# EVALUATION OF SOIL TREATMENTS TO PREVENT THE PROBLEM OF REPLANTING IN AVOCADO TREES

G. Reginato[1], C. Córdova[1] and J. Covarrubias[1]

[1] Facultad de Ciencias Agronómicas. Universidad de Chile. Santa Rosa 11315, Santiago. Chile. Correo electrónico: greginat@uchile.cl

An experiment was carried out near Cabildo, V Region, in order to determine and quantify the problem of avocado tree replanting in Chile. Six healthy trees from a declining yield orchard were removed. A 70-cm high berm was prepared. In November 2006 different soil fumigation treatments were applied: Methyl bromide; 1.3-dichloropropene (1.3-D); chloropicrin; and a mix of 1,3-D+chloropicrin. A control treatment without fumigation was also included. One month after fumigation, four 'Hass'/Mexicola trees were planted in each treatment. Irrigation and fertilization practices were the same for all treatments. Three months after planting, trunk diameter, tree height and leaf number were measured. Fumigation treatments showed 20-40% higher values than the control. Tree height was significantly lower in the control treatment compared to fumigation treatments (79.3 cm for the control and 108 cm average for fumigation treatments), with no differences among the fumigation treatments. These results indicate that avocado tree could be highly susceptible to the problem of replanting.