

PLANT DISEASE CONTROL NOTES

EXTENSION DIVISION • VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

ORNAMENTAL AND FLOWER DISEASES

FIRE BLIGHT OF ORNAMENTALS

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Fire blight caused by the bacterium Erwinia amylovora is a serious disease on many different ornamentals and can be very destructive on members of the Rosaceae family. Certain varieties of apple, flowering crab, pear, pyracantha, and quince are highly susceptible. Other plants like hawthorne, Japanese Quince, mountain ash, rose, cotoneaster, spirea, loquat, and amelanchier may be damaged.

SYMPTOMS: Blossom, young fruits, small twigs, leaves and water sprouts are infected. Blossoms and leaves suddenly wilt, turn dark brown, shrivel and die, but usually remain attached. Cankers on limbs are characteristically shrunken, dark brown to purplish in color. Secondary infections start in the small twigs, progress down the stem and may involve whole branches. A characteristic symptom of twig-blight is the bending of the blighted terminal which resembles a shepherd's crook. Dark streaking of the wood extends several inches beyond any outwardly diseased area.

DISEASE CYCLE: The bacteria overwinter in cankers. Frequently an orange bacterial gum or slime oozes from the cankers and the bacteria are disseminated by wind-blown rain, insects and pruning tools.

CONTROL PRACTICES: No chemicals are registered for home garden application.

SANITATION: During the late summer all infected twigs and branches should be cut off and burned. The cut should be made through healthy wood 6 to 8" below the point of visible infection because the bacteria are usually found somewhat in advance of the obviously diseased tissue. Cankered areas on large branches and trunks should be cut out during the dormant season. Pruning tools should be sterilized frequently in alcohol or dilute household bleach (1-10) during this operation to prevent carrying the bacteria to new areas. A chemical wound dressing containing a disinfectant should be applied to the fresh cuts.

RESISTANT VARIETIES: In Pennsylvania the following crab apple varieties have been found resistant to fire blight.

Malus baccata gracilis
Malus baccata mandshurica
Malus brevipes

Nippon C.



Figure 1. Fire blight of pyracantha.

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BLACKSBURG, VIRGINIA

Malus Coronaria 'Nieuwlandiana'	Nieuwland C.
'Dolgo'	
'Gorgeous'	
<u>Malus halliana parkmanii</u>	Parkman C.
'Mary Potter'	
'Radiant'	
'Red Jade'	
'Rosseau'	
'Selkirk'	
<u>Malus sieboldii arborescens</u>	Tree Toringo C.
'Sissipuk'	
'Snowbank'	
<u>Malus spectabilis</u> 'Albi-plena'	Double White Chinese Flowering C.
<u>Malus spectabilis</u> 'Riversii'	Rivers C.
'Vanguard'	

C. = Crab apple

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KEYS TO PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings, and note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children or animals cannot get to them, preferably under lock and away from food, feed, seed, or other material that may become harmful if contaminated.
3. Dispose of empty containers in the manner specified on the label.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.

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