

Ash Rust

Ash rust, caused by the fungus *Puccinia sparaganioides*, may be found on the leaves of ash trees in late spring. Green and white ash, plus several lesser known ash species, are susceptible to the disease. It is a two host disease, as are most rust diseases, and is found at different times during the growing season on both ash leaves and cordgrass (*Spartina sp.*).

Fungal spores produced on ash leaves, will not re-infect the ash tree, but will move on to the secondary host. Two common cordgrasses native to Nebraska include prairie and alkali cordgrass. Prairie cordgrass is a native, warm season grass that commonly grows in wet, marshy areas or ditches. Alkali cordgrass grows in wet, saline soils in the Sandhills and western Nebraska. Spores are produced on the cordgrass in fall and remain on the grass through winter. In spring, spores are blown by the wind to infect newly emerging ash leaves. Ash trees growing in the vicinity of wetland areas may have more serious infections.

Ash leaves, petioles and green twigs can be infected by the fungus. Symptoms are first seen as yellow or yellow-orange spots on the upper leaf surface. Later, wart-like galls develop on the undersides of leaves, petioles and green twigs. Galls on infected petioles often cause them to bend sharply from the site of infection. The galls develop fungal structures that produce bright orange spores. Heavily infected leaves are twisted, distorted and may fall from the tree.

Development of ash rust is favored by extended periods of warm, wet weather in spring, therefore the level of ash infection is heavily dependant on spring weather conditions. Leaf infection begins at bud-break and continues through late spring, approximately mid-April through mid-June.

Due to Nebraska's dry climate, ash rust infection is seldom serious enough to warrant control. Once leaf symptoms are seen, it is too late to control the disease for the current growing season.