

PI: Bradley, Carl

PI's E-mail: carlbrad@uiuc.edu

Project ID: FY09-IM-043

FY08 ARS Agreement #: 59-0790-4-133

Research Category: MGMT/IM-CP

Duration of Award: 1 Year

Project Title: Integrated Management Strategies for Scab in Illinois.

PROJECT 2 ABSTRACT

(1 Page Limit)

Several management tools for Fusarium head blight (FHB) of wheat are available to growers, and include crop rotation, fungicides, and partially-resistant cultivars. Ideally, when these practices are integrated, losses from FHB will be reduced compared to using only one of the management practices. Research at the University of Minnesota has shown that FHB deoxynivalenol (DON) was reduced in spring wheat following soybean compared to wheat following corn or wheat. Although FHB can be reduced in wheat following soybean, *Fusarium graminearum* has been shown to survive on soybean debris and even cause seedling blight and root rot of soybean. In light of these recent reports of the pathogenic association between *F. graminearum* and soybean, it is unclear what role soybean residue may play in the management of FHB.

The objectives of the proposed study are: 1) demonstrate that integrated management is the most effective and economical means of reducing losses to FHB/DON; and 2) increase grower adoption of integrated strategies to control FHB.

Trials will be initiated at two locations at university research farms in Illinois (Urbana and Carbondale). At each location, the effects of previous crop (soybean or corn), fungicide, and wheat cultivar (cultivars ranging in susceptibility to FHB) will be evaluated for their effects on FHB and deoxynivalenol (DON) levels in harvested grain.