SITE SPECIFIC NUTRIENT MANAGEMENT IN SOYBEAN (GLYCINE MAX L. MERRILL)

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Abstract: A field experiment was conducted during kharif season, 2008 on medium black clay soils (Vertisols) having pH 7.80 at Research Farm, College of Agriculture Indore (M.P.). To study the “Site specific nutrient management in soybean (Glycine max L. Merril)”. The experiment was conducted in randomized block design having nine treatments - T1 - Fertilizer dose as per farmers’ practice (50 kg DAP/ha), T2 - T1 + 40 kg S/ha through gypsum + 6.25 kg Zn/ha through ZnCl2, T3 - Recommended dose of fertilizer (RDF) i.e. 23.5 kg N, 60 kg P2O5, 23.5 kg K2O through DAP and MOP , T4 - T3 + 40 kg S/ha through gypsum + 6.25 kg Zn/ha through ZnCl2, T5 - 150% of RDF i.e. 35.2 kg N, 90 kg P2O5, 35.2 kg K2O through DAP and MOP, T6 - T3 + 40 kg S/ha through gypsum + 6.25 kg Zn/ha through ZnCl2, T7 - Soil test based RDF for 25 q/ha yield target (28.95:74.92:9.5 N:P2O5:K2O kg/ha given through DAP and MOP), T8 - T3 + 40 kg S/ha through gypsum + 6.25 kg Zn/ha through ZnCl2, T9 - Control. The treatments were replicated 4 times. The treatment T6 (150% RDF + 40 kg S + 6.25 kg Zn/ha) significantly produced maximum plant growth (i.e. plant height, branches/plant, dry matter accumulation, number of nodules/plant, leaf area/plant, LAI, chlorophyll content), seed yield/plant (10.03 g), biological yield (3400kg/ha), grain yield (1673 kg/ha) and straw yield (1727 kg/ha) followed by T5 (150% RDF), while gross income was highest (Rs. 31841/ha) with treatment T1 (150% RDF+ 40 kg S + 6.25 kg Zn/ha).

Key word: Nutrient management, Soybean

REFERENCES


