

Late-blight fungus ruining crops in 13 states

July 27 2009, By James M. O'neill

A fungus that caused the infamous 1840s Irish potato famine has hit this summer's commercial and homegrown tomato crop in 13 states, putting farmers and agricultural experts on edge.

"It's a big threat," said Andy Wyenandt, an assistant extension specialist at Rutgers University. "This could have a real impact on commercial growers."

The fungus, phytophthora infestans, causes a late blight that quickly kills affected plants. Its spores can spread easily on the wind from one homeowner's garden to the next and on to commercial fields.

This summer's outbreak has been found in plants from Maine to South Carolina. Commercial farms and home gardens in six New Jersey counties -- Sussex, Warren, Hunterdon, Cumberland, Gloucester and Salem -- have confirmed cases so far.

"But we suspect it to be more widespread," Wyenandt said. Just this week, a farmer in Hunterdon County, N.J., sprayed a desiccant on part of his most severely infected tomato crop to kill the plants so the fungus wouldn't spread to the rest of his or his neighbors' farms.

Many are worried about what this will do to commercial tomato crops, a \$21 million industry in New Jersey alone. The blight has also hit potato crops in New York, Pennsylvania and other states.

"This is one of those diseases that, when you mention it to commercial



growers, they get nervous," Wyenandt said.

The fungus wiped out all 100 tomato plants in Fred Behnke's back yard in Paramus, N.J., recently

"The leaves curled up and turned black and each tomato got brown spots and looked rotten," he said. "In two days, it went through the whole garden."

Behnke, a former farmer who is 90, said he had never seen anything like it. He got the plants from a farmer friend in Lancaster, Pa., another state with confirmed cases. Behnke had to pull all the plants out when the blight hit just before July 4. He put them in a plastic bag to kill the fungus and prevent its spread.

The fungus isn't unusual to tomatoes in the Northeast, but it showed up early and is far more widespread this summer. Wyenandt said it's prevalent because an Alabama wholesaler distributed tomato seedlings infected with the fungus to big-box retailers.

"Never before has such an extensive distribution of infected plants occurred," Wyenandt and two Cornell University plant experts wrote in an agricultural advisory.

The spread of the disease was exacerbated by a cool, wet June. "That kind of weather is ideal for late blight," Wyenandt said.

The fungus was present on plants supplied to Walmart, Kmart, Home Depot and Lowe's by Bonnie Plants, an Alabama-based wholesaler with 62 growing stations nationwide, Wyenandt said.

Bonnie Plants, the nation's largest tomato plant producer, recently pulled all of its remaining tomato seedlings off retailers' shelves in 12 states,



including New Jersey, New York and Pennsylvania, said Ellis Ingram, the company's customer relations manager. The move will cost the company up to \$2 million, he said.

"We're very conscientious. We didn't want commercial producers to be affected," Ingram said.

But he said the company's plants were not the source of the fungus and that the spores could have been already present in the air at the retail stores or on the plants of other wholesalers.

"We follow a strict spray program in our greenhouses," Ingram said. The company's greenhouses have been inspected by state agriculture departments and the fungus has not been found in any, he said.

Experts say that homeowners should check their tomato plants regularly for signs of disease. If they find it, the plants should be dug up, put in plastic bags and discarded. Infected plants should not be mulched or composted because that could spread the disease.

Peter Demarest of Demarest Farms in Hillsdale, N.J., said he usually plants tomatoes early in June, but the wet weather made it too difficult to get his machinery into the fields. He got his plants in only a few weeks ago, which probably helped him escape the blight.

"Anyone who planted early is going to have problems," he said. "It's a tough summer for anyone who planted on time."

Rudy Ploch of Ploch's Farm in Clifton, N.J., said he normally starts selling tomatoes in mid-July, but this year won't until Aug. 4. "People keep asking, 'When are you going to have tomatoes?'" Ploch said. "Usually we're harvesting 10 to 15 baskets a day by now."



Todd Kuehn of Farms View Road Stand in Wayne, N.J., said it will be several more weeks before he has enough tomatoes to sell, and even longer if overnight temperatures continue to hover in the 50s. He said his crop also suffered a setback from two hailstorms.

The unusual weather and the blight have combined to disrupt one of the cherished traditions of New Jersey summers -- lush, red tomatoes, served up a hundred ways.

Behnke said he and his wife usually make 165 quarts of tomato juice every year. He also has traditionally loaded a basket of tomatoes into his car every Wednesday night and headed to the Hawthorne Gospel Church.

"People gathered around waiting like kids," he said. "We just gave the tomatoes away. It was one of our pleasures."

LATE BLIGHT ON TOMATO PLANTS

Signs to look for:

On the leaves: Circular lesions that are lime, dark green or beige and appear greasy or water-soaked. They can be the size of a nickel to a quarter. On the leaf's underside, a white powdery growth contains the spore inoculum.

On the stems: Brown to almost black lesions.

On green tomatoes: Brown to black bruise-like spots.

On ripe tomatoes: Bruises that look as if the tomato's skin is collapsing



inward. The <u>fungus</u> is not harmful to humans, so the fruit can be eaten if the affected area is removed.

What to do: Remove the entire affected tomato plant from the garden. Put in a plastic bag and seal before disposing. Do not put infected plants into mulch or compost piles, since the <u>spores</u> can spread on the wind to other plants or neighbors' gardens.

To protect healthy plants: If desired, apply general-purpose fungicides available at local plant stores. The most effective have the common name chlorothalonil on the label. These are only effective if used before the disease appears and should be reapplied every five to seven days if cool, wet weather persists.

Have your <u>plants</u> tested: New Jersey residents can submit plant samples for diagnostic testing to the Rutgers Plant Diagnostic Lab. Instructions are available at njaes.rutgers.edu/plantdiagnosticlab.

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