

Effect of integrated nutrient management on production potential and quality of mungbean under custard apple based agri-horticultural system

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ABSTRACT : An experiment was conducted during *kharif* seasons of 2009 and 2010 to find out the effect of integrated nutrient management on crop growth, yield attributes, yield and quality of mungbean under custard apple based agri-horticultural system. Increasing the fertility level significantly increased the growth, yield attributes, yield, protein content and nutrient uptake by mungbean. Application of RDF+FYM 5 t/ha registered maximum growth attributes, number of nodules, nodules dry weight, yield attributes and produced 8.42 and 5.1 per cent higher seed yield (1060.57 kg/ha) over RDF (978.14 kg/ha), and RDF+FYM 2.5 t/ha (1009.57 kg/ha), respectively. Fertility level RDF+FYM 5 t/ha similarly registered highest protein content (22.34%), protein yield (238.37 kg/ha) and nutrient uptake (85.65:9.47:75.33 :: N:P:K kg/ha). Mungbean produces maximum response with biofertilizer + Mo 1.0 +Co 1.0 kg/ha in respect to growth, yield attributes, nodule number, nodule weight and 41.24 per cent higher grain yield over control (841.33 kg/ha). Protein content (24.21%), protein yield (287.79 kg/ha) and nutrient uptake (100.47:11.34:87.62::N:P:K kg/ha) were also recorded maximum with biofertilizer + Mo 1.0 + Co 1.0 kg/ha.

Key Words: Agro-horticulture system, cobalt, molybdenum, mungbean, phosphorus, quality, yield.