

Screening of Sorghum Genotypes Against Shoot Fly and Stem Borer

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ABSTRACT

A field experiment was carried out to screen the sorghum genotypes against shoot fly in rice fallow under zero tillage condition. A total of 30 genotypes were evaluated for shoot fly tolerance in terms of dead hearts using 1-9 scale, eleven were found to be resistant, eighteen genotypes were moderately resistant with scale 5 and one genotype was found to be susceptible under scale-7. The highest number of trichomes were recorded in the resistant genotypes CSV 14 R (177), followed by CSH 30 (164), CSV 29R (154), CSV 26 (153), NTJ-1 (C) (147) and CSV 22 (145) which resulted in 10.13 to 14.50% dead hearts. There was a significant negative correlation between the shoot fly per cent dead hearts and trichomes on adaxial surface and abaxial surface while, the correlation was positive with leaf glossiness and yield. Based on mean stem tunnel length, the genotypes were categorized as least susceptible (0-5 cm), moderately susceptible (5-10 cm) and highly susceptible (>10 cm). The resistant check CSH 16 (C) was found to be least susceptible with 4.65 cm mean stem tunnel length, whereas, NTJ-2 (C), NLCW-6 and N-14 were found to be highly susceptible as they recorded 10.45, 10.46 and 11.44 cm respectively. The remaining genotypes were found to be moderately susceptible with 6.60 to 9.84 cm as mean stem tunnel length.

Key words : *Dead hearts, Mean stem tunnel length, Shoot fly, Stem borer.*