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Analysis of Leaf- Stem Ratio Stability in Forage Maize (Zea Mays L.)

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Abstract: *The leaf- stem (L:S) ratio were studied among one hundred forage maize accessions collected from different parts of India (Madhya Pradesh, Rajasthan and Uttar Pradesh) along with a known forage maize variety (African Tall). Observation on various parameters contributing to fodder yield potential were recorded at 50% silking stage of the accessions and Leaf - stem ratio was worked out by dividing leaf weight by stem weight per plant (on dry matter basis). Stability parameters were computed as method suggested by Eberhart and Russell.*

Significant bi as well as S2di was observed for only two accessions showing that both linear and non-linear types of interactions accounted for the G x E interaction. There was only one accession with significant S2di and as such the performance of this accession was not predictable across the environments. Study revealed that 62 accessions and African Tall were stable for all kind of environments. Maximum leaf-stem ratio was recorded in IC-335069 (0.62), which was stable for favourable environments (bi = 503) whereas African Tall had average mean performance (0.47) and was stable for all type of environments (bi = -0.22). The leaf- stem (L:S) ratio is a vital indicator of forage quality, determining palatability, crude protein content, and overall digestibility. The highest average range of leaf- stem ratio in forage maize is 0.55–0.62.*

Keywords: Forage maize, stability analysis, G x E interaction, leaf- stem ratio