

RESEARCH ARTICLE

Development of sorghum shoot fly (*Atherigona soccata Rondani*) resistance in sorghum

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ARTICLE INFO

Received : 22.02.2013

Revised : 28.01.2014

Accepted : 12.02.2014

Key Words :

Sorghum shoot fly, Correlation,
Trichome density, *Atherigona soccata*

ABSTRACT

Evaluate 28 genotype with an aim to assess the correlation study of different sorghum genotypes. A field experiment was conducted to study the relation of different plant characters and shoot fly resistance trait in sorghum viz., pigmentation, Leaf glossiness, seedling with eggs at 14 and 21 day after emergence (DAE), deadheart percentage at 14 and 21 DAE, trichome density (/m²) and grain yield. The oviposition percentage on 14th and 21st days after seedling emergence exhibited significant positive correlation with dead hearts. Leaf trichome density on abaxial leaf surfaces showed significant negative correlation with shootfly dead hearts. Genotypic correlation confirmed that the number of trichomes on lower surfaces of lamina and leaf glossiness contributed resistance to shoot fly. This help to understand the varying degree of association and contribution of each character in building up total genetic architecture of resistance in CMS (A), Maintainer (B), restorer (R) lines.

How to view point the article : Folane, Jayashri N., Ghorade, R.B. and Ghive, D.V. (2014). Development of sorghum shoot fly (*Atherigona soccata Rondani*) resistance in sorghum. *Internat. J. Plant Protec.*, 7(1) : 41-44.

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