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**Spatial analysis of economic and social effects of ruby  
grape  
(Case study: Sistan villages)**

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## **Abstract**

Grapes play an important role in the economy of rural areas and are of great importance among garden products. Grapes are the most important garden product in the Sistan region, of which various varieties, including red ruby, white ruby, Fakhri, etc., can be found in this land. Due to its precociousness and freshness, Yakuti grapes have been welcomed by consumers and have good economic returns, which, as the dominant garden variety in the region, are consumed fresh, and for this reason, they play a significant role in the development of most of the villages where they are cultivated. It can be played. This research aims to investigate the spatial analysis of the economic and social effects of ruby grapes in the villages of Sistan, and the statistical population of this research is the heads of rural households in the region, and also based on the Cochran formula and the sample size correction formula for households, 347 questionnaires were considered. Excel, ArcGIS, SPSS software, ARAS model and Friedman, stepwise regression, U-Man-Whitney and paired T tests were used for data analysis. The results show that there is a significant difference in the production of ruby grapes in the villages of Sistan region; and the prioritization of villages through the ARAS model, Akhundgholami, Eskel and Gholamali villages have the highest level and Musa Khmer, Heydari and Aliabad villages have the lowest level of effectiveness of Yakuti grape cultivation in Sistan region in 1401 among the studied villages.

Key words: Ruby grape, quality of rural housing, place belonging, Sistan.