

Sustainable development of ecological agriculture under the background of Rural Revitalization Strategy -- Taking Fujian Yongchun Hushan litchi as an example

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Abstract: the development of ecological agriculture is not only an important path of agricultural modernization, but also the inevitable trend of China's agriculture. In the context of the implementation of the Rural Revitalization Strategy, how to adapt to local conditions and develop ecological agriculture rapidly is a key issue to be considered at present. All regions should actively explore the development path of ecological agriculture in the new era and take a variety of measures to improve the ecological agriculture system. In view of this, based on the perspective of rural revitalization, taking Fujian Yongchun Hushan litchi as an example, this paper analyzes the problems existing in the construction of ecological agriculture under the Rural Revitalization Strategy, and discusses the sustainable development strategy of ecological agriculture, aiming to play a certain reference role in the development of ecological agriculture in other regions of Fujian Province.

Key words: Rural Revitalization Strategy; Ecological agriculture; Sustainable development; Fujian Yongchun Hushan litchi; development strategy

1. Analysis of the basic conditions for the development of ecological agriculture

Today, when the idea of ecological civilization has won the support of the people, ecological agriculture has ushered in a development opportunity. Ecological agriculture, guided by the concept of sustainable development and on the premise of protecting the ecological environment, is a new modern agricultural model that has attracted much attention. The development of county characteristic ecological agriculture can avoid the damage to the rural natural environment, provide green and healthy food for the people, achieve the goal of sustainable development, and promote the revitalization and development of rural areas. The development of ecological agriculture in the context of Rural Revitalization Strategy is mainly based on the following conditions.

1.1 National policy support for ecological agriculture

With the development of the times, the Rural Revitalization Strategy has been put on the agenda. From the macro level, agriculture is the basic industry of China's national economy, and it is also an important foundation to support the construction of a well-off society in an all-round way. On the one hand, the state has increased support for the development of the ecological agriculture industry, and the targeted poverty alleviation and poverty alleviation policies have been fully implemented. On the other hand, in today's era of growing ecological civilization, all regions can take advantage of the "policy east wind" to develop ecological agriculture according to local conditions, get more support from the state in terms of policies and funds, do a good job in the construction of ecological civilization, vigorously develop the rural economy, and promote the realization of comprehensive prosperity.

1.2 Ecological agricultural products have great potential

China is vast in territory, rich in resources, large in population, and rich in land and climate resources. Under such natural conditions, agricultural production has obvious regional characteristics and distinctive national characteristics, forming a unique regional agricultural economic system. Each region can develop ecological agriculture with its own characteristics according to the characteristics of region, climate, species diversity, history and culture. For example, Hushan litchi in Yongchun County, Fujian Province, belongs to the subtropical monsoon climate zone. The county has a mild climate, wet and rainy, with a frost free period of 320 days and an annual average temperature of 20.4 °C. It is suitable for planting litchi, and the litchi planted is thick and juicy, sweet in taste, well shaped, bright in color and excellent in quality. At the same time, Fujian Yongchun Hushan black leaf litchi is produced in Yongchun Hushan, and has been cultivated for hundreds of years. It is one of the objects chanted by ancient literati. Fujian Yongchun Hushan Wuye litchi is not only famous in Fujian, but also exported to other parts of China, enjoying a high reputation in China. The excellent quality and planting history of Hushan litchi prompted local farmers to start large-scale cultivation and management.

2. Problems in the development of ecological agriculture

With the in-depth implementation of the Rural Revitalization Strategy in recent years, Fujian Yongchun Hushan litchi industry is facing a new round of development opportunities, but there are still many problems in the development process of litchi industry, mainly reflected in the following aspects.

2.1 Fruit quality needs to be improved

At present, the phenomenon of retail litchi fruit farmers in Hushan, Yongchun, Fujian is serious, the awareness of product quality is weak, the degree of planting standardization is not high, the degree of specialization is low, and the products are mainly "ordinary goods".

Specifically, first, in the process of litchi planting, some fruit farmers do not pay attention to the construction of orchard infrastructure, and do not pay attention to the improvement of litchi production technology and management level. Some fruit growers only focus on immediate interests and blindly expand litchi orchards, resulting in the increasing area of orchards. The surplus of medium and low-grade litchi and low-cost amortization often occur. Secondly, the appearance and quality of litchi fruit are both good and bad due to the different technical levels of weeding, fertilization management, pest control and so on. At the same time, some litchi fruit trees are older, the tree vigor is declining, some fruit growers' investment in orchards is insufficient, and the orchard transformation is backward, which will also affect the number and quality of fruits. Due to the neglect of planting management by fruit farmers, Hushan litchi has been seriously affected both in quality and yield. Third, although Hushan litchi has been cultivated for a long time, the current situation shows that the variety of litchi is still too single, the breeding and cultivation of new varieties are not timely enough, new technologies are not well used and popularized, the variety structure has not been optimized, and Hushan black leaf litchi is not as famous as Yongchun citrus and bergamot. At the same time, due to the high price of Litchi in the market, many fruit vendors will choose to buy some poor quality or even unqualified litchi for sale, further affecting consumers' preference for Hushan litchi.

2.2 The level of logistics and the degree of industrial integration need to be improved

Due to the single variety, contiguous and large-scale planting of Litchi in Hushan, Yongchun, Fujian, litchi has a large number of fresh fruits with centralized marketing time. In order to meet the requirements of consumers for fruit quality, fruit farmers often use packaging storage and fresh-keeping technology. In order to avoid overstocking and decay, the storage and transportation of fruits need cold chain logistics and batch export. However, according to the current logistics level, the logistics low-temperature storage facilities are old and backward, the low-temperature storage effect is poor, the circulation rate of litchi fresh fruit cold chain is not high, the circulation cost increases, and the fresh fruit decay loss rate is high. Under low temperature conditions, the modern methods of processing fresh litchi fruits, such as sub standard, sub grade packaging and processing, have not yet been popularized, and the traditional manual handling and fruit stacking are still used, which greatly reduces the efficiency of litchi preservation and storage. On the other hand, Hushan litchi has a relatively stable planting area, concentrated maturity, large quantity and wide range, which is prone to unsalable. A large number of fresh litchi fruits have a relatively short storage period. In addition, Hushan litchi industrial structure is not comprehensive, the litchi industrial chain is not perfect, the proportion of deep processing is low, and high value-added products are scarce. For example, the processing of fresh litchi fruits remains at the levels of fruit drying, fruit wine processing, fructose production, litchi can head and so on. There is a lack of support for litchi culture, multi-functional orchard base. The research on high value-added derivatives such as landscape aesthetics indirectly leads to the backlog and decay of fresh litchi fruits, which has a certain impact on the output value of litchi industry. At the same time, lychee growers generally do not have a thorough understanding of all links of the industrial chain, and the processing value-added degree is limited, resulting in the development of the lychee industry lagging behind the pace of modern agricultural industrialization.

3. Countermeasures for promoting the development of ecological agriculture of Litchi in Hushan, Yongchun, Fujian

3.1 Build green ecological orchard and vigorously promote famous, excellent and special new varieties

In order to promote the development of ecological agriculture in Hushan litchi, Yongchun, Fujian, we should focus on strengthening the construction of orchard infrastructure, developing characteristic and efficient agriculture, and promoting the income of fruit farmers. First of all, we should actively build orchard roads, improve water and fertilizer integrated irrigation facilities such as water tunnels, reservoirs and sprinkler irrigation, introduce water-saving technologies such as drip irrigation and sprinkler irrigation, promote standardized production of litchi, reduce the use of chemical fertilizers, promote organic fertilizers, improve soil fertility, promote harmless prevention and control of pests and diseases, and avoid environmental pollution and fruit pollution by using less or no chemical pesticides, Build green ecological orchard and improve product quality. Secondly, the planting proportion of early, medium and late ripening varieties of litchi should be planned in accordance with local conditions, so as to prolong the listing time of fruits as much as possible and avoid excessive concentration. Finally, facing the market demand, we should select and promote new litchi varieties with advantages and characteristics, eliminate inferior varieties, guide famous, excellent, special and new varieties to gather in the most suitable areas, promote orchard transformation and upgrading, improve fruit quality and increase farmers' income.

3.2 Further promote the integration of litchi industry to meet the needs of market development

Promote the integration of litchi industry, especially the secondary and tertiary industries. First of all, the government should strengthen the research and development of litchi processing technology, increase the corresponding financial and scientific research funds, cooperate with universities, scientific research institutions and other institutions, overcome the technical difficulties of litchi fresh fruit processing, accelerate the introduction and popularization of new technologies, actively develop litchi by-products, and use advanced technology to further process litchi pulp and residue, so as to improve the added value of litchi, To create a new economic growth point for the revitalization of Fujian Yongchun Hushan litchi industry. Secondly, we should actively integrate with the international market, determine the production standards of litchi processing, and improve the quality of processed products to meet the market demand at home and abroad. Finally, integrate with the tertiary industry, deepen the development mode of "litchi industry + tourism", and build a litchi orchard base integrating fruit picking, leisure and home stay.

3.3 Give full play to government functions and enhance the value of litchi industry chain

Giving full play to the role of the government is a necessary measure to draw a blueprint for the development of litchi industry. As the leading force in the development of ecological agriculture, the government should first establish a reasonable and effective management system, strengthen the construction of organization, leadership and evaluation system, focus on promoting the demonstration construction of a strong litchi industry town in Hushan Town, Yongchun County, strengthen the contact and coordination with fruit farmers' professional cooperatives and leading enterprises, and strengthen the construction of a strong litchi industry town through financial guarantee Land transfer, rural infrastructure construction and other ways to support the development of local litchi ecological agriculture and cultivate a new engine for Rural Revitalization and development. At the same time, we will increase special financial support, actively guide fruit farmers to develop green planting and deep processing industries, and increase financial subsidies for large-scale litchi production and processing enterprises. Secondly, the land should be "used flexibly" to form characteristic industrial clusters, actively promote the construction of litchi storage and preservation and cold storage center, litchi vinegar processing base and litchi product processing base, and promote the integrated development of litchi primary, secondary and tertiary industries.

3.4 Multi channel cooperation to promote the development of logistics industry

To improve the logistics level of litchi industry, the key purpose is to improve the preservation and storage of fresh litchi fruits and the transportation capacity of cold chain logistics. In this regard, we should first strengthen the construction of cold storage. Relevant government departments should actively promote multi-party cooperation with logistics enterprises, logistics associations and other organizations, concentrate their forces to carry out the construction of litchi storage and fresh-keeping and cold storage center, accelerate the improvement of cold chain logistics, improve industrial supporting facilities, and make up for the shortage of cold chain facilities in the origin. Secondly, we should actively carry out the application and promotion of physical preservation, chemical preservation and biological preservation technology of litchi to reduce the decay rate of fresh litchi fruits. Thirdly, the government should support or introduce industrial investment, expand the scale of logistics enterprises, promote the popularization and application of animal networking and blockchain in Litchi transportation, effectively improve the logistics level and reduce litchi logistics costs. Finally, the government should play a leading role, gather the strength of logistics enterprises, software companies, scientific research institutes and other aspects, build an integrated logistics information platform, centrally process the information of logistics enterprises, litchi products logistics information and the information in the transportation process, and build a fruit quality and safety traceability system, The circulation information of litchi products can be queried from picking to sales.

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