

Observations on Budding and Planting of Avocado Trees

R. Lamour

At the Jardin d'Essai du Hamma, Algiers, Experiment Station, it very often happens that an avocado tree coming balled from the nursery does wilt and dry up to the ground before a new and strong shoot comes out below the bud union. One can see readily the results of such a fact; the planted tree must be budded again in the orchard and about two years are lost therefrom.

Yet, it may occur that the work is more or less carefully done, so the bud is slow growing and favors the setting out of new shoots from the bottom. This might be caused by a faulty way of planting, and also by the natural tendency of that species to shoot forth suckers.

That peculiarity seems to be produced by latent buds which are present at the base of the original sprout. These buds are located hidden between the cotyledons of a seedling in its first year (fig. No. I. A.); they sometimes grow during the first months, giving the delusion of a polyembryony (fig. No. I B) particularly when the plant suffers somewhat from physiological shock (fig. No. I C). In order to secure all chances of success one should reduce to a minimum that shock, result of planting; this, to avoid the partial perishing of the plant, followed by the coming out of vigorous shoots from the lower buds.

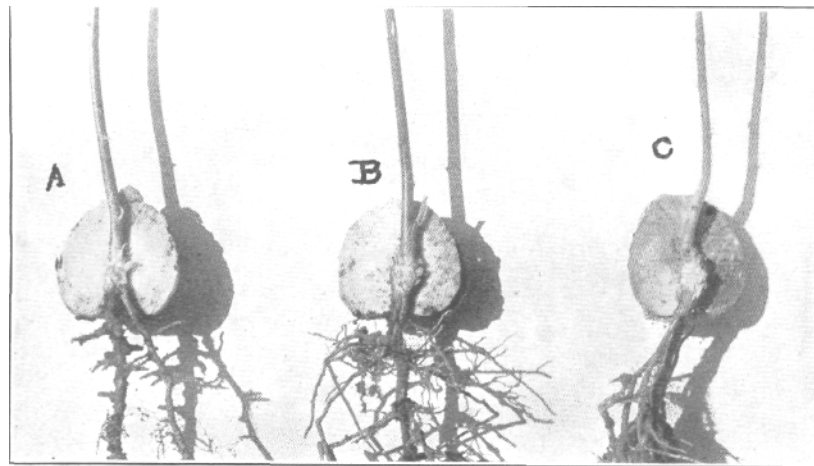


Fig. 1. Basal buds on avocado seedlings.

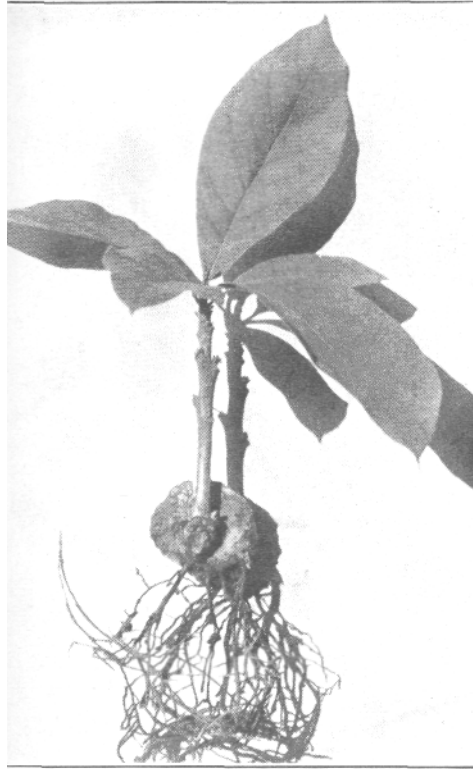


Fig. 2. Embryo graftage.

Another means could probably avoid that suckering tendency: it consists of setting in the graft-wood at the very base of the sprout, that is by cutting out the sprout at its point of attachment with the cotyledons and by substituting a young graftwood of the desired variety. That form of grafting, suggested by the results obtained by H. P. Traub and E. C. Auchter from Florida, aiming at avoiding too long a stay in the nursery and in the same time to reduce possible risks of disease infestation of the root system, has been taken again by M. N. Mauri in charge of propagation work at the Jardin d'Essai a Alger, in the following conditions. The embryo is cut in two or four even parts with the fraction of the attached cotyledon, and the graftwood is adjusted (fig. No. 2). Although this operation is facilitated by choosing seeds already sprouted in which the sprout appears well in the half opening of the cotyledons, and is easily divided up in even parts, it does not seem practical for an ordinary production of budded trees. However if one deals with one or two month old plants, the point of attachment of the cotyledons reaches sufficient size to permit, by suppressing one of them, the whip graft, called here English graft, which is relatively easily done. The graftwood is then held in with a light tie and the cut is covered with paraffin or like material. The grafted plants are placed in a compost somewhat warm, under glass; when the grafts are growing well, the plants may be put in pots up to the time of setting in the orchard.

This is only a progress report and we cannot say now what the plants will do, or if the method is of value, but we will be glad to give the results later on.



A nursery of avocado trees containing 3000 young seedlings ready to be budded.
Jardin d'Essai du Hamma in Algiers, North Africa.