

P31 **Isoenzymatic variability in populations of *Lupinus* from Beira Interior**

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Isoenzymatic studies were performed in order to study the variability of *Lupinus* spp. populations from Beira Interior region.

Thirty accessions of *Lupinus* (*L. luteus*, *L. albus*, *L. angustifolius* and *L. hispanicus*) from Beira Interior region were studied.

The zymograms were obtained by polyacrilamide gel electrophoresis (PAGE). Extracts were prepared from young leaf and cotyledons tissues. Four enzyme systems were studied: aspartate aminotransferase (AAT), esterase (EST), acid phosphatase (ACP) and malate desidrogenase (MDH).

Isoenzyme polymorphisms were found for all the enzyme systems studied. The comparative analysis of AAT and MDH zymograms show interspecific variation and made it possible to identify the four species studied. Significant intraspecific variation was found in EST and ACP zymograms; however intrapopulation variation was also detected and the different populations could not be distinguished inside each species.

The existence of a greater genetic proximity between *L. luteus* and *L. hispanicus* was detected.