Abstract

Irrigation management is critically important in Gezira Scheme, where a large area should be fully utilized with different type of crops. The main objective of this research is to develop a knowledge base decision support system for managing irrigation at Gezira Scheme. In particular, it has collected and organized a huge data about area, climate, soil, crops and irrigation network, and hence it has developed a Visual Basic program for accessing this database and performing all necessary calculation. As a result the developed system can easily provide any crop requirement, season planning, scheme general and system specific information. These include computation of water requirement, irrigation scheduling (number, quantity, time and interval of irrigation), and area to plant any crop in a specific period according to the available water in the main canal.
Development of a Decision Support System for Irrigation Management at Gezira Scheme in Sudan

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Index Terms

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Keywords

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