Abstract

Harvest losses caused by ear-rot in Chiapas and Veracruz, México varies from 390 to 1,030 kg ha-1 per year. The objective of this research was to identify maize hybrids resistant to ear rot caused by fungi of the genus Diploidia spp. and Fusarium spp. During 2001 and 2002, 20 hybrids considered as resistant and five controls, were sown at nine location-year combinations in the states of Chiapas and Veracruz, Mexico. An experimental triple lattice design 5x5 was utilized. Analysis of variance per location and combined were performed. Undamaged grain yield and the percent of rotten grain were recorded. Hybrids with less than 5.0% of rotten grain were selected. No all the hybrids that displayed high yield were resistant to Diplodia and Fusarium. Hybrids with less than 5% of rotten grain showed intermediate resistance. The average yield of the hybrid 271 x 310 was 900 kg ha-1 higher than the control H-516 and the percentage of rotten grain was 50% lower, for these reasons it was selected as an option for regions were the incidence of this disease is moderate.

Keywords

Diplodia, Fusarium, damaged grain, resistance.