Late blight on tomatoes has been in the news for several weeks now. The Northeast has been especially hard hit. The disease has finally made it to Ohio.

mid-summer report card on the occurrence and effects of late blight on tomato and potato in new york, 2009

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although admittedly dreading a trip to eastern ny last week (Aug 10-13) for fear of seeing one dead tomato or potato field after another, I was pleasantly surprised to see that not every grower (conventional or organic) had experienced a complete wipeout of their crops. to be sure, some sporulating late blight was found in many fields examined at each stop, still it was apparent that the disease, although wide-spread, was not causing total destruction either, and that growers had taken the appropriate steps to minimize their losses. to be sure, this was at the expense of many fungicide applications and a lot of time and sweat expended to control the disease, but the results were gratifying to see. homeowner gardeners and smaller organic operations suffered the greatest losses, and they will be glad to garden another season in the absence of late blight.

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What steps worked for growers faced with late blight in 2009?

I will divide this discussion into two parts, since we are dealing with the two different genotypes in NYS, and the actions taken are different. In the case of the unidentified A2 type originating initially from tomato (not quite P-T, but close) that spread to tomato and potato, growers (both conventional and organic) relied upon a tight fungicide program (5-7 day schedule) with late blight specific fungicides in conventional operations (products including contact materials like chlorothalonil, Gavel, and Ranman, and transaminator materials like Curan, Previcur Flex, Revus, and T anos). Organic growers relied on copper fungicides applied on a 3-4 day schedule (Nu-Cop and Basic Copper 53). Another procedure followed, especially by organic growers, was to flame out of the most aggressive hot spot areas located near tree lines to remove the most heavily infected plants early in the initial spread of late blight. This practice undoubtedly saved a lot of the crop and allowed copper sprays a chance to reduce remaining infections. In organic operations we also saw growers cutting down infected potato foliage of more susceptible varieties in an effort to reduce the inoculum level in their fields.

In the case of commercial tomato fields faced with the need to control US-8 (mating type A2, P), US-8 is now the primary genotype of late blight infecting potato on a regional basis. So, our salvation this summer was that the primary genotype(s) spread throughout the region were apparently not as pathogenic on tomato and potato as we have encountered in other years. This is little consolation to homeowners and organic growers who suffered total losses, but does explain how some growers were able to keep losses to a minimum.

The bottom line in both cases this season, the successfully control on late blight hinged on the application of appropriate fungicides on a very tight schedule.

What can we expect for the remainder of the season?

Unfortunately, we are not out of the woods by any means, as what I call back filling of infections is still occurring in remaining susceptible crops (potato and tomato) in both homeowner gardens and commercial acreages (both organic and conventional). Reports of late blight infections just now appearing in home gardens and isolated cropping areas are just now coming in. Although a brief spell of hot weather may have slowed down late blight a bit, it is still sporulating and producing inoculum during our heavy evening dew periods. All concerned interests must continue on a regular fungicide program until the crops are finished. Special care must be made in the case of potato to examine harvested tubers to make sure they are free of tuber blight. It is advisable to move the crop as soon as possible to reduce tuber infections in storage. The other significant reminder is to make sure that all tubers are harvested and that special attention is directed to removing and destroying volunteers that may survive the winter season and have the potential of carrying over late blight to next year. A common problem is encountered when corn is planted as the rotational crop in fields that had late blight this season. Volunteer potatoes are difficult to rogue out when hidden by the emerging corn or other rotational crop.

What can we learn from tomato and potato crops with more limited infections?

Differences in the amount of infection of potato and tomato, both traditional varieties and heirlooms, have been observed this year across the state. For sure there are definitely differences in the amount of infection for both crops. However, given that the predominate clonal lineage that occurred this year is apparently not as aggressive as those encountered recently, this might lead one to consider a variety as resistant or tolerant to late blight, when in fact in another year is could perform differently. One fact does remain, with the exception of comments made about overwintering of inoculum on potato tubers, next year we begin the season with a clean slate, one that will be more kind to all fanciers of tomato and potato.

Bob's Video Vegetable Notes

Late blight on tomatoes has been in the news for several weeks now. The Northeast has been especially hard hit. The disease has finally made it to Ohio infecting several tomato plantings on commercial farms and in home owner backyards. Let's take a look at this disease and get a very brief history as to how this disease relates to the great Irish potato famine. Watch my latest video at: http://vegnet.osu.edu
9. Submitting Plant samples to the Plant and Pest Clinic
8. Setting Up a corn earworm trap with Dr. Celeste Welty

Use the scroll bar on the right side of the playlist to see all the videos.