

RESEARCH ARTICLE

Estimation of mean performance in sorghum downy mildew resistant back cross progenies (BC_3F_1) of maize

■ K. SUMATHI, K.N. GANESAN AND N. SENTHIL

SUMMARY

The present investigation was carried out at Department of Millets, Centre for Plant Breeding and Genetics, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India to identify the best performing sorghum downy mildew resistant progeny for agronomical traits. The objective of this study was to identify the better *per se* performance of the resistant progeny. Twelve biometrical characters of sixteen SDM resistant progenies viz., UMI 79/936-C1-3-2, UMI 79/936-C1-3-4, UMI 79/936-C1-7-2, UMI 79/936-C1-7-7, UMI 79/936-C1-29-8, UMI 79/936-C1-29-9, UMI 79/936-C1-29-13, UMI 79/936-C1-29-23, UMI 79/936-C1-29-35, UMI 79/936-C1-29-36, UMI 79/936-C1-67-3, UMI 79/936-C1-67-12, UMI 79/936-C1-67-25, UMI 79/936-C1-101-12, UMI 79/936-C1-101-13 and UMI 79/936-C1-101-14 were used for mean performance. Studies revealed that among the progenies, UMI 79/936-C1-7-7 and UMI 79/936-C1-7-2 showed better *per se* performance for yield contributing characters. These two progenies showed highest mean values than the other progenies. It exhibited more mean values than the parents for the characters viz., cob length, cob diameter, number of rows per cob, number of kernels per row, cob weight, yield per plant, 100 grain weight. Based on the mean values progenies UMI 79/936-C1-7-7 and UMI 79/936-C1-7-2 confirmed as the best progenies.

Key Words : Variability analysis, Sorghum downy mildew resistant back cross progenies, Maize

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MEMBERS OF THE RESEARCH FORUM

Author to be contacted :

K. SUMATHI, Centre for Plant Breeding and Genetics, Tamil Nadu Agricultural University, COIMBATORE (T.N.) INDIA

Address of the Co-authors:

K.N. GANESAN, Agriculture Research Station (T.N.A.U.), BHHAVANISAGAR (T.N.) INDIA

N. SENTHIL, Department of Biotechnology, Agriculture College and Research Institute (T.N.A.U.), MADURAI (T.N.) INDIA