

# CLIMATIC IRREGULARITY, HYDROLOGY AND WATER QUALITY IN AN IRRIGATED AGRICULTURAL WATERSHED

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One of the characteristics of the Mediterranean climate, besides the others well-known, it is the irregularity of the meteorological conditions of the hydrological years, namely in relation to the volume and distribution of the precipitation. This irregularity has an influence marked in the hydrological behavior, mainly of the small watersheds, and in the quality of water drained of this territorial unit. This study have the objective, in a small agricultural watershed, to study their hydrology in two hydrological years that lapsed under quite different meteorological conditions, and the influence in the quality of the water drained of the same study area.

The evolution of the total daily load of the nitrogen in the nitric form depends on the runoff volume, in any phase of the period of time in analysis and if it has this nutrient in the soil. The ammoniac nitrogen show a different behavior, because, having a low solubility and forming a positive ionic form, it is preferential load with the sediments. The total daily load in this nitrogen form, being available in the soil, it depends on the runoff volume in critical hydrologic events. The total daily load of sediments in suspension doesn't seem dependent of the runoff volume, except when it has enough energy to detach and transport the particles outside of the watershed. In relation to the total daily load of total dissolved solids (salts), the dependence of the runoff volume is very clear during the whole period of time.

