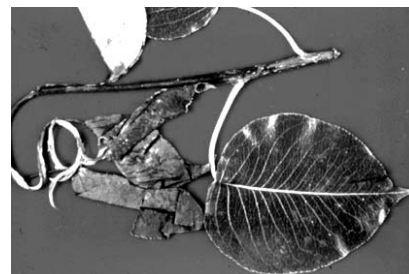




Fireblight

Fireblight is a very destructive disease on many species in the rose family, including **pear, crabapple, cotoneaster, mountain ash, hawthorn, pyracantha, spirea and rose**. Depending on the individual plant, cultural practices performed, and spring weather conditions, damage can range from death of one or more branch terminals to severe branch mortality and complete death of the plant. The disease is most severe during warm, moist springs and on poorly drained sites. Young, vigorous plants, or those heavily fertilized with nitrogen, are usually most severely affected.



SYMPTOMS: The most characteristic and easily observed symptoms are wilting and blackening or browning of the blossoms and leaves on the terminal shoots. The affected plant parts remain attached to the terminal and appear as though scorched by fire. A brown ooze develops at the site of these cankers during moist, warm weather.



CAUSAL AGENTS: Fireblight is caused by the bacterium *Erwinia amylovora*. The organism overwinters in branch cankers at the margins of living and dead tissue. Wind, rain-splash and insects are responsible

for the initial transport of the bacteria from the cankers to open blossoms, the primary infection site. Blossom-visiting insects are primarily responsible for secondary infections whereby the organism is transported from infected to healthy blossoms. Infection may also result from direct inoculation of terminal shoots.

Management: Many species and varieties of crabapple, cotoneaster apple, pyracantha, etc. are resistant to fireblight and should be used in landscape plantings when possible. Suppression of fireblight on susceptible stock is difficult and requires a comprehensive program of sanitation, proper cultural practices, and chemical spray treatments in order that satisfactory results are attained.

Sanitation: Terminal infections are best pruned out when first noticed. Branch infections should be removed during dry weather in the late summer or in the dormant season.

Cultural Practices: Susceptible species should be planted on well-drained soil and the pH maintained at the recommended level for the species in question (neutral to slightly acidic for most members of the Rosaceae). Fertilization, when necessary, is best done in the late fall or early spring using a balanced fertilizer. DO NOT over-fertilize or use a high-nitrogen fertilizer.

Chemical Spray Treatments: The application of copper treatments during the dormant season and at flowering have been very effective at reducing the incidence of fireblight.