

## The Study of Germination of Hybrid Seed in some Sweet Cherry Cultivars

Hossein Fathi<sup>1</sup> and Kazem Arzani<sup>2</sup>

1- Student of M.Sc. program in Horticultur ,Tehran Science & Research Unit

2- Assistant Professor , Department of Horticultur ,Tarbiat Modarres University, Tehran

Optimal germination of Hybrid seeds of fruit trees is of special importance in the study of the progeny resulting from hybridation in fruit trees breeding. There are some problems in the germination of some fruit cultivars such as peach and sweet cherry. In order to study the factors affecting the germination of hybrid seeds of sweet cherry and to remove the existing obstacles ,the germination of some hybrids of sweet cherry cultivars were studied in this research. In this study , the sweet cherry of Siah Mashhad (A) was used as the pollen parent and the cultivars of Zarde Daneshkadeh sweet cherry (B) , soraty Lavasan (C), sefide Rezaieh (D) ,Haje Yousefi (E) ,Protiva (F) , Lambert (G) ,Sileg Blady Baryon (H) as seed parent were used in the production of hybrid seeds. The resulting seeds were put under different treatments of stratification for 3,4,5 and 6 months based on the statistical plan of Split-Plot. The findings showed that in 3-month stratified treatment none of the seeds germinated while in 4-month stratified treatment ,the hybrid seed of sweet cherry with soraty Lavasan seed parent (AxC) and Lambert (AxG) showed germination for 6.6% and Zarde Daneshkadeh (AxB) and Sileg Blady baryon (AxH) 13.3% . The 5-month stratified treatment increased the germination rate in hybrid seeds with seed parent of Zarde Daneshkadeh (AxB) and Sileg Blady baryon (AxH) to 26.6% and soraty Lavasan (AxC) to 33.3% and sefide Rezaieh (AxD) to 13.2% (AxG) and Lambert (AxG) to 20% . In 6-month stratified treatment , this increase reached 26.6% in hybrid seeds