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Scab Incidence and Severity Relatively Low Across the State

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A recent survey of our winter wheat variety trials found Fusarium Head Blight (FHB) or Head Scab at all four of our variety testing locations: Janesville, Arlington, Lancaster, and Chilton. At these locations, both incidence and severity are relatively low. At our most uniform and prevalent FHB site (Lancaster) our ratings show an FHB index range from 0.6 to 8.8 among the varieties. This FHB index is based on a range from 0 to 100 where 0 indicates no signs of scab infection and 100 means all heads in the field are completely infected. The 0.6 rating was found in the public variety “Truman”, which has resistance to head scab. A complete list of varieties and their disease ratings will be published along with yield data shortly after wheat harvest in early-to-mid August at www.coolbean.info.

A little preparation before harvest can go a long way in dealing with the potential of scabby wheat. For starters, before harvest begins, try to determine which fields have the greatest incidence of scab. Focus any marketing/storage alternatives on these fields. As usual, during harvest, check the quality of the grain periodically. Combines can be adjusted to separate wheat by kernel density and it is possible to remove some of the damaged grain during harvest by turning up the winnowing fan speed on the combine. Severely damaged grain may be subject to price discounts upon delivery and the most severely damaged loads may be rejected. At most elevators, grain graders will look for scab-infected kernels and treat them as damaged kernels. USDA #1, #2, and #3 wheat can have up to 2%, 4%, and 7% damage, respectively. If the amount of scab damage is high, the elevator may choose to have the wheat tested for DON (vomitoxin) levels. DON is short for deoxynivalenol, which is a mycotoxin that can reduce animal feeding, especially in swine. A usual cutoff for DON is not more than 2 parts per million in the wheat. Research has shown that DON can be correlated with the level of shriveled seed, and there exists visual methods to estimate the damage to soft red winter wheat kernels by FHB (<http://www.oardc.ohiostate.edu/ohiofieldcropdisease/wheat/WheatKernels2.htm>). However, it is important to note two critical items. The first is that having FHB does not automatically mean that the grain will have a concentration of DON, and second, there is evidence that healthy looking kernels can test positive for DON. Therefore, if you are concerned that there is mycotoxin contamination, consult the Pest Management in Wisconsin Field Crops – 2008 (UW-Extension, A3646) in the corn disease section where a list of laboratories that conduct mycotoxin tests can be listed. DON infected wheat can be blended with non-infected wheat to reduce the overall concentration.

We contacted several elevators this week (a local coop and a Milwaukee exporter) and both were in the process of developing plans for scabby wheat. The Port of Milwaukee exporter indicated that they will

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deal with scab during the season if they see a large incidence of diseased grain, but were not expecting a problem.

Producers should at least think about a plan now to deal with the diseased grain if they encounter it in the middle of harvest. Separate storage and use or additional cleaning may be alternatives to accepting possible large discounts at the elevator. Damaged grain can be blended and still used as part of an animal ration or cleaned to improve the test weight using seed cleaning equipment.

Lastly, as we look forward to next years' wheat crop, do not save any seed for replanting from scab infected fields. Decreased seedling vigor and fall tillering coupled with increased potential for winter kill are all factors associated with scabby wheat seed. The relatively low cost of purchasing certified wheat seed will be well worth the investment in 2008.