2009

Diseases of Evergreen Trees

Mark Harrell
Nebraska Forest Service, University of Nebraska

Rachel Allison
Nebraska Forest Service, University of Nebraska, rachel.allison@unl.edu

Laurie Stepanek
Nebraska Forest Service, University of Nebraska, lstepanek2@unl.edu

Cercospora blight

Identification

- Mostly on juniper, but also redcedar.
- Mostly in windbreaks and dense plantings.
- Foliage dies and falls off, typically from the inside out and bottom up.
- Small tufts of new foliage often grow out from the sides of stems that have been defoliated.

Control

- Spray trees with a fungicide containing copper salts of fatty and rosin acids (Camelot), Bordeaux mixture or mancozeb (Dithane, Fore)* in mid June, late July and at monthly intervals if frequent rains occur in August and September.
- Increase air flow around trees by removing some of the trees, such as every other one.

Cedar-apple rust

Identification

- On redcedar and juniper.
- Hard, brown ball-shaped galls on the stems produce orange gelatinous masses after early rains in the spring.
- Branches may be killed or broken down by numerous galls.

Control

- Usually not needed on redcedar or juniper.
- Can reduce the problem by controlling the disease on the alternate hosts: apple and crabapple.

Cytospora canker

Identification

- On Colorado blue spruce, white spruce (including Black Hills) and Norway spruce.
- Branches and tops of trees may be killed.
- Resin oozes from branches or the trunk.
- Inner bark has brown, dead areas.
- Usually on trees at least 10-15 years old.

Control

- Improve tree health by mulching with wood or bark chips and watering about 1 inch per week. Avoid overwatering.

*** Trade names are examples of available products. No endorsement is implied. Always follow pesticide label instructions.**

Mark Harrell, Rachel Allison, and Laurie Stepanek
Nebraska Forest Service, University of Nebraska

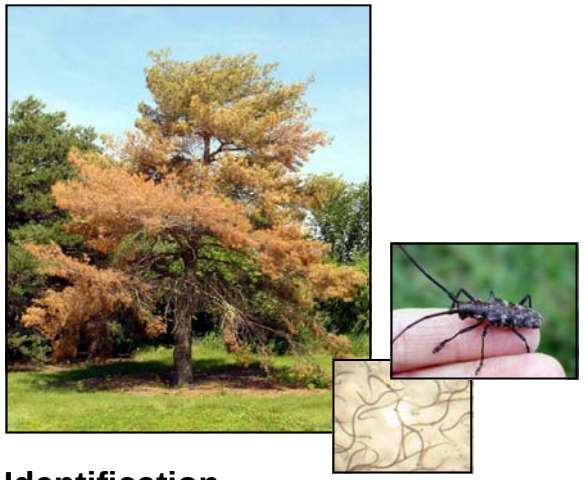
More information: www.nfs.unl.edu

Nebraska Forest Service

IANR

Diseases of Evergreen Trees

Pine wilt



Identification

- Mostly on Scotch and Austrian pines.
- Caused by nematodes carried by wood boring beetles.
- Tree dies quickly (often within 2 to 3 months).
- Green foliage fades to light brown.
- Cut wood surfaces are not sticky.

Control

- Destroy trees by chipping, burning or burying.
- During summer, destroy trees within 1 month of fading green color.
- In fall and winter destroy trees by end of April.
- Trunk injection treatment with abamectin (Greyhound, Aracinate)* on high-value trees can provide some protection.

FH03-2009

University of Nebraska

Diplodia (Sphaeropsis) blight

Identification

- On Austrian, ponderosa and other pines.
- Shoot tips die in the spring.
- Whole branches and entire tree may die if the tree is stressed by injuries to stem or roots, dry soil or other poor soil conditions.
- May look similar to pine wilt, but branches will usually have dead shoot tips with short needles.
- More common in trees older than 25 years.
- Small black fruiting bodies appear on cones and at the base of short needles that have been dead one year or more.

Control

- Spray branch tips thoroughly when new growth starts (around third week of April), just before needles emerge from sheaths, and 7-14 days later according to the label with thiophanate-methyl (3336, Fungo), propiconazole (Banner MAXX), copper salts of fatty and rosin acids (Camelot) or Bordeaux mixture.*
- Improve tree health by mulching with wood or bark chips and watering about 1 inch per week. Avoid overwatering.

Dothistroma needle blight

Identification

- On Austrian and ponderosa pines.
- Needles turn brown at the tip first, then the entire needle.
- Needles have many dark spots or bands.
- Older interior needles are affected more than the younger outer needles.
- Bottom of the tree is affected more than the top.

Control

- Spray trees with copper salts of fatty and rosin acids (Camelot) or Bordeaux mixture* as needles are emerging (mid May) and after new growth has occurred (mid to late June).
- Increase air flow around trees by removing some of the trees, such as every other one.

Western gall rust

Identification

- Mostly on ponderosa pine, but also Scotch, Austrian and jack pine.
- Ball-shaped woody galls appear on stems.
- Trees with lots of galls may grow slowly.
- Branches with lots of galls may be killed.

Control

- Prune out galls and remove severely affected trees to reduce the spread of the disease.

Brown spot needle blight

Identification

- On Scotch and ponderosa pines.
- Symptoms similar to Dothistroma needle blight.

Control

- Spray when needles are half grown (June) with chlorothalonil (Daconil, Fung-onil), Bordeaux mixture or mancozeb (Dithane, Fore)* and 3 to 4 weeks later if frequent rains occur.

Needle cast of spruce

Identification

- On Colorado blue spruce and other spruces.
- Caused by Rhizosphaera and other fungal pathogens.
- Mostly in eastern Nebraska.
- Needles turn reddish brown and develop rows of tiny black dots visible under magnification.
- Mostly on older needles, needles low on the tree and needles in shaded areas of the tree.

Control

- Spray with chlorothalonil (Fung-onil, Daconil, Bravo) or Bordeaux mixture* when new shoots are 1/2 to 2 inches in length (May) and every 3 to 4 weeks if frequent rains occur.

Sirococcus shoot blight

Identification

- On Colorado blue spruce and other spruces.
- Young shoots are killed and sometimes droop.
- Needles drop early.

Control

- Spray trees with chlorothalonil (Daconil, Bravo)* when shoots are 1/2 to 2 inches in length (May) and every 3 to 4 weeks if frequent rains occur.