

50% higher total weight

PULQUE AGAVE

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OBJECTIVE

Demonstrate the benefits of mycorrhizal inoculation on Pulque Agaves (*Agave salmiana*) in a forestry nursery in Mexico.

METHODS

Mycorrhizal inoculation was done on 10 week old seedlings at the Revolution nursery in March 2004. Fungal inoculum of *Glomus intraradices* was added or not to 5 ml of water and applied individually to seedlings with a custom hand sprayer. Mycorrhizal inoculum was added according to the following recommendations:

Spores 1 = 75 spores per plant

Spores 2 = 150 spores per plant

There were 77 seedlings per tray and six trays per treatment. Eight individuals per tray were harvested after 16 weeks; measurement of their height, collar diameter, fresh weight, aerial fresh/dry weight, root fresh/dry weight was taken.

RESULTS

Agave salmiana responded very well to mycorrhizal inoculation with *Glomus intraradices*. Significant increases in all growth parameters measured were observed between mycorrhizal and non-mycorrhizal plants (Figure 1). There was no significant difference in plant response

between both levels of inoculum added. Significant increases for collar diameter (14%), height (17%), total fresh weight (49%), aerial fresh weight (50%) and root fresh weight (40%) were recorded for mycorrhizal plants. *Agave salmiana* is a cactus-type plant that has a fibrous root system that is highly responsive to mycorrhizal inoculation, increasing root biomass, particularly increasing the number of fine feeder roots



Figure 1 General appearance of *Agave salmiana* exposed or not to mycorrhizal inoculation.

