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Industrialization Development of Korla Fragrant Pear in Bayingolin Mongol Autonomous Prefecture, China

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Abstract Based on the introduction of the natural and geographical conditions in Bayingolin Mongol Autonomous Prefecture in Xinjiang (Bazhou), development status of Korla Fragrant Pear is introduced from the two aspects of the production status and the storage and processing status of Korla Fragrant Pear. Among them, production status of Korla Fragrant Pear is analyzed from the aspects of the rapid growth of planting area and the stable growth of output. And the storage and processing status of Korla Fragrant Pear is introduced from the aspects of the development status of the storage industry the development status of processing industry, and the status of domestic and foreign marketing. Problems in the industrialization development of Korla Fragrant Pear in Bazhou are analyzed, such as the weak protection of brand and lack of external propaganda, the imperfect benefit affiliating mechanism between leading enterprises and peasant households, and the marketing network of Korla Fragrant Pear and single mode of marketing. Countermeasures for the acceleration of the industrialization development of Korla Fragrant Pear in Bazhou are put forward, such as making great effort at publicity, brand establishment and counterfeit prevention, cultivating leading enterprises, reducing market risk, implementing industrialization development, adopting various marketing forms and actively developing domestic and international markets.

Key words Korla in Bazhou area, Fragrant pear industry, Brand promotion, Marketing network, China

Bayingolin Mongol Autonomous Prefecture in Xinjiang, short for Bazhou, is located in the mid-latitude zone, the center of the Eurasian Continent and the east of Tarim Basin. It is far from the ocean, and the mountain range around it has hindered the moisture carried by westerly flow and prevented the polar cold air from moving south^[1]. Different from the north of Xinjiang and the west of southern Xinjiang, Bazhou has its own unique climate. Plain in Bazhou belongs to extremely dry continental climate with abundant sunshine, dry air, little rain and many fine days, rapid and unstable temperature increase in spring, and rapid and short temperature decrease in autumn. Bazhou has rich solar energy resources (an annual solar radiation of 5 629–6 562 MJ/m²), long hours of sunshine (270–310 hours in July and August and the annual sunshine of 2 600–3 300 hours), great difference of day-night temperature, and long frostless season. Due to the abundant light and temperature resources, fruit trees in Bazhou have good effect of photosynthesis and great production potential. At present, Bazhou has established a spacing transportation network of road, rail and aviation connecting many areas in Xinjiang and even China. Five national highways pass through Bazhou with the total length of 2 637 kilometers^[2]. Besides, Bazhou has formed the large-scale and regionalized pattern of local special forest fruits, which becomes an important part of special forest fruit base around Tarim Basin in southern Xinjiang.

1 Status of industrialization development of Korla Fragrant Pear in Bazhou

1.1 Production status of Korla Fragrant Pear in Bazhou

Bazhou has excellent conditions for the growth of special forest fruit, which plays an important role in Xinjiang. Development of

special forest fruit in Bazhou represents the development of special forest fruit in Xinjiang to a certain extent^[3]. And Korla Fragrant Pear takes the first place in both planting area and output in Bazhou.

1.1.1 The formation of production base due to the rapid growth of planting area of Korla Fragrant Pear. Planting area of Korla Fragrant Pear in Bazhou has increased from 22.6 thousand hectares in the year 2001 to 67.3 thousand hectares in the year 2008, an annual increase of 5.6 thousand hectares. According to the changes of planting area, development of Korla Fragrant Pear can be classified into two stages: the rapid growth stage (2001–2004) and the stable growth stage (2005–2008). In the rapid growth stage, planting area has reached 54.1 thousand hectares in the year 2004, an annual growth of 35.2%. And annual growth rate is 6% in the stable growth stage in the years 2005–2008 (Fig. 1).

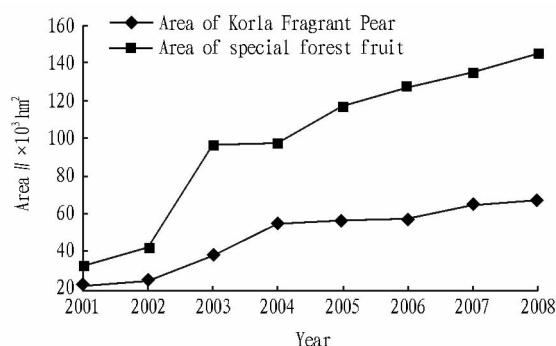


Fig. 1 Planting areas of special forest fruit and Korla Fragrant Pear in Bazhou in the years 2001–2008

According to the natural resources and regional endowment, Bazhou adheres to the principle of "cultivation on the suitable land", does a good job in the scientific layout of forest

fruit industry, and divides the Peacock River Basin (Korla City and Weili County) into the cultivation area of Korla Fragrant Pear. In the year 2007, output of Korla Fragrant Pear in Bazhou reaches 620 million yuan and that in the cultivation area of Peacock River Basin is 415 million yuan, accounting for 67% of the output value of Korla Fragrant Pear in Bazhou. It provides sufficient raw materials for leading enterprises and actively promotes the rapid industrialization development of Korla Fragrant Pear.

1.1.2 The enlargement of scale and the stable growth of output of Korla Fragrant Pear. In the long run, output of Korla Fragrant Pear grows stably in Bazhou. According to the increasing range, the output increases steadily after the year 2003, although there is a slight fluctuation in the years 2001 – 2003. Output of Korla Fragrant Pear in Bazhou boosts from 125.9 thousand tons in the year 2001 to 359.1 thousand tons in the year 2008, with an annual increase of 29 thousand tons and the average annual growth rate of 16.1%, which is a relatively steady and rapid growth (Fig.2). In the year 2003, slight fluctuation is caused by the rare natural disasters, especially the strong wind. Disaster area of Korla Fragrant Pear reaches 4.08 thousand hectares, which affects the output in that year.

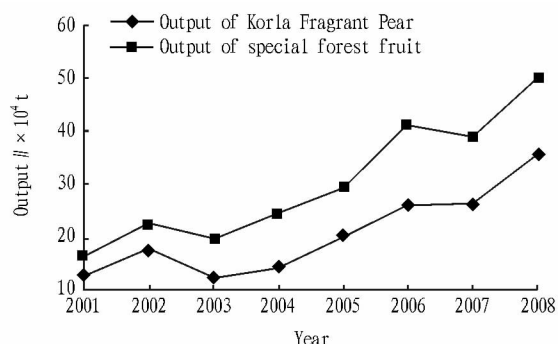


Fig.2 Outputs of special forest fruit and Korla Fragrant Pear in Bazhou in the years 2001 – 2008

1.2 Storage and processing status of Korla Fragrant Pear Vigorously develop cold storage industry in order to change the fruit supply in off-season into four seasons. Fruit storage is an important approach to achieve seasonal production and marketing, to adjust the seasonal conflicts, to promote the production of fruit, to reduce the consumption of fruit, and to enhance the utilization rate of resources.

1.2.1 Development status of the storage industry of Korla Fragrant Pear. There are two methods for the storage of Korla Fragrant Pear: crypt storage and cold storage. Crypt storage is a good way of civil storage, which can keep Korla Fragrant Pear fresh after eight months with more than 95% of good fruit rate. Cold storage is a good way of safe storage, which has a good fruit rate of 98% after eight months. Besides, the Korla Fragrant Pear stored by cold storage has no black heart, low rot rate and low water loss rate^[4].

At the end of the year 2007, there are 95 fresh-preserved storehouses in Kurla City, and their capacity reaches 350 thousand tons. Thus, the warehousing industrial park in Economic Development Zone and the west station cold storage group are

formed in Korla City, which can ensure more than 80% fresh keeping rate. After the harvesting at the end of August, Korla Fragrant Pear is put in the storage till the following year in August. The original color and taste remain unchanged and the fresh rate is as high as 95% – 98%, which can ensure the supply of domestic and foreign markets all the year round. The healthy development of storage industry has ensured the quality and market stability of Korla Fragrant Pear and has promoted the industrialization development of Korla Fragrant Pear.

1.2.2 Development status of processing industry of Korla Fragrant Pear. Korla Fragrant Pear takes the lead in the development of agricultural industrialization, offers conditions for the development of pear leading enterprises and the registration of famous brands^[5]. At present, Korla Fragrant Pear maintains a good momentum of development. Xinjiang Guannong Fruits and Antlers Co., Ltd. has already carried out volume production for concentrated juice of fragrant pear. And Xinjiang Kurla Pear Co., Ltd. has also carried out volume production for pear fruit wine, pear pure wine, pear brandy, pear cloudy juice and pear fermented beverage. At present, there are more than 40 processing, storage, packaging and sales enterprises in Bazhou, using the method of share management and cooperative management to actively establish a benefit affiliating mechanism among enterprises, bases and peasant households, to vigorously develop order agriculture, to further enhance the added value of Korla Fragrant Pear, to integrate resources superiority of Korla Fragrant Pear, and to provide new opportunities for the industrialization development of Korla Fragrant Pear.

1.3 Domestic and foreign marketing of Korla Fragrant Pear in Bazhou At present, in the domestic fruit market, Korla Fragrant Pear has set up dealerships in Beijing, Shanghai and other large and medium-sized cities, and terminal markets in Beijing, Shandong, Zhejiang, Anhui, Guangdong and so on.

Korla Fragrant Pear has been selling well since the year 1975 when exported to Singapore and other countries in South-east Asia and Hong Kong. After the 1980s, Korla Fragrant Pear started to export to Canada. In the April, 2006, China and the America formally recognized the "Work Plan for the Exportation of Fragrant Pears from the People's Republic of China". And in September 28, 2006, a total of 58.7 tons of Korla Fragrant Pear are firstly sent to the U. S. market after 13 years' hard negotiation. There is a substantial increase in the exportation of Korla Fragrant Pear due to the opening of the high-end market of America. At the same year Korla Fragrant Pear was exported to Australia, New Zealand and South America^[6]. In May 2007, Korla Fragrant Pear entered the EU market. From September 2007 to September 2009, Korla Fragrant Pear exported through the Korla Entry – Exit Inspection and Quarantine Bureau reached 662 batches and 12.6 thousand tons, a total value of 17 400 thousand U. S. Dollars. Compared with the year 2005, the volume and the value of exports have increased by 80.5% and 114.1%, respectively. In the year 2007, exportation of Korla Fragrant Pear to the America reached 421 batches and 8 017.2 tons, a total value of 12 383.3 thousand U.

S. Dollars, accounting for more than sixty percent of the total exportation. Meanwhile, exportation to Canada reached 129 batches and 2 541.9 tons, a total value of 3 102.8 thousand U. S. Dollars. And exportation to other countries was 112 batches and 2 085.6 tons, a total value of 1 913.9 thousand U. S. Dollars. In the year 2008, Korla Fragrant Pear won the title of "Olympic Recommended Fruit" and was sold in the "Olympic Prize Fruit Monopoly Area".

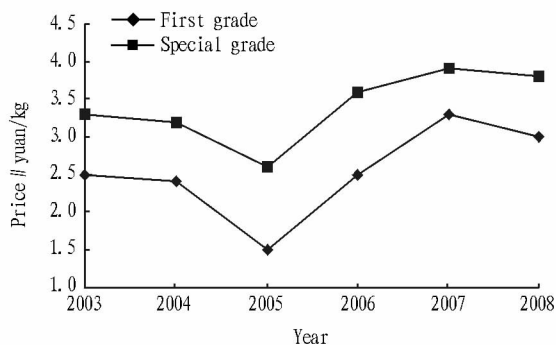


Fig. 3 Price of Korla Fragrant Pear in the years 2003 – 2008

Fig. 3 illustrates that price of Korla Fragrant Pear grows with fluctuation in domestic market in the years 2003 – 2008. Average prices of special grade and first grade are 3.5 and 2.5 yuan per kilogram during the six years. In the year 2003, first-grade Korla Fragrant Pear is 2.5 yuan per kilogram. But the price falls to 1.5 yuan per kilogram in the year 2005, and then it increases to 2.8 yuan per kilogram in 2008. In the market of Southeast Asia, Korla Fragrant Pear in bags of 9 kilograms each is sold at the price of 55 – 58 yuan.

2 Problems in the industrialization development of Korla Fragrant Pear in Bazhou

2.1 Weak protection of brand and lack of external propaganda In the market economy, agricultural product is facing intense competition as the industrial products. Thus, famous brand is the key to win market competition. And it will be difficult to survive without a well-known brand. However, due to the lack of the sense of competition and brand, local characteristics are mixed with brand, the propaganda, exploitation and protection of trademark have been paid little attention to after registration, and there is no perfect market information network system. Although Korla Fragrant Pear has registered the trademark, inferior pears are still widespread in southern sales market. Therefore, a lot of work still needs to be done in order to protect the brand.

2.2 Imperfect benefit affiliating mechanism between leading enterprises and peasant households Interest of leading enterprises and marketing enterprises has been linked with the producers of Korla Fragrant Pear. But interest community has not yet formed; the domestic and foreign markets are not yet mature; production and sale are greatly affected by the domestic and foreign markets; and disorder and randomness still remain in operation and competition. Moreover, a lot of fruit farmers engaged in the cultivation of Korla Fragrant Pear are at

the upper chain of production and management. Distortion of market information and blocked transmission of information occur regularly. When there is market fluctuation, performance rate of order is high, which usually causes serious damage of the interests of fruit farmers.

2.3 Marketing network of Korla Fragrant Pear and single mode of marketing Korla Fragrant Pear in Bazhou has already formed an industrialization management mode of "leading enterprise + base + peasant household". But most of the peasants, who are independent in both production and sale, carry out decentralized operation. The individual pedlar sells the pear for profit. Therefore, the whole marketing system of Korla Fragrant Pear lacks systematicness and normativity and is low in efficiency, which can not meet the needs of enhancing market competitiveness. This leads to too much intermediates in the marketing of Korla Fragrant Pear and little space of interest increase, and affects the construction of Korla Fragrant Pear base and the promotion of production technology.

3 Speeding up the industrialization development of Korla Fragrant Pear in Bazhou

3.1 Making great effort at publicity, brand establishment and counterfeit prevention of Korla Fragrant Pear We should actively attract foreign enterprises to invest in Korla Fragrant Pear industry, use advanced foreign management experience and marketing ideas for references, study on the standards for high quality standards, product image, market circulation, and industrial development of Korla Fragrant Pear. At the same time, we should improve the long-term training mechanism of fruit farmers, further enhance the scientific quality and professional skill of fruit farmers, speed up the standardization of production process of Korla Fragrant Pear, build up the brand and registered trademark, make great efforts in brand publicity, and improve the reputation of Korla Fragrant Pear. The brand of Fragrant Pear is protected through standardized production, trademark protection, and legal rights protection of Korla Fragrant Pear.

3.2 Cultivating leading enterprises, reducing market risk, and implementing industrialization development of Korla Fragrant Pear Government should actively promote the cross-sector specialized organizations by "policy support" and "promoting the strong and supporting the superior" in order to unite the scattered fruit farmers into an alliance organization and to solve the contradictions between the growing large market and the small-scale production. To further improve the brand influence and market competitiveness of Korla Fragrant Pear, leading enterprise group integrating the production, storage, packaging, processing, and marketing of Korla Fragrant Pear should be established, which can give full play to the role of leading enterprises in accelerating the standardized production and in constructing the management system of Korla Fragrant Pear. Management way of company is adopted to set up a new market system including wholesale trade, storage, deep processing, packaging and distribution, classification and selection,

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nomic cooperative association or farmer brokers. Apart from the possession of relevant inspection and quarantine equipments, logistics center should still yearly require cooperative association and farmer brokers to send the massed agricultural products to professional quality supervision and testing center for inspection. And the test report is also needed as an expression of prestige on quality.

3.2.5 The relationships of supply chain should be maintained. After establishment of supply chain, apart from developing core business with concentrated energy to obtain maximum profit in the process of operation, we should still maintain the relationship with cooperative partners. The details of maintenance are as follows: firstly, core enterprises organize the regular communication among cooperative partners for the purpose of strengthening mutual trust; secondly, communication and training center within logistics center is set up to instruct farmers in cultivation techniques regularly; thirdly, famers directly communicate with terminal sellers face to face, conducting to infinite matching between supply and demand; finally, permanent representatives are appointed to processing enterprises at any level in order that core procedures are supervised and inspected, ensuring quality security of agricultural products. Meanwhile, members of supply chain are to be appraised on performance aperiodically in order to decide whether they are qualified for cooperation as strategic cooperative partners in the next cooperation cycle.

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to study on new deep processing products of fragrant pear, to extend the industrial chain, to reduce market risk, and to promote the industrialization development of Korla Fragrant Pear.

3.3 Adopting various marketing forms and actively developing domestic and international markets

Based on the actual situation of Xinjiang, preferential policy of foreign trade for leading enterprises should be used by learning from the successful experiences in other regions. Enterprises should also set up marketing network at home and abroad, expand international market, help peasant households in the base to win the market, and form the industrialization pattern driven by leading enterprises. At the same time, government should encourage leading enterprises or industry associations to participate in the exposition, seminar, trade fair and promotion conference about special forest fruit products, establish fruit marketing group and long-term fixed points at home and abroad according to the idea of "network, chaining and large scale", improve network marketing, expand market share, actively cultivate agents, wholesaler and other intermediaries,

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introduce fruit auction system and establish futures market for Korla Fragrant Pear.

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