2009

Diseases of Evergreen Trees

Mark Harrell
*Nebraska Forest Service, University of Nebraska*

Rachel Allison
*Nebraska Forest Service, University of Nebraska*

Laurie Stepanek
*Nebraska Forest Service, University of Nebraska*

Follow this and additional works at: [http://digitalcommons.unl.edu/nebforestpubs](http://digitalcommons.unl.edu/nebforestpubs)

Part of the [Forest Sciences Commons](http://digitalcommons.unl.edu/nebforestpubs)

Harrell, Mark; Allison, Rachel; and Stepanek, Laurie, "Diseases of Evergreen Trees" (2009). *Publications, etc. -- Nebraska Forest Service*. 29.

[http://digitalcommons.unl.edu/nebforestpubs/29](http://digitalcommons.unl.edu/nebforestpubs/29)

This Article is brought to you for free and open access by the Nebraska Forest Service at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Publications, etc. -- Nebraska Forest Service by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
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.

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

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.

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

The University of Nebraska-Lincoln does not discriminate based on gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation.

FH03-2009
**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.

**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.

---

**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.

---

**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)* 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.