

TENSIOMETRY AND THE RAY OF INFLUENCE OF A RADICULAR SYSTEM IN NON-SATURATED SOILS

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The study of the phenomena of infiltration of water and the ray of influence of a radicular system in the soil in small intervals comes to meet the necessity of supplying the lack of theoretical and practical knowledge in this area. The intention of this work is to describe the eventual incidence that a radicular system can exert on the infiltration of the water in the soil. The Tensiômeter is a device that indicates the tension or the state of humidity of the soil by measuring its pore-pressures. The operating tension of the soil is transmitted to the water reservoir of the system where it is measured. The superficial part of the soil of the experimental field is covered by organic matter and keeps for all its extension certain similarity. The area where is located the field in study shows a convex topography with slopes that vary of 5% to 10%. A granulometric study of the soil demonstrates a estratigraphy with 10% of clay, 40% sand and 50% of silte. The tensiômetros had been displayed in a radial form in relation to the chosen tree that is located in the center-superior part of the field. From the reference point the tensiômetros had been installed in sets, placed in different distances: 40 cm, 70 cm, 100 cm, 130cm, 170 cm, 190 cm, 210 cm and 300 cm each set of tensiômetros possess three different depths: 15 cm, 30 cm and 45 cm.