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News Release

Upper Midwest Largely Dodges Scab in '09

Fusarium Head Blight (FHB) has not been a serious problem in most Upper Midwest wheat and barley fields this year, according to university small grains specialists. Commonly referred to as "scab," the disease, caused by the fungus *Fusarium graminearum*, can produce significant yield losses, as well as serious grain quality issues due to the presence of the mycotoxin known as "DON" (deoxynivalenol).

In North Dakota, an early August survey of 310 post-flowering wheat fields and 60 post-heading barley fields revealed low levels overall. North Dakota State University extension plant pathologist Marcia McMullen says FHB symptoms were observed in 42 (13.5%) of the 310 surveyed wheat fields, with average severity in those 42 fields being a low 2.2%. The highest field severity was 12%, but only a few fields were above 5%. Of the 60 surveyed barley fields, only three showed any symptoms of FHB, with severity in those three fields averaging less than 1%. (Surveyed fields were picked at random, and the variety planted and fungicide-use pattern are unknown.)

Very cool nighttime temperatures (averaging in the 40s and low 50s) in July "may have hindered development of the disease," McMullen suggests. Also,

parts of the state received very little rainfall during July. As of August 12, some North Dakota counties bordering Canada still had wheat in FHB-susceptible stages, with forecast models indicating some high risk of infection. However, very high temperatures on August 12-14 "may have prohibited any Fusarium Head Blight development in those fields," according to McMullen.

The 2009 scab situation has been similarly benign around northwestern Minnesota. Charla Hollingsworth, Crookston-based University of Minnesota plant pathologist, says FHB symptoms have been "scattered and widespread in the Red River Valley, but severity is usually low. The only exception to that is where a susceptible variety was grown and an early-flower application of fungicide was not made."

A late spring followed by a cool summer in the Red River Valley translated into an extended FHB susceptibility period. But scab levels remained low, "and the small grain crops have responded well," Hollingsworth indicates.

The 2009 South Dakota wheat crop progressed well ahead of its North Dakota and Minnesota counterparts. There were some unusually high levels of scab pressure in winter wheat in the central and east central districts, resulting in fields with five to 15% severity, according to South Dakota State University plant pathologist Lawrence Osborne. "Spring wheat in the southeast, central and east central parts of the state also had similar scab pressure — particularly in later-planted or late-maturing fields," he adds. The northeastern district — typically the area of South Dakota most prone to FHB issues — seems to have come through fairly unscathed this year.

"Growers across the state were prepared to treat as the conditions and the forecasts dictated," Osborne recounts. "Many growers in the north central, northeast and east central areas treated with tebuconazole products — which were available for lower costs than in years past." In southeast and south central South Dakota, growers were divided in their approach to fungicide use, the SDSU pathologist says. "The more-intensive managers treated at flowering, while more-conservative managers withheld the sprays." Osborne does expect DON levels to be higher than average (or than what the in-field disease symptoms suggested) on some spring wheat due to excessive post-flowering rainfall and high humidity.

Growers are encouraged to visit the U.S. Wheat & Barley Scab Initiative's website — <http://scabusa.org> — for links to information on harvesting scabby wheat fields, testing for DON, marketing scabby grain, crop insurance adjustments for DON, and other scab-related postharvest issues.

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