

CORN IRRIGATION WITH RECLAIMED MUNICIPAL WASTEWATER

**Athanasios PANORAS¹, Georgios EVGENIDIS¹, Sofia BLADENOPOULOU¹
Basilios MELIDIS¹, Alexandros DOITSINIS² Iordanis SAMARAS¹
Antonios Z DRAGKAS¹, T. MATSI¹**

1 National Agricultural Research Foundation, 574 00 Sindos Thessaloniki
2 PEGEAL, Ministry of Agriculture Laboratory, 574 00 Sindos Thessaloniki

ABSTRACT

The effects of the effluent reclaimed either by activated sludge or by stabilization ponds on corn and soil were studied. Potable water was used as control. No significant differences have been observed between the three water qualities in relation to corn yield. Significant differences have been observed in corn yield between the irrigation methods. Furrow irrigation has produced about 10% more corn yield than trickle irrigation. There is a potential risk of facing problems related to soil salinity and alkalinity if no consideration for soil reclamation is taken into account. The trace element concentration in soil and plant was low. The chlorinated effluent was free of pathogens, while the presence of pathogens was detected in the non-chlorinated effluent reclaimed by the stabilization ponds.