

PI: Lynn Dahleen

PI's E-mail: Lynn.Dahleen@ARS.USDA.GOV

Project ID: FY12-BA-004

ARS Agreement #: NA

Research Category: BAR-CP

Duration of Award: 1 Year

Project Title: Backcrossing of Promising Transgenes into Cultivars/breeding Lines with FHB Resistance.

PROJECT 3 ABSTRACT

(1 Page Limit)

Two transgenic lines have shown reduced DON in five years of field testing. The goal of this project is to test the effects of combining these transgenes that reduce DON with resistance being bred into barley by the MN and ND breeding programs. The objective of the proposed research is to transfer two transgenes from Conlon into Quest and ND20448 by backcrossing with the 6-rowed genotypes. Each generation after the first cross, parents will be selected that most resemble the 6-rowed parent to speed up development of near-isogenic lines. Once these lines are developed, they will be tested for FHB reaction and DON contamination in the transgenic field nursery.