply pruning blighted foliage will have no effect because there are thousands of airborne spores. If gardeners don't see the blight in their plants, they could protect them with a fungicide on a 5-7 day schedule.
- Once the grower has late blight, it will likely take the whole crop. Best to pull plants and put under a tarp or in a bag and a landfill or dig a hole and bury the lot. Do not leave plants standing, because that will allow the spores to spread elsewhere.
- The disease will not "overwinter" on tomato stakes, cages or on dead tissue, so that is good news for tomato growers. But the disease can overwinter on infected potatoes.

- If the disease gets into potatoes, mow the plants before it spreads, let all the tissue die (so spores die) and allow tubers to harden for a week and then harvest.
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