

National Symposium

December 13-14, 2018

University of Agricultural Sciences, Dharwad, Karnataka

Forage and livestock based technological innovations for doubling farmers' income

Souvenir & Abstracts



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Range Management Society of India
ICAR-Indian Grassland and Fodder Research Institute, Jhansi-284003, U.P., India

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Stability analysis in forage legume- Hedge lucerne (*Desmanthus virgatus* (L.) Willd) for yield and quality

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The present work on “Stability Analysis in forage legume -Hedge lucerne (*Desmanthus virgatus* (L.) Willd) for yield and quality” was carried out across four locations in Kerala viz., College of Agriculture, Vellayani, College of Horticulture, Thrissur, KVK, Kollam and RARS, Ambalavayal, Wayanad, during 2016-2018 with an objective to identify stable genotypes of *Desmanthus virgatus* in varied environments with respect to yield and quality. The eight genotypes of hedge lucerne were evaluated in a Randomized Block Design (RBD) with four replications over four locations during 2017-2018. Eberhart and Russell model (1966) was used to analyze the stability and adaptability of yield and yield related characters of these genotypes. In the pooled analysis of variance for evaluation of hedge lucerne over locations, significant differences among the genotypes and environments were noticed for all the characters studied, suggesting that genotypes interacted significantly with environments. Stability analysis revealed that the genotype T₁ was stable over all locations for different characters such as plant height, number of branches, green fodder yield, dry fodder yield, dry matter production and crude fiber. The genotype T₄ was stable for the character's number of branches, leaf to stem ratio and crude protein across the locations. The genotype T₆ was stable over locations for the characters viz., plant height, length of branches and number of leaves, while the genotype T₇ was stable for leaf to stem ratio, number of pods and crude fiber. The present study revealed that the genotypes T₁, T₄, T₆ and T₇ were stable over the four different locations. The genotypes T₂ and T₈ showed stable performance under favorable environments, while the genotype T₅ was suitable for unfavorable environment.

Keywords: Hedge Lucerne, Quality, Stability Analysis, Yield