

**MORPHOLOGICAL CHARACTERIZATION OF SELECTED SRI
LANKAN TRADITIONAL RICE ACCESSION (*Oryza sativa*)**



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ABSTRACT

Traditional rice varieties, also called heirloom varieties, have been grown for generations using natural farming methods and sustainable practices. Framers have passed down the cultivation of these varieties, helping to preserve their genetic diversity. Main objective of this research was to evaluate the morphological characteristics of selected traditional rice accessions. Two weeks old rice accessions (3851, 3649, 3549, and 3565) were planted in Completely Randomize Block Design with four replicates using organic fertilizer. Days to fifth leaf (DFL), Plant Height (PH), Number of culms per plant (NC), Number of leaves per plant (NL) and Days to Flowering (DF) were collected. Two-way ANOVA were performed by using Minitab 17 version. There is a significant variation in plant height at DFL was noted, with accession 3851 having the longest flag leaves (60.75 ± 7.05 cm) and 3565 the shortest (25.75 ± 5.12 cm). Among tested four accessions, only two accessions, 3851 and 3649 flowered within the experimental period of time. Accession 3851 flowered at (90.5 ± 2.38 days), while 3649 flowered at (109 ± 2.58 days). There is a significant variation in Plant height at flowering stage was noted, 3649 (186.25 ± 16.78 cm) continuously had the highest mean number of plant height, while 3851 (137 ± 2.58 cm) continuously had the lowest mean number of plant height ($P < 0.05$). The correlation Matrix reported longer leaves tend to support higher leaf numbers and more culms. These relationships may influence growth performance and yield potential. This information will be a valuable inputs for future breeding programmes.

Key words: Morphological Variation, Sri Lankan Traditional Rice, Organic fertilizer

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