Helping Vegetable Growers Fight Late Blight

By Lisa Halvorsen

Pete Johnson remembers the exact date that he first discovered late blight in his potato crop. Aug. 6, 2009.

The owner of Pete’s Greens, a certified organic vegetable operation and year-round CSA (Community Supported Agriculture) in Craftsbury, knew exactly what he was facing thanks to timely updates throughout the growing season from Vern Grubinger, UVM Extension vegetable and berry specialist, who tracked the spread of this fungal disease of tomatoes and potatoes during its most serious outbreak in the Northeast in decades.

“I grew five acres of potatoes with a value of $140,000,” Johnson says. “If the plants die, it’s no big deal. But if the infection goes into the tubers, then the potatoes rot in storage into a big gooey mess, and we lose the entire crop. When we got late blight, we were fully prepared, thanks to Extension, so my loss was minimal.”

For Bob Pomykala, president of the Vermont Vegetable and Berry Growers Association and a commercial vegetable grower in Grand Isle, it was not potatoes, but his tomatoes, that got hit with the disease.

“The amount of information available to us was phenomenal,” Pomykala says. “Vern updated information weekly, sometimes daily, so we knew what steps to take when it arrived and what to do with the crops afterwards. In the end, late blight was just a bump in the road for us.”

According to the most recent USDA Census of Agriculture figures, 285 acres of potatoes, 91 acres of field tomatoes, and more than seven acres of greenhouse tomatoes are in commercial production in Vermont with a farm gate value of about $8 million. “Late blight can take down a whole crop in a matter of days,” Grubinger points out. “So potential losses would have been greater had Extension personnel not communicated across state lines to help the region’s farmers keep track of the spread of the disease.”

He adds that the exceptionally cool and rainy weather conditions in 2009 created the perfect storm for the disease to spread quickly from farm to farm. UVM Extension’s ongoing attention to the situation helped growers minimize loss of yield and revenues with net savings statewide estimated to be several hundred thousand dollars.

Plant pathologist Ann Hazelrigg, at the UVM Plant Diagnostic Clinic, examines a diseased tomato leaf to determine if it has late blight or not. Early identification of the disease and education about its control helped commercial growers and home gardeners minimize loss from this devastating fungal pathogen of potatoes and tomatoes.

Multi-Faceted Approach Minimizes Crop Losses

Commercial growers were kept apprised of the progress of the disease and viable control options through electronic media, newsletters, meetings and on-site visits. The UVM Plant Diagnostic Clinic, under the direction of plant pathologist Ann Hazelrigg, assisted with identification of hundreds of samples and preparation of fact sheets for growers, Master Gardeners and home gardeners.

“Extension Master Gardeners provided education and outreach for the gardening public,” Nancy Eubett, Extension Master Gardener program coordinator says. “We weren’t just reactive, but proactive. We answered questions through the Gardening Helpline and went to farmers’ markets, county fairs and field days, full plant sales – any kind of public event to get the information out there about how to identify this disease and what to do.”

Judy Mirro, a Randolph Center gardener and certified Extension Master Gardener, helped disseminate information at the Randolph Farmers’ Market this past year.

“Each week we featured a different theme at our table at the farmers’ market,” Mirro says. “The week we focused on late blight, we put an announcement in ‘The Herald of Randolph,” the local paper. More than 35 people showed up with samples and questions.

“Late blight hit us hard in 2009,” she continues, “so that heightened everyone’s awareness in 2010.”

“Along with everyone else, I waited with bated hope to see where that would happen this past year,” Pomykala says. “UVM Extension played a tremendous role in mitigating the harm. If people had not been urged to take proper steps to minimize overwintering of late blight after we were hit in 2009, losses in 2010 could have reached the same levels.”