

## **Post-registration Assessment of Fusarium Head Blight Resistance Levels in Spring Wheat**

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Varietal resistance to fusarium head blight (FHB) is of importance to Manitoba producers, as this fungal disease reduces yields and can cause downgrading in quality. Testing to determine a varieties' resistance to FHB is conducted during the three years the variety is tested through the variety registration system. While this provides good information on resistance to FHB, the data generated provides limited comparisons with other registered varieties.

A study was initiated in 2009 to evaluate the effect of FHB on spring wheat varieties with varying levels of FHB resistance under natural conditions. Composite grain samples were collected from 84 spring wheat varieties over 15 locations. Not all varieties and sites were sampled each year. Grain samples were analyzed for level of fusarium damaged kernels (FDK) and deoxynivalenol (DON) accumulation.

Levels of infection were generally low over the course of the study. Analysis of the grain samples found variability of performance within the five resistance categories (resistant to susceptible) for FDK and DON. FHB is highly influenced by environment, and it is recommended that producers continue to select varieties with improved resistance as this study found that varieties with improved resistance generally had lower FDK and DON levels.