

An Isoenzyme Study of Several Species
of the Lotus corniculatus Group

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The study consists of a survey of isoenzymes of five species including Lotus corniculatus and four closely related diploid species, L. tenuis, L. uliginosus, L. alpinus and L. japonicus, which have been proposed as possible progenitors of the cultivated tetraploid species.

Preliminary investigations examined staining profiles of some 20 enzymes separated by starch gel electrophoresis. Of these enzymes, seven were found to display banding patterns that were clear and consistent enough to be of use to characterize genetic differences among the genomes of all of the species. These enzymes have been used to characterize the genomes of several populations of each of the diploid species and Lotus corniculatus, as well as those of interspecific hybrids and of allo- and autotetraploids. Research also includes genetic analysis of the inheritance of the banding patterns. The study is nearing completion and will be written up and submitted for publication during 1987.