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THE IDEAL NITROGEN SUPPLY CAN IMPROVE THE PRODUCTION OF *Anacardium othonianum* SEEDLINGS

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Anacardium othonianum is a tree species native to the Cerrado Biome. The current agricultural expansion mainly in the center-west of Brazil constitutes a threat to the survival of populations of *Anacardium*, despite the great ecological interest on their seedlings that are widely required in processes of reforestation. However, obtaining healthy seedlings for the purpose of foment conservation efforts have been hampered by the lack of knowledge about the nutritional requirements of this fruit tree in the early stages of its development. In order to overcome this problem, and under the prerogative that *Anacardium* plants may find different concentrations of nutrients in Cerrado soils, we cultivated seedlings of this species under different nitrogen concentrations (0.0, 2.5, 5.0, 7.5, 10.0, 12.5 e 15.0 mmol L⁻¹), in a hydroponic system, since this is the only possible way to control the availability of nutrients for a species and to analyze its behavior. In evaluations carried out at 120 days after transplanting the seedlings for nutrient solution, we detected symptoms of N excess / toxicity, such as reduction in the number of leaves and of the total leaf areas. The maximum number of leaves was obtained in the dose 10.7 mmol L⁻¹. The dose 2.5 mmol L⁻¹ of N induced the activity of the enzymes glutamine synthetase and nitrate reductase, while the absence of nitrogen increased the synthesis of nitric oxide in the seedlings. We therefore recognize that the dose 2.5 mmol L⁻¹ may stimulate N and protein accumulation in tissues, facilitating the establishment in Cerrado soils, while its absence may induce metabolic pathways of stress response. We conclude that for the propagation of seedlings of this species, aiming its conservation and maintenance in reforestation ecosystems, this nutritional requirement should be considered in the initial stage of seedling development.

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