


Mycotoxin Reduction in Grain Chains

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result in disease development and mycotoxin accumulation (symbolized by the overlapping triangles), important differences in these complex relationships among host plants, pathogens, and the environment may affect the disease and toxin differentially (offsetting the triangles), making it difficult to reliably predict the risk of deoxynivalenol contamination based on actual estimates of *Fusarium* head blight or with models developed to predict *Fusarium* head blight.

Figure 17.2 Prediction models for *Fusarium* head blight of wheat caused by *Fusarium graminearum* are available for public use via the Internet (www.wheatscab.psu.edu). The user interface displays daily estimates of disease risk for 30 states east of the Rocky Mountains in the United States. The prediction models deployed through the site were developed through the collaboration of researchers at Kansas State University, the Pennsylvania State University, and the Ohio State University. This interface for the model was designed by the Center of Environmental Informatics at the Pennsylvania State University.

Chapter 18

Figure 18.1 Moisture sorption curve for wheat grain relating the adsorption and desorption curves to moisture content (%, wet weight basis). The adsorption lines indicate the effect of wetting grain and the desorption lines indicate the effect of wet grain being dried. The difference is due to the relative binding of water to the grain components during these phases and is called the “hysteresis effect.” These curves change with storage temperature. In general, spoilage problems normally

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