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NF560 Wheat Disease Fact Sheet No. 2: Management Program for Foliar Leaf Spot Diseases of Wheat

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Management Program for Foliar Leaf Spot Diseases of Wheat

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Cause and Occurrence

Tan Spot	Cause: *Pyrenophora tritici-repentis* Occurrence: April to June
Septoria Leaf Blotch	Cause: *Septoria tritici* Occurrence: April to June, September to October
Septoria Leaf and Glume Blotch	Cause: *Stagonospora nodorum* Occurrence: May to July

Key Symptoms

Tan Spot	• Early: small brown, oval lesions with tan centers. • Late: large tan blotches with a yellow halo. Presence of raised black fungal structures on wheat residue from previous crop.
Septoria Leaf Blotch	• Tan irregularly shaped blotches with black specks and a yellow margin.
Septoria Leaf and Glume Blotch	• Brown irregularly shaped blotches on leaves. • Purple-brown lesions on glumes. • Black specks absent from lesions.

Cultural Management Practices

- Crop rotation, where practical.
- Stubble management that leaves a residue cover but hastens residue breakdown within a year.
- Plant wheat into corn or soybean stubble in a conservation tillage system.

Fungicide Program

Apply a fungicide based on the following criteria:

- Severity of leaf spotting on leaves during tillering.
- Presence of infested wheat residue adjacent to the field (source of spore inoculum).
- Earliness or lateness of the winter wheat crop. (Late crops are more at risk.)
- Current and 30-day weather forecast. (Wet weather favors leaf spotting.)
- Potential yield of crop should be 45 bu/a dryland and 75 bu/a irrigated.

The goal of a spray program is to keep the flag and flag-1 leaves free of infection since they contribute significantly to yield.

Table I. Fungicides registered for leaf spot diseases on wheat.*

Product	*Rate/acre*	*Timing*
Quilt (azoxystrobin + propiconazole) (Syngenta)	7-14 fl oz	Up to Feekes 9 plant stage (ligule of flag leaf just visible)
Quadris (azoxystrobin) (Syngenta)	6.2 - 10.8 fl oz	Feekes 6 (immediately after jointing) to 10.5 (late head emergence)
Headline (pyraclostrobin) (BASF)	9 fl oz	Feekes 10.5 (late head emergence)
Stratego (propiconazole + trifloxystrobin) (Bayer)	10 oz	Feekes 8 (emerging flag leaf)
Tilt (propionazole) (Syngenta)	4 fl oz	Feekes 10.5 (full head emergence)
PropiMax EC (propiconazole) (Dow AgroSciences)	4 fl oz	Feekes 10.5 (full head emergence)
Manzate 75DF (mancozeb) (Griffin L.L.C.)	2 lb	Feekes 10 (boot) and again at Feekes 10.5 (late head emergence)
Dithane DF (mancozeb) F-45 M-45 (Dow AgroSciences)	2.1 lb 1.6 qts 2 lb	Feekes 10 (boot) and again at 10.5 (late head emergence)
Pencozeb 80WP (mancozeb) 75DF (Elf Atochem)	1-2 lb 1-2 lb	Feekes 10 (boot) and again at 10.5 (late head emergence)

*Fungicides listed represent the best information available. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by University of Nebraska–Lincoln Extension is implied.

Application

- Apply sufficient spray solution to ensure good coverage of the leaf surface.
- Read and follow all label directions for mixing and application.

File under: PLANT DISEASES
C-13, Field Crops
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