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Common Diseases: Crown gall

Use Integrated Pest Management (IPM) for successful plant problem management.

Biology

Crown gall is found on many ornamental plants, fruit trees, and caneberries. It is most commonly found on cherry, apple, peach, pear, plum, euonymus, rose, raspberry, and blackberry. Crown gall is caused by a soilborne bacterium which infects tissue through wounds on the crown and roots. Young galls are fleshy, white, enlarged masses on the roots or stems. Older galls are hardened and turn dark brown and woody or corky in appearance. They range in size from less than an inch to several inches across. The bacteria can be spread from infected to clean soil by water movement or equipment. Damage varies with location and size of galls. Small galls are essentially harmless. Large galls on the crown may weaken or girdle the plant. The growths can also be an aesthetic concern. Burrknot, a physiological problem of apple trees, can be mistaken for crown gall.

Management Options

Non-Chemical Management

- ~ Do not replant susceptible species in infected soil.
- ~ Plant disease-free materials.
- ~ Avoid injuries to the bark, roots, and crown while planting.
- ~ Remove and destroy declining plants with large crown galls. Also remove roots and surrounding soil where possible.
- ~ Prune out galls when practical. Sterilize pruning tools between cuts to avoid spreading bacteria to healthy tissue.

Select non-chemical management options as your first choice!

Chemical Management

IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides

Nursery plants may be treated with commercial biocontrol products as a preventative strategy. If planting in soils where crown gall has been a problem, check with your nursery before buying plants to learn if the nursery or their supplier have treated plants to prevent crown gall infection.

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Images



*~ Caption: Crown gall on roots
~ Photo by: R.S. Byther*



*~ Caption: Crown gall
~ Photo by: R.S. Byther*



*~ Caption: Blackberry crown galls
~ Photo by: R.S. Byther*



~ *Caption: Raspberry crown gall*
~ *Photo by: R.S. Byther*