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FY04 ARS Agreement #: 59-0790-3-080

Research Area: CBC

Duration of Award: 1 Year

Project Title: 2005 Aerial Application of Fungicide for Improved Control of FHB on Wheat.

PROJECT 2 ABSTRACT
(1 Page Limit)

Fusarium head blight continues to be a yield-limiting factor of wheat and barley in the north central small grain production region. Partial control of the disease has been achieved by timely application of fungicides and increased fungicide deposition on heads using forward and backward angled nozzles. New fungicide chemistries offering greater FHB disease control are limiting, making it imperative that existing chemicals be used in such a manner as to achieve maximum disease control. This project is needed to investigate disease control efficacy by exploring alternative aerial application strategies in hard red spring wheat.

An experimental site(s) of not less than 100 total acres of commercially-grown hard red spring wheat will be secured in northwest Minnesota. Aerial application research efforts will be conducted cooperatively with North Dakota State University (NDSU) researchers from Fargo and Langdon, ND. The Minnesota site will be one of three locations that will be included in the aerial fungicide application efficacy research effort. An estimated total of seven treatments (6 fungicide treatments and an untreated control) will be tested in a replicated, statistically designed field experiment.

The Minnesota plant pathology team will be responsible for coordinating season-long research efforts at the site such as securing a test site; retrieving field cropping history; establishing experimental design and field layout; recording crop growth stages, disease parameters (FHB disease incidence, severity, DON concentrations), and yield results from each treatment; communicating with project cooperators; and coordinating aerial fungicide applications and weigh wagon schedules with NDSU researchers and a local applicator.