

In Ovulo Embryo Culture Technique Application in Grapevine Breeding Program

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Grapevine breeding program to find new superior seedless culture is one of the most important priority in grapevine industry. Among different techniques, in ovulo embryo culture to rescue the embryo has obtained high importance due to its high potential in hybridization seedless grapes. In this research work, the technique was implied in four Iranian seedless cvs (Red Seedless, Yaghooti, Green Keshmeshi & Askary) and one recently imported cv. i.e. Flame Seedless.

Ovule were dissected out of berries at 30, 40, 50, and 60 days after flower opening and culture in Nitsch & Nitsch (1969) medium including $1 \mu\text{M GA}_3$, $10 \mu\text{M IAA}$ & 2 g/l activated charcoal. Embryo rescue and its germinated was carried out successfully in cvs Flame Seedless, Yaghooti & Askary, While it did not work for cvs Green Keshmeshi and Red Seedless.

It was found that 40 days after flowering is optimum timing for first three cvs. In which ovule germination reached 10.2 % success rate for cv. Flame Seedless.