

ABSTRACT

EFFECT OF COMBINATION DOSE OF *Azolla pinnata* AND PHOSPHATE FERTILIZER ON THE GROWTH AND PRODUCTION OF KIDNEY ERECTED BEAN (*Phaseolus vulgaris* L.)

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Many efforts have been made to increase the productivity of bean, including improving cultivation techniques. Improvements in cultivation techniques are carried out to increase the productivity of bean, including the use of balanced organic and inorganic fertilizers as soil fertilizers to meet plant nutrients. The aims of the research is study to determine the right combination of azolla compost and phosphate fertilizer doses on the growth and yield of kidney erected bean . This research was done in the plastic house, in Sukamantri sub-district, Ciamis district on May to July 2022. This research was arranged based on Completely Block Design with 6 treatments, namely: A without azolla compost and phosphate fertilizer (control), B (4 t/ ha of azolla compost + 150 kg/ha of phosphate fertilizer), C (4 t/ha of azolla compost + 200 kg/ha of phosphate fertilizer), D (5 t/ha of azolla compost + 150 kg/ha of phosphate fertilizer, E (5 t/ha ha of azolla compost + 200 kg/ha of phosphate fertilizer, F (6 t/ha of azolla compost + 150 kg/ha of phosphate fertilizer), G (6 t/ha of azolla compost + 200 kg/ha of phosphate fertilizer). Each treatment was replicated 4 times. Data were analysed using analysis of variance with F test and continued with Duncan's Multiple Test with 5% of critical value. The results of the research showed that 6 t/ha of azolla compost + 150 kg/ha of phosphate fertilizer had an effect on plant height, number of leaves, number of pods per plant, pod length, pod weight per fruit and pod weight per plant.

Keywords : Azolla compost , phosphate fertilizer, kidney erected bean.