

Sunflower Irrigation with Two Different Types of Soil Moisture Sensors

Authors : C. D. Papanikolaou, V. A. Giouvanis, E. A. Karatasiou, D. S. Dimakas, M. A. Sakellariou-Makrantonaki

Abstract : Irrigation is one of the most important cultivation practices for each crop, especially in areas where rainfall is enough to cover the crop water needs. In such areas, the farmers must irrigate in order to achieve high economical results. The precise irrigation scheduling contributes to irrigation water saving and thus a valuable natural resource is protected. Under this point of view, in the experimental field of the Laboratory of Agricultural Hydraulics of the University of Thessaly, a research was conducted during the growing season of 2012 in order to evaluate the growth, seed and oil production of sunflower as well as the water saving, by applying different methods of irrigation scheduling. Three treatments in four replications were organized. These were: a) surface drip irrigation where the irrigation scheduling based on the Penman-Monteith (PM) method (control); b) surface drip irrigation where the irrigation scheduling based on a soil moisture sensor (SMS); and c) surface drip irrigation, where the irrigation scheduling based on a soil potential sensor (WM).

Keywords : irrigation, energy production, soil moisture sensor, sunflower, water saving

Conference Title : ICAIS 2018 : International Conference on Agriculture and Irrigation Systems

Conference Location : New York, United States

Conference Dates : June 03-04, 2018