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A Study of the Issues concerning Development of China's Agricultural Product Logistics

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Abstract With the improvement of people's living standards, people have placed higher demands on both quantity and quality of agricultural products. However, there are many problems in China's agricultural product logistics, such as long distance between processing, preservation, cold storage, packaging base and agricultural production base, great losses of agricultural products in the process of transportation and handling from production base, poor road conditions in rural areas, inadequate special vehicles, refrigerated trucks and sealed vans, low electronic information utilization rate during agricultural logistics transaction, and lack of agricultural product access mechanism in the agricultural wholesale market. Based on these problems, we bring forward the measures to improve the current agricultural product logistics.

Key words Agricultural products, Logistics, Measures

1 Introduction

The development of agriculture is related to the growth of the national economy; the development of the countryside is related to the harmony and stability of the country; the improvement of farmers' living standard is related to the fairness and justice of the society; the development of the agricultural product logistics is an important factor related to the issues concerning farmers, countryside and agriculture. Agricultural product logistics refers to the physical flow process of agricultural products from supply place to demand place as well as a variety of resulting activities such as agricultural product storage, distribution, transportation, circulation, processing, packaging, handling and logistics information management. Based on the biological characteristics of agricultural products, the agricultural product logistics should follow the principles of simple circulation links, high transaction efficiency, short circulation time, and small loss in efficiency. At present, there are many problems to be solved urgently in the development of agricultural product logistics in China.

2 Current situation and problems about the development of agricultural product logistics in China

2.1 Great losses of agricultural products The traditional operation system route of agricultural product logistics is producers→transportation→handling→storage→packaging→distribution→consumers. The packaging in this route is after transportation. The advantage of this approach is that the packaging link is close to consumers, and the agricultural products can be processed and packaged according to the demand and wishes of consumers. However, the disadvantage of this mode is that due to the complete room temperature logistics or natural logistics, the agricultural products, without being processed with packaging, preservation

and cold storage, have suffered natural and man-made damage such as loss and air drying under natural moisture, loading and unloading.

2.2 Poor rural road conditions and insufficient special vehicles The country has carried out a project to make every village have a road, to ensure that the agricultural products can be transported to the neighboring cities. However, in some rural areas, the road conditions are very bad, so there is an urgent need to improve the transport means of agricultural products. In rural areas, the pickup truck is mainly used as transport tool of agricultural products, and sealed vans are rare. The cold storage vehicle with refrigeration machinery and insulated cabinet is even rare. According to statistics, the road refrigerated transport amount of perishable food only accounts for 20% of total transport amount in China, and the remaining 80% of fruits, vegetables, poultry and aquatic products are transported by ordinary convertible truck. In developed countries, cold storage transport amount accounts for more than 90% of total food transport amount.

2.3 Low utilization rate of electronic information The previous agricultural product transaction often took the traditional modes of stall transaction, pedlars' market transaction and wholesale market transaction. The traditional transaction modes and multiple handling of agricultural products do great damage to fragile agricultural products, and the loss of agricultural products is equivalent to the interest loss of farmers. Transaction can not be completed one time, and farmers need to rent the warehouse of wholesale market. The warehouse rental costs are high expenditure for farmers. In addition, the traditional settlement of transaction is still based on cash payment. With the popularization and development of modern network technology, the online trading of agricultural products has not been popular, the online trading of agricultural products is seldom used, and online banking, online payment and other electronic trading means are more difficult to use and implement.

2.4 Lack of agricultural product access mechanism Traditional agricultural product wholesale market is just a big distribution center for agricultural products. In the agricultural harvest season, the nearby farmers can pay certain rental fees to pull the homegrown agricultural products to agricultural product wholesale market for selling or wait for the big wholesalers for trading. Most of the conventional agricultural product wholesale market organizations are loose, lacking the specialized staff who monitor the quality of agricultural products entering wholesale market, so it is difficult to ensure the quality of agricultural products in agricultural wholesale market, thereby affecting the vital interests of consumers.

3 Recommendations

3.1 Establishing the processing, preservation, cold storage and packaging base of agricultural products near production base

It is necessary to change the order of traditional agricultural product logistics operation system, and adopt the mode of producers—processing, preservation, cold storage and packaging—logistics information system processing—distribution—consumers, that is, from producers, the agricultural products go through processing, preservation, cold storage and packaging, then logistics information processing, and finally are delivered to consumers. Based on the biological characteristics of fresh agricultural products, we can establish large-scale fresh agricultural product processing, preservation, cold storage and packaging bases in the vicinity of fresh agricultural production base.

3.2 Improving the construction of agricultural product logistics infrastructure

Firstly, it is necessary to increase government investment while encouraging individuals, groups, and foreign merchants to invest in agricultural product distribution facility construction. In the agricultural production areas of grain, vegetables, fruits, eggs, aquatic products, flowers and special local products, it is necessary to focus on building a number of agricultural wholesale markets with strong distribution function; actively develop chain stores, direct marketing and other new distribution organizations; accelerate the establishment of agricultural logistics service system covering agricultural product storage, processing, transportation and distribution; speed up the development and production of agricultural storage and transportation tools and equipments; strengthen transportation construction, and constantly improve transport network, to improve accessibility of the road network.

3.3 Speeding up the agricultural product logistics information-based construction

Firstly, it is necessary to give full play to the role of agricultural distribution organizations in information collection, transmission and feedback, and make full use of all types of agricultural product circulation information; promote the upgrading of rural industrial structure, and vigorously develop information intermediary organizations, information consulting firms and other intermediary service organizations, to strengthen the role of information in promoting agricultural product logistics; establish multi-channel, multi-level agricultural logistics information sys-

tem, set up the agricultural market forecasting system involving the departments concerning agriculture, transportation, industry and commerce and statistics, and build a unified agricultural market supply and demand, trade and price information collection, collation and release system in the province; use the Internet, television, newspapers and other media to make farmers keep abreast of the latest agricultural information, and reduce the uncertainty and blindness in the agricultural production and sale process.

3.4 Fostering and developing agricultural product logistics intermediary organizations and farmer brokers

The agricultural logistics intermediary organizations generally use the patterns of "companies + farmers" and "associations + farmers". The "companies + farmers" pattern takes companies as leaders, and establishes stable purchase and sale relations with farmers to process and sell agricultural products. As independent legal entity, the leading enterprises have the ability of financing, asset integration, market operation and modern enterprise management, and have advantages in market development and brand creation. The "associations + farmers" pattern means that the farmers engaged in the production and operation of similar products are voluntarily organized to implement self-management, self-service and self-development in terms of technology, capital, information, procurement, processing, storage, transportation and other aspects, with a view to improving competitiveness and increasing members' income. Through these logistics intermediary organizations, we can improve the degree of organization for farmers to enter into market, protect the interests of farmers, achieve large-scale and intensive agricultural marketing, improve circulation efficiency of agricultural products.

3.5 Vigorously developing the third-party logistics

With the growth of logistics market of agricultural products, there have been third-party logistics enterprises specializing in the storage and transportation, distribution and processing of agricultural products. As the external organization of agricultural production and marketing, the third-party logistics uses modern technology to reduce the unnecessary parts, and strengthen division of labor and collaboration with agricultural production processes, so as to further reduce logistics costs of agricultural products and improve logistics efficiency.

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