Abstract

Charcoal rot caused by Macrophomina phaseolina (MP) is the most important disease that limits sorghum dryland production in northern Tamaulipas, Mexico. Grain yield losses caused by MP are approximately 30%. The objective of this study was to evaluate the response of experimental and commercial hybrids to MP and identify MP tolerant progenitors. Experimental hybrids RB-118 x 435 and RB-27 x 437 showed MP tolerance and grain field similar to commercial checks Pioneer 82G63, Pioneer 84G62, RB-Patrón, Asgrow Z-400, RB-3030, and DK-47, and greater than Asgrow-Ámbar. Progenitor females that produced tolerant MP hybrids were LRB-118 and R-27, and males Tx-435 and Tx-437.

Keywords

Artificial inoculation, hybrid selection, grain yield, charcoal rot, tolerance.