CAES
The Connecticut Agricultural Experiment Station
Putting Science to Work for Society since 1875

123 Huntington Street
New Haven, CT 06511
Phone: (203) 974-8481
Fax: (203) 974-8502
caes@ct.gov
https://portal.ct.gov/caes

EUROPEAN STONE FRUIT YELLOWS (*Candidatus* Phytoplasma prunorum)

European stone fruit yellows (ESFY) is a pathogen that can cause disease in stone fruit (*Prunus* spp.) such as peach, apricot, and plum. It is also capable of infecting plants such as pear (*Pyrus* spp.), grape, field bindweed, and others.

Symptoms caused by ESFY vary in severity depending on the host. Some *Prunus* species, cultivars, or individual plants are tolerant, but may still be able to spread the disease. Common symptoms include early leaf bud break in late winter, shorter shoots, small, deformed leaves, leaf rolling, reddening, or yellowing, and tree decline and death. Trees infected with ESFY can have low or damaged crop yield, creating economic concern. These symptoms can resemble those caused by other pathogens and environmental factors. Molecular analysis is needed to differentiate ESFY from other phytoplasmas.

ESFY can be spread over long distances when infected plant material or insects are transported to a new area. The plant material may be asymptomatic which prevents detection. Local spread occurs through insects infected by the pathogen. ESFY may be able to establish in hardiness zones 4-11.

Figure 3. Apricot tree showing symptoms of yellowing, leaf curl, and decline (top), and a symptomless shoot (bottom). Image from Davies and Adams (2000).

Figure 1. Premature leaf emergence in an infected *Prunus salicina* (Japanese plum) tree (left), and phloem necrosis (right) in a *Prunus* spp. affected by ESFY. Photos are courtesy of Assumpcio Batlle, IRTA, Catalunya, Spain (left), and Dr. B. Schneider, BBA (right).