RELATIVE RESISTANCE (SCREENING) OF 38 COTTON CULTIVARS TO BACTERIAL BLIGHT

Gabriel L. Sciumbato,
Jim Nichols,
Peggy Thaxton
Delta Research and Extension Center, MAFES, Mississippi State University
Stoneville, MS

Abstract

Cultivars were evaluated from the 2008 Mississippi Mid and Early season variety trials. Race 1, Race 12, and four isolates 5, 6, 11, and 14 of the bacterial blight pathogen were cultured on Potato Carrot Dextrose Agar media and transferred as needed. Thirty-eight commercial cotton varieties were planted at Stoneville, MS using a randomized complete block design with four replications. Each replication consisted of a single row plot 40" wide and 10' long. The inoculum was applied to the abaxial side of the leaves using a tractor mounted sprayer at 150 psi pressure to force the inoculum through the leaf stomata. Inoculum was prepared by mixing bacterium with water at a concentration 5.0 x 10^5 viable bacterial cells per milliter. Plots were rated fourteen days after inoculation. Seven cultivars were rated as immune DP555BG/RR, FM 835 LLB2, FM 1735 LLB2, FM 840 B2F, FM 1740 B2F, CGG 30208B2RF, and DP 434 RR. Two entries were rated as resistant, four as susceptible, and the remaining twenty-four were very susceptible.