

Disease Facts

- Fungal disease caused by *Physoderma maydis*
- Generally of minor importance in the US
- Localized outbreaks may occur in years when weather favors disease development

Disease Symptoms

- Lesions occur mainly on the leaf, but may also occur on leaf sheath, stalks, outer ear husks and tassels

Leaf lesions are fairly small, oblong to circular and yellowish or brown, while lesions on leaf midrib are often purplish to brown



- As disease progresses, small lesions may coalesce to form larger affected areas

Disease Cycle

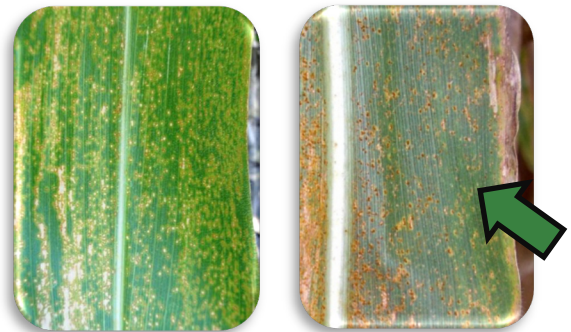
- Overwintering fungal structures, sporangia, survive in infected corn tissue or soil
- Sporangia germinate to produce infective zoospores under conditions of moisture and light
- With the right conditions of water, light and temperature when leaves are in the whorl, infections often occur on a diurnal cycle

This diurnal (daytime) cycle of infection often results in the banded pattern of lesions seen on leaves



Look-Alike Diseases

- Eyespot disease caused by *Aureobasidium zeae* can look similar to Physoderma brown spot
- Eyespot is a leaf disease with small, yellow, mostly round lesions
- Main difference – lesions of eyespot do not usually occur in the banded pattern across leaf
- On the leaf blade, young Physoderma lesions can also resemble those caused by rusts, such as early southern rust (see arrow below). A higher magnification lens can help distinguish these diseases



Eyespot infection (left) and southern corn rust (right)

Disease Management

- Crop rotation, as the fungus survives in infected crop residue
- Tillage to encourage breakdown of crop residue
- Specific management for this disease is not typically required, as the occurrence is sporadic and the effect on yield should be minimal
- Pioneer does not rate its hybrids for resistance to this disease

