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Forest Health Protection and State Forestry Organizations

Management Guide for Venturia Leaf and Shoot Blight

Venturia macularis (Fr) E. Muller & Arx (= *V. tremulae* Aderh.)--
Aspen Shoot Blight
Pollaccia radiosa (Lib.) Bald&Cif.
Venturia populina (Vuill.) Fabric.—Cottonwood and poplar shoot blight
Pollaccia elegans Servazzi

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Venturia shoot blight can be found in most aspen forests, but it is rarely a significant cause of damage in a forested setting.

Host:

- trembling aspen
- white poplar and eastern cottonwood.
- *V. populina* is found on balsam and lombardy poplars, and a wide variety of cottonwood and poplar hybrids.

Key Points

- *Pollaccia* and *Venturia* are different life stages of the same fungus.
- Leaves and succulent shoots are killed not long after budbreak.
- Venturia shoot blight can be found in most aspen forests

Damage

Leaves and succulent shoots are killed not long after budbreak. Some Venturia shoot blight can be found in most aspen forests, but it is rarely a significant cause of damage in a forested setting. However, under the right conditions, up to 90 percent of entire aspen clones had terminal shoots killed during years with severe infections, and the disease has caused economic losses to hybrid poplar growers. This disease can often give aspen a “zigzag” appearance to saplings if the terminal

leader is killed several years in a row forcing lateral branches to become the new leader. In some particularly susceptible aspen clones the young stems develop a bushy appearance due to repeated loss of the terminal. Gaining height in order to escape animal browsing is important for the success of an aspen clone, and if trees are kept shorter by shoot blight animal damage is exacerbated. Once stems are over 3 to 5 meters tall shoot blight is not usually damaging.

Life History

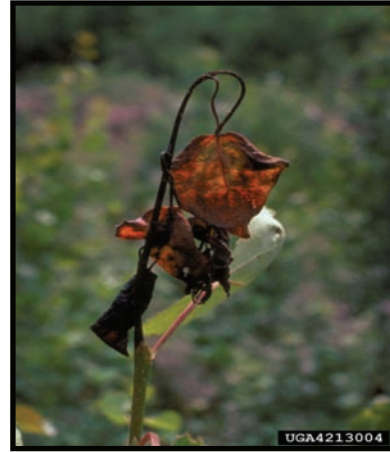
Initial infection in the spring occurs when conidia and ascospores from previously infected stems are splashed to newly emerging shoots. The fungus invades the leaves of the emerging shoots causing a brown or black leaf spot. Typically, the fungus grows through the leaf petiole and into the shoot the new shoot blackening the shoot causing the characteristic shepherd’s crook. The

prolific brown to green spores of the Pollaccia stage are produced in wet weather and can cause secondary infections through out the year if moist weather conditions prevail. Many of the blighted leaves are shed and the fungus overwinters in infected shoots that remain attached to the stems.

Identification

The curved shoot tip is the most distinctive diagnostic symptom, along with large irregular lesions packed with brown to olive green conidia.

Photo to the right shows a good example of the distinctive “shepard’s crook”. Photo from Minnesota Department of Natural Resources Archives.



Management Considerations

Control is impractical in a forested setting. Homeowners and poplar nursery growers can reduce the impact of Venturia shoot blight on all hosts by:

1. Avoiding the most susceptible cultivars.
2. Raking and removing blighted leaves and pruning out blighted stems.
3. Fungicidal sprays applied shortly after budbreak, possibly repeated if wet weather continues.

Other Reading

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