

OTHER PAPERS

THE U.S. WHEAT AND BARLEY SCAB INITIATIVE'S FHB ALERT SYSTEM

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ABSTRACT

The United States Wheat and Barley Scab Initiative and the curators of the FHB Risk Assessment Tool (based at Penn State University and Kansas State University) have collaborated to provide growers with a live notification system for Fusarium Head Blight (FHB) conditions throughout growing regions in the United States. Users can access maps using the Fusarium Head Blight Risk Assessment Tool (http://www.wheatscab.psu.edu/riskTool_2010.html) to find FHB related field observations and information posted by state specialists in regions of interest. Updates posted to the Fusarium Head Blight Risk Assessment Tool are automatically sent out to the community using various electronic communication methods. These methods include the USWBSI blog (<http://scabusa.org/modules/wordpress/>), the various subscriber mailing lists hosted by the USWBSI, and a subscription service to receive text messages on cell phones each time new information is posted. The email and/or text message subscription form, as well as additional information about the service, can be found on the USWBSI site at http://scabusa.org/fhb_alert.php.

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2010 FUSARIUM HEAD BLIGHT EPIDEMIC IN OHIO: OUR ROLE IN EXTENSION AND OUTREACH

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ABSTRACT

During the 2010 wheat-growing season, researchers at The Ohio State University continued ongoing efforts to educate growers and others in the wheat industry about the tools and information available to help them assess the risk of a Fusarium head blight (FHB) epidemic in their area of the state and the importance of making informed FHB management decisions. Accomplishing these goals was made easy by the fact that multiple resources are currently in place to provide timely information to our clientele. The available resources include the FHB prediction center, the Crop Observation and Recommendation Network (CORN) Newsletter (a weekly publication by the Ohio State Agronomic Crops Team and Ohio State Extension), and professional relationships with county educators, millers, grain buyers, crop consultants, and local growers. In the early spring, we began promoting use of the FHB prediction center, and prepared a factsheet with detailed information on how to navigate the FHB Risk Assessment Tool and interpret the results. Throughout the anthesis period, we prepared updates for the commentary section of the FHB Risk Assessment Tool and released newsletters that provided interpretations of the risk predictions, information about new tools such as SCAB SMART and SCAB ALERT, and management options and recommendations. The anthesis period lasts approximately 2 to 3 weeks in Ohio where wheat in southern parts of the state reaches this critical growth stage before wheat in northern Ohio. To evaluate the FHB Risk Assessment Tool and provide a quick assessment of FHB levels within selected counties, a field survey was conducted approximately three weeks after anthesis. This coordinated survey has been completed in a fairly uniform manner for the past 9 years. Each year, between 67 and 159 fields were surveyed in 12 to 32 Ohio counties. Within each field, the surveyor (extension educators and graduate students) walked a diagonal through the field and identified ten sites that were approximately 30m apart to assess disease incidence. Each site consists of 0.3m of one row of wheat. Incidence was assessed as the proportion of diseased spikes at each site relative to the total number of spikes examined. In 2010, 145 fields in 32 counties were surveyed and average county incidence ranged from 1.17 to 50.37%. Counties with the highest levels of scab were clustered in the central northwestern part of the state. The FHB Risk Assessment Tool did indicate that these counties were at moderate to high risk for an FHB epidemic during their anthesis periods. The survey results clearly showed that during the 2010 FHB outbreak, the more serious and aggressive managers generally had the best wheat crop. Even in areas where FHB levels were high, some fields with the lowest levels of vomitoxin and highest yields and test weights were those planted with a resistant variety and sprayed with a fungicide application at flowering. Towards the end of the growing season, several newsletters were prepared to provide growers with information on how to harvest and handle grain from FHB-infected fields, sample and test for DON, feed or dispose of contaminated grain, and select moderately resistant varieties for the 2010/2011 growing season.

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