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ARS Agreement #: *New*

Research Category: MGMT

Duration of Award: 1 Year

Project Title: Efficacy of a New Fungicide for FHB and DON Management across Environments and Grain Market Classes.

PROJECT 1 ABSTRACT

(1 Page Limit)

The University of Idaho's Cereal Agronomy and Pathology program will participate in the FHB Management Coordinated Project (MGMT_CP) to evaluate the integrated effects of fungicide treatment and genetic resistance on FHB and DON in hard red spring wheat grown in the Pacific Northwest and Intermountain West region, with emphasis on a new fungicide, Miravis Ace®. We will be comparing the efficacy of Miravis Ace when applied at heading or at anthesis to that of standard anthesis application of Prosaro® or Caramba®. In the first experiment, a new fungicide available on the market in 2019 for FHB control will be tested against standard treatments. Four varieties representing different levels of susceptibility to FHB will be tested under five different fungicide treatments. An inoculated untreated check will be compared to 1) Prosaro 6.5 fl oz/A applied at anthesis 2) Miravis Ace 13.7 fl oz/A at Anthesis 3) Miravis Ace 13.7 oz/A at Feekes 10.5 4) Prosaro 6.5 fl oz at anthesis and not inoculated and 5) an untreated control, non-inoculated.

The second experiment will test different fungicide application timing and concentrations of Miravis Ace on one susceptible hard red spring variety (Cabernet) compared to two standard fungicides currently available on the market.

The objective is to generate data to further quantify the economic benefit of FHB/DON management strategies and to develop more robust "*best-management practices*" for FHB and DON, and generate data to validate and advance the development of FHB and DON risk prediction models. With the expansion of FHB into irrigated production areas of the PNW and intermountain west, and the limits of currently available fungicides, testing of the newly available fungicide Miravis Ace may provide increased choices for the producer.