

Research on the Development Model of Selenium-rich Agricultural Typical Areas from the Perspective of Agricultural Industrialization

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Abstract: The agricultural form featuring selenium has become an important direction and innovative form of precise poverty alleviation and industrial revitalization. This article takes the typical areas of selenium-rich agriculture in China as research objects, and hopes to explore the development law of selenium-rich agricultural industrialization. This article conducts theoretical research on industrialization, compares the main methods of industrialization in different selenium-rich agricultural areas, grasps the current situation of typical selenium-rich agricultural areas in China, and proposes four basic development models of selenium-rich agricultural industrialization. Therefore, selenium-rich agricultural typical region realizes its own development by the integration of one or more models, bringing rural revitalization for the fields of "selenium".

1. Introduction

With the continuous advancement of the overall strategy for rural rejuvenation and the integration of Healthy China strategy into the public, the development of characteristic agriculture is moving towards sustainability and greening. Known as the "King of Cancer" and "Fire Tinder", Selenium has a variety of pharmacological effects on the human body. The selenium-rich agricultural form is embracing broad development prospects and huge development space.

The development of typical selenium-enriched agricultural regions in various regions has presented an uneven characteristic. It is combining regional characteristics, coordinating various subjects, and exploring and advancing towards the direction of industrialization. In the macro-scale pattern of agricultural industrialization, how to explore regional development models according to regional characteristics and actual conditions, has become an important issue for regional selenium-rich agriculture.

2. Overview of Selenium-rich Agricultural Industrialization Research

2.1 Theoretical Research ON Agricultural Industrialization

Agricultural industrialization is a sustainable development of basic agriculture that stimulates the endogenous development of the economy. It has always been valued by the academic community. Its concept first emerged in the 1950s. It is also known internationally as "agricultural integration" [1]. At present, domestic research based on this is mainly carried out in two directions: structural theory and evolution theory. Structural theory emphasizes specialized production, integrated management, and enterprise management, and highlights the stacking of factors from the production side to the sales side, thus making it a unified production and management system [2]. The viewpoint of evolution theory believes that agricultural industrialization is the process of the integration and development of traditional agriculture and other industries, and the process of modern agriculture [3].

Although the academic world focuses differently on this issue, its basic characteristics include the following ideas: one is market-oriented; the other is economic efficiency as the basic goal; the third is to coordinate various subjects, such as agricultural production enterprises and sales. Under the conditions of a socialist market economy, agricultural industrialization is an important choice

for cultivating the advantages of new agricultural development, promoting the development of agriculture and rural areas, realizing the prosperity of the industry, and helping rural areas to rejuvenate.

2.2 Research on Industrialization model of Selenium-enriched Agriculture

Selenium-enriched agriculture is a new agricultural form that is developed based on the absolute or comparative advantages of characteristic agriculture. With the breakthroughs in agricultural and rural development, it is increasingly showing an industrial trend. Currently, the theme or main body of selenium-rich agriculture is industrialization. But there are few studies, and the direction is focused on the status, characteristics, and strategies of selenium-rich agriculture in a specific region. There are even fewer studies that take the development model as the starting point.

After analyzing the development status of selenium-rich agriculture in Guangxi, Shi Guomao (2017) explored the solutions to the problems encountered in the process of selenium-rich agriculture industrialization from six levels, including industrial planning, technology research and development [4]. Other scholars, such as Chen Xuhao (2017), from the perspective of development strategy, explored the sustainable development of selenium-rich agricultural industrialization [5].

Therefore, in combination with the characteristics of typical selenium-rich agricultural regions, exploring the development model of selenium-rich agricultural industrialization is beneficial to deepening theoretical research and exploring countermeasures.

3. Development Status of typical Selenium-rich Agricultural Areas

3.1 Distribution of Typical Selenium-rich Agricultural Regions

China's selenium-poor or selenium-deficient areas account for about 72% of the country's land area, and there is a great imbalance in selenium resources in space. Because selenium cannot be synthesized in the human body, it can only be cultivated by plant absorption of selenium Selenium products, so selenium-rich agricultural areas mainly rely on nearby selenium-rich soil resources.

Typical selenium-rich areas mainly include Enshi, Hubei; Ankang, Shaanxi; Kaiyang, Guizhou; Yongfu, Guangxi; Fengcheng, Jiangxi; Taoyuan, Hunan; Jiangjin, Chongqing; Shitai, Anhui; Ping'an, Qinghai; Lu'an, Fujian; Longyou, Zhejiang and other places [6].

3.2 Coexistence of Opportunity and Risk Based on Agricultural Industrialization

The above-mentioned three points of industrialization of agriculture reveal the external economic opportunities and constraints of the internal industrial chain typically faced by selenium-rich agriculture. The shift in mass consumption concepts has increased the consumer group of selenium-rich products, and the supply-side structural reform has promoted production. It is significantly greener and more sustainable, and the selenium-rich industry characterized by health and green occupies a new market commanding height, while expanding market capacity and space with its high product quality.

The scarcity of selenium-enriched resources creates inconsistencies between limited supply and expanded demand, making selenium-enriched products occupy high prices in many categories and also maintains high demand elasticity, which means that the economic benefits of selenium-enriched agriculture are relatively high. It attracted the participation of farmers, contractors, dealers, and technicians, and cultivated a new type of selenium-rich agricultural subject.

The development of selenium-rich agricultural industrialization is generally in its infancy, and the level of selenium-rich agricultural industrialization is relatively low. The output of single products is large, but high-quality products are lacking, and the product structure needs to be optimized; there is no clear supporting selenium-rich product on the market Product quality standards and brand differences vary. The driving force for the conversion of comparative advantage to quality advantage is insufficient. It still takes time to build core competitiveness, and it needs to enhance the sustainability of benefit creation. Leading companies, as important pillars,

have less distribution and weak driving forces [7].

To sum up, from the perspective of agricultural industrialization, the development and extension of China's typical selenium-rich agricultural areas benefit from changing policy orientation and consumption atmosphere, but are limited to its own production conditions, technological levels, and market conditions. Based on regional characteristics, exploring the development model of selenium-rich agriculture industrialization has become an important direction for selenium-rich agriculture in the longer stage.

4. Exploring the Industrialization Development Mode of Typical Selenium-rich Agricultural Areas

Selenium-enriched agriculture is essentially a regional characteristic agriculture. The core is "special". That is to say, the road to industrialization of selenium-enriched agriculture is different from different realities. Summarize the regularity of the roads with different characteristics. In other words, it summarizes several important models of selenium-rich agricultural industrialization, analyzes the absolute or comparative advantages of selenium-rich agricultural areas, and briefly analyzes the potential risks, which is of great significance for deepening the comprehensive understanding of selenium-rich agricultural industrialization.

4.1 Selenium-rich Resources and Diversified Development

Centralized, large-area selenium-enriched soil is the biggest competitive advantage of this model. Large-scale planting of multiple food crops, cash crops, and specialty crops. It is mainly based on direct sales or rough processing, and various types of agricultural cooperatives or selenium-rich agriculture are established. Typical areas include Taoyuan, Hunan, and Shitai, Anhui, etc. Among them, Taoyuan, Hunan, develops a variety of selenium-rich agriculture in a pattern of "Northern rice, southern tea, eastern fruits and vegetables, western cereals, and Chinese tea oil." In 2018, sales of selenium-rich products were nearly 12.47 tons, and sales revenue reached 3.388 billion yuan.

There are various brands of agricultural and sideline products, but most of them are mainly for the production of raw material products, less refined processing, insufficient technological innovation, and insufficient industrial chain. They are highly dependent on natural factors, and the stability and cohesion of production are insufficient.

4.2 Industry-University-Research and Fine Processing

Open up the technology chain of selenium-rich agriculture, deepen cooperation with scientific research institutions, universities, technical teams, etc., finely process selenium-rich agricultural products, or carry out scientific research centered on "selenium". The main innovation is to integrate technical elements into the industrial chain. For example, Enshi, Hubei and Ankang, Shaanxi, etc. As the earliest developed selenium-rich agricultural production area, Hubei Enshi, the "selenium capital of the world", has now established a national-level testing platform and a national selenium product quality supervision and inspection center [8].

Ankang Konjac Industry R & D Center has established multiple relationships with research institutes such as Northwest A & F University, Huazhong Agricultural University, and Qinba Konjac Research and Development Center to promote technological innovation and focus on the development of konjac food and follow-up products.

Refined processing has injected strong vitality into the enterprise, but in specific operations, the transformation of technical results, the effective application of technical means, and the legal protection of technical patents still need to be considered. In addition, the cost growth and management derived from deep development need to be properly handled.

4.3 Top-level Design and Policy Tilt

Government policy guidance is one of the necessary conditions for the industrialization of selenium-rich agriculture. This modal happens in areas where selenium-rich agriculture has been developed late, or the economic level is low, or the role of top-level design is increasingly

important. Incentive development policies are adopted in the early stages and Good coordination and arrangement work, and later focus on coordination and progress. Typical areas include Jiangxi Fengcheng and Zhejiang Longyou. For example, Jiangxi Fengcheng established a selenium-rich industry development leadership group in 2006; it arranges financially for selenium-rich agricultural special projects and Construction funding; vigorously attracting investment through preferential policies.

The "invisible hand" must strike a balance between "release" and "management". Excessive support may reduce the efficiency of selenium-rich agricultural inputs, and even dampen enthusiasm, and diminish marginal efficiency; prevent opportunities for policy speculators brought by preferential policies Doctrine; foreign investment must not abandon the cornerstone of local development.

4.4 Brand Consensus and Cultural Guidance

The consensus and identity of selenium-enriched products has expanded the cultural value of selenium-rich agricultural industrialization, and cultivated the inherent spiritual power to promote industrial upgrading. Focus on brand and cultural construction, or deep historical heritage, or earlier development time. Typical are Jiangjin, Chongqing; Kaiyang, Guizhou; Haidong, Qinghai, etc. Jiangjin District, Chongqing is known as the "Hometown of China's Longevity". Since 2013, the district government has arranged financial special projects for selenium-rich brands every year.

The value of selenium-enriched brands has been amplified in the new media era and the Internet era, but the brand is derived from solid accumulation. Based on the small negative information of selenium-enriched products, the brand value may be greatly damaged after amplification. It is difficult to say selenium-enriched story well in passive promotion. High-quality and low-price selenium-enriched products are a strong backing for the brand to break away from external promotion methods but win the market.

5. Conclusions and Explanations

5.1 Auxiliary Instructions

The industrialization development model of typical selenium-rich agricultural areas is not isolated, but both, or interpenetrating. That is to say, the exploration of the model of a typical area involves the above-mentioned multiple aspects, with only different emphasis in each aspect. For instance, Enshi, Hubei is an area where selenium-rich agriculture started earlier in China. It focuses on carrying out industry-university-research and building an industrial chain, but it is also doing a good job in the business card and brand of "World Selenium Valley". With the integration of urban and rural areas and the adjustment of industrial structure, the integration of development models has gradually emerged.

5.2 Main Conclusions

Industrialization of selenium-enriched agriculture can bring economic benefits, improve agricultural structure, stimulate industrial vitality, and help rural revitalization on the premise of combining regional conditions and characteristics. In terms of development models, typical areas of selenium-rich agriculture in China use selenium-rich resources and diversified development, industry-university-research and refined processing, top-level design and policy tilt, brand consensus and cultural guidance, etc., to open up the fields of "selenium" hope.

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