Fire Blight - What Now?

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Fire blight symptoms are appearing in flowering pears (i.e., 'Bradford' and 'Aristocrat' pears) in nurseries and landscapes throughout Kentucky. Many backyard apples and crabapples are also affected. The plant disease diagnostic laboratories have been reporting high numbers of fire blight samples from apples and pears for the last several weeks. Many growers wonder why the disease is widespread and yet sporadic this year.

--Fire blight is widespread because for much of this spring, conditions were ideal for infections, especially during bloom when primary infections take place. Frost in some areas may also have played a role.

--The disease is sporadic because not all trees faced ideal fire blight conditions this spring. With an April drought occurring in some areas, weather may have been too dry for good development of bacterial populations and for invasion of the bacteria into flowers. Small differences in microclimate based on the tree location or exposure can make a critical difference in disease potential. In addition, timing of bloom in relation to the weather affected whether or not fire blight would be a problem.

--Fire blight has been a threat over an extended period because some trees produced many "trailing blooms." Indeed, some apple trees are still putting out an occasional bloom which would be ripe for infections now. In nurseries, dormant liners may be placed in the field over a period of several months and some of these liners may bloom, thus extending the primary infection period even more. Growers and gardeners with infected trees are often tempted to remove infected branches. In many cases, this would be the wrong strategy, because removing branches can encourage new shoots to develop and these new shoots would also be susceptible to new infections. If fire blight strikes are discovered early, before leaves have turned completely brown, timely removal of infected shoots can help slow the spread of the disease. However, most growers do not discover the disease early enough for this to be helpful. So what should one do with infected trees now?

--Most backyard growers should just let the disease run its course, allowing the tree defenses to stop fire blight spread within the tree. Dead shoots and branches should be removed in winter when there is little chance of spreading the disease.

--What should growers do if they feel compelled to cut out fire blight infections? If pruning is begun after obvious symptoms appear, cut back to a healthy internode of at least two-year-old wood, leaving a stub several inches long. Rely on the tree's natural defenses to prevent further movement into the branch. If needed, paint the stub with bright paint to make it more obvious. This stub can then be safely removed in the winter. Leaving infected stubs reduces the chances for development of undesirable water sprouts in response to pruning.

--The reason not to prune infected branches back to a spur or crotch in summer is because it may not be noticed in winter and could be overlooked. It should not be necessary to sterilize cutting tools between cuts if only blighted shoots are being removed.

--Do not engage in normal summer pruning and training at the same time as fire blight removal without wiping the cutters with sterilizing solutions like 70% alcohol or 10% bleach. Don't forget to remove the infected stubs along with dead shoots and cankers next winter.

--Do not apply chemical controls such as streptomycin. They are only effective if used during the normal bloom period.

--Remove trailing blooms to prevent late spring and summer infections.