Abstract

The agricultural sector is one of the major sections of the economy and especially the city of Khorramabad, Lorestan Province to form. Given the scarcity of resources, increase productivity and efficiency can be used as a suitable complement and durable, To set policies that encourage domestic production and protect and promote the efficient use of resources drawn consider. In this study, the impact of agricultural mechanization on production, productivity and operating efficiency in wheat, barley and canola method of estimating agricultural production, productivity index Trnkvyyst oil and interval data envelopment analysis Khorramabad city were studied.The index is based on each Interest border mechanization mechanization divided into two clusters of high and low levels, and these assessments were conducted according to the clusters. The wheat crop in clusters with a high level of mechanization, mechanization index variables, water, fertilizer, Marginal productivity of labor input per hectare has negative and positive effects on yield and variable chemical pesticides and machines in the cluster by a factor of low mechanization, Machinery and chemical pesticides have a negative marginal productivity variables are shown overuse of these resources. The barley crop up in clusters by a factor of mechanization, chemical pesticides, and the coefficient of variation of labor and mechanization has the highest efficiency and water variables, Machinery, seed and fertilizer has been positive marginal productivity. Canola yields in fields with a high level of mechanization, labor and fertilizer variables and variables with a negative marginal productivity of water, Machinery, seed, chemical pesticides and mechanization index has a positive marginal productivity. The canola crop in the fields down by a factor of mechanization, labor, machinery, Mechanization has a negative marginal productivity of factor inputs, seed and water, chemical pesticides and fertilizers have been positive marginal productivity. The results showed that the average fuel efficiency index Trnkvyyst factor productivity index in wheat and barley The two clusters are approximately equal to one, and do not differ statistically. Also, the product of rape, the mean total productivity of factors of production on farms with high and low level of mechanization and 1/3 respectively 0/85 that this difference was statistically significant.

Keywords: Mechanization, Productivity, Technical efficiency, Mechanization Index.

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