



## RESEARCH PAPER

# Influence of physiological responses on the establishment of turfgrass species under different methods of planting

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**Abstract :** The present investigation was carried out at College of Horticulture, V.R. Gudem, West Godavari district of Andhra Pradesh during the year 2014-15. Aim of the experiment was to find out physiological responses of turfgrass species to different methods of planting under humid tropical coastal conditions of Andhra Pradesh. The experiment was laid out in a factorial randomized block design with 4 turf grass species viz., Bermuda grass (*Cynodon dactylon*), Korean grass (*Zoysia japonica*), St. Augustine grass (*Stenotaphrum secundatum*) and Centipede grass (*Erimochloa ophiuroides*) planted with dibbling and turf plastering methods. Based on the results obtained it was concluded that dibbling method of planting and Bermuda grass species individually recorded significantly highest amounts of chlorophyll pigments, but their interaction effect was found non-significant. St. Augustine grass planted with dibbling method recorded significantly highest stolon fresh and dry weights (65.27 and 13.97 g, respectively). Bermuda grass planted with dibbling method of establishment recorded significantly highest values for root fresh and dry weights (10.14 and 5.09 g, respectively), root length density (12.99 cm/g<sup>-3</sup>) and root mass density (6.45 g/g<sup>-3</sup>). Korean grass planted with turf plastering method recorded significantly lowest stolon fresh and dry weights (26.53 and 6.34 g, respectively), root fresh and dry weights (4.48 and 1.94 g, respectively), root length density (6.04 cm/g<sup>-3</sup>) and root mass density (1.93 g/g<sup>-3</sup>).

**Key Words :** Bermuda grass, Korean grass, St. Augustine grass, Centipede grass, Chlorophyll, Stolon, Root

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