

Evaluation of the Execution Effect of the Minimum Grain Purchase Price in Rural Areas

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Abstract : This paper uses the analytic hierarchy process to study the execution effect of the minimum purchase price of grain in different regions and various grain crops. Firstly, for different regions, five indicators including grain yield, grain sown area, gross agricultural production, grain consumption price index, and disposable income of rural residents were selected to construct an evaluation index system. We collect data of six provinces including Hebei Province, Heilongjiang Province and Shandong Province from 2006 to 2017. Then, the judgment matrix is constructed, and the hierarchical single ordering and consistency test are carried out to determine the scoring standard for the minimum purchase price of grain. The ranking of the execution effect from high to low is: Heilongjiang Province, Shandong Province, Hebei Province, Guizhou Province, Shaanxi Province, and Guangdong Province. Secondly, taking Shandong Province as an example, we collect the relevant data of sown area and yield of cereals, beans, potatoes and other crops from 2006 to 2017. The weight of area and yield index is determined by expert scoring method. And the average sown area and yield of cereals, beans and potatoes in 2006-2017 were calculated, respectively. On this basis, according to the sum of products of weights and mean values, the execution effects of different grain crops are determined. It turns out that among the cereals, the minimum purchase price had the best execution effect on paddy, followed by wheat and finally maize. Moreover, among major categories of crops, cereals perform best, followed by beans and finally potatoes. Lastly, countermeasures are proposed for different regions, various categories of crops, and different crops of the same category.

Keywords : analytic hierarchy process, grain yield, grain sown area, minimum grain purchase price

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