

PI: Patrick Hart

PI's E-mail: hartl@msu.edu

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Research Area: CBC

Duration of Award: 1 Year

Project Title: Chemical Management of FHB in Wheat.

PROJECT 1 ABSTRACT

The severity and frequency of FHB epidemics in Michigan and the mid-west suggests that fungicides and/or biologicals with efficacy against FHB may have a role in disease management when applied at anthesis.. Disease management trials across wheat classes and environments are a valuable tool to evaluate products under different environmental conditions. This proposal continues the Michigan commitment to the regional trials. The research objective is the testing of products that may be registered in the future. Test results will be provided to producers nationwide on what products are providing the greatest disease control and improvement in yield and quality, plus this information is used in applications for federal or special registrations of new materials. A set of core treatments (seven fungicides) will be established and compared to the untreated check. Plots are inoculated with chopped corn stalks, and irrigated before and after anthesis. Treatments are applied at anthesis with a backpack type sprayer at 40 psi, 18-20 gpa, and with a nozzle arrangement allowing angled spraying of the heads. Disease ratings are taken at the soft dough stage of kernel development (Feekes 11.2) and include FHB incidence, FHB head severity, flag leaf disease severity, and other disease incidences and severities, if present. Plots are harvested for yield and quality, and DON concentrations determined at Michigan State University. Data is analyzed by ANOVA. Results are presented at the 2004 FHB Initiative Forum, and disseminated via extension channels as is deemed appropriate. The fungicide trials are an important source of information for submission of section 18 requests to the EPA for the use of the fungicide folicur on wheat. EPA has granted section 18 requests for each of the past four years, and has requested additional information on fungicides in 2005.