Forest Pest Bulletin

SOUTH DAKOTA
DEPARTMENT OF AGRICULTURE
DIVISION OF RESOURCE
CONSERVATION & FORESTRY

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CANKERS

CAUSAL AGENT
Many different strains of fungi or bacteria cause Cankers. Cankers can also form from mechanical damage, especially repeat abrasion caused by lawnmowers and other yard equipment. Cankers also create openings for other fungi, bacteria, and insects, which can speed up a tree's decline & death.

HOSTS
Almost any tree can be a host to a canker.

SYMPTOMS
Cankers are dead sections of bark on branches or main trunks of trees. Cankers vary greatly in size and appearance. Some Cankers may be sunken in the bark or hidden from view. On some trees the Cankers form a discolored spot; some Cankers form a bulge (Fig. 1) and others seem to split the tree open (Fig. 2). If the Cankers form on the trunk they may be able to girdle, therefore killing, the tree. On Conifers, a common Canker symptom is resin leaking from a trunk or branch.

Figure 1. Black knot of black cherry. Joseph O'Brien, USDA Forest Service, www.forestryimages.org

If fungus causes the Canker, small cushion-like reproductive structures may be seen from the Canker. Not all fungal Cankers will have this.

LIFE CYCLE
Usually the Canker grows until the part of the tree that is infected dies off. If fungi cause the Canker, then they will produce spores and will disperse to other trees in the area.

MANAGEMENT
Removal of branches with Cankers is effective. However, Cankers caused by pathogens are favored by rainfall, so pruning should be done in dry weather. Make cuts at least 4 inches below the edge of the Canker. Be sure to sanitize your cutting instrument with a 10% bleach solution in between cuts to prevent

transmission of the disease to other trees. Trees with trunk Cankers will probably need to be cut down and replaced.

Cankers caused by lawn equipment can be avoided by mulching around the tree so grass doesn't grow. Avoid mowing right next to the tree. Protective covering can also be placed on the trunk of the tree to prevent mechanical damage. The best way to control Cankers is preventative; maintaining healthy trees will minimize that chance of a canker forming. Cankers usually only grow on stressed or dying trees.

Figure 2. Western gall rust of ponderosa pine. I. Blakey Lockman, USDA Forest Service, www.forestryimages.org

Due to numerous pesticide labels and/or label changes, be sure the product label includes the intended use prior to purchase or use. Please read and follow all pesticide label instructions and wear the protective equipment required. Spraying pesticides overhead increases the risk of exposure to the applicator and increases the likelihood of drift to non-target areas. Consider the use of a commercial applicator when spraying large trees due to the added risk of exposure and equipment needs. The mention of a specific product name does not constitute endorsement of that product by the South Dakota Department of Agriculture.

For further information contact your nearest South Dakota Division of Resource Conservation and Forestry office. Hot Springs 605-745-5820; Lead 605-584-2300; Mitchell 605-995-8189; Pierre 605-773-3623; Rapid City 605-394-2395; Sioux Falls 605-362-2830; Watertown 605-882-5367.

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