Fusarium Prompting Some Farmers to Give Up on Malting Barley

East Lansing, MI—The price of malting barley in 2003 promises to be the highest in years, yet next year will likely be the first that Richard Magnusson will not grow malting barley on his farm.

“Contracts call for zero DON, and we’re not confident we can achieve that,” said Magnusson, a Roseau, Minn., farmer, who explained how Fusarium head blight (FHB), commonly called scab, has affected his farm, at a national forum held recently near Cincinnati, where crop scientists from around the world and leaders of the U.S. wheat and barley industry discussed progress and challenges in researching solutions for the grain disease. The fungus has plagued wheat and barley production in many areas of the United States since the early 1990s, resulting in economic losses estimated in the billions.

A “mycotoxin” or contaminating byproduct of FHB, called deoxynivalenol (DON), can make wheat unsuitable for milling, and barley unfit for malting. A region-wide epidemic of FHB was so severe in 1993 that Magnusson could do little more than burn 3,000 acres of infected grain in the field.

Since then, Magnusson, like many other farmers, has changed his production practices, growing more broadleaf crops, more FHB-tolerant varieties, and using fungicides to suppress the disease. “We look at fungicide applications now the same way we do herbicides. It’s become regular practice.”

Still, even the most effective fungicide on the market won’t eliminate DON entirely. That’s why Magnusson, like many other crop producers in areas where FHB has been a problem, have given up on growing barley for malting. “We need better fungicides, better varieties, and more accurate and repeatable methods for testing DON,” he said.

A national research initiative to find multiple solutions for controlling FHB in wheat and barley got underway in 1997. The $5 million national research initiative in the 2002 federal fiscal year involved over 100 research projects, carried out in 25 states at 23 land grant universities, the International Maize and Wheat Improvement Center (CIMMYT) in Mexico, and the U.S. Department of Agriculture’s Agricultural Research Service, which funds the Initiative.

At the research forum, scientists reported research results and advancements in variety development and uniform screening nurseries; epidemiology (how scab develops, spreads) and disease management; food safety, toxicology, and utilization; biotechnology; chemical and biological control; and germplasm introduction and evaluation.

A full report of research conducted under the U.S. Wheat and Barley Scab Initiative and discussed at the Forum will be posted in January on the Internet at www.scabusa.org, under the 2002 National Fusarium Head Blight Forum Proceedings.

Editors: For photos of Magnusson or scientists at the forum, contact Sue Canty, ph. (517) 355-2236, E-mail: scabusa@msu.edu