

Optimizing of planting density on the growth and yield of aromatic fine rice in rainfed condition

ABSTRACT

A field experiment was carried out at the Bangladesh Institute of Nuclear Agriculture (BINA) farm, Mymensingh, Bangladesh during July to December, 2010, in view to find out the optimum plant spacing for the highest yield of aromatic fine rice grown in rain fed season. The experiment was carried out with four aromatic fine rice (V1= BRRI dhan34, V2= Ukunimadhu, V3= Basmati and V4= Kataribhog) and four different plant spacings (S1= 15cm×15cm, S2= 20cm × 15cm, S3= 20cm × 20cm, S4= 20cm × 25cm). The experiment was laid out in split-plot design with three replications assigning variety in the main plot and the spacing in the sub plot. It was observed that almost all the plant characters and yield were significantly affected by the aromatic fine rice and plant spacing. Among the spacings tested against the four varieties, the highest grain yield was obtained at 20 cm × 15 cm and 20 cm × 20 cm spacing. The spacing 20 cm×15 cm and 20 cm × 20 cm were proven more appropriate because it produced more number of effective tillers hill⁻¹ more number of grains panicle⁻¹ and ultimately produced the higher grain yield than other two spacings. Among the varieties Kataribhog, Basmati and Ukunimadhu produced higher grain yield at 20 cm × 15 cm and 20 cm × 20 cm.

Keyword: Spacing; Aromatic fine rice and yield