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**Research Category:** MGMT

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**Project Title:** Efficacy of New Fungicides for FHB and DON Management in Missouri

### PROJECT 1 ABSTRACT

(1 Page Limit)

Missouri wheat production faces similar disease challenges to other Corn Belt states and can suffer from substantial yield losses attributed to FHB when conditions are favorable. This is especially true in many areas of the state where winter wheat is planted directly into corn stubble in the fall, another host of the FHB-responsible fungus *Fusarium graminearum*. Yield losses associated with damage from Fusarium head blight are related not only to the presence of Fusarium-damaged kernels, but are also associated with mycotoxins that can accumulate in the grain. In addition to the use of cultivars with partial resistance to FHB, select foliar fungicides, mostly in the demethylation inhibitor class of fungicides, have been recommended for use to minimize *Fusarium* damage and mycotoxin accumulation. As is the case with many pathogens, fungicide resistance development becomes a concern when a single mode of action is repeatedly used to control the same pathogen year after year. Recently, a foliar fungicide in the succinate dehydrogenase inhibitor class of fungicides has become available and labeled for the management of FHB. Its label suggests that it is not only effective in managing FHB when applied at the traditionally recommended flowering time, but can be just as effective even when applied at heading. This study will be developed to compare the use of this new FHB-labelled fungicide as it compares to the currently available fungicides for FHB management. The data generated by this study will serve as a means to provide unbiased fungicide trial results to Missouri wheat growers to help them to make informed decisions about applying fungicides for FHB management.