

Evaluation of growth and yield attributing characteristics of indigenous Boro rice varieties

ABSTRACT

A field experiment was conducted to evaluate the growth, yield and yield attributing characteristics of 12 indigenous Boro rice varieties collected from South-Western regions of Bangladesh namely, Nayon moni, Tere bale, Bere ratna, Ashan boro, Kajol lata, Kojore, Kali boro, Bapoy, Latai balam, Choite boro, GS one and Sylhety boro. The experiment was laid out in a Randomized Complete Block Design (RCBD) with three replicates. Parameters on, growth parameter viz. plant height and number of tillers hill⁻¹ (at different days after transplanting); yield contributing characters such as effective tillers hill⁻¹, panicle length, number of grains panicle⁻¹, filled grains panicle⁻¹, thousand grain weight, grain yield, straw yield, biological yield and harvest index were recorded. The plant height and number of tillers hill⁻¹ at different days after transplanting varied significantly among the varieties up to harvest. At harvest, the tallest plant (123.80 cm) was recorded in Bapoy and the shortest (81.13 cm) was found in GS one. The maximum number of tillers hill⁻¹ (46.00) was observed in Sylhety boro and the minimum (19.80) in Bere ratna. All of the parameters of yield and yield contributing characters differed significantly at 1% level except grain yield, biological yield and harvest index. The maximum number of effective tillers hill⁻¹ (43.87) was recorded in the variety Sylhety boro while Bere ratna produced the lowest effective tillers hill⁻¹ (17.73). The highest (110.57) and the lowest (42.13) number of filled grains panicle⁻¹ was observed in the variety Kojore and Sylhety boro, respectively. Thousand grain weight was the highest (26.35g) in Kali boro and the lowest (17.83g) in GS one. Grain did not differ significantly among the varieties but numerically the highest grain yield (5.01 t ha⁻¹) was found in the variety Kojore and the lowest in GS one (3.17 t ha⁻¹).