

# Comparison of Substrates in Sexual Propagation of the Quina Tree (*Cinchona officinalis*)

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In the present investigation we compare eight types of substrates in sexual and asexual propagation *C. officinalis* in proportions (70% humus + 20% organic soil + sand 10%); ( 70% litter + 20% organic soil + 10% of sand); (70) % Frank sandy + twenty% of land organic +10 % of sand); (35% of humus + 35% of leaf matter + 20% land organic + 10% of sand); (35% of humus + 35% sandy loam + 20% organic soil + 10% sand); (35% litter + 35% sandy loam + 20% organic soil + 10% of sand); (25% of humus + 25% of leaf litter + 20% land organic + 10% sand); (25% humus + 25% litter + 25% sandy loam + 20% earth organic + 10% of sand), plus 1 witnesses in the sexual propagation the germination percentage of the seeds was evaluated , obtaining, that the T6 (35% of litter + 35% of sandy loam + 20% of organic earth and 10% of sand) reached the highest percentage of germination with 30%, reaching a height of 4.2 cm per plantlet at 60 days. While; in the asexual propagation was carried out: rooting trials of stakes, evaluating the number of buds, number of estate, length of roots per stake; reaching T6 the highest number of shoots per stake with 3 outbreaks; with a root length of 4 cm per stake planted. Keywords : Quina tree, sexual and asexual propagation