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Aluminum and base saturation and calcium level effects on eight native forest species vegetal development

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1 With the aim of evaluation the effects of aluminum (m) and base saturation (V%) and calcium level in the soil on eight native forest species development, was carried out an experiment in a green house conditions. Were applied the treatments: T1 = without lime, T2 = with lime to V% = 40, T3 = with lime to V% = 70 and, T4 = with application of calcium and magnesium chloride. The soil used was an Typic Quartzipsamment with low level of calcium and high aluminum saturation (m∼70%). The nutrients (N, P, K, S, B, Cu, Fe, Mn, Mo and Zn) were added as nutritive solution. Eight native forest species were tested: Cecropia pachystachia, Maclura tinctoria, Cynthrarexyllum myrianthum, Lithareae molleoides, Cordia superba, Prunus sellowi, Shinus terenbinthifolius, Psidium rufum. After four months, was evaluated the dry weight of the aerial and root system biomass. The species reached an increasing biomass production when the base saturation was elevated at 40% with liming. However, was not observed dry weight increasing when V% reached 70%. Was concluded that calcium addition without pH correction and, consequently, aluminum excess elimination do not induced an adequate native forest species developing.