Scab Disease Generally Low Across U.S. in 2007

The incidence and severity of Fusarium Head Blight (FHB) — commonly referred to as scab — was low to virtually nonexistent in most U.S. wheat and barley producing states during the 2007 growing season. The two exceptions were Nebraska and Kansas, where environmental conditions favored scab development in certain growing areas.

A survey of university plant pathologists and small grains breeders in several states indicated that dry and/or windy conditions during the grain flowering and heading stages — when wheat and barley are most susceptible to scab infection — helped keep the disease to a minimum this year. The survey was conducted for an article published in the U.S. Wheat & Barley Scab Initiative's newsletter, *Fusarium Focus*.

A North Dakota State University (NDSU) survey of 1,147 wheat fields — 380 of which were in the post-flowering stage — indicated the presence of scab in just 5.8% of those 580 post-flowering fields. Symptomatic wheat fields averaged a low field severity rating of 0.9% — the same as in 2006, according to NDSU extension plant pathologist Marcia McMullen. NDSU scouts also surveyed 261 barley fields, of which 65 were post-heading. There, 7.7% of those 65 fields showed symptoms of Fusarium Head Blight, with an average field severity of 1.6%. For both wheat and barley, the majority of scab-affected fields were in the northeastern part of the state.

Minnesota and South Dakota wheat and barley areas also enjoyed a relatively benign scab season. "Grain quality was good, with very few scabby kernels present," said University of Minnesota extension plant pathologist Charla Hollingsworth. Though ample moisture portended scab problems in the northern Red River Valley, frequent winds during crop heading helped keep the disease at bay, she added. In South Dakota, "I have heard reports of some fields with noticeable levels of infection; but I've not heard of a single grower getting docked

for excessive deoxynivalenol (DON) levels," noted Jeff Stein, South Dakota State University plant pathologist.

Scab infections in Nebraska in 2007 were the most widespread in more than two decades, reported University of Nebraska small grains breeder Stephen Baenziger. The main reason was rain during and following flowering. Baenziger estimated that about one-third of the state's wheat was affected to some degree by scab. Further south, above-average rainfall and persistent high relative humidity resulted in above-normal levels of scab in eastern and central Kansas, said Kansas State University extension plant pathologist Erick De Wolf.

Further east, in states like Ohio, Kentucky, New York, Maryland and North Carolina, the wheat crop was virtually untouched by scab this year. The reason again was the dry conditions during susceptible crop growth stages.

To view the complete article on the 2007 U.S. scab situation, as well as the remainder of the Fall issue of *Fusarium Focus*, go to the U.S. Wheat & Barley Scab Initiative web site: www.scabusa.org. This site also includes details on the 2007 National Fusarium Head Blight Forum, to be held in Kansas City, Mo., on December 2-4.

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