EFFECT OF PLANTING SPACE, NUTRIENTS LEVEL AND CROP DURATION ON THE PRODUCTION OF SMALL TUBERS IN CV. KUFRI JYOTI

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A field experiment was conducted at Patna in randomized block design with nine treatments and four replications. The treatments included two planting space, two levels of nutrients and two crop durations. In control treatment, the crop was raised through seed plot technique. Yield as well as number of small tubers (10-40 g) increased significantly with closer planting space (60 x 10cm) and lower level of nutrients (100, 35 and 67 kg N, P and K), while the yield and number of bigger size tubers were significantly higher at wider spacing and higher level of nutrients. Yield and number of total tubers were increased significantly with decrease in planting space. Total tuber yield was increased significantly from 219.4 q/ha to 237.8 q/ha due to increase in N & P level from 100 and 35 to 150 and 52 kg/ha, respectively. Yield of small and total tubers were recorded significantly higher when duration of crop was increased from 70 to 80 days. Number of small tubers (10-40g) and total tubers were also increased due to increase in crop duration but the difference was non-significant. Seed multiplication rate as well as benefit cost ratio was recorded higher at wider planting space, higher nutrients level and at longer crop duration. The maximum benefit cost ratio of 1.88 was received in control treatment.

INFLUENCE OF N, P AND K FERTILIZATION ON YIELD AND QUALITY OF POTATO IN EASTERN UTTAR PRADESH

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Three field experiments, one each for N (0, 80, 120, 160 and 200 kg/ha), P\(_2\)O\(_5\) (0, 50, 100, 150 and 200 kg/ha) and K\(_2\)O (0, 50, 100, 150 and 200 kg/ha) were carried out, with other two incorporated as standard dose (N: 120, P\(_2\)O\(_5\): 60 and K\(_2\)O: 80 kg/ha) at Varanasi to find out the best NPK combination for eastern Uttar Pradesh. Increasing doses of N, P and K up to 200 kg/ha improved tuber yield. However, tuber yield and related yield traits significantly improved only up to 120, 100 and 100 kg/ha of N, P\(_2\)O\(_5\) and K\(_2\)O, respectively. Per cent dry matter and starch content were significantly higher at lower levels of N and K.