Quality management of Agricultural Water Recource in Sirjan Plain

Abstract

Water quality management has complicated structure since it involves a number of environmental, socio-economic, technical, and political factors with dynamic and interactive features. Agricultural activities such as the use of chemical fertilizers and pesticides in the fields, as Non point resources in groundwater pollution. The main objectives of this study were to the quality management of agricultural water resources in sirjan plain, determine the cropping pattern optimal, and distribution of cattle population in the region prevail with regard to the sustainability of water resources and determine the amount of the gross profit per unit. Required data were collected form Regional Water and Agriculture Organization from 1994 to 2013. Options or subsection of the agricultural area of the wells in the study sample included 8 Chahdq, Chahqlh, Dvchahy, Qtbyh, Kfryz (Amirabad), Chahmyl, Shylhhydry and is Ayzdabad. The results of study water resource quality showed that the quality in various subsectors of plain was decreasd and in the near future, agriculture will be in serious injury. As a result, it is necessary that programs such as the management of groundwater resources, changing crops and livestock pattern in the region, increasing the acreage of plants more resistant to degradation of quality, replacing chemical fertilizers with animal manure and attention to sustainable agriculture in the region considered to provide comprehensive management utilization of groundwater resources in the region.

Keywords: Water quality, Non point source, Goal programming, Sirjan Plain

University of Zabol
Graduate school
Faculty of Agriculture
Department of Agricultural Economics

The Thesis Submitted for the Degree of M.Sc
(In the Field of Agricultural Economics)

Quality management of agricultural water resources in Sirjan plain

Supervisor:

Dr. S. Ziaee

Dr.M. Ahmadpour

Advisor:

Dr.A. Nikoee

M.S. A. Sargazi

By:

S. Khodabakhshi

october 2015