

Simulation of Irrigation Water Requirements of Some Crops in Trinidad Using the CROPWAT Irrigation Software

Edwin I. Ekwue^{a,Ψ}, Rebekah, C. Constantine^b and Robert Birch^c

Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, The University of The West Indies,
St Augustine, Trinidad and Tobago, West Indies

^aE-mail: Edwin.Ekwue@sta.uwi.edu

^bE-mail: Becky.Constantine@hotmail.com

^cE-mail: Robert.Birch@sta.uwi.edu

^Ψ - Corresponding Author

(Received 13 June 2014; Revised 07 October 2014; Accepted 18 October 2015)

Abstract: *The Crop Water Requirements (CROPWAT) computer software package was used to design irrigation schedules during the dry season (February to May) for twelve (12) major farming locations in Trinidad. The irrigation schedules are for the nine major crops grown in different predominant soils in the selected locations. Crop and field parameters were obtained from published texts whereas the climatological data were obtained from the Water Resources Agency in Trinidad. The irrigation schedules using CROPWAT were planned in such a way that for the convenience of the farmer, the irrigation depth and irrigation interval were kept constant throughout the growing season for each crop and this value depended on the climatological situation or the water consumption pattern of the crops.*

Keywords: *Irrigation, Scheduling, Crop, Soil, Trinidad*