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PROJECT 1 ABSTRACT

(1 Page Limit)

Illinois produces approximately 500,000 acres of soft red winter wheat annually. Significant reductions in yield and quality have resulted from Fusarium head blight (FHB) and associated mycotoxins (DON). Replicated research trials funded by the USWBSI have demonstrated that the use of a moderately resistant wheat variety, combined with the application of Caramba®, Prosaro®, or Proline® fungicides within 5 days of flowering can reduce FHB and DON by approximately 70% compared to non-treated, Susceptible varieties. In 2019 a new fungicide, Miravis® Ace, was released for use in wheat production systems. One of the claims of this product is that it can suppress FHB and DON at superior levels when compared to Caramba, Prosaro, and Proline, and that it can provide suppression of FHB when applied as early as 50% head emergence. Currently, data gathered my members of the USWBSI IM-CP is limited and results are variable.

The **goal** of this project is to assess the utility of Miravis Ace, compared to Caramba, Prosaro, and Proline and develop a better sense of the application window for this new fungicide. To accomplish this goal we will conduct a set of experiments that 1) assess the Miravis Ace, Caramba, and Prosaro when applied at 50% head emergence, flowering, and 5 days post Flowering on two SRWW wheat varieties of contrasting FHB reaction, 2) Assess rates and new products in comparison to Miravis Ace, Prosaro, and Caramba when applied at FGS 10.5.1 or a10.5.1+ 5d. In addition, data will be generated to further refine the FHB prediction tool by including and monitoring non-inoculated and non-inoculated/treated plots. Data will be used as part of a larger integrated management project and data used to guide local and national extension recommendations.