

Optimizing Seed Rate for Summer Mungbean Varieties

ABSTRACT

An experiment was conducted at the Agronomy Field Laboratory, Bangladesh Agricultural University, Mymensingh from March to June, 2007 to investigate the effect of cultivar and seed rate on morphological characters, yield attributes and yield of summer mungbean. The experiment comprised four varieties viz., BINA moog2, BINA moog5, BINA moog6 and BINA moog7 and four seed rates viz. 30, 40, 50 and 60 kg ha⁻¹. The experiment was laid out in a randomized complete block design with four replications. Results revealed that variety and seed rate had significant effect on the studied crop characters and yield. The variety BINA moog7 showed superiority in relation to plant height, number of branches and effective pods per plant, number of seeds pod⁻¹ compared to other varieties, which resulted in the highest seed yield both per plant and per hectare. The plant height, stover yield and number of non-effective pods per plant increased with the increase in seed rate, while branch number, number of effective pods per plant, seeds per pod, 100-seed weight, as well as seed weight per plant decreased with increasing seed rate. The higher number of branches and effective pods per plant, number of seeds pod, 100-seed weight and seed yield per plant were recorded at the rate of 30 and 40 kg seeds ha⁻¹ and the lowest values for the above parameters were observed at the rate of 60 kg seeds ha⁻¹. But per unit area basis, the highest seed yield was recorded in 40 kg seeds ha⁻¹ followed by 50 kg seeds ha⁻¹ due to accommodation of higher number of plants. BINA moog7 interacted favorably with the seed rate of 30 kg ha⁻¹ to produce the highest seed yield.

Keyword: Variety, Seed rate, Bio-fertilizer, Mungbean