

Gladiolus rust (Uromyces transversalis) project

PRINCIPAL INVESTIGATOR:

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PROJECT OBJECTIVES:

Gladiolus rust (Uromyces transversalis) is considered a pest of quarantine significance in the United States. As a result of detection of the disease at two large gladiolus production farms in Florida the past 3 years, both farms have incurred significant eradication and loss-of-business expenses. Significant eradication expenses also have been incurred by the State of Florida Department of Agriculture and by USDA-APHIS.

Designing eradication and management procedures for these farms has been a major challenge because there is a dearth of scientific knowledge about the disease itself. Our objectives are to attempt to answer several of the most significant questions about this disease so that eradication and management efforts can be designed and implemented more effectively and efficiently. The project objectives are to: i) evaluate the direct toxicity of fungicides and selected disinfectants to urediniospores in a laboratory environment; ii) determine the survival potential of urediniospores on plant debris in the field; and iii) identify variation in the pathogen population by DNA sequence analysis.

ACCOMPLISHMENTS: This project has only recently been initiated.

COLLABORATORS:

Dr. Weibo Dong, Postdoctoral Scientist on project, University of Georgia; Dr. Steven N. Jeffers, Clemson University; Dr. Tim Schubert, Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Florida; and Dr. Alberto Julian Valencia Botín, University of Guadalajara-Cienega Campus, Mexico.