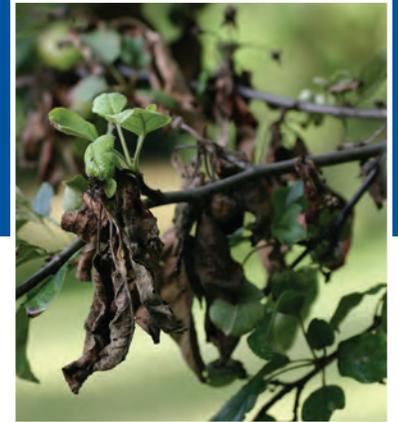


## FIREBLIGHT ON APPLE, PEAR, AND WOODY ORNAMENTALS



Fire blight is the oldest, most serious bacterial disease of apple and pear. It was first reported in the late 18th century in New York. As the settlers moved west, so did fire blight. Fire blight has a wide host range. Crabapples, cotoneaster, apple, mountain ash, flowering quince, hawthorn, pear, raspberry, and rose are all susceptible. There are two separate, but equally essential chemical spray treatments when dealing with fireblight. There is no cure for fire blight, making disease prevention extremely important.

On trees, it can affect blossoms as well as twigs or leaves. Infected blossoms first appear water-soaked, then wilt, shrivel, and turn brown. You may have noticed that the color of the pear blossoms last year were not as distinctly white as they usually are. That was because the bacteria was already in the blossom. During the flower bud swell and through the bloom period spray with Streptomycin every 3 days—especially if that time is very moist or humidity is high during the bloom period. Only Streptomycin, a bactericide, will protect the buds and blooms.

The second phase of this bacteria affects the succulent twigs and the outer tips of branches that was the new growth from the previous season. It does not affect all branches, and there is no exact pattern to the infection. Infected leaves quickly wilt and turn dark brown to black but ADHERE TO BLIGHTED TWIGS. These blighted twigs often form a cane-like shepherd's crook at the tips. The infection advances downward from blossom and twigs to older branches, causing localized cankers. The bark in branch cankers and scaffold limbs becomes sunken, darker than normal, and remains smooth. When the outer bark is removed from such wood, the sapwood appears water-soaked with reddish streaks. During the period from leaf bud swell through the next four weeks, spray with Liquid Copper fungicide every 5-7 days.

Through the winter, the bacteria remains in a dormant state in diseased twigs and at the edge of cankers. During warm spring rains, the milky ooze that exudes from infected tissues contains millions of bacterial cells. This attracts flies, bees, ants, beetles, and other insects. They carry the bacteria to blossoms, foliage, and twigs. The bacteria enter the host through natural openings in blossoms and leaves or through wounds in the bark. Wounds from hail, pruning, or wind can be sources of infection. Once on a tree, rain splash will also transmit the bacteria.

Aside from the preventative spraying in the spring, is the vital need to prune and discard all infected twigs and branches with cankers. Cuts should be at least one foot below the infected area. Remove any suckers coming up from the base of the tree as these shoots are very susceptible and can easily spread the bacteria to the main trunk. Pruning tools should be disinfected after each cut by dipping the cutting surface into a disinfectant such as 70 % rubbing alcohol or a diluted household bleach (one cup of bleach in 9 cups of water). PRUNING SHOULD BE DONE ONLY DURING THE DORMANT SEASON TO AVOID SPREADING THE BACTERIA.



Read and print off more info sheets at [lanohanurseries.com/resources](http://lanohanurseries.com/resources)



1911 West Center Road Omaha, NE 68130 T 402.289.1788

