

Refined Agriculture Model for Rural Development

-- A Case Study of She County, Huangshan City, Anhui Province

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Abstract: In the context of the development and progress of agricultural science and technology in China, exquisite agriculture came into being. Its goal is to produce high quality, high value-added agricultural products, adopt characteristic product-oriented, standardized production mode, industrialized operation, adhere to the original natural farming concept of planting, and create exquisite characteristic vegetable land with all-ecological planting. By analyzing the resource endowment of She County, Huangshan City, Anhui Province, this paper argues the necessity of developing exquisite agriculture in She County, followed by summarizing the current situation of exquisite agriculture development in She County, analyzing the problems in development and putting forward relative suggestions, so as to provide ideas for realizing rural revitalization.

Keywords: She County, Rural revitalization, Exquisite agriculture model, Integration of three rural industries.

1. Fine Agriculture Overview

1.1. Definition of Fine Agriculture

Precision agriculture is an integrated system that combines traditional agriculture with agricultural high technology for agricultural production. It seeks to achieve high quality, high quality and high value-added agricultural products, which in turn lead to high quality and efficient agricultural production. Its main features are standardization and industrialization, while also highlighting characteristics [1].

Precision agriculture is based on high input and high technology, the core is standardized production, characterized by exquisite refinement, and the ultimate goal is to achieve a high rate of return by virtue of higher quality, competitive advantage, and price advantage [2]. Precision farming is its basic production method, with the aim of obtaining the highest output with the least input and the lowest consumption. High quality, high value-added and high commodity rate are its main production forms, which are required to meet the needs of the market economy. Standardization of the production process is its basic embodiment, requiring the application of modern science and technology. Scientific planning of production, processing, packaging, circulation and other aspects to achieve standardization and industrialization. At present, it has become the most important form of realization for modern agriculture to carry out the optimal allocation of production factors, and is also a powerful grip to realize the transformation of agricultural growth. The promotion of refined agriculture most Zhang will enhance the comprehensive efficiency of agricultural development and build up a scientific agricultural production model [3].

1.2. Contents of Fine Agriculture

1.2.1. High Level of Technology Content

The highly technology-intensive nature of exquisite agriculture is reflected by the adoption of the latest agricultural technologies for facility cultivation. In this regard, we insist on closely combining the active development of our own agricultural technology with the introduction of advanced foreign technology to maximize the breakthrough

of various conditions such as soil, climate and environment [4]. At the same time, the maturity period of agricultural products is also regulated in an orderly manner according to the market demand, so as to maximize the length of the marketing period and achieve the maximum economic benefits. Efforts are made in the reprocessing of agricultural and fishery products to continuously improve the level of processing, packaging equipment, storage and transportation conditions to further enhance the added value of products. Deeply promote the use of product marketing concepts, fine do a good job in every aspect of the process of transportation, storage and sales of agricultural products. Effectively ensure that the economic value of agricultural products to achieve, but also for farmers to bring the best economic benefits.

1.2.2. Strict Inspection Standards

In the production process, we insist on strict inspection of product quality of agriculture, forestry, animal husbandry and fishery. We establish high standards to achieve zero pollution and pure green. In the process of sales, we strengthen the safety control of food through strict inspection by judicial authorities to ensure absolute safety and security. Continuously introduce and develop new varieties of agriculture, animal husbandry and fishery to ensure the development of agriculture to a full range of superior quality types. Continuously promote the diversification of agricultural products so as to meet the different needs of different consumers to a greater extent. Further expand the market share and win more market share...

1.2.3. Development of Tourism and Leisure Agriculture

Adjust traditional agriculture according to local conditions, from providing staple food and industrial raw materials. To provide products for ornamental, amusement, entertainment and other spiritual and cultural needs, break through the traditional agricultural development dilemma and put farmers on a new economic development path. Reduce the use of chemical fertilizers and ban pesticides in exquisite agricultural production. The concept of ecological agriculture is established in the hearts of local farmers, making green, safe and pollution-free a consensus, and also making exquisite agriculture achieve healthy and scientific development[5].

2. She County Resource Endowment Analysis

2.1. Advantageous Factors

She County is located in the south of Huangshan City, adjacent to Hangzhou City, Zhejiang Province. She County's geographical location determines that it is the window for the development of Huangshan City to the east and an outpost for Huangshan City to integrate into the Hangzhou metropolitan area.

Xihuang Expressway, Hangrui Expressway, Huangqianjin Expressway and Huangqi Expressway intersect in Shexian County, and the high-speed connection between Jingtai Expressway and Huangqi Expressway is under construction; Hanghuang High-speed Railway, Hefu High-speed Railway, Ningxuan Huang High-speed Railway, have been completed, Chihuang High-speed Railway and Changjing Huang High-speed Railway are under construction, and Hanglin Jie High-speed Railway is also on the agenda, of which Hanghuang High-speed Railway, as the first tourism high speed railway in China, passes through 57 national scenic spots and is completed After the completion of Hangzhou-Huang Huang High-speed Railway as the first national tourism high-speed railway, through 57 national scenic areas, the rate of revisiting tourists significantly increased, and once the Hangzhou-Lingji High-speed Railway is completed, Shexian to Hangzhou is only thirty minutes. As a "double-high" county, highways and high-speed railroads are vital to the development of Shexian County, and are also important conditions for Shexian County to integrate into the domestic circulation.

She County has a first-class ecological environment in the country, with a county-wide forest coverage rate of 82.15%, an average PM2.5 concentration of 21.7 micrograms per cubic meter, 97.5% of good atmospheric days, and most surface waters maintaining national and Class II standards.

She County's unique mountainous terrain has led to the development of six major brands of local agriculture: tea, silkworms, Huangshan chrysanthemums, fruits and vegetables, bonsai and bamboo, and livestock products. Among the tea varieties, Huangshan Mao Feng, Huangshan chrysanthemum produced in Jinzhu Village of She County and Santan loquat produced in Zhangtan Village, Miantan Village and Bo Tan Village are well known in China and abroad and are well received by consumers.

2.2. Disadvantageous Factors

2.2.1. Lack of Innovation and Strength in Industrial Development

In 1988, the town of Yansi, which was the industrial base of She County at that time, was assigned to Huizhou District, and Yansi Town as the extremely precious basin terrain of Huangshan City, after Yansi Town was assigned away led to a stagnation of She County industry in the next 15 years; in 2003, She County Economic Development Zone was formally established, many secondary industries were built almost from scratch, industrialization was in full swing, and in 2006, the Anhui Provincial Government upgraded She County Economic Development Zone was upgraded to a provincial-level development zone, and the development of industrialization in She County entered a new stage. However, after 2010, industrial development gradually slowed down and industrial development gradually fell into a bottleneck, according to the number of industrial enterprises above the

scale in She County in previous years, the number of industrial enterprises above the scale in She County after 2015 was stable around 163; according to the gross industrial product in She County in previous years, the growth rate of gross industrial product in She County in previous years after 2012 kept slowing down; in 2020, high-tech enterprises in She County only accounted for 20.5% of the enterprises on the scale, 567 people with intermediate titles or above in the park, accounting for only 2.3% of the employees in the park, and only 10 or so invention patents authorized from local in the year.

2.2.2. Low Digitization of Industry

She County industry mainly to auto parts, new materials, fine chemicals, green food and fabrics textile and other traditional industries, production products and technologies are relatively mature, the degree of industrial digitalization is not high, the development base is relatively weak[6]. From the intelligent level, most of the enterprises are mostly four-axis and below CNC machine tools, CNC processing capacity is not enough, the application of robots in CNC processing is not extensive, such as the national two integration of the standardization system certification of enterprises only 1, the province identified only 1 digital workshop, smart factory has not yet achieved a breakthrough. In the context of big data, enterprise intelligence progress is slow, the development of dynamic transformation and upgrading is a long way to go.

2.2.3. Natural Disasters Occur Frequently

In recent years, natural disasters have been frequent in Huangshan City. In January 2018, the most serious snowstorm of the last decade occurred in Huangshan City, affecting more than 150,000 people and causing direct economic losses of 40 million yuan, and in August, the typhoon "Wenbiya", which had the greatest impact on Anhui Province in the last twelve years, and various natural disasters occurred in 2018 alone. In 2020, the length of the rainy season and the amount of rainfall were several times that of previous years, and the continuous rainfall led to a major flood in the Xin'an River basin, flooding 101 villages along the river and its tributaries in She County, and a total of 310 individual business and industrial enterprise households in the Economic Development Zone suffered losses, with a cumulative loss of 2.38 billion yuan in the Zone; at the end of 2020, the new crown pneumonia swept in, and the strict implementation of the epidemic prevention policy had a great impact on tourism The impact on the tertiary industry, such as tourism, was enormous.

3. Analysis of the Current Situation of Exquisite Agriculture Development in She County

3.1. The Need to Develop Sophisticated Agriculture

As the terrain of She County is mainly mountainous and hilly, accounting for about 95% of the county area, the altitude difference is large, and the external traffic of villages is mainly on the Panshan Highway, large-scale mechanized farming cannot be carried out, which leads to low agricultural production efficiency and difficulties in income generation, resulting in a large exodus of young and strong rural laborers, and even causing a series of social problems such as hollowing out of the countryside, leaving children behind and empty nest elderly. Therefore, the development of

sophisticated agriculture with high technology to improve production efficiency is the first choice for the rural revitalization project in She County.

3.1.1. Excellent Ecology and Abundant Agricultural Products

She County is located in the mountains of southern Anhui, a subtropical monsoon climate, mild climate, abundant rainfall, beautiful environment, biological diversity, forest coverage reached 82.46%, very suitable for the growth of a variety of high-quality crops, the formation of local characteristics of tea, chrysanthemums, pecans, loquats, citrus, grapes, prunes, oil tea, green vegetables, bonsai and other high-quality industries, the development of exquisite agriculture has a unique natural There are unique natural conditions for the development of exquisite agriculture, and the special farming industry has a broad prospect.

3.1.2. Government Attention, Synergy Enhancement

Refined agriculture is an important form of modern agriculture. The process of agricultural refinement is the process of optimizing the allocation of various factors of production in agriculture, the process of changing the mode of agricultural growth, and the process of improving the quality and efficiency of agricultural operations. The county government has always attached importance to the development of the agricultural industry, especially at the beginning of this year, the county government issued "on the creation of agricultural products and agricultural products processing industry "A team" work implementation opinions", "on strengthening the promotion of agricultural "three products and a standard" work implementation opinions", "on the promotion of "tourism + exquisite agriculture", "on the promotion of "tourism + exquisite agriculture". On enhancing the "tourism + exquisite agriculture" integration work implementation views, "on increasing financial support for agricultural enterprises implementation views", "on speeding up the "Internet + agriculture" work implementation views" and a series of documents, which strongly promote the She County The healthy and steady development of refined agriculture in She County.

3.1.3. Focus on Brand Building and Reputation Enhancement

She County has 12 provincial famous trademarks of agricultural products, 24 municipal famous agricultural products, 1 provincial famous brand products of agricultural products, 16 famous brand products of Huangshan City, 4 national geographical indication products approved by the State Administration of Quality Supervision, Inspection and Quarantine, and 2 national geographical indication certification trademarks approved by the State Administration for Industry and Commerce. In recent years, won the "China famous tea township", "national economic forestry construction advanced county", "China loquat township", "Anhui Province, the characteristic fruit of The title of "Forest City of Anhui Province", "National Forest Tourism Demonstration County", etc., the reputation of She County agricultural products has been greatly enhanced and its influence expanded.

3.1.4. Focus on Cultivating New Agricultural Business Entities, Industry Tends to Scale up

After the land rights were confirmed, the county transferred 47,310 mu of land, and the agricultural industry tended to scale up its operation. The planting scale of tea, pecan, loquat, citrus, chrysanthemum and oil tea has been stabilized at

267,000 mu, 129,000 mu, 22,000 mu, 14,000 mu, 50,000 mu and 134,000 mu respectively. She County has 8 agricultural provincial leading enterprises, 39 municipal leading enterprises, 623 agricultural professional cooperatives, including 47 national, provincial, municipal and county model societies, 693 large scale farming households, 150 family farms, "a township a product", "a village a product ", "a region a variety" of scale, intensive, characteristic development pattern gradually formed. Tianmu Mountain pecan, Santan loquat, three mouth citrus, Fudai plum, on the abundance of snow pear, Song village grapes, selling flowers fishing village bonsai and other regional varieties have become far-famed characteristic brand.

3.2. Problems in the Development of Fine Agriculture

At present, She County is in the transition stage of traditional agriculture to modern agriculture, accelerate the development of exquisite agriculture, there are still many difficulties and problems.

3.2.1. Rough Agricultural Base and Small Scale of Leading Enterprises

She County agricultural products production and operation mainly in small-scale, the lack of large-scale, industrialized leading enterprises, various professional associations, intermediary organizations slow development, it is difficult to play a leading role, resulting in the contradiction between the main unit of small production of farmers and socialized large market is prominent, the scattered form of production organization is difficult to control the quality and safety of products, especially the problem of pesticide residues, it is difficult to ensure "safety on the tip of the tongue" [7]. She County leading enterprises are not large in scale, deep processing is not strong, the agricultural products processing industry chain is short, the industry threshold is low. Agricultural products processing enterprises of small scale, low grade, low technology content, low added value, most of the high-quality tea in She County became raw materials for others, nearly half of the pecans have to be shipped to Lin'an processing, even processing fees themselves can not earn, farmers and enterprises in the whole industry earnings less. No scale base and leading enterprises this basis and bridge, the lack of market competitiveness of agricultural products and brand influence of agricultural products, coupled with the lack of analysis of market forecasts, farmers can sometimes only face the "bumper crop" dilemma, She County tea is commonly sold, but can not sell at a good price, the end of 2016 Qizi piece of pecans lagging She County, and this has a great relationship.

3.2.2. The Level of Agricultural Industry "Connecting Two to Three" Is Not High

Due to the influence of the traditional consciousness of grasping agriculture on agriculture, the degree of integration of one, two and three industries is not close, the chain is short, the added value is not high, there are too few new agricultural business entities with driving ability, the growth of new entities is slow, innovation is poor, and they do not have the ability to develop new industries, new products, new models and new industries. Many agricultural products in She County have historical and cultural connotations, but have not been tapped, and agricultural development publicity such as farming museums or agricultural products display hall have not attracted attention. The interest linkage mechanism is

loose, the cooperation is simple, and the proportion of farmers' interests closely connected with the interests of new agricultural business entities is very low. Like the Po Shan photography site there is a problem of benefit distribution, and it leads to a few farmers abandoning their farming and not planting oilseed rape. Coupled with lagging infrastructure and insufficient public services, resulting in a low level of interconnection between rural interiors and towns, it also has a serious impact on the development of industrial integration.

3.2.3. Agricultural Products Brand More but Not Special, Have but Not Loud

Agricultural product brands more than one, small and scattered, the lack of resource integration, packaging, planning, promotion efforts[8], into the first-tier cities of the product less and small amount, visibility is not high, She County agricultural products sales are being crowded out from the surrounding similar brand-name agricultural products, the county's local characteristics of agricultural products and advantageous products gradually marginalized by the market perception [9]. Although She County is a large tea county, but the lack of influential tea brands on behalf of She County, the surrounding Qimen black tea, Huining organic tea, Huizhou District, Xie Yudao is well known. She County tea industry has not really from "tea" to "tea industry" shift to enhance. Hickory, chrysanthemum, etc. also face the same situation.

3.2.4. The Level of Agricultural Science and Technology Is Not High, And There Is A Serious Lack of Agricultural Management, Technology and Business Talents

Agricultural new varieties, new technologies, new technology promotion and application is not enough, science and technology training is lacking, the lack of demonstration of science and technology demonstration base drive, resulting in the production of agricultural products, processing technology content is not high. She County agricultural talent is young and yellow, engaged in agriculture with certain skills of young and strong laborers to go out to work, especially the township agricultural extension staff after the implementation of double management, "agricultural services" main business into a side business [10]. The overall quality of some agricultural industry operators, especially the modern enterprise management concept and advanced management methods are not strong, there is a small farmer's consciousness, the idea of small wealth is safe, can not keep pace with the times, management lags behind, so that the development of enterprises is not fast to do not big, big but not strong, big on the chaos, big on the phenomenon of collapse.

4. Suggestions for the Development of Exquisite Agriculture in She County

Fine agriculture is characterized by fine and special, requiring that there should be modern science and technology, production, processing, packaging, circulation and other multi-link implementation of standardization. Combined with She County agricultural industrialization is still not high actual proposed the following recommendations.

4.1. Further Efforts on Land Transfer

Land transfer is an important means to promote the structural reform of the agricultural supply side, a necessary way to develop exquisite agriculture and an effective way to

increase farmers' income. The county government should introduce the implementation opinions of land transfer as soon as possible to improve the rate of land transfer. Land transfer around new business entities, leading industries with special characteristics and growing village collective economy. Only when the bottleneck of land transfer is broken, the base results can be consolidated and enhanced. In tea, chrysanthemum, pecan, citrus, loquat and other base construction, no longer pursue the expansion of the amount on the surface, should pay attention to the base road, irrigation infrastructure, soil improvement and other work, especially in the variety, quality, scientific management to do a full article. Agriculture-related departments should improve the long-term management mechanism of pesticide distribution, standardize business practices, strengthen the supervision of the pesticide sales market, guide agricultural business entities to reduce drugs and control fertilizers, only the scale of the base to effectively control pesticide residues, improve the quality of agricultural products, to ensure the safety of agricultural products, improve the average benefit per mu, the real formation of She County characteristic varieties of regionalization, regional varieties of scale, scale varieties of intensive benign development pattern, to achieve planting Ecological.

4.2. In the Cultivation and Support of Leading Enterprises to Make Further Efforts

Leading enterprises are the main force in the development of sophisticated agriculture, agricultural products from the "tea garden to tea cup", "orchard to fruit plate", "field to table" link. The relevant government departments should be in the "external attraction of internal links, resource integration, leveraging the momentum" on the article, to give agricultural enterprises in the base construction, agricultural production, processing, marketing and safety and quality control and other aspects of help and guidance. Effectively help agricultural enterprises to solve the problem of land for construction, financing difficulties, financing expensive, the implementation of classification guidance, an enterprise a policy. Increase support for agricultural business entities with bases, processing capabilities, brands, sales channels and good prospects to make them bigger and stronger, so that an enterprise can really drive an industry to enrich the people.

4.3. Make Further Efforts in Building the Brand of Agricultural Products

She County has industrial advantages, natural environmental advantages, historical and cultural advantages in the development of agricultural brands. To focus on building the public brand of She County tea. In the brand layout, create a brand of tea and chrysanthemum industry focusing on Huangshan Gongju, Huangshan White Tea and Dafang Tea to enhance the reputation and influence of She County tea. In the brand layout, to create a fruit industry brand focused on Santan loquat, three mouth honey orange, Song village grapes, Fudai plum, to create a new Anjiang, sell flowers fishing village oil tea seed oil industry brand, to create a "Huangshan not sparse garden ecological agriculture" as the focus of the vegetable brand, to create a pecan industry brand focused on Sanyang, Jinchuan, Qizili and spring water fish brand, packaging a number of authentic "She" characteristics of geographical indications of agricultural products, the "Hui" culture into it, enrich the cultural connotation of agricultural products, enhance the cultural taste of the brand, so that

consumers in the material enjoyment at the same time, but also enjoy the spiritual and cultural enjoyment of the material, but also enjoy the spiritual and cultural enjoyment.

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