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Project ID: 0506-ST-037

FY04 ARS Agreement #: New

Research Area: CBC

Duration of Award: 1 Year

Project Title: Evaluation of Fungicides to Control of FHB on Soft Red Winter Wheat in Virginia.

PROJECT 1 ABSTRACT

(1 Page Limit)

Uniform fungicide treatment trials for fusarium head blight (FHB) control will be established in spring/barely regions and in winter wheat regions of the United States, including Virginia. The establishment of a core set of treatments across a number of states allows for the evaluation of products for consistency in performance across a wide variety of environments and across grain types affected by FHB. Also, because FHB does not occur every year in every location, regardless of attempts to increase that odds for infection by the addition of inoculum or the alteration of conditions by using misting systems during anthesis, having trials across environments increases the chance of favorable disease levels for evaluation. The trial in Virginia will be no-tillage planted into corn residues in October, 2004. The soft red winter wheat cultivar is Sisson. A core set of fungicides and rates will be established by the Chemical and Biological Control of the USWBSI in December. Fungicides will be applied with a CO₂-pressurized backpack sprayer at 40psi, 20 gpa. Disease ratings will be taken at soft dough stage of kernel development (Feekes' Growth Stage 11.2, Zadoks' Growth Stage 79) and will include FHB incidence, FHB severity, and the FHB Index. Other head disease incidence and severity, if present, will be assessed along with any significant foliar diseases. Plots will be harvested for grain yield and quality. Bushel weights and 1000 kernel weights will be determined. DON concentrations will be determined at Dr. Pat Hart's laboratory, Michigan State University from sub-samples taken at harvest. Results from Virginia will be disseminated in a timely fashion to our Commonwealth's producers by the use of the Small Grains Disease Website maintained by the PI (<http://www.ppws.vt.edu/Stromberg/smallgrain/sgrain.html>). All results will be summarized and sent to the FHB Networking and Facilitation Office. A report of Virginia results will be prepared for publication in Fungicide and Nematicide Tests, Vol. 61.