

0203-CO-047 Developing new SRWW germplasm with resistance to scab.

PI: Costa, Jose M.; E-mail: jc274@umail.umd.edu

University of Maryland, Dept. of Nat. Res. and Landscape Arch., College Park, MD 20742-4452

Grant #: 59-0790-0-064; \$12,698; 1 Year

Research Area: VDUN

PROJECT ABSTRACT

(1 Page Limit)

Scab of wheat is a disease that has recently increased in wheat grown in the U.S. mid-Atlantic. Scab or head blight is caused by fungi of the genus *Fusarium*. Scab reduces grain yield, decreases grain quality, and can produce toxins that are a potential health threat when the infected wheat is used for food or feed. Therefore, the development of wheat cultivars with enhanced resistance to scab is critical to wheat growers in the Mid-Atlantic. The overall goal of this project is to develop new elite soft red winter wheat germplasm adapted to the mid-Atlantic region with enhanced resistance to scab. To accomplish this goal a set of elite soft red winter wheat genotypes will be crossed with several genotypes containing various types of resistance to scab. Most of the resistant wheat germplasm available does not have the required agronomic and quality characteristics to be used directly in crosses. New germplasm will be evaluated to estimate the gain in resistance. This proposed research is relevant to the U.S. Wheat and Barley Scab Initiative because publicly available germplasm developed from this project will be useful in the development cultivars with enhanced resistance to scab for the mid-Atlantic region of the U.S.