Short Communication

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Heritability, genetic gain and correlation among progenies of *Pongamia pinnata* (L.) Pierre for morphological traits

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Abstract

Sixteen progenies of *Pongamia pinnata* were selected from the progeny trial consisting of forty progenies collected from the states of Punjab and Haryana and subjected to the field conditions to identify promising progenies for future afforestation programmes. Based on field performance after 4 years of planting, the estimates of phenotypic and genotypic coefficients of variation reflected the presence of a large amount of genetic variability for diameter at breast height (DBH), the number of branches, intermodal length and their mean annual increments (MAI) and reasonable amount of genetic variability for tree height. Heritability estimates reflected the predominance of heritable variation for all the characters under study. The estimates of genetic advance as percentage of mean suggested the potentiality of the progeny material for the improvement of DBH, number of branches and intermodal length through selection. Significant positive correlation was observed between DBH and tree height. Path analysis revealed that tree height and mean annual increment of DBH had the highest direct effect on the number of branches and can be used as selection criteria for improving this species. Progeny number 9, 10 and 14 were found to be best based on most of the characters.

Keywords: Correlation, *Pongamia pinnata*, Progeny, Variation