

Analysis on the Construction Path of Modern Agricultural Industrial System in Daqing under the Strategy of Rural Revitalization

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Abstract: The key to rural revitalization is industrial revitalization. Rural industry is the endogenous core driving force of rural development, the key to promoting rural revitalization, and the economic foundation to consolidate the achievements of poverty alleviation. Daqing city is at an important strategic node of industrial transformation and upgrading. It should be based on the advantages of regional resource endowment and market demand, take the integrated development of primary, secondary and tertiary industries as an opportunity, vigorously innovate the industrial form, realize the integrated development of industries, gradually establish a diversified modern rural industrial system with its own characteristics, and realize the high-quality development of modern agriculture and rural economy in Daqing city.

Keywords: Rural Revitalization; Modern rural industrial system; Industrial upgrading

1. Development status of rural industry in Daqing

With the advantages of natural conditions, Daqing has the world recognized golden corn planting belt and high-quality dairy cow feeding belt. In 2019, among the 11.342 million mu of cultivated land, the planting area of corn will reach 6.17 million mu, rice will reach 2 million mu, soybean will reach 1.02 million mu, the output of corn will reach 6.79 billion kg, the output of rice will reach 1.49 billion kg, and the output of soybean will reach 260 million kg. In addition, in 2019, the planting area of traditional Chinese medicine in Daqing reached 153000 mu, including 66000 mu of Banlangen, 31000 mu of evening primrose, 22000 mu of bupleurum, 17000 mu of guanfangfeng and 5000 mu of seed and seedling breeding base. The output of traditional Chinese medicine was 30000 tons and the output value was 400 million yuan. In terms of animal husbandry, in 2019, Daqing will sell 2 million pigs, 295000 beef cattle and 18.87 million poultry. The stock of dairy cows and pigs reached 180000 and 3 million, and the feeding of beef cattle and poultry reached 607000 and 31.42 million, and the total output of meat, egg and milk was 980000 tons (milk output was 650000 tons). In terms of aquaculture, in 2019, the total output of aquatic products will be 120000 tons, and the aquaculture area will be 2.06 million mu. The characteristic aquaculture of river crab and whitebait will take the lead in China. Lianhuan Lake winter fishing has become the representative of Longjiang fishing and hunting culture brand. The four counties under the jurisdiction of Daqing city are all major grain producing counties in China, with large quantity and high quality of agricultural and animal husbandry products such as grain, animal husbandry, fruits and vegetables, aquatic products and so on.

2. Analysis on the construction of rural industrial development system in Daqing

2.1 The intensive processing capacity of agricultural products is insufficient

From the current situation of rural industry development in Daqing City, it can be found that the development direction of agricultural products processing industry in Daqing city is four industrial chains, which also shows that the current intensive processing capacity of agricultural products processing industry in Daqing city is insufficient. At present, the agricultural products processing industry in Daqing is dominated by grain processing. Among the agricultural products processing enterprises, the number of grain processing enterprises accounts for the highest proportion, but the grain deep processing enterprises are basically blank, focusing on simple primary processing and packaging, and the added value they can create is limited. Although Daqing has certain comparative advantages in grain output, quality and sales,

the homogeneous competition among grain processing enterprises is fierce, price wars occur, brand awareness is not enough, the number of leading enterprises with strong driving operation is small, and the market competitiveness is not strong.

2.2 Low integration of agriculture and secondary and tertiary industries

Modern agriculture is an agricultural development mode that uses the latest and most advanced science and technology to process the means of production to the greatest extent, and uses modern management knowledge to manage the whole agricultural industry chain. With the progress of science and technology, the agricultural industrial chain, like the industrial chain, has been continuously extended and developed into the era of modern agriculture 4.0. It has gradually extended from planting and animal husbandry production itself to the production and sales of means of production, product processing, sales, logistics transportation, socialized services and other links, realizing the integrated development of agriculture and secondary and tertiary industries. Daqing is also vigorously promoting the integration of agriculture and secondary and tertiary industries, but the degree of industrial integration is not high and the speed of integration is not fast. Among the new agricultural business entities, Daqing farmers' professional cooperatives have developed rapidly in the process of industrial integration, but limited to the scale and economic strength of cooperatives, their ability to connect the processing links of agricultural products is still limited, and they are unable to realize the modern marketing and socialized production services of agricultural products.

2.3 Low level of agricultural scientific and technological innovation

Daqing has not formed a real agricultural science and technology innovation system. Both the main body of agricultural production and the main body of agricultural product management do not pay enough attention to the process of agricultural science and technology innovation, the innovation power is not strong, and the innovation ability is insufficient. The problems existing in agricultural scientific and technological innovation in Daqing exist in all aspects. On the one hand, the awareness of agricultural scientific and technological innovation is insufficient, and all business entities basically meet the current situation, resulting in the same level of competition inside and outside the province in the same product quality, marketing concept, processing and other links, fierce competition and limited profits. On the other hand, Daqing's agricultural science and technology extension system is backward, the quality of agricultural technology extension personnel at the county level is not high, the process of technology extension is slow, it is difficult to connect with agricultural production and secondary and tertiary industries, and it is difficult to transform science and technology into productivity and economic benefits.

2.4 Low level of agricultural social service

Daqing agricultural development is still a traditional agricultural development mode with small farmers as the main body, and this situation will not change for a long time in the future. Based on this situation, the development direction of modern agriculture is "output efficiency, product safety, resource conservation and environment-friendly". The organic connection between small farmers and modern agriculture needs the intermediate service of the bridge of agricultural socialized service. Various forms of moderate scale business entities in Daqing, such as family farms and farmers' cooperatives, are developing rapidly, but there are many problems in the development of cooperatives. Some cooperatives have their own tables, and can not bear the driving responsibility of new business entities and achieve the goal of socialized services. From the perspective of the main body of agricultural production in Daqing City, the demand for agricultural socialized services of small farmers who do not participate in farmers' professional cooperative organizations is relatively low. Under the constraints of aging, some small farmers may choose agricultural socialized services after considering the benefits and costs, but the demand for technologies and services that can replace labor is particularly strong. For large-scale operators, the demand for socialized services is stronger. After weighing the cost of purchasing professional machinery alone, the size of business area and the cost of idle machinery, the entities with large business scale will actively choose to outsource some operation projects.

3. Countermeasures of constructing modern rural industrial system in Daqing City

3.1 Build the whole agricultural industry chain and improve the level of intensive and deep processing

Building an agricultural whole industry chain with advanced concept and technical level requires the cooperation of software and hardware, capital and technology. For the current situation of Daqing City, small farmers are unable to contribute funds and technology, and leading enterprises are unwilling to invest too much money to buy relevant services under the condition of uncertain benefit objectives. Therefore, the long-term plan of Daqing municipal government should be formulated, and the key is to support model enterprises, counties and districts, and then drive leading enterprises to increase investment. Based on the above situation, Daqing should first make full use of the existing technical resources of leading enterprises in the whole agricultural industry chain, technology R & D centers and existing achievements that can be transformed and applied, and integrate and innovate a number of key service platforms. Help the leading enterprises of agricultural industrialization combine with the modern agricultural industrial technology system, and promote the R & D of major key technologies for industrial upgrading. Secondly, promote the alliance and cooperation between leading enterprises and scientific research institutes, develop new technologies, new varieties and new processes with market foresight, and promote, demonstrate and apply them.

3.2 Developing modern agriculture and promoting the integrated development of Agriculture

Modern agriculture is a new agricultural development mode that connects the traditional planting and breeding industry with the means of production and food processing industry, and combines it with the tertiary industries such as transportation, trade and logistics, information and technical services to form a complete industrial chain. It has high specialization, organization, socialization and comprehensive production efficiency. Therefore, the construction of modern rural industrial system should improve the level of agricultural modernization, continuously extend the agricultural industrial chain on the basis of fully considering the current situation of agricultural production dominated by small farmers in Daqing, adhere to the "three chain reconstruction" of industrial chain addition, value chain multiplication and supply chain connection, and promote the integration of primary, secondary and tertiary industries. Daqing has a good foundation for modern agricultural development. The development of agricultural industrialization provides certain conditions and experience for industrial integration. Therefore, in the process of promoting the industrial integration and development of all counties and districts, Daqing city should maintain the smooth and complete flow of resources in all links and balance the interests of all subjects. The integrated development of agriculture and secondary and tertiary industries is inseparable from all economic subjects, mainly small farmers, leading enterprises, industrial chain service providers, e-commerce platforms, dealers, etc. Whether it can achieve high efficiency and give full play to the mutual connection and cooperation of various links of agriculture. Efficient operation requires each county to take the initiative to develop a batch of agricultural product wholesale markets to match the whole agricultural industry chain. Secondly, while realizing the cluster development of agricultural leading enterprises, build professional wholesale markets, encourage leading enterprises to increase investment in storage and transportation and cold chain facilities, and improve the circulation system of fresh agricultural products.

3.3 Building agricultural science and technology innovation system and improving the competitive advantage of agricultural industry

In view of the low level of agricultural scientific and technological innovation in Daqing, on the one hand, Daqing governments at all levels and agricultural departments should provide guidance and help for enterprise scientific and technological innovation. Cultivate the awareness of scientific and technological innovation of enterprises, encourage enterprises to go global, go outside the province and go abroad, make enterprises realize that the focus of current agricultural product competition is agricultural scientific and technological innovation, avoid the endless struggle with the region, and improve the overall level of scientific and technological innovation of enterprises. On the other hand, strengthen the training of agricultural science and technology extension personnel, send these personnel to practice and work in areas with high level of agricultural science and technology innovation in the southeast coast in the form of public assignment, improve the level of agricultural extension personnel, provide a foundation for agricultural science and technology innovation in this region and create conditions for the implementation of agricultural science and technology.

3.4 Improving the service level of agricultural socialization in Daqing City

For Daqing City, the improvement of agricultural socialized service level is a process accompanied by the synchronous development of tertiary industry and modern agriculture, and a process in which market logic plays a role. The formation of agricultural socialized service system is accompanied by the increasingly detailed division of labor in all links of agricultural production, and the development speed and scale of agricultural socialized service industry are determined by the supply and demand relationship of socialized service market. Therefore, Daqing should do the necessary work in the following aspects: first, provide the main body of the market for the main body providing agricultural socialized services, encourage them to use the market demand to adjust the projects of socialized services, and provide diversified services for the professional and technical needs of small farmers. Second, after the operation of agricultural socialized services has developed to a certain scale, government departments should introduce policies and measures to provide transfer transportation convenience, ensure fuel supply and provide settlement services for business entities, so as to create a better external environment for the sustainable development of this service model. It can be seen that realizing the development of agricultural socialized service industry requires improving the level of agricultural marketization. Third, the construction of agricultural socialized service system should be guided by strengthening the ability of scientific and technological service and improving the quality of scientific and technological service, so as to better spread the advanced agricultural production technology to the fields.

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