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INVESTIGATION SUITABLE TIME FOR REMOVAL TRUNKS AND CANES OF THE VINE FROM THE SOIL OR MUD FOR PREVENT OF SPRING FROSTS

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Due to the high dependence of the proceeds from the production of grape growers in many parts of the Iran, the occurrence of spring frosts can sometimes cause considerable losses in their annual livelihoods. Due to the development of grape vines in cold regions, many farmers in 'kazandeh' training system, grape trunks and canes immune from freezing damage are buried vines by soil or mud in fall and winter seasons. But the best time out of plants from the soil or mud and study plant behavior to spring frostbite and Radiative frost, there have been no scientific research in the Iran and other countries. The purpose of this investigation was to determine the best time out of vines, 'BidanehSefide' cultivar, from the subsoil or submud late winter period to early spring. The experiments were carried during the two years and four experiments in randomized complete block design (RCBD) in the vineyards of Shazand, Iran. Vinery are approximately 40 years old. In every period One experiment was been about treatments times out of removal trunks and canes of soil or mud and another about treatments amount of Solution carbohydrate, prolin and water content buds. In each period of experiments occurs natural frost. The results showed that spring frostbites have been type of Radiative Frost. On 26th April 2015 temperature was - 0.2 ° C and wind speed was 6 m/s and3th April 2015 temperature was 0 ° C and and wind speed was 6 m/s. The results showed that for preventing damage to vines and achieving highest percentage of fruiting buds, the second decade of April, is the most appropriate time for removal of the plant from the soil or mud.

Keywords: cold regions; 'Kazandeh' training system; freezing damage; buried vines; Radiative frost