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HISTOLOGICAL CHARACTERIZATION OF ADVENTITIOUS ROOT APEX FROM AVOCADO ROOTSTOCKS

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Several root apex traits are important due to the relationship with biotic or abiotic edaphic conditions; thus, with the objective of ascertaining the possible relationship between root apex traits and the resistance to adverse soil factors, the morphological and anatomical traits of the apex, root cap tissue and cells of adventitious roots, derived from rooted avocado plants, were studied. Eighteen vegetatively propagated genotypes of genus *Persea* spp, most of them used as rootstocks, were analyzed. Out of 32 evaluated traits, only 12 were useful for the classification of genotypes. It was possible to generate 4 groups through cluster analysis, mainly based in root cap area, distance between the distal end of the root and place of differentiation of the vascular cylinder, cortex width and apex angle. The clustering was not associated with the phylogenetic origin of the trees, although some of the clusters contained related genotypes with similar behavior, e.g., `Martín Grande´ resistant to *P. cinnamomi* Rands, showed thick apex, with not acute ends; `Day´, `Antigua´ and `Thomas´ cultivars, resistant to various adverse soil factors, showed apex with medium thickness and acute ends, while `Duke 7´, with medium tolerance to *P. cinnamomi*, showed thin apex but slightly obtuse. Traits with a major influence for the clustering, which were also corroborated through a canonical discriminant analysis were: root cap area, length from the end of the apex to the vascular cylinder, cortex width and apex angle.