

UTILIZATION OF IN VITRO CULTURES IN BRASSICA NAPUS BREEDING

Miroslava Vyvadilová, Sylva Zelenková

Research Institute of Plant Production, Prague 6-Ruzyne,
Czechoslovakia.

Embryoid development was induced in anther cultures by single low /O/ winter rapeseed variety Jet Neuf, double low /OO/ winter variety Darmor and by new selection SL-502. The optimum cultivation procedure was determined for these genotypes. We achieved the induction of indirect androgenesis in variety Darmor. The obtained plants were cytologically evaluated and diploidized by colchicine treatment.

Direct organogenesis from terminal and axillary meristems and bud multiplication were achieved.

Conditions influencing the regeneration of callus cultures originating from terminal and axillary meristems, cotyledons, hypocotyls, roots, stem discs, leaves and petioles on solid and liquid media were studied. We achieved regeneration of shoots in calluses derived from axillary meristems, stem discs and cotyledons.

The above mentioned methods are used for the production of breeding material.