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**Project ID: FY10-BA-004**

**FY09 ARS Agreement #: NA**

**Research Category: BAR-CP**

**Duration of Award: 1 Year**

**Project Title: Field Tests of Transgenic Barley Lines.**

**PROJECT 1 ABSTRACT**

(1 Page Limit)

Selected transgenic barley lines in the cultivar "Conlon" that express combinations of antifungal and antitoxin genes from rice, yeast and *Fusarium* species will be tested for Fusarium Head Blight (FHB) reaction for the third or fourth year in replicated field trials 2010. These lines had lower FHB and/or deoxynivalenol in previous years' trials. Golden Promise barley lines expressing anti-fungal genes developed in Iowa or in Wisconsin have been crossed into Conlon, and initial lines will be field tested for the first time in 2010. In addition, Lacey lines expressing DOGT1, developed in Arkansas, should be available for field tests. For field containment, additional safeguards will be followed to prevent transgene escape or mixing with seed from the breeding and pathology projects.