In Vitro Vegetative Propagation and Regeneration of _Solanum quitoense_ (Lulo) Plants and Their Use as Elite Clones by Farmers

In Colombia is becoming an important ingredient in the market. Nevertheless, there are several limitation for the adoption of the crop by farmers. The objective of this work is to develop *in vitro* protocols that facilitate (a) conservation of germplasm *in vitro,* (b) selecting and distribution of healthy elite clones of farmers and (c) facilitate genetic transformation. Plants grown using preliminary local protocols developed by other authors for *in vitro* propagation of lulo, were weak, characterized by thin stems and small leaves. Earlier research showed that ethylene accumulated in the sealed culture containers reduces the growth and development of lulo plants *in vitro.* An efficient protocol of propagation of clones selected by the farmers has been obtained. The agronomic performance of the regenerated plants in the field as well as their fruit yield and fruit quality will be discussed. Currently, collaboration with selected small farmers from one of the main areas of commercial production is in progress for the evaluation of these protocols and their adaptation for routine use.

Key words: Lulo*, Solanum quitoense,* Propagation *in vitro, elite clones,* ethylene.

Thematic Area: Plant Biotechnology

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