Investigation on the effects of the climate on different walnut clones and varieties

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Due to recent policy in walnut development program in Iran and also in order to obtain new and suitable varieties, this research was conducted to determine and recommend the best varieties and new promising clones to the grower as soon as possible .

This study was done to compare 8 foreign commercial varieties from France (through FAO) with 7 promising Iranian walnut clones, selected from 250 superior Iranian genotypes in a previous research done in 1984-1998 . This study was done in an alpha lattice design on the walnut orchard at the SPII Horticulture Dept. Karaj,1994-1998 . Preliminary results on 5 years- old trees are as follows:

1- In general, most young grafted trees are more sensitive to freezing cold, where some parts of the crown trees as current shoots and some parts of their arms have been injured and died back. The most sensitive are trees from Vina and Serr cvs., while in the second group Hartly- Franquette cv., Z67 and B21 . clones.

2- Some Iranian clones, such as Z53 and a foreign cv. Serr were categorized in the earliest leafing date, Round the Montignac and Franquette cvs. are in the last leafing date group, clones B21; Z67 ;K72; Z69; and Serr cv. are located in the mid-early leafing date group.

3- The highest yield belongs to Z67 with 2900 kg/ha ., while in the second group are B21, and Pedro cv. with 1600 and 1300 kg/ha., respectively.

These yields were obtained on 5 - year- old trees on high desity planting