## عنوان مقاله:

A Determination of Suitable Sugar Cane Utilization System Using Total Factor Productivity (TFP) (Case Study: Imam (Khomeini Cultivation and Processing Center in Khuzestan Province


## محل انتشار:

مجله علوم و فناوری کشاورزی, دوره 12, شماره 5 (سال: 1389)

تعداد صفحات اصل مقاله: 11



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## خلاصه مقاله:

Using productivity index for investigating a firms' performance makes it possible to evaluate efficiency of the production system and cost at the same time. In this study the Total Factor Productivity (TFP) of several sugar cane varieties in Imam Khomeini Cultivation and Processing Center in Khuzestan Province is compared. Two hundred and forty eight farms are categorized on the basis of variety years old and then Tornqvist-Tiel Productivity Index is employed for calculating TFP for each sugar cane farm. The investigated sugar cane varieties include CP۵۷-۶۱۴, CP۶۹-۱۰۶۲ and CP۴۸-۱۰۳. Results revealed that year long utilization system gained the lowest TFP among utilization systems in all the mentioned varieties. The most suitable utilization system according to the TFP index is biennial for CP۵۷-۶۱۴ variety, triennial for CP۶۹-۱۰۶۲ and five years for the CP۴۸-۱۰۳ variety. Triennial CP۵۷-۶۱۴ variety has the most partial productivity in fertilizer. On the other hand, the six year long plant of the forgoing variety exhibits the largest partial productivity in water. The largest partial productivity in machinery is shown in biennial CP۶۹-۱۰۶۲ variety. .Among these varieties, triennial CP۴۸-۱۰۳ one has the largest partial productivity per unit area cultivation



## کلمات کلیدی:

(Khuzestan Province, Sugar cane varieties, Tornqvist-Tiel index, Total Factor Productivity (TFP