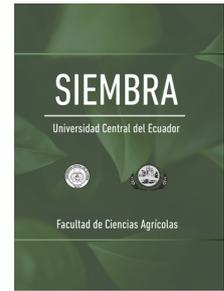


Genetic diversity of lima bean in Brazil

Diversidad genética del Frijol Lima en Brasil

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Lima bean (*Phaseolus lunatus* var. *lunatus*) is the second most cultivated and consumed species, from *Phaseolus* genus, in Brazil as compared to common bean (*Phaseolus vulgaris*). This plant species can be found widely and with high diversity in all ecogeographic regions, highlighting the Northeastern, Brazil, where lima bean presents greater genetic diversity in landrace genotypes. Unfortunately, national surveys do not discriminate *P. lunatus* and *Vicia faba* (known as “fava”). Thus, the available information become unclear how are the representativeness and importance of each of these legume species in Brazil. The highest diversity of beans, in general, is found in the Northeastern region, Brazil. Since this region is considered as the poorest region, beans are an important part of diet to population, mainly due to their high content of protein. However, there are particularities about lima bean, such as its representativeness in regions of high altitude, being mostly the main source of protein. In other regions, lima bean usually represents a special type of food. Regarding the origin of the Brazilian germplasm of lima bean, studies indicate the presence of genotypes from three known gene pools, and the geographic location of Brazil favors this assumption. It can support the hypothesis that Brazil is a center of domestication. There is information about wild genotypes collected in the Central region of Brazil. In terms of ex situ conservation, the Active Germplasm Bank of *Phaseolus* from Federal University of Piauí (BGP/UFPI) was established in 2003, and conservates landraces obtained from local smallholders and sellers. Currently, the BGP/UFPI has 1,345 genotypes (updated in February 2020) mainly obtained in Brazil.

Keywords: *Phaseolus lunatus*, Northeastern, Brazil, germplasm bank.

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