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Project ID: FY14-BR-017

ARS Agreement #: New Agreement (Expiring Agreement # 59-0206-9-076)

Research Category: MGMT

Duration of Award: 1 Year

Project Title: Management of Scab-Associated Mycotoxins in Wheat Straw.

PROJECT 3 ABSTRACT

(1 Page Limit)

The overall goal of the proposed research is to develop a better understanding of how mycotoxins that accumulate in wheat straw can be managed. The objectives of the proposed research are to: i) identify and determine the levels of *F. graminearum*-associated mycotoxins present in wheat straw from Fusarium head blight (FHB) field research trials in Illinois, and ii) determine the effect of FHB host resistance and foliar fungicide on the level of mycotoxins in wheat straw.

Fusarium-related mycotoxins present in wheat straw can be a threat to livestock production. When wheat straw bedding that contains mycotoxins is ingested by certain animals (i.e. pigs), the animals can become ill. Methods to reduce *Fusarium*-related mycotoxins that develop in wheat straw in the field have not been intensively studied. Focusing on three of the major goals of the U.S. Wheat & Barley Scab Initiative, 1. to develop integrated management strategies for mycotoxins, 2. to develop management and mitigation tools for mycotoxin control, and 3. to develop a full understanding of factors influencing toxin accumulation, this project will develop information that will help devise tools for management of mycotoxins in wheat straw. The proposed research will help researchers develop a better understanding of the effects of management practices on mycotoxin levels present in wheat straw.