

# Efficiency Evaluation of Leisure Agriculture and Rural Tourism Demonstration Sites in Four Cities of Shanxi Province

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**Keywords:** Shanxi Province, leisure agriculture, rural tourism, efficiency, total factor productivity

**Abstract:** Agriculture is an important support for a country to maintain internal stability. Leisure agriculture is based on agriculture, with farmers as the main body and rural areas as the position. Through carrying rural tourism, realizing the organic combination of agriculture and tourism plays an important role in realizing the multi-function of agriculture, meeting the needs of consumers, promoting the employment of rural labor force and increasing farmers' income. Since the establishment of the central committee of the communist party of China about the twelfth five-year plan for national economic and social development advice "and" national agricultural rural economic development the twelfth five-year plan "is released, the ministry of agriculture and local governments are introduced in view of the leisure agriculture development plan and the necessary policy support and guide the leisure agriculture scientific layout, the demonstration base construction, brand construction, information services, management services, human resources development, infrastructure construction should give policy support.

## 1. Introduction

Firstly, from the national level, the prosperity of leisure agriculture is conducive to the growth of national GDP, narrowing the urban-rural gap and improving the happiness index of farmers. Secondly, from the perspective of farmers, the development of leisure agriculture has increased the income of farmers, improved their living standards, and changed their life style facing the loss. Thirdly, from the perspective of the agricultural industry itself, the emergence of leisure agriculture preserves the traditional farming methods, preserves and inherits the farming culture, and at the same time changes the production mode of traditional agriculture, bringing agriculture into a different development field and direction. Finally, leisure agriculture provides rural leisure tourism and agricultural activities for urban and rural residents. In short, leisure agriculture has production functions, leisure functions, economic functions, social functions, ecological functions, educational functions, health and other functions. There are few studies on the organizational model of leisure agriculture at home and abroad. According to the organization mode of leisure agriculture, domestic scholar Hou Manping can be divided into eight categories: agricultural production experience type, rural leisure and resort type, agricultural popular science education type, folk customs and traditional culture type, experience sportstype, village and ancient town type, club type, recreation type.

## 2. Analysis on the efficiency of leisure agriculture and rural tourism in Shanxi Province

### 2.1 Methods and data

Actively construct four modern urban leisure agriculture circles with Taiyuan, Datong, Linfen and Changzhi as the core, which were identified as research objects.

Labor productivity is the labor efficiency that laborer produces certain product. The level of labor productivity can be expressed in terms of the number of products produced per unit of time, and also in terms of the labor time spent in producing a unit of products. At present, China's total labor productivity is calculated by dividing the industrial added value of industrial enterprises by the average number of all employees in the same period. The labor productivity of this paper = annual

revenue/ number of employees.

Land yield is an important index reflecting land use efficiency, which can be used as the land use efficiency of leisure agriculture.  $\text{Land yield} = \text{annual revenue} / \text{operating area}$ .

The data are obtained from the notice issued by the general office of the ministry of agriculture on conducting a survey on the bottom of the country's leisure agriculture on January 25, 2011 by the ministry of agriculture. Among them, the partial data source department of agriculture, leisure agriculture in Shanxi Province. annual revenue from each region in Shanxi Province and the standing committee of the provincial government website (worker accurate to hundred digits, annual revenue accurate to hundred million digits).

Table.1. Evaluation index of leisure agriculture and rural tourism in Shanxi Province

Level indicators	The secondary indicators
input indicators	The number of employees
	Business area
Output indicators	Annual operating income

Table.2. Index data of leisure agriculture and rural tourism in Shanxi Province

area	The number of employees (per)	Business area (ha)	Annual operating income (RMB ten thousand)	TFP
Datong	2500	884	12000	33.3%
Taiyuan	6000	1760	30000	39.0%
Linfen	3200	1452	80000	35.6%
Changzhi	20000	1326	64000	35.0%

## 2.2 Total factor productivity of leisure agriculture and rural tourism in four cities of Shanxi Province

This paper uses the calculation method of Mingkang Wang scholar to measure total factor productivity in different regions of Shanxi Province.

According to the changes of total factor productivity of leisure agriculture and rural tourism in different areas of Shanxi Province, the total factor productivity of leisure agriculture and rural tourism in different areas of Shanxi Province is lower in the north and higher in the south. This is related to the good economic development and high per capita income in the central and southern regions. Although the leisure agriculture and rural tourism in Shanxi Province as a whole have developed from the germination stage to the new stage of improvement, the total factor productivity of leisure agriculture and rural tourism in various regions of Shanxi Province still has the problem of unbalanced development.

## 2.3 The efficiency of leisure agriculture and rural tourism in various areas of Shanxi Province

(1) Average output value of labor: per capita annual operating income generated by full-time practitioners in leisure agriculture and rural tourism, namely:  $\text{average output value of labor} = \text{annual operating income} / \text{number of employees}$ .

(2) Land yield rate: operating income per hectare of operating area, that is:  $\text{land yield} = \text{annual operating income} / \text{operating area}$ .

The survey data of leisure agriculture in various regions of Shanxi Province were sorted out and analyzed. The data showed that: the per capita output value of full-time employees engaged in leisure agriculture was 33620 yuan, 1.71 times that of the national agricultural labor force of 19,700 yuan in the same period (according to the China statistics network), indicating that leisure agriculture employees have higher labor productivity.

From the perspective of land productivity, the unit operating area of leisure agriculture has created huge economic benefits, with the national average land production rate reaching 90100 yuan/ha, 3.11 times higher than the national agricultural land production rate of 28941 yuan/ha (according to the China statistics network).

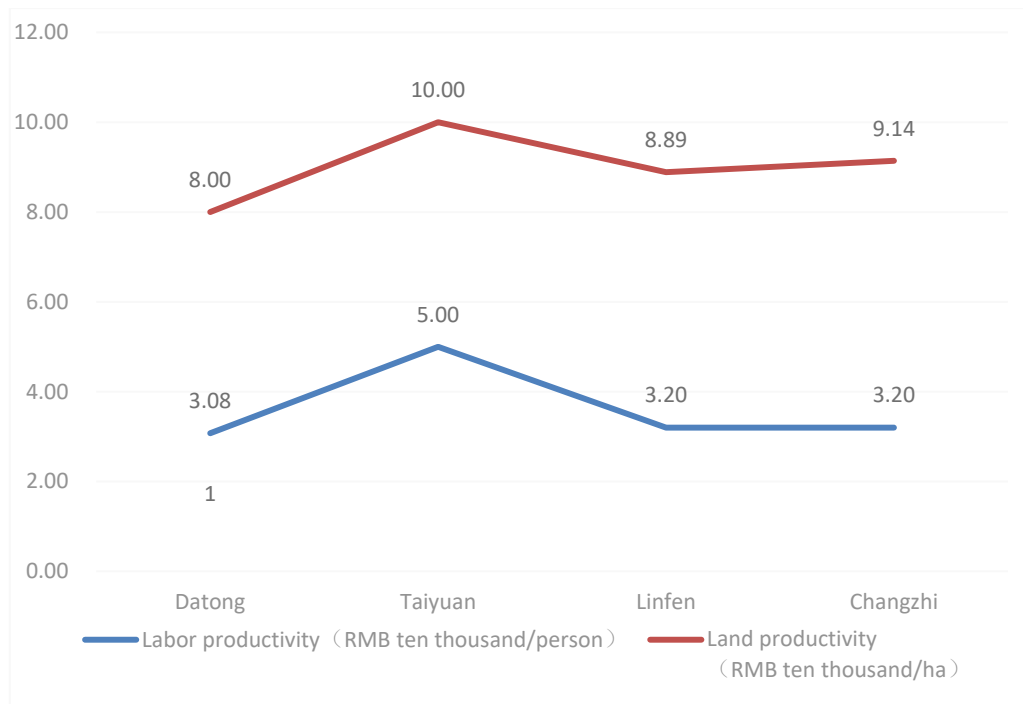


Figure 1. Average output value of labor and land yield rate in various areas of Shanxi Province

### 3. Conclusion

The first batch of 13 scenic spots realize online and offline synchronous operation; A promotion meeting on leisure agriculture and rural tourism was held in Shanxi Province on September 29, 2019. Shanxi Province, through policy guidance, demonstration drive, quality improvement, brand guidance and marketing promotion, speeds up the development of leisure agriculture and rural tourism, takes leisure agriculture as the main way to promote agricultural income and agricultural efficiency, and bases itself on the "integration of agricultural production, life and ecological functions". Leisure agriculture and rural tourism have increasingly become a "trinity" of agricultural tourism culture, and a new industry, new business forms and new mode of in-depth integration of rural industry, second, third and third industries. They are playing an increasingly important role in developing modern agriculture, increasing farmers' incomes, building a new socialist countryside and completing the building of a moderately prosperous society in all respects.

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