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**Project ID: FY14-BA-011**

**ARS Agreement #: New Agreement (Expiring Agreement # 59-0206-9-062)**

**Research Category: BAR-CP**

**Duration of Award: 1 Year**

**Project Title: Developing 6- and 2-rowed Malting Barley Cultivars with Enhanced FHB Resistance and Reduced DON Accumulation.**

### **PROJECT 1 ABSTRACT**

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This project addresses several objectives of the Barley Coordinated Project (CP). The overall goal of our project is to develop six- and two-rowed malting barley cultivars that are resistant to FHB and accumulate less DON. These cultivars must be acceptable to producers in North Dakota and adjacent states and acceptable to those who use and process barley. In FY14, our goals will be: 1) continued development and screening of six- and two-rowed barley lines in our breeding program for reduced FHB and DON, 2) grow the NABSEN at our Osnabrock, ND location, and 3) collect FHB and DON data on cultivars and advanced breeding lines that can be used by growers for making decisions on which cultivar(s) to grow. In addition to our efforts to develop six- and two-rowed malting barley for North Dakota, we will assist others in the CP working to achieve this goal by growing the North American Barley Scab Evaluation Nursery (NABSEN) at one location, growing and evaluating advanced breeding lines from the University of Minnesota and Busch Agricultural Resources (BAR) breeding programs in yield trial experiments at seven sites in ND and eastern MT, and collecting data on cultivars and advanced breeding lines grown in FHB nurseries in Langdon and Osnabrock. Data from these yield trials and nurseries will be made available to growers and researchers.