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Assessment of nutritional status of seedlings guavas trees using preliminary DRIS norms and sufficiency ranges

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Brazil is one of the largest producers of guava in the world, however, to maintain orchard productivity and longevity it is need to purchase plants healthy and well nourished. Whereas the charts with tracks sufficiency, or methods that help in assessing the most limiting nutrient (DRIS) could help in the management and consequently the production of quality seedlings, there is a need to establish standards and/or suitable levels for plants. Thus, the objective of this work was to propose preliminary DRIS norms and derive critical levels and nutrient sufficiency ranges in the leaves of guava plants in conditions of commercial nursery in the state of Sao Paulo - Brazil. Sixty-eight leaves samples were evaluated, from fertilization trials with seedlings. It was used Paluma guava seedlings, the most planted in Brazil, obtained from the vegetative propagation of selected matrices and pruned 70 days before the removal of herbaceous cuttings. The seedlings were conducted in a nursery covered with 30% shading screen, packed in polyethylene bags of 1.5 dm³ of volume, containing a pine bark substrate and placed on benches with no spacing between the bags. The seedlings were evaluated when they were about 50 cm high, determining the nutrient content in leaves and dry matter. In the subpopulation of low productivity (84% of the population) the limiting nutrients by lacking in descending order, were: N > Cu > P = K > Mn > Fe = Zn > S > B = Mg > Ca, and limiting by excess in descending order, were: B > Ca > Fe > Mn > S > Mg > P > Zn > N = K. The ranges from the appropriate DRIS indices were: 24 to 28, 2.4 to 3.1, 21 to 29, 6 to 8, 1.9 to 2.9 and 1.9 to 2.3 (g kg⁻¹) for macronutrients

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N, P, K, Ca, Mg and S, respectively, and 35 to 48, 4 to 15, 68 to 93, 31 to 60 and 180 to 245 (mg kg⁻¹) for the micronutrients B, Cu, Fe, Mn and Zn, respectively. The dry matter production of guava seedlings was associated with nutritional status.

Keywords: *Psidium guajava*, nursery, leaf analysis.

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