

UNIVERSITY OF KENTUCKY WHEAT SCIENCE NEWS



Research & Education Center,
Princeton, KY 42445

Volume 8, Issue 2 April 2004

In This Issue:

- **Folicur: A New Tool for Managing Fusarium Head Blight**
- **Biotech Wheat: Where Are We?**
- **Know the Rules about Saving Wheat Seed**
- **Do You Have Herbicide Resistant Ryegrass?**
- **Herbicide Resistant Ryegrass Survey Form**
- **2004 Wheat Field Day—May 18— Princeton**

FOLICUR: A NEW TOOL FOR MANAGING FUSARIUM HEAD BLIGHT IN WHEAT

Don Hershman, University of Kentucky

Fusarium head blight (FHB) of wheat, and deoxynivalenol (DON) accumulation in harvested grain, are periodically very serious problems in Kentucky. On April 15, 2004, the Environmental Protection Agency approved Kentucky's section 18 application which sought emergency labeling for Folicur 3.6F to help with FHB/DON management during 2004. Folicur is manufactured by Bayer CropScience. This new fungicide tool, **when used with other FHB/DON management tactics** (see <http://www.ca.uky.edu/ukrec/newsletters/news03-2.pdf>) will reduce the risk of FHB and DON, as long as weather conditions are not highly favorable to FHB and DON during crop flowering and grain fill.

Let me say up front that Folicur is not a "silver bullet" for managing FHB/DON. A great deal of research suggests that about 30% reduction in FHB symptoms and DON accumulation is a reasonable expectation for winter wheat. Sixty percent control or more has been achieved in rare field studies in the United States, but these are atypical results. In other words, do not expect Folicur to provide the same level of FHB/DON control as you have come to expect when fungicides are used to control other wheat diseases. The key is to think in terms of disease suppression, not control. Nevertheless, a 30 % reduction in FHB and DON could have a significant economic impact locally, and statewide, if FHB is moderate in 2004. But be advised that significant losses due to FHB and/or DON are likely even where Folicur has been applied if weather conditions favor severe FHB this spring,

The section 18 allows for a single ground or aerial application of 4 fl oz/A of Folicur 3.6 F to wheat at full head emergence (Feeke's stage 10.5) to very early

flowering (Feeke's stage 10.51). Applications cannot be made before full heading nor within 30 days of harvest. The Folicur section 18 applies only to wheat and is good for the period April 20, 2004 to May 20, 2004.

Excellent fungicide coverage on wheat heads is crucial to achieve the greatest possible FHB/DON suppression. This is no small challenge since most spray systems used in wheat were developed to deliver pesticides to foliage (horizontal structures). In order to maximize coverage on heads (vertical targets), significant changes may need to be made to the sprayer boom system. Also, discipline must be exercised to ensure that proper sprayer pressure and volumes are used.

For ground application, research has shown that best head coverage is achieved with a double-swivel nozzle configuration of XR8001 flat-fan nozzles oriented forward and backward at a 45 degree angle. Acceptable coverage can also be achieved with a single nozzle configuration using TwinJet TJ8002 nozzles. When using either the double-swivel nozzle or the single TwinJet configuration, best head coverage is achieved when the boom is set 8 to 10 inches above the heads, spray pressure is 30 to 40 psi OR 80 to 90 psi, fungicides are delivered in 15 or more gallons or water/A, and ground speed does not exceed 8 mph during application.

For aerial application, nozzles should be angled to direct spray 90 degrees to the direction of travel. Spray droplet size should range from 300 to 400 microns and Folicur should be delivered in no less than 5 gallons of water/A. It is best to spray early in the morning or at other times when heavy dew is present. This will facilitate fungicide coverage on heads.