Grapevine Breeding to obtain high quality table and raisingrapes

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Breeding grapevine to obtain new table grapes cvs with outstanding criteria such as large seedless firm berries with good taste and flavor which can be ripen earlier and also to be tolerant to adverse climatic condition as well as pathogens is one of the most important priorities in grapevine industry.

In table grape breeding program, different methods can be employed including traditional method and getting advantage of ovule and embryo rescue techniques. In this research work, we evaluated 90 grapevine cvs in our collection in research center of Department of Horticulture. This work was ended with selecting some large & firm seeded cvs as a male parents & seedless cvs as male parents. 10 inflorescences of any selected seeded cvs for each male parent were emasculated at the time of first flower opening and pollination was done twice in second and third day. Seeds were collected at ripening time, stratified and sown. At present time our progeny seedlings are growing to be evaluated later.

In another approach, we studied anatomical aspects of seed abortion in our seedless cvs which determined mechanism and time of pro-embryo abortion. later on, ovules were dissected out of berries at different times and were cultured in Nitsch and Nitsch medium. The results showed that in some seedless cvs, some pro-embryo could continue even up to 6 weeks. However in others most pro-embryo degenerated even before 3 weeks. Some progeny are obtained with this technique from seedless female parents and whole project is going on to get more desirable results.