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GENETIC DIVERSITY IN SEEDS OF LIMA BEAN LANDRACES

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RESUMO

Lima beans are widely cultivated by small farmers in the northeast region of Brazil. Landraces or local varieties of this legume have a notable genetic diversity observed in their color, size and shape patterns. The objective of this work was to study the genetic diversity of lima bean landrace seeds. Characterization of 16 genotypes of lima beans was carried out based on descriptors recommended for the crop. For this purpose, 10 seeds of each genotype were selected at random. The evaluated characters were: background color, standard and second color with seed pattern, integument pattern, shape, length, width and thickness of the seed. The data obtained for the qualitative descriptors were analyzed based on frequency graphs. Regarding the quantitative characters, analysis of variance and the Turkey test were used. The analyzes were performed with the aid of the Genes program. Variability was observed for background color of the seed, varying from white, gray, light brown to black, with white (69%) being predominant. There was an absence for standard color (56%), second standard color (88%) and seed coat (63%). The shape of the seed showed two distinct patterns, spherical and elliptical. The seed length ranged from 11.26 mm to 17.74 mm and the values for width ranged from 8.80 mm to 12.33 mm. The varieties UFPI1350 and UFPI1270 stood out for having, respectively, the lowest and highest averages for these characters. The thickness showed a variation from 5.28 mm to 7.22 mm. The predominance of white color with different sizes in native seeds of lima beans reflects the selection criteria practiced, over the years by farmers, since these attributes are more accepted by the consuming public. This study provides useful information for maintaining the genetic variability of local varieties of lima beans in the northeastern region of Brazil.

PALAVRAS-CHAVE: Morphological characterization, *Phaseolus lunatus* L, Local varieties

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