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WATER CONSUMPTION AND ENERGY BALANCE IN MANGO TREE ORCHARD AT A TROPICAL STATION

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Water management has long been recognized as having a significant effect on both the yield and quality of fruits. Otherwise it includes both quantity of water a tree uses and the timing of water applications. In this paper are presented preliminary results of a field experiment with six-year-old mango trees (*Mangica indica* L.) variety Tommy Attkin carried out in Petrolina, PE, an irrigated perimeter in Northeast of Brazil, and irrigated with a drip system. Measurements started at the beginning of July and lasted till the end of December 1998. A micrometeorological tower was built and different instruments were attached on it: two net radiometers, three solar radiometers, two anemometers, two psychrometers, and one infrared thermometer. Four disc plates were used for measuring the soil heat flux and two sets of tensiometers were installed in order to measure the soil water balance from the surface until a depth of 1.8 m. The actual evapotranspiration was obtained both according with the Bowen Ration Method and a Water Balance Approach.

Embrapa

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