

Abstract

Climate parameters and their effects on crop plants is one of the most important effective factors in the yield increase can be identified. by investigating potential facilities in different regions and of these facilities to maximum exploited. this study was in order to identify ecological potential rapeseed cultivation areas of the climate and topography parameters of in the Khuzestan province were carried out. Because to being dryland cultivation, for the determination cultivation dates of the effective rainfall were used. Since the start and end date of the phenological stages of rapeseed by using of GDD - growing extracted. limiting and threshold temperature, and rainfall during the growing period and optimal physical condition of the land, such as the slope For the cultivation rapeseed were extracted from various sources. and the probability in each step is calculated. and after the regression analysis, areas of cultivation by using of the geographical information systems Into four groups: poor (Probability 50-25 percent) with extra 21.65% of the arable land area, median (Probability 50-75 percent) with extra 42.96% of the arable land area, fair (Probability 75-100 percent) with extra 42.96% of the arable land area, appropriate and non-agricultural areas, which took 40.85 percent of the total of the study area was divided.

Keywords: zoning, climate parameters, geographic information systems (GIS), degree days growth (GDD), land slope .



University of Zabol

Graduate school

Faculty of Agriculture

Department of Agronomy

**The Thesis Submitted for the Degree of Master of Science
(In The Field of Agroecology)**

Title:

**Agroclimatic zoning of Khuzestan province for dry
farming canola using Geographical Information
System (GIS) and climatic indices**

Supervisors:

Dr. M. Ramroodi

Advisors:

Dr. J. Tae Semiromi

Dr. Sh. Lorzadeh

By:

Rashid Cheraghi

May 2013