

**A LITTLE BIT COUNTRY
WARREN FROELICH
NDSU EXTENSION SERVICE
WILLIAMS COUNTY**

Anthracnose Causing Leaf Damage to Dakota

A few weeks ago I wrote about a fungal disease on ash trees known as anthracnose. This was causing a lot of premature leaf drop. The past two weeks have brought numerous specimens of oak leaves along with many telephone calls inquiring about the desiccation of leaves of oak trees. Almost all have been found to be infected with anthracnose. This is a different organism than that of anthracnose on ash trees but the symptoms and damage are very similar.

The fungus causing oak anthracnose also thrives under cool, wet conditions in the spring and early summer months. The fungus overwinters in shoots, buds and fallen leaves. During cool, wet conditions in the spring fruiting bodies on diseased tissue release spores that infect succulent growth.

Infections may occur on expanding leaves, shoots or buds. When terminal twigs and buds are killed, new shoots may develop from farther down the twig thus creating a cluster of shoots. All of the damage I have seen to date has been restricted to the leaves. Leaf damage is generally characterized by necrotic lesions on any portion of the leaf but are often bound by the veins and midrib.

Distortions may occur around the necrotic lesions and are due to continued growth of uninfected leaf tissue while infected tissues cease growth. Infected tissues rapidly discolor to various shades of green, gray, brown or black. The older, central areas of these lesions may appear lighter in color, compared with outer portions of the dead tissue. Healthy, vigorous oaks generally are tolerant of the damage that this disease imposes. Young trees, trees that have been defoliated for several consecutive years, or recently transplanted trees may become stressed and predisposed to other damaging agents. Established oaks on good sites can

withstand substantial defoliation over a few years before their health declines substantially. Aesthetics of a tree can be damaged during any season that infection occurs.

Everyone asks "What can be done to protect the tree from further damage?" My colleagues at North Dakota State University tell me the first action is to rake and destroy fallen leaves. This will help to reduce infections the following year. Fertilizing and watering will help to maintain tree vigor; however, it may result in more succulent growth that will be susceptible to infection. As we move into that part of the summer characterized by warmer temperatures, less rainfall, and lower humidity, I expect the capability of this fungus to be greatly reduced.

Control with fungicides may be warranted for trees that have experienced severe infections for consecutive years or trees in which appearance are important.