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Cytogenetic Substances in Lotus Species

Incompatibility in *Lotus corniculatus*

A survey is being carried out on the occurrence of cytogenetic

The influence of self-pollination, cross-pollination, and absence of pollination on ovary protein subunit banding patterns using SDS-polyacrylamide gel electrophoresis was examined in clones of *Lotus corniculatus* L. cultivar 'Mirable'. Banding patterns from self-pollinated florets revealed the highest overall protein content and the largest amount of bands of the three treatments, whereas cross-pollinated florets revealed the lowest overall protein content and the smallest number of bands. Banding patterns differed between treatments within clones. All clones examined produced more seed per pod and longer pods after cross-pollination than after self-pollination, indicating that self-incompatibility did occur in these clones. Ovule position did not appear to affect the possibility of fertilization of an ovule. Further research is needed on the genetics of self-incompatibility in this species to permit establishment of clones with well-defined compliments of incompatibility alleles.