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INTRODUCTION, SELECTION AND PROPAGATION PROGRAM FOR AVOCADO ROOTSTOCKS AND CULTIVARS IN CHILE

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Avocado cultivation in Chile reaches 22.000 has, distributed between the III and VIII regions, being Hass the most planted cultivar. The productivity level of this species is well below the potential production, due to a series of limiting factors such as salty soils, presence of carbonates, incidence of root rot caused by the fungus P*. cinnamomi* and low temperatures, among others. It is also necessary to point out that the main way for avocado propagation in commercial nurseries in Chile has been grafting of commercial cultivars onto seedling rootstocks, mainly from the Mexicola cultivar. This technique has resulted in heterogeneous orchards in terms of behavior and productivity, due to the use of heterozygous seeds. Consequently, the selection of a suitable rootstock, which is the cause of the success or failure of a commercial orchard is essential. A rootstock selection with special attributes for a given region or village, would allow to obtain material with a production potential superior to that obtained after using seedling rootstocks which show greater genetic and productive variability.

The Facultad de Agronomía of the Pontificia Universidad Católica of Valparaíso, together with growers and nurseries, started a program in April 2002, which at the moment was lacking in Chile, for the introduction, selection and propagation of promising cultivars and rootstocks. The program includes searching for promising material as well as the validation of material from other research centers. This material will be validated under limiting soil and climate conditions with the objective of evaluating its potential and give orientations on its use. The prospection and selection of local material in areas with great germplasm diversity will also be considered. For the conservation and multiplication of prospected material, a cloning technique for avocado, currently not available in Chile, will also be developed; this technique will allow the scaling up to commercial level selected material of this species.