

Effect of number of seedling hill-1 on the growth and yield of aromatic fine rice varieties in rain fed condition

ABSTRACT

A field experiment was conducted at the Bangladesh Institute of Nuclear Agriculture (BINA) farm, Mymensingh, Bangladesh, during the rain fed condition in July to December, 2011, with a view to study the performance of aromatic fine rice under different number of seedling hill-1. The experiment was carried out with four aromatic fine rice varieties (V1= BRRI dhan34, V2= Ukunimadhu, V3= Basmati and V4= Kataribhog) and four different number of seedling hill-1 (N1= one number of seedling hill-1, N2= two number of seedling hill-1, N3= three number of seedling hill-1 and N4= four number of seedling hill-1). The experiment was laid out in split-plot design with three replications assigning variety in the main plot and the four different number of seedling hill-1 in the sub plot. Experimental result showed that aromatic fine rice varieties and number of seedling hill-1 individually had significant effect on the agronomic parameters except number of non-effective tiller hill-1, number of unfilled spikelets panicle-1, 1000-grain wt (g). The highest grain yield (2.32 t ha⁻¹) was obtained in Kataribhog, which, was similar to Basmati (2.31 t ha⁻¹) followed by Ukunimadhu. The highest grain yield was (2.31 t ha⁻¹) with two number of seedling hill-1 which was statistically similar to three number of seedling hill-1 (1.96 t ha⁻¹) but different from single number of seedling hill-1 and four number of seedling hill-1. The lowest grain yield were with one and four number of seedling hill-1 but straw yield (5.00 t ha⁻¹) was significantly higher with four number of seedling hill-1. Combined effect showed that two number of seedling hill-1 produced highest grain yield by all the variety. In later of number of four seedling hill-1 production of grain yield was decreased. BRRI dhan34, Ukunimadhu, Basmati and Kataribhog with two number of seedling hill-1 can be suggested in rainfed condition of Bangladesh.

Keyword: Number of seedling hill-1; Aromatic fine rice; Yield