

## Exploration of Rural Revitalization Model in the New Era Background

—Based on the Investigation of the Current Development Status of Traditional Chinese Medicine Industry in Jiuzihe Town

Xian Li<sup>a,\*</sup>, Zishan Ye<sup>b</sup>, Shuyue Guo<sup>c</sup>, Yuxin Xia<sup>d</sup>, Yongteng Wang<sup>e</sup>, Duo Zheng<sup>f</sup>

College of Life Sciences and Health, Wuhan University of Science and Technology, Wuhan, Hubei, China

<sup>a</sup>lixian@wust.edu.cn, <sup>b</sup>577330392@qq.com, <sup>c</sup>2863603385@qq.com, <sup>d</sup>1072306883@qq.com, <sup>e</sup>2646373884@qq.com, <sup>f</sup>351279161@qq.com

\*Corresponding author

**Keywords:** Rural Revitalization, Traditional Chinese Medicine Industry, Agricultural Development

**Abstract:** Jiuzihe Town is the famous "town of Tuckahoe" and "Town of Gastrodia", and the Chinese herbal medicine industry has become the pillar industry for the masses to get rid of poverty and get rich. The town of Chinese herbal medicine planting area of more than 30,000 mu, there are two Chinese herbal medicine scale enterprises, more than 60 professional cooperatives, industrial annual output value of more than 300 million yuan. Since the implementation of targeted poverty alleviation, 6,352 people in 2,158 households have been lifted out of poverty by relying on the Chinese herbal medicine industry, with an average household income of 9,000 yuan. Since the precision poverty alleviation work has been carried out, the town Party committee and the government have taken the development of the Chinese herbal medicine industry as an important characteristic industry in poverty alleviation and as a "prescription" to get rid of poverty and get rich. With the hand of the government, press the "fast forward button" for the development of the Chinese herbal medicine industry. The characteristic agricultural development mode on the road of rural revitalization is explored with the industrial poverty alleviation mode of Jiuzihe Town people's government, and the rural management mode is explored with the government mode, the enterprise mode and the peasant household mode. The national strategy of rural revitalization is expected to develop faster and promote the rural regional economic revitalization.

### 1. Introduction to the Basic Situation of Jiuzihe Town

Luotian is located in the northeast of Hubei Province, at the southern foot of the Dabie Mountains, in a mountainous area of "eight mountains, one water, and one field". It has a subtropical monsoon climate and covers an area of 2144 square kilometers (including 380000 acres of arable land and 2.2 million acres of mountain forest). The distribution and reserves of Chinese herbal medicine in Luotian County are rich and diverse, with a total of 188 families, genera, and 1628 species of wild Chinese herbal medicine.

In order to expand and strengthen the pillar industry of *Poria cocos*, the Luotian County Party Committee and Government attach great importance and have formulated a series of preferential policies to attract funds from all parties and establish a stable *Poria cocos* product sales market and network. In terms of sales strategy, adopt a business model of "base+company+association+farmer". Especially the joint-stock private enterprise Zhengguang Jiuzihe Pharmaceutical Co., Ltd., established in October 2003, has become a leading enterprise in the *Poria cocos* industry in the Luotian and even Dabie Mountains regions. It has a strong foundation in various fields such as production, acquisition, processing, and sales of *Poria cocos*. With the help of the company's sales network, it can process 3000 tons of *Poria cocos* annually. In recent years, merchants from all over the world have flocked, and the processed *Poria cocos* products are exported to countries and regions such as South Korea, Malaysia, and Japan. Under the dual effects of policy restrictions on the production of *Poria cocos* in relevant regions and the brand effect of "Jiuzihe *Poria cocos*", the sales network of Luotian *Poria cocos* is expanding day by day, and the market share is increasing

day by day. The sales pattern of "Jiuzihe Poria cocos" selling well both domestically and internationally has basically formed.

## 2. Overview of the Development of Traditional Chinese Medicine Industry in Jiuzihe Town

### 2.1. Current Development Status of Traditional Chinese Medicine Industry in Jiuzihe Town

Jiuzihe Town is located at the foot of Tiantangzhai, the main peak of the Dabie Mountains, and has rich traditional Chinese medicine resources, including many precious medicinal herbs such as *Gastrodia elata*, *Poria cocos*, *Bletilla striata*, *Eucommia ulmoides*, etc. It is well-known nationwide as the "Hometown of *Poria cocos*" and "Hometown of *Gastrodia elata*". The town has a planting area of over 30000 acres of traditional Chinese medicine, with two large-scale enterprises of traditional Chinese medicine and more than 60 professional cooperatives. The annual industrial output value is over 300 million yuan. Since the implementation of targeted poverty alleviation, relying on the traditional Chinese medicine industry, 2158 households and 6352 people have been lifted out of poverty, with an average household income increase of 9000 yuan. At present, the production of traditional Chinese medicine in the town has exceeded 17.5 million kilograms, with *Poria cocos* accounting for one sixth of the total production in China and *Gastrodia elata* accounting for one fifth of the total production in China<sup>[1]</sup>. Genuine traditional Chinese medicine has become a pillar industry for the people to lift themselves out of poverty and become prosperous.

The traditional Chinese medicine industry cluster in Jiuzihe Town has begun to take shape. Since 2013, a group of large growers such as Hou Yuejin have established *gastrodia* processing factories. After several years of development, 8 *gastrodia* planting bases have been established, with 136 members and an annual processing capacity of 650000 kilograms of fresh *gastrodia*. Nowadays, Jiuzihe Town is more proactive in cultivating and strengthening new business entities such as private enterprises, professional cooperatives, and family farms, encouraging large farmers to establish professional cooperative economic organizations for farmers, and forming a market entity system with strong economic strength, broad development potential, and strong driving force. In addition, market entities have bravely ventured into new paths to avoid the risks brought by a single industry. With the encouragement of the local government, Luotian Shencao Agricultural Technology Co., Ltd. has invested in the introduction of more than 10 herbal medicinal varieties, such as *bletilla*, seven leaf and one branch flower, *epimedium*, and pearl ginseng, actively guiding farmers to transform from traditional forest consumption industries to ecological and environmentally friendly herbal medicinal planting industries.

In order to further understand the development of the traditional Chinese medicine industry in Jiuzihe Town, our hospital's "endless growth" summer social practice team conducted a questionnaire survey in three key villages in Jiuzihe Town that focus on the development of the traditional Chinese medicine industry. After collecting 200 questionnaires, some of the results obtained are shown in the table below.

Table 1 Development of Traditional Chinese Medicine in Jiuzihe Town (n=200).

| Project  | Group             | Frequency | Percentage |
|--|-------------------|-----------|------------|
| Whether traditional Chinese medicine has been planted                              | Yes               | 181       | 90.5%      |
|  | No                | 19        | 9.5%       |
| Several kinds of traditional Chinese medicine are planted                          | One               | 74        | 37.0%      |
|  | Two or more types | 107       | 53.5%      |
| Whether to join a rural planting cooperative                                       | Yes               | 146       | 73.0%      |
|  | No                | 54        | 27.0%      |
| Whether the government should give priority to the development of Chinese medicine | Yes               | 191       | 95.5%      |
|  | No                | 9         | 4.5%       |
| What is the development prospect of traditional Chinese medicine                   | Good              | 166       | 83.0%      |
|  | Normal            | 25        | 12.5%      |

Table 2 Comparison of annual income before and after planting Chinese medicinal materials (n=181).

| Project  | Group(¥)           | Frequency | Average value(¥) |
|--|--------------------|-----------|------------------|
| Annual income before planting traditional Chinese medicine | 5,000 to 10,000    | 36        | 23,900           |
|  | 10,000 to 30,000   | 87        |                  |
|  | 30,000 to 50,000   | 58        |                  |
| Annual income after planting traditional Chinese medicine  | 30,000 to 50,000   | 24        | 110,600          |
|  | 50,000 to 100,000  | 60        |                  |
|  | 100,000 to 200,000 | 97        |                  |

According to the Table 1 data and the communication with farmers, 90.5% of the families planted Chinese medicine, and almost every family participated in the cultivation of Chinese medicine; 73.0% of families have joined rural planting cooperatives, and the number of families who have joined cooperatives is also increasing year by year. 37.0% families planted one kind of traditional Chinese medicine, 53.5% families planted two kinds of traditional Chinese medicine, and most families planted Gastrodia and poria. 95.5% of the families think that the government should give priority to the development of Chinese medicine. Although some families do not cultivate Chinese medicine, they still think that the development of Chinese medicine is very important and should be given top priority. 83.0% of the families are very optimistic about the development of Chinese medicine, and think that its development is strong, good momentum, and broad prospects for development, and 12.5% of the families remain wait-and-see, and have no ideas, and the remaining 4.5% of the families are pessimistic, they think that Chinese medicine cultivation will cause huge losses once affected by natural disasters. According to the data in Table 2, the average annual income of 181 families before TCM cultivation was ¥23,900, and the annual income of most families was between ¥10,000 and ¥30,000. After TCM cultivation, the average annual income rose to ¥110,600, and most families' annual income exceeded ¥100,000.

It can be seen that, on the one hand, under the guidance of the local government, villagers have changed from scattered "small and small" to collective development, and traditional Chinese medicine planting has thus developed to industrialization and scale; On the other hand, the continuous participation and strong support of the farmers have led to the steady development and continuous expansion of the local Chinese medicine industry, and it is also the vigorous development of the local Chinese medicine industry that makes the life of the farmers thriving, the two have formed a virtuous circle.

### 3. The Dilemma of Traditional Chinese Medicine Industry Development in Jiuzihe Town

#### 3.1. The research and development capabilities of new traditional Chinese medicine products are relatively weak

Due to the fact that most Chinese herbal medicine pharmaceutical enterprises in Jiuzihe Town are small and medium-sized enterprises, often pursuing short-term benefits and neglecting the introduction and cultivation of talents, there is a lack of professional talent leadership in independent research and development, and there is a serious shortage of technology. Traditional Chinese medicine is not like crops like wheat, and there is little research on how to harvest it, "said Wang Weiquan, chairman of the Chinese Medicine Association's Professional Committee for Planting and Breeding of Traditional Chinese Medicine. Fang Yonggui, the chairman of Hubei Chushiwei Traditional Chinese Medicine Co., Ltd., has repeatedly mentioned in interviews that the processing of medicinal materials lacks core technology, resulting in only rough processed products and low economic benefits. Low efficiency leads companies to be less willing to increase spending in technology areas where investment is high and results are slow, which in turn severely restricts the development of the traditional Chinese medicine industry.

#### 3.2. The planting technology of traditional Chinese medicine needs to be improved

After inoculation with *Poria cocos*, harmful bacteria that are not conducive to the cultivation of

*Poria cocos* often remain in the soil, affecting the cultivation of *Poria cocos* in the coming year. Therefore, a new soil must be replaced every time the cultivation is carried out, which reduces the efficiency of *Poria cocos* cultivation. Similarly, in the field of *Gastrodia elata* cultivation, specific bacterial and tree materials are required for *Gastrodia elata* cultivation. However, the quality of *Gastrodia elata* obtained from locally produced bacterial strains is not high, so importing from other places has become a good choice, but it increases the planting cost.

### **3.3. There is still great room for sustainable development in the traditional Chinese medicine planting industry**

More than 80% of high-quality Chinese herbal medicines are planted in small areas, resulting in low production efficiency and a small total amount of continuous development and planting, making it difficult to generate scale effects; Due to the lack of effective connection between planting and sales channels, as well as market information, pharmaceutical farmers are facing a prominent contradiction between production and sales due to the decline in prices. In addition, there is a lack of deep processing enterprises, and the development of medicinal products is mostly in the primary processing stage, which hinders the formation of a characteristic agricultural industry chain that integrates trade, industry, and agriculture. With the expansion of the cultivation scale of Chinese herbal medicine, the demand for wood and land has further increased, which is also a significant test for the environment.

### **3.4. Insufficient cultural dissemination of characteristic traditional Chinese medicine cultivation**

The characteristic town of Jiuzihe focuses on agricultural services and tourism development, highlighting the cultivation of local Chinese herbal medicine. The view that local residents still regard the inherent tourism development as the primary industry in their perception needs to be changed. There is a lack of systematic and comprehensive channels for understanding local characteristics. The tourism industry in Jiuzihe Town has regional advantages, but it has not strengthened effective connections with the local traditional Chinese medicine industry. The development of local characteristic traditional Chinese medicine has not made much use of the existing tourism industry dividends, and the weaknesses in exploring the connotation of traditional Chinese medicine culture, platform construction, carrier construction, inheritance and protection, popularization and dissemination, practical application, and industrial transformation are more prominent, resulting in a small variety of products for traditional Chinese medicine health tourism Weak brand effect.

### **3.5. The development of the Chinese herbal medicine market in Jiuzihe Town faces new challenges**

Firstly, the export channels of Chinese herbal medicine products are limited, and due to geographical location and natural environment limitations, some enterprises still rely on indirect export methods for product exports, resulting in weak positive industrial agglomeration effects. According to the results of the group questionnaire survey, the vast majority of Chinese herbal medicine enterprises in Jiuzihe Town are in the form of cooperatives, mainly acquiring Chinese herbal medicines such as *Poria cocos* and *Gastrodia elata* grown by local retail households, and their geographical distribution is relatively scattered. More than 30 production cooperatives are distributed in different villages in Jiuzihe Town, making it difficult to generate a positive industrial agglomeration effect.

Secondly, most of the Chinese herbal medicine enterprises are small and medium-sized enterprises. Jiuzihe Town has more than 180 Chinese herbal medicine related industries, but there are only a few leading enterprises. Small and medium-sized enterprises mainly develop under the leadership of large leading enterprises, with weak technological innovation capabilities and international market expansion capabilities. The possibility of solo flight is not high, which limits their all-round development.

## **4. Conclusion: Analysis of the Development Path of Jiuzihe Town and Similar Traditional Chinese Medicine Industry**

Rural revitalization is a strategic decision for China to solve the problems of agriculture, rural areas, and farmers. Industrial prosperity is the key to rural revitalization. Jiuzihe Town and other rural areas mainly engaged in the pharmaceutical industry should seize the strategic opportunity of implementing rural revitalization in China, consolidate the existing industrial foundation, promote the upgrading of regional characteristic agriculture, and achieve high-quality development.

### **4.1. Strengthen the supply of industry talents**

To comprehensively promote rural revitalization, talent revitalization is the key. We should not only focus on the cultivation of local talents, but also focus on leveraging the power of external talents, either directly introducing them or conducting cooperation.

#### **4.1.1. Strengthen the cultivation of local talents**

To address the shortcomings in industrial development, local governments should strengthen training on planting and processing techniques for local farmers, and cultivate new industrial workers. At the same time, the government should also formulate policies and establish platforms to encourage migrant workers and business talents to return to their hometowns for entrepreneurship, and provide policy support such as start-up funds and tax reduction for outstanding individuals; Organize local talents to study in foreign enterprises and universities, expand their horizons, exchange experiences, and enhance confidence.

#### **4.1.2. Flexibly utilizing external talent advantages**

The government injects fresh blood into the development of the traditional Chinese medicine industry through investment promotion, talent introduction, and other means. The government relies on the resource advantages of higher education institutions to establish cooperative relationships with them in talent cultivation, agricultural training base construction, and other aspects, carry out industry university research cooperation, and focus on strengthening talent cultivation in planting technology, production processing, enterprise management, marketing, and other aspects. The cooperation between both parties can be long-term, comprehensive, or short-term, targeting specific projects or technical difficulties.

### **4.2. Promoting the concept of sustainable development**

The development of rural industries must implement the concept of green development, casting ecology and green as the genes and soul of industrial development. With the increasing popularity of traditional Chinese medicine cultivation at present, the industry has encountered problems such as indiscriminate logging and outdated production techniques, which have seriously affected the development of the traditional Chinese medicine industry. To effectively solve the problems that arise in the development of the traditional Chinese medicine industry, it is necessary to strengthen the protection of traditional Chinese medicine variety resources, standardize production technology, promote a batch of advanced traditional Chinese medicine production technology standards, and achieve the goal of sustainable development of the traditional Chinese medicine industry. For example, excellent strains that coexist with *Gastrodia elata* can be promoted to achieve high-quality, high yield, stable yield, safety, and controllability of *Gastrodia elata*.

### **4.3. Emphasize brand promotion**

Brand is the core symbol of agricultural competitiveness, an important engine of modern agriculture, and a key support for rural revitalization. Building a brand of traditional Chinese medicine can effectively enhance market competitiveness and drive high-quality development of the traditional Chinese medicine industry. Relying on existing cultural tourism resources, efforts will be made to build brand bases such as *Poria cocos* culture theme park, traditional Chinese medicine culture lecture hall, and Yu Sansheng Memorial Hall. The brand promotion of the

traditional Chinese medicine industry will be carried out through festival activities such as the Beijing Opera Boxer Festival and Traditional Chinese Medicine Culture Festival, and efforts will be made to promote the rapid development of the traditional Chinese medicine industry<sup>[2]</sup>.

#### **4.4. Promote the development of e-commerce**

The government is vigorously developing e-commerce, firstly by building a three-level logistics system in counties, towns and villages to achieve full coverage of rural e-commerce service sites. At the same time, the introduction of a number of well-known domestic e-commerce, to achieve the two-way circulation of "network goods to the countryside" and "agricultural products up", expand the sales channels of agricultural products, and solve the problem of farmers' difficulty in buying and selling. The government conducts e-commerce training to encourage and attract young people to use e-commerce platforms to return to their hometowns and start businesses, achieving the return of rural talents<sup>[3]</sup>.

#### **4.5. Improve the traditional Chinese medicine industry cluster**

In view of the current traditional Chinese medicine industry chain is relatively short, basic, raw material, intermediate products accounted for a relatively high proportion of the outstanding problems of terminal products, targeted to supplement the chain, extend the chain and strengthen the chain. With the industrial organization concept of "focusing on the frontier, creating ecology, polymerization along the chain, and cluster development", we break through the double recruitment and double introduction, focus on making the leading industry bigger and stronger, promote the transformation of full investment to professional investment, and form a series of high value-added industrial clusters through 3 to 5 years of efforts<sup>[4]</sup>.

### **Acknowledgements**

This project relies on the Innovation and Entrepreneurship Training Program for College Students at Wuhan University of Science and Technology (Project No. 22S030) and the Summer Three Rural Social Practice Activities of the Communist Youth League Central Committee and the Ministry of Education. We are particularly grateful to Ye Jinming, the then Secretary of the Party Committee of Jiuzihe Town, and the local people of Jiuzihe Town for their strong support, and have contributed first-hand research data to this study.

### **References**

- [1] Yun-lin,W.Zhong-sheng,S.Hui-yi,Q. Wu Na, liushimin. There are "drugs" for poverty control and ways to become rich. Huanggang daily, April 29, 2020 (001)
- [2] Wen,Z.Jian-hua,Z.Analysis on the development path of regional characteristic agricultural branding -- Taking Shangzhu salted duck in Rucheng County as an example. China collective economy, 2021 (26): 69-70
- [3] Hai-yan,H.Yu-chuan,W.Pei-chao,H.Xian-lun,Y.Research on the obstacles and ways of sustainable development of Gastrodia elata industry in China . rural science and technology, 2018 (35): 19-21
- [4] Bai-kun,W. Breaking the ice of thought and breaking the development siege. Huanggang daily, May 12, 2021 (002)