POWDERY MILDEW

Soybean Diseases







Overview

Powdery mildew is a common leaf disease of many crop and ornamental plants, including soybean. Soybean powdery mildew is caused by the fungus *Erysiphe diffusa*.

Powdery mildew on soybeans requires cool, cloudy weather and low relative humidity. This combination of temperature and relative humidity is not common during most Midwest summers, so powdery mildew is a disease that occurs only sporadically in the region. When it does occur, it is usually late in the season when temperatures are beginning to decline.

Scouting

Like most powdery mildews, the most common symptom is a white to light gray, powdery fungal growth that covers the upper surface of leaves, although all aboveground plant parts may be affected. Infected leaves tend to be most common in the mid to lower canopy. Later symptoms may include leaf tissue yellowing and premature leaf drop.

Management

- Crop rotation is not effective because the pathogen is readily introduced into fields by long-range dissemination of wind-blown spores.
- Powdery mildew is frequently more severe in late-planted soybean fields that are maturing late in the season when temperatures are cooler.
- Large differences in disease severity can be observed among soybean varieties. Companies do not provide ratings for powdery mildew because it is considered unimportant. Should a variety become heavily diseased, however, growers should make a note of it and remove that variety from their lineup. Generally, most determinate soybean cultivars are resistant to powdery mildew, while many indeterminate cultivars are more susceptible.
- Several fungicides are labelled for powdery mildew and can be effective, if necessary. Spraying for other diseases such as frogeye leaf spot or Cercospora leaf blight should provide residual activity to limit problems from powdery mildew as well.

Distribution

Powdery mildew of soybean, *Crop Protection Network*

Powdery mildew on soybean, University of Minnesota, 2018

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