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U.S. Department of Agriculture Accomplishments Report AD-421 U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month, Day, Year) 01/02/2013
1. Accession 0208877	Agency Identification No. 2. CSREES 3. LAB	5. Work Unit/Project No. LAB93827	6. Status Final Report
7. Title Ecological and Genetic Diversity of Soilborne Pathogens and Indigenous Microflora			
12. Investigator Name(s) (Last Name and Initials) Padgett, G. B.			
20. Termination Date 09/30/2012		40. Period Covered (mo/da/year): 10/01/2006 TO 09/30/2012	
Outputs: <p>Participants met annually to review progress for the previous year of this project, as well as, discuss future collaborative research. Experiments in Louisiana addressed objectives one and three. Results have been provided to clientele.</p>			
Outcomes/Impacts: <p>Experiments related to objective one were conducted at the Macon Ridge Research Station. The biological fungicides were applied alone and in combination with strobilurin fungicides on wheat, corn, and soybean. The impact on disease development and grain yield and quality were quantified for each treatment. Objective three assessed tillage and cropping systems on overwintering populations of several pathogens. Similar to previous research biological fungicide treatments were not effective for managing diseases or preserving yields when applied alone. The incidence of Cercospora blight or purple seed stain did not differ among three tillage systems (no-tillage, minimum tillage or conventional tillage). Black root rot incidence was lowest in conventional and minimum tillage systems. Rhizoctonia spp. populations were highest in fields planted to grain sorghum and soybean; however, tillage practices did not impact Rhizoctonia spp. populations. Producers/consultants use this information for decisions concerning disease management (product selection/cultural practices) in row crops.</p>			
Publications: <p>No Publications Reported</p>			
Participants: <p>Padgett, Boyd (PI) - LSU AgCenter; Backman, Paul - Pennsylvania State University; Baird, Richard - Mississippi State University; Benson, Mike - North Carolina State University; Broders, Kirk - New Hampshire University; Canaday, Craig - University of Tennessee; Cubeta, Marc - North Carolina State University; Dick, Warren - Ohio State University; Elliott, Monica - University of Florida; Garzon, Carla - Oklahoma State University; Gasco, Maria - Pennsylvania State University; Gentry, Terry - Texas AgriLife Research; Keinath, Tony - Clemson University; Lamour, Kurt - University of Tennessee; Loynachan, Thomas - Iowa State University; Lu, Shien - Mississippi State University; Ownley, Bonnie - University of Tennessee; Rothrock, Craig - University of Arkansas; Seebold, Kenneth -</p>			

University of Kentucky

Target Audiences:

The target audience for this research is producers, agricultural consultants, extension agents, and plant pathologists.

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
		