

## **EVALUATION OF PERFORMANCE OF SOME EXOTIC POPLAR CLONES UNDER NURSERY CONDITIONS IN BIHAR, INDIA**

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**ABSTRACT :** In search of promising clones suited to different soil regimes of Bihar, a nursery trial at Pusa, Basudeopur, and Sabour of forty clones received from Forest Research Institute, Dehradun, Silviculturist Sal, Haldwani and AICRP on Poplar Pusa was conducted. Statistical analysis for eleven growth characters, viz., survival percentage, plant height, collar diameter, number of branches, angle of branches, diameter of branches, length of branches, total number of leaves, leaf area, stem length at 1<sup>st</sup> branch and taper was done. The maximum average pooled clonal height (3.88 meter) of the three sites was recorded in 'A-194' followed by '23-N' , '43-N' and 'L-34/82'. The minimum mean height of 2.75 m was recorded in '82-33.3'. Pusa was the best site with an average height of 3.83 m followed by Sabour (3.21m) and Basudeopur (2.31 m) respectively. The maximum mean or pooled collar diameter of 3.19 cm of the three sites was exhibited by 'A-194' followed by 'S7C2' and 'L-34/82'. The minimum diameter (2.17 cm) was observed in '82-33.3'. At Pusa, the clones registered a maximum average height growth and also responded in the same manner for collar diameter with an average of 2.83 cm followed by 2.77 cm and 2.11 cm at Sabour and Basudeopur, respectively. On the basis of plant height and collar diameter, the clone 'A-194' and 'L-34/82' were better performer at all the three sites under study. Theses clones are being further tested in different nurseries, situated in different agro-climatic conditions, of R.A.U., Pusa for large scale plantation programme.

**Key words :** *Clone, Collar diameter, Plant height, Populus deltoides, Survival percentage.*