

TIP-GRAFT OBSERVATIONS

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The tip-graft method is rather new in the propagation of avocado nursery trees. The method has many advantages, and some disadvantages that may be overcome.

The seeds are usually planted in thirty-pound roofing paper containers, five and one-half inches in diameter by twelve inches tall, open at both ends. A mixture of peat moss, dirt, and sand is used—or in some cases good well drained soil is used alone. The planting time is very important. In a good many instances, the seeds have been planted too late for the best results. Guatemalan seed or stored Mexican seed planted in August or September will develop a sturdy tree by February or March with proper care.

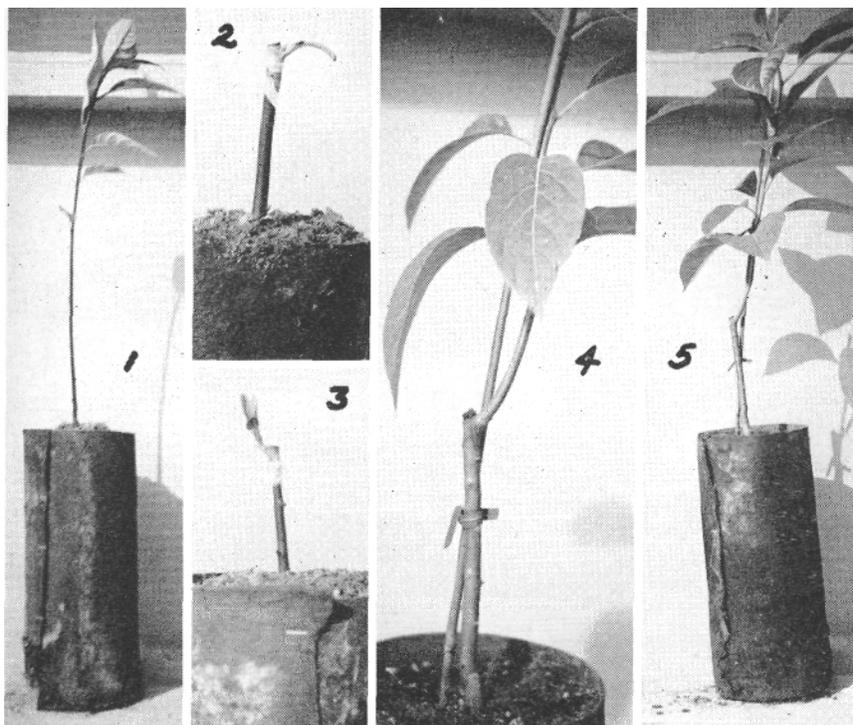
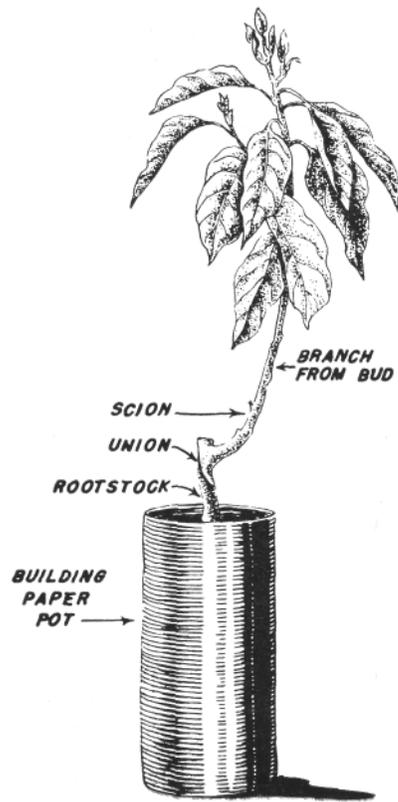
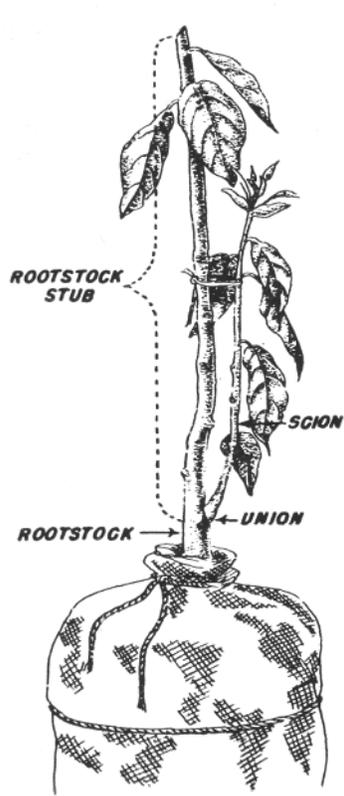
The grafting can be accomplished in October through December, providing the proper temperatures are maintained in the growing house. There is usually good bud wood to be had at this time of the year. The grafting is accomplished by cutting the succulent seedling tree on an angle with a sharp, narrow bladed knife when the tree is about pencil size. A piece of graft wood one inch in length, of the same caliper, is cut on a like angle. The two cuts are matched, then wrapped with rubber or plastic material; and the top cut of the graft wood is painted with some good pruning compound. The usual suckering and weeding is then maintained.

The tip-graft method produces a faster growing young tree due to the fact the root system is not disturbed by numerous transplantings and the tree is grown under controlled temperature conditions. It has been the writer's observation that young avocado trees do much better if they have not been stopped in their growth in any way.

Under this method of propagation, the tree is planted in the field without disturbing the root system at any time. There is no pruning of the tree or cutting of the roots at the time of planting, thus allowing the tree to continue its normal fast growth.

It is apparent that many tip-grafted trees have been planted without proper elimination of low-grade nursery stock. This should be checked carefully in the future to insure a more uniform tree growth in the orchard.

It has been said that tip-graft trees take more care after planting than some of the other types of nursery trees, I would rather say some of the other types will take more "lack of care", but under proper management there should be no difference. In fact, due to the vigor of the trees and the low-growing foliage on the tip-graft, less sun protection is needed. The graft being low, the union may be protected from severe frosts by mounding dirt around the bud union.





Rodent control in the past has been a problem, but some of the new rodent control materials have been working satisfactorily, or a one inch wire mesh screen can be used around the tree to good advantage.

The first month or so after planting, tip-graft trees should be watered more frequently than balled trees. However, less water and labor are needed per irrigation; consequently the maintenance cost in this regard would not be higher.

Growing trees under cover allows the nurseryman to care for a larger number of trees in a limited area. The needs of the trees are taken care of at the proper time with less cost;

therefore, I would say the avocado grower can purchase and grow tip-graft trees with less cost and more satisfaction than some of the other methods.



Tip-grafted Zutano inter-set in citrus in San Dimas area. Seed planted October, 1947; tree planted May, 1948; photograph taken September, 1950.

Whether there is any appreciable difference in the eventual size of trees produced by tip-grafting and standard budding is not now known. Though the tip-grafted tree is smaller than the standard-budded tree when set in the orchard, it appears that the size differential disappears in time. The mature trees resulting from these two techniques will apparently be of equal size under identical conditions in all other respects.

It is also unknown whether there is a difference in the fruit yield from the two types of trees. Time must elapse before this can be accurately determined; present observations suggest that no striking difference will be found.