AVOCADO ROOT DISTRIBUTION DYNAMICS UNDER TWO PRESSURIZED IRRIGATION SYSTEMS IN FLAT GROUND IN QUILLOTA

R. Cautín[1] and J. Rojas[1].

[1]Facultad de Agronomía. Pontificia Universidad Católica de Valparaíso. San Francisco s/n. La Palma Quillota. Chile. Correo electrónico: rcautin@ucv.cl.

From the different factors influencing root development, water availability, temperature, and soil type seem to be the most significant, by order of importance. The interactions between phenological stages of plants at any given time are also important.

Root population dynamics relates the density of roots with their behaviour through time. This study quantified and characterized the types of roots found during one season in an orchard in Quillota (32º S, 71º W), in sectors with different irrigation systems on flat ground condition.
This study revealed that volume of roots at five measuring points between 2 rows was significantly higher during the complete measuring period, in both active roots and those in suberization process, regarding the alternative drip irrigation treatment. This difference may be explained by the irrigation of a larger area. When root behaviour was correlated with the phenological events of flowering and fruit set, it may be observed better and greater availability of roots producing hormones closely related to fruitlets retained on the tree and their primary growth stages.