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Genetic variation in *Pinus caribaea* var. *hondurensis* progenies for resin production**Wanderley dos Santos¹, Daniela Araújo¹,
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Pinus caribaea var. *hondurensis* is the most important species of the genus *Pinus* planted in tropical regions. Its wood and resin are used widely for different purposes in forest sector. However, few private companies and public institutions perform the supply of seeds with high genetic quality. The main purpose of this work was to estimate genetic parameters and gain of *P. caribaea* var. *hondurensis* progenies for resin production. The progeny trial was established on June 1986 in municipality of Selviria, Mato Grosso do Sul state, Brazil. The trial was established in a 10 x 10 triple lattice design, with 100 treatments (96 progenies from a clonal seed orchard of *P. caribaea* var. *hondurensis* and four commercial control), with linear plots of ten plants in spacing 3 x 3 m. Twelve years after planting was applied thinning based on silvicultural traits and leaving six plants per plot. At 27 years old resin production of the remaining individuals was measured. Analysis of deviance and estimates of genetic parameters were performed according to REML/BLUP procedure. Significant difference was observed between and within progenies at 1% probability level for resin production and dbh. This result confirms the existence of significant variation phenotypic. Additive genetic effects may explain the most of this variation. Furthermore, significant genetic gains can be achieved with different selection strategies. Individual genetic variance coefficient was 26.52% and 9.17% for resin production and dbh, respectively. The Individual narrow-sense heritability was 0.30 and 0.26 for resin production and dbh, respectively. Genetic correlation between dbh and resin production traits was positive, but not significant. Therefore, different selection methods should be proposed separately for both traits. *P. caribaea* var. *hondurensis* progeny trial showed good growth performance and resin production, and sufficient genetic variation to attend the next generations of breeding and commercial plantations.