

FIREBLIGHT CONTROL MEASURES

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Ornamental pear, crabapple, apple, hawthorn and pear have had an increase in fire blight disease. Leaf browning or blackening and branch dieback has occurred over the last few growing seasons.

On affected plants, now is the time to remove infected branches. Pruning is best done during March to help reduce infections this coming season. Fungicides also need to be applied in March or early April, but they are not very effective. Pruning is a priority for control.

Fire blight is a bacterial disease that only infects plants in the rose family. Other ornamental and fruit trees like cherry, apricot and peach are not affected by fire blight.

The bacteria overwinters on the plant, typically in cankers. These are sunken, discolored areas found on branches. Cankers produce a sticky exudate in spring that contains the bacteria and is spread by insects and wind-blown rain.

Pollinators carry the bacteria to flowers. Infected blossoms turn brown and die. This symptom often goes unnoticed due to the number of blossoms and the assumption the blossoms died naturally.

Tender, new shoots are also infected during spring causing twig tips to curl into a shepherd's hook and leaves to turn yellow and eventually brown or black. On crabapple and apple, brown leaves are common. On ornamental pear and pear, leaves often turn black and appear burned; hence the name fire blight.

Cankers develop on branches where the bacteria infects through natural openings or via wounds caused by pruning, hail, or other mechanical means such as crisscrossing branches rubbing against one another.

During rainy spring weather, cankers develop a sticky ooze that can contain billions of bacteria. Cankers are what need to be identified at this time of year and cankered branches removed. Look for areas on branches that are discolored and sunken.

Cut infected branches eight to 12 inches below the canker to be sure all infected growth is removed. Ideally, remove the branch where it is attached to another branch, the trunk, or just above a leaf bud. Avoid leaving a branch stub. Do NOT treat pruning wounds with paint or a wound dressing.

If pruning is done during the growing season, as infected branches are noticed, it is very important to sanitize pruning tools between each cut to avoid spreading the bacteria. Dip tools for 30 seconds in one part household bleach to nine parts water or ethyl alcohol. Household spray disinfectants can also be used.

If chemical controls are used, these are best applied in March while the tree is dormant and when weather conditions allow. An application of a copper fungicide may help reduce fire blight if applied to dormant trees. However, removal of cankered branches must also be done.

Bordeaux mixture, a combination of copper sulfate and lime; or fixed copper fungicides, such as tribasic copper sulfate, copper oxychloride sulfate and cupric hydroxide, can be used. Bordeaux mixture has the advantage of adhering to plants better during rainy weather, but it will stain surfaces, such as house siding, and can cause plant damage if applied after plants have broken dormancy.

Even with pruning and fungicide sprays, fire blight is a very difficult disease to control. One of the best means of avoiding fire blight is to select and plant resistant tree cultivars. Ask about resistance and susceptibility whenever buying trees.