

GROWTH RESPONSE OF *PINUS ROXBURGHII* SEEDLINGS TO NPK FERTILIZERS

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1-year old healthy plants of *Pinus roxburghii* (Bazkhan Seed source) grown in polythene tubes (7.5 x 18 cm) filled with 50 : 50 sand-soil mixture, were arranged for this study. Initial height of plants was recorded. The following fertilizers were added in a water solution, 50 ml to each tube, on 1-5-1979:

- N 60 mg urea/tube (46% N)
- P 318 mg single superphosphate/tube (20% P₂ O₅)
- K 30 mg potassium sulphate/tube (50% K₂ O)

Each treatment of 20 plants was replicated 3 times. To eliminate the possibility of nutrient loss due to leaching through polythene tube holes, each tube was placed in an another unperforated tube of a larger size. Individual plants were hand-watered once a week. The experiment was wound-up on 1-12-1979.

In order to evaluate the response to fertilizers treatment, plants with intact root system were thoroughly washed with tap water. Shoot diameter at collar level and shoot length were recorded. Plants were oven-dried at 110°C for 24 hours and dry weight was taken. The average height, diameter at collar and oven-dry weight of shoot were as follows:

Treatment	Height (cm)	Diameter at collar (cm)	Shoot oven- dry weight (gm)
Control	3	0.3	20
N	6	0.4	28
P	8	0.5	30
K	3	0.3	24
NP	9	0.5	34
NK	8	0.4	30
PK	9	0.5	34
NPK	14	0.6	46

The above data indicated that N and P increased growth significantly and K did not. The combination of NPK was synergistic;

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