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Czech J. Genet. Plant Breed.

Hybridization of cultivated lentil *Lens culinaris* Medik. and wild species *Lens tomentosus* Ladizinsky

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Cultivated lentil *L. culinaris* was crossed to the wild species *L. tomentosus* ILWL90 and ILWL120. An ovule rescue technique was used to overcome interspecific incompatibility. Out of 296 hybrid ovules being planted *in vitro* 27 explants began to grow and three hybrids were recovered. A hybrid between *L. culinaris* and *L. tomentosus* accession ILWL90 was obtained by means of ovule recovery only. F_1 plant and next generations of the hybrid were either sterile or partly fertile. Hybridization with *L. tomentosus* accession ILWL120 was achieved by ovule culture as well as in a usual way i.e. without ovule culture. Seed progenies of these hybrids were fertile in both cases.

Breeding lines recombinant in flower, seed coat and cotyledon coloring were developed as a result of multiple regular selection for highly productive plants in $F_2 - F_7$ (*L. culinaris* × *L. tomentosus* ILWL120).

Keywords:

interspecific hybridization; *Lens culinaris*; *Lens tomentosus*; lentil; ovule rescue

[fulltext]