Project Abstract

Project Title:	Breeding Spring and Winter 2- rowed Malting Barley for FHB Resistance and Reduced DON	
Principal Investigator:	Mark E. Sorrells	Cornell University

The overall goal of this project is to develop spring and winter 2-row malting barley varieties with FHB resistance and adaptation to the northeastern U.S.

Project Objectives:

1. Evaluate FHB resistance in spring malting barley varieties in a Uniform Eastern Spring Malting Barley nursery coordinated by Richard Horsley at North Dakota State University, a Winter 2-row Malting Barley Trial coordinated by Kevin Smith at the University of Minnesota and the winter NABSEN coordinated by Eric Stockinger at Ohio State University.
2. Evaluate FHB resistance in spring and winter malting barley varieties and lines that are tested in New York State Regional Barley Trials.
3. Evaluate FHB resistance in winter malting barley germplasm from Idaho and Nebraska.
4. Evaluate FHB resistance and agronomic traits in our NY winter 2-row elite line training population and use genomic selection to develop winter 2-row malting barley varieties with FHB resistance and adaptation to the northeastern U.S.

We will hybridize elite lines and varieties that have demonstrated FHB resistance for variety development. We will evaluate cooperative uniform spring and winter barley nurseries and our own breeding lines in misted, inoculated nurseries using accepted management practices and data analyses. All results will be reported to coordinators and the barley breeding community.