Effects of soil amendment and nitrogen levels on growth, yield and nitrogen uptake by rice plant under saline condition in Noakhali District, Bangladesh

ABSTRACT

A field experiment was conducted to evaluate the effect of different soil amendments and nitrogen levels on growth, yield and N uptake by rice (cv. BINA dhan10) under saline soil condition. Treatments consisted of three FYM and gypsum combinations in main plot viz. M1: gypsum @ 210 kg/ha, M2: FYM 3 t/ha + gypsum 140 kg/ha and M3: FYM 6 t/ha. Three nitrogen treatments assigned in sub-plots viz. N1: 75 kg N/ha, N2: 100 kg N/ha and N3: 125 kg N/ha. The study revealed that the combination of FYM and gypsum with and N levels produced the maximum grain yield of rice (6.07 t/ha) under the treatment combinations of M1N3, i.e. gypsum @ 210 kg/ha along with 125 kg N/ha.

Keyword: Soil amendment; Nitrogen level; Saline condition; BINA dhan10