Foliage Disease Management In Corn Depends On Stage Of Corn Development

SPRINGFIELD, MO.

A number of fungi can cause foliage diseases on corn, like leaf spots and/or leaf blights, but the method of management all depends on the growth stage of the corn.

"In general, if foliage diseases do not become established until six weeks after tasseling, yield losses are minimal. If a foliar disease is established before tasseling or becomes severe within two to three weeks of tasseling, yield losses may occur," said Jay Chism, agronomy specialist with University of Missouri Extension.

The fungi that cause most corn foliage diseases survive in corn residues left on the soil surface.

According to Chism, spores are produced during moist periods and are carried to corn leaves where the infection begins again.

"Disease problems are more severe in fields where corn is planted in fields with infested residue left on the soil surface," said Chism.

Although most foliage diseases are the result of infested residue in the field, common rust and southern rust are exceptions.

"The rust fungi do not survive on local residue, but are reintroduced into southwest Missouri each season from southern states," said Chism.

Southern rust pustules are found primarily on the upper leaf surfaces, less frequently on lower leaf surfaces. When southern rust is severe, leaves and leaf sheaths may yellow and die prematurely. Damage tends to be more severe on late-planted corn or late-maturing hybrids.

"Common rust does not typically require control, so it is important to make the correct diagnosis before deciding to apply a fungicide," said Chism.

Management options for corn foliage diseases include: planting disease-resistant corn hybrids, rotating crops with at least one year between corn crops, managing corn residues and applying foliar fungicides if warranted. Δ