EFFECT OF DIFFERENT LEVELS OF POTASSIUM FERTILIZER ON GROWTH, YIELD AND QUALITY OF RADISH

(*Raphanus sativus* L.)

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ABSTRACT

The experiment was conducted to study the effect of different levels of potassium fertilizer on growth, yield and quality of radish (*Raphanus sativus* L.), Beeralu variety in the Crop Farm, Faculty of Agriculture Eastern University, Sri Lanka during the period of June to August 2018.

This experiment was laid out in a Randomized Complete Block Design (RCBD) with five treatments viz., T1 = no potassium fertilizer, T2 = 90 kg K/ha, T3 = 110 kg K/ha, T4 = 130 kg K/ha (recommended) and T5 = 150 kg/ha and four replicates. Agronomic practices were carried out as per Department of Agriculture, Sri Lanka.

At 45 days after planting (DAP), the number of leaves, tuber length, diameter of the tuber, fresh weight of shoots/plant, dry weight of tuber/plant, ash and pH increased with the increasing potassium fertilizer level and maximum was recorded with 110 kg K/ha and further increase in the level of potash fertilizer had no effect on above parameters. The rate of application of potassium fertilizer increased the yield by 68.91 % over the control treatment.

The results suggest that marketable yield could be increased by 69% by increasing the potash fertilizer from 0 to 110 kg/ha and a further increase will decrease the yield. This rate of application of potash (110 kg/ha) is lower than the recommended rate (130 kg/ha) of application and thus saving money.

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