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Estimation of genetic parameters in *Pinus tecunumanii*

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Pinus tecunumanii occurs naturally in regions from southern Mexico to Nicaragua. It has high growth potential, especially mechanical wood. The genetic variability of population phenotypic characters represents an important technique in plant breeding programs as it provides useful information for conservation. The main purpose of this work was to estimate genetic parameters of *Pinus tecunumanii* for silvicultural growth traits. The trial was established in November 1991. The test area was located in the municipality of Assis, São Paulo State, Brazil. Seeds from two provenances of *Pinus tecunumanii* of Guatemala (Bosque San Jerónimo, Salamá, Baja-Verapaz and San Vicente, Salamá, Baja-Verapaz). The experiment used randomized complete blocks, spaced 3 × 2.5 m, with two treatments (two origins), four replications (blocks) and 49 plants per plot. The diameters at breast height, height, and volume data were available. The analysis of deviance and the estimates of genetic parameters were performed according to established REML/BLUP procedures. The diameter at breast height and height and volume averages were 25.85 cm, 18.42 m and 1.10 m³, respectively. Significant difference was observed between provenances for the character height (5.67*). This result confirms the existence of a significant variation phenotypic characteristics only in height. Furthermore, this trait should be considered in breeding programs. The individual heritability for height was 0.10. The individual results of the San Vicente, Salamá, Baja-Verapaz origin showed more genetic values than the Bosque San Jerónimo, Salamá, Baja-Verapaz. This indicates provenances should be prioritized for future breeding program.