

# CONTROLLING FIRE BLIGHT ON APPLE, PEAR & WOODY ORNAMENTS

## The Condition

Fire blight is the oldest, most serious bacterial disease of apple and pear. It was first reported in the late 18<sup>th</sup> 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. On trees, it can affect blossoms as well as twigs or leaves. Fire blight is not curable, however you can prolong the life of the tree with treatment and safe pruning practices.

## Symptoms:

Infected blossoms first appear water-soaked, then wilt, shrivel, and turn brown. The second phase of this bacteria affects the succulent twigs and last year's new branches. 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 and *adhere to the branch*, often forming 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.

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, & other insects. They carry the bacteria to blossoms, foliage, and twigs. The bacteria enter the host through natural openings in blossoms & leaves or through wounds, like hail damage and pruning cuts. Wind and splashing raindrops also carry diseases, which is why it's important to treat for

fungus and disease more often if we are having a cool, wet spring.

## Treatment:

During the flower bud swell and through the bloom period, spray Fertilome Fire Blight Spray (Streptomycin) every 3 days, especially if it has been rainy or humidity is high during the bloom period.

Apply Fertilome Liquid Copper Fungicide or Natural Guard Copper Soap when the leaf buds begin to swell (most flowers have fallen off). Repeat every 5-7 days for 4 weeks after all flowers have fallen off.



## Dormant Pruning:

It's the vital need to prune and discard all infected twigs and branches with cankers **Only when the plant is dormant**. Cut at least one foot below the infected area and disinfected after each cut by dipping the cutting surface into a disinfectant such as 70% rubbing alcohol or a one part bleach to 9 parts water solution.

