



Assessment of Tillering Behavior and Yield Traits in Traditional Rice Landraces and an Improved Variety for Germplasm Conservation

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Abstract

An experiment was conducted with eight rice genotypes (Latishail, Jhingashail, Hashikalmi, Kalamani, Shorishafuli, Lokkhibilash, Bamoni, and BRRI dhan92) to study their tillering behavior and its relationship to grain yield. The study was conducted under field conditions in a Randomized Complete Block Design (RCBD) with three replications, and all plots were managed using standard agronomic practices throughout the growing period. The genotypes showed clear differences in their growth and development. Significant variation was observed among the genotypes in tiller production, plant height, internode length, thousand-grain weight, phenological stages, grain characteristics, and leaf morphology. Among them, Latishail produced the highest thousand-grain weight, while BRRI dhan92 recorded the highest harvest index. In terms of maturity, Shorishafuli matured earlier than the other genotypes. Overall, the results show a wide range of variation among the genotypes, highlighting both the yield potential of improved varieties and the valuable traits present in traditional rice types, which are important for conservation and future breeding programs.

Keywords: Landraces, Tillering dynamics, yield, Rice genotypes, Germplasm conservation, Latishail

