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FY04 ARS Agreement #: 59-0790-4-105

Research Area: FSTU

Duration of Award: 1 Year

Project Title: Regional Diagnostic Laboratory Providing DON Analytical Services for Regional FHB Research Projects.

PROJECT 2 ABSTRACT

The goal of this project is to provide a regional DON diagnostic service for scab researcher. The MSU Diagnostic Clinic provides DON analyses for research projects east of the Mississippi. The number of samples analyzed at Michigan State has increased yearly from about 2200 in 1999, to in 2003-04. Four laboratories provided DON analyses in three states from 2000-2004. Three laboratories, two in North Dakota and one in Minnesota, analyze DON for samples submitted by states west of the Mississippi, with most of the samples coming from within those two states. States submitting samples to the MSU DON Diagnostic Laboratory include Michigan, New York, Maryland, Virginia, West Virginia, Kentucky, Arkansas, Indiana, Missouri, Ohio, and Illinois, with the majority of samples coming from outside of Michigan. Samples are submitted throughout the year with the largest number coming in August through January. The Michigan State laboratory uses an ELISA test to evaluate the samples, and collaborates with the other three laboratories in a check sample program to insure that the different methods used to analyze wheat and barley for DON provide comparable results. The wheat/DON check sample program is run by Michigan State University. Some research will be conducted within the program to compare the efficacy of new tests that have recently entered the market, such as the recently introduced quick stick DON tests from at least three companies.