# Uncommon Diseases Of Corn Observed

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Last week, Goss's wilt and Physoderma brown spot were detected in separate corn leaf samples submitted to the University of Illinois Plant Clinic. Although both diseases have been observed in Illinois in past years, they are not typically found in the state every year.

Goss's wilt. Goss's wilt is caused by the bacterium Clavibacter michiganense subspecies nebraskensis. This disease is most likely to be observed in areas of the state that have received hail, high winds, and heavy rainfall. Symptoms appear as large tan to gray lesions on the leaves, with dark spots, often referred to as freckles, within the lesions. Some plants may wilt, as the pathogen can infect the xylem. In some cases, darkening of the vascular tissue can be observed in affected plants if a cross-section is cut through the stalk.

Symptoms of Goss's wilt may be confused with those of other foliar diseases, including Stewart's wilt, northern corn leaf blight, and Diplodia leaf streak. Proper identification is important, so suspicious samples should be sent to the UI Plant Clinic. No in-season control options are available to protect against Goss's wilt infection or to reduce disease spread within a field. Foliar fungicides are not effective in controlling it. The primary method of control is planting corn hybrids with high levels of resistance (check with your seed dealer for Goss's wilt ratings). Fields affected this season should be tilled after harvest to bury affected residue and rotated to a nonhost crop, such as soybean, next season.

Physoderma brown spot. Physoderma brown spot is caused by the pathogen Physoderma maydis. It is rarely observed in Illinois but has been seen on occasion in the past, especially when excessive rainfall has been received during the early growth stages of the corn crop. Symptoms appear as small round to oblong brown spots on the leaves, which may occur in bands.

**Top Photo: Corn leaf with Goss's wilt symptoms.**

**Bottom Photo: Physoderma on a corn leaf.**

Photo courtesy of University of Illinois Plant Clinic

Free moisture must be present for infection by this pathogen to occur, and once corn plants reach the development point where the leaf whorl is no longer present, the likelihood of new infections decreases considerably. According to fungicide labels, only Headline and Headline AMP list Physoderma brown spot as a target disease. It is unlikely that severity of Physoderma brown spot in Illinois would be high enough to warrant a foliar fungicide application. The best management practices are to rotate to a nonhost crop the following year and plant a resistant hybrid, if available. Δ

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