

Investigation on some Vegetative Propagation Methods in Feijoa

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Feijoa (*Feijoa sellowiana* Berg.), a subtropical shrub, is usually propagated by seed which germinates without difficulty, but the produced seedlings are genetically segregated. Cultivars can be propagated by vegetative methods and still, particularly in Iran, many little is known about the rooting of the cuttings of feijoa or its grafting methods.

Therefore in this thesis, the experiments were done to study rooting of the cuttings and the grafting and layering of this crop. Experiments in rooting of cuttings were conducted in a randomized complete block design in which factors such as times of cutting preparation, hormonal concentration, media and different sections of shoot were studied. The investigations were independent, one from each other, and were done at different times and places.

After two years of continuous hard trial and having completed more than 19 independent experiments, We finally could obtain some rooting of the cuttings. At the beginning of September 1996, cuttings with 8 to 10 cm in length and with two leaves were taken from plants with round- ellipsoidal fruit shape and were treated with IBA at 150 PPM for 4 hours. The cuttings then were planted in a medium, a mixture of equal parts sand and perlite, under mist condition in a plastic tunnel. Semihardwood cuttings showed a 15 percent rooting after a period of 4 to 5 months. Hardwood and leafy cuttings showed no rooting.

In the spring and the autumn of 1996, kinds of grafting were examined in a randomized complete block design with 3 replications that only a single cleft