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GENETIC VARIABILITY FOR FRUIT CHARACTERS IN SEGREGATING POPULATION OF ORNAMENTAL CHILI PEPPER

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RESUMO

The high demand of ornamental chili peppers associated with the low numbers of cultivars availables have stimulated new pepper breeding programs (*Capsicum* spp.) for this goal in Brazil. The *Capsicum* breeding program of UNIMONTES realized one experiment with the goal of estimate genetic parameters characteristics related to the fruit, detecting the possibility of being considered for selection. For this, an ornamental pepper segregating population (F2) coming from the crossing between UNI 05 and UNI 01 genotype were used. This population, with, 201 genotypes, were conducted under controlled growing conditions. The genotypes were planted in five-liter nursery pots filled containing a mixture of clay soil, coarse sand and bovine manure (1:1:1). Upon reaching the fruit production stage, five fruits of each genotype were collected for evaluation of variables averages: fruit length, fruit diameter and pericarp thickness (FL, FD and FPT, respectively). Obtaining of variance components and genetics and phenotypic estimates were made from hope of medium squares. Phenotypic variance (Vf), genotypic variance (Vg), environmental variance (Ve) and heritability (h^2a) were estimated. It was observed that genetic variability could be explored in all considered variables. The variable FL obtained the estimates: Vf (28.51), Vg (21.8), Ve (6.63) e h2a (76.7%). Para FD os valores foram: Vf (2.74), Vg (2.06), Ve (0.68) e h2a (75%). As for the FPT: Vf (0.02174), Vg (0.01373), Ve (0.00801) e h2a (63.1%). Heritability results stand out, considered average to high, in the quantitative variables evaluated. It can be concluded that the segregated population evaluated has genetic variability that can be explored, considering the characters related to the fruit and that these can be used to selection, in this stage, since they presented considerable heritability.

PALAVRAS-CHAVE: Capsicum, heritability, plant breeding

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