DEVELOPMENT OF TECHNIQUES TO OBTAIN COPIES OF OUTSTANDING AVOCADO TREES IN CHILE

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The selection program of outstanding avocado trees in the search for ecotypes with superior traits in terms of productivity factors such as: high production levels, high tree efficiency (Kg/projected area) and low biennial- bearing level, implied the development of techniques to propagate those trees. Usually, when material of this type is found, the current practice is to prune the canopy completely, so that the largest quantity of sprouts is obtained for subsequent cloning; however, taking into account that this is a highly destructive technique (the original tree disappears) and the fact that in Chile, most rootstocks come from seeds of Mexican race (that shows a greater facility to form adventitious shoots than the Antillean race), different methods were assayed to induce sprouting on the rootstock without heavily pruning the tree, e.g., exposure of the rootstock, wounding and cytokinin application (BAP), wounding of roots and cytokinin application (BAP), and pruning of 50% of the tree followed by girdling. The results indicate that the treatments to stimulate root sprouting do not result in the development of shoots from the rootstock. However, after exposure of the rootstock followed by wounding and cytokinin applications, weak shoots were obtained from the rootstock, while after pruning 50% of the tree followed by girdling, more vigorous shoots could be obtained; however in both cases, a high correlation between tree response and environmental conditions were observed. The grafting success onto seedling rootstocks of the sprouts obtained, in all the treatments, was one hundred per cent.