

0203-BE-099 Fungicide/Bioprotectant Trials for Control of Fusarium Head Blight (New York).

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PROJECT ABSTRACT

(1 Page Limit)

Foliar fungicides are needed for partial control of Fusarium head blight (FHB), at least until higher levels of resistance are available in wheat and barley varieties. Biological control agents also offer promise as tools in the integrated management of FHB. This project is a component of the overall uniform fungicide trial project, a cooperative effort among states in the spring grain and winter wheat regions of the United States. A core set of fungicide and bioprotectant treatments will be assessed for control of Fusarium head blight and reduction of vomitoxin across a number of states. Because FHB does not occur every year in every location, having the trials across multiple environments increases the chance of favorable disease levels for evaluation. There will be two separate evaluation experiments in New York in 2001, both in stands of soft white winter wheat. One experiment will be in a grain spawn-inoculated, nonirrigated field in Aurora, NY. This plot will feature all of the national core treatments plus combinations of fungicides with the elite biocontrol agent TrigoCor 1448 (patent pending, Cornell Research Foundation/EMBRAPA). A second experiment will be conducted at Ithaca, NY in a grain spawn-inoculated field with supplemental mist irrigation at anthesis. This experiment will compare several promising biocontrol agents with nontreated and Folicur treatments. This project will also prepare and distribute starter cultures of biological control agent TrigoCor 1448 to collaborators in other states. This proposal is relevant to the US Wheat and Barley Scab Initiative because it addresses immediate concerns about control of the disease and evaluates the efficacy and economics of an important management tool. Data provided by these trials also are critical for development of new products and for registration requests.