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Studies on the Development of Walnut Industry in Shangluo City Based on SWOT

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Abstract The walnut industry in Shangluo City is evaluated based on SWOT. The internal advantage, disadvantage, external opportunities and threats to the walnut industry are found out. In the end, suggestions towards the development of walnut industry in Shangluo City are put forward.

Key words Shangluo City, Walnut industry, SWOT analysis

Shangluo City lies in the southern mountains of Qinling where there are abundant precipitations, distinct four seasons, and rich plants^[1]. Both the subtropical and temperate climates exist in Shangluo City, so southern and northern plants can survive which gives the natural geological edge to the walnut industry. Based on SWOT analysis, the advantages and disadvantages as well as threats to the walnut industry were analyzed. In the end, suggestions towards the development of walnut industry in Shangluo City are put forward, so that the economy in Shangluo could develop better, and the urbanization progress would be faster.

1 SWOT analysis of walnut industry in Shangluo

SWOT analysis is also called state analyses raised by professors of management science in University of San Francisco. S and W are internal factors, in which S stands for Strength and W represents Weakness. O and T are external factors, in which O means Opportunity and T for Threat. State analysis is to list the internal advantages and disadvantages, external opportunities and threats closely related to study subjects, and arrange in matrix form (Fig. 1), and to discuss each factor to get a series of countermeasures^[2].

Internal capacity	Strength	Weakness
Opportunity	SO strategy	WO strategy
Threats	ST strategy	WT strategy

Fig.1 SWOT analysis model

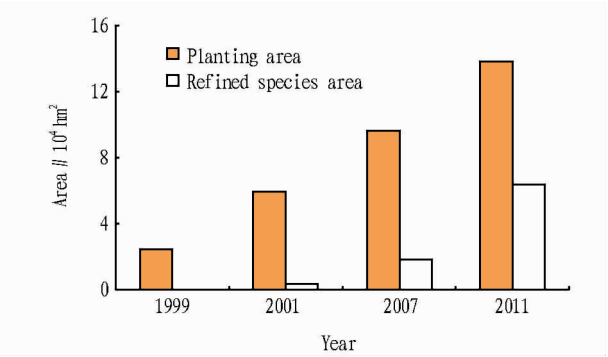
1.1 Strengths

1.1.1 Suitable geology and climate. There are many mountains and plenty of water in Shangluo City where there is fertile soil, abundant sunshine, suitable precipitations, moderate climate, and distinct four seasons.

1.1.2 Advanced technology and support from the government. The walnut development in Shangluo is glorious and local farmers accumulate rich experiences in planting plants over the history. As a result, the breeding of walnut and reformation of low-yield forest in Shangluo are in the lead, and the survival rate is above 85%. Local government pool resources to do related insurance work such as water and soil preservation, comprehensive treatment in small areas, treatment of Danjiang sources, etc. The provincial government will include walnut industry into the planning for the development of fruit industry in Shaanxi Province. Forestry Development of Shaanxi Province formulates ten measures to support the breakthrough development of walnut industry in Shangluo.

1.2 Weakness

1.2.1 Bad species and immature deep-processing capacity. There are different kinds of walnuts. Meanwhile, there is a small proportion of refined species in each place (Fig. 2). Until the end of 2011, the walnut area reached 0.1389 million hm². Besides of small amount of fresh fruits to sell, most wanuts are sold in the nut form, and the deep processing of walnut is underdeveloped. It is difficult to form advantageous brand since the capacity to invest new products and new technologies is weak.



Note: The data come from the forestry development of Shangluo City.

Fig. 2 Comparison of refined species of walnut and non – refined species in Shangluo

1.2.2 Under management. Overall, the comprehensive scientific management of walnut production in Shangluo is weak, and they

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are underdeveloped in the irrigation, fertilizing and land preservation and protection. Meanwhile, the scientific and technological service system is unsound, and it is difficult to realize industrial modernization without scientific management.

1.3 Opportunities

1.3.1 Large output and easy to develop. Because of high nutrition in walnut, it is easy to win consumers' attention. The annual output of walnut in China is 0.499 million t, which accounts for 29.4 % of world total production, being the lead in world output. The annual output of walnut in Shaanxi is 0.0638 million t, accounting for 12.78 % , being the second in China. The annual output in Shangluo is 0.0245 million ton, which takes up 32% of the total provincial output. The higher output of walnut in Shangluo makes it possible to develop in large scales. Besides, the large attraction to walnut purchasers definitely would increase the opportunity for further development.

1.3.2 Large demand and many channels. The walnut per capita in China is only 210 g^[3]. If the annual walnut per capita increased to 300 g, there might be 420 million kg since there are 140 million in China. Meanwhile, experts in China and abroad are studying more about walnut so that people can have better understanding about the nutritional value and economic value of walnut^[4]. With the rising awareness of walnut, the demand of walnut is also increasing (Fig.3).

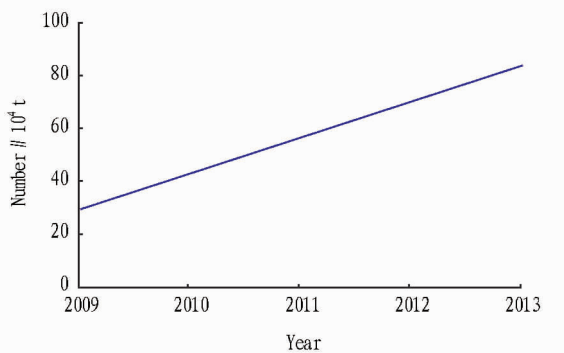


Fig.3 Changes in the demand of walnut in China

1.4 Threats

1.4.1 Many places to produce walnuts. There are many places in China producing walnuts, and Shangluo is one of it, which means walnuts in Shangluo face great threats from other places.

1.4.2 Changes of walnut use modes. With the further studies of walnuts, the use of walnut keeps changing. There are few walnut deep processing companies, which makes the use of walnut uniform. Therefore, the external processing side gets more value in the walnut than that in the origin, which might reduce farmers' income and hurt their enthusiasm, and further threat the walnut industry.

2 Countermeasures to the walnut industry in Shangluo

2.1 SO strategies

2.1.1 Creating brands and expanding exports. Shangluo walnuts

are influential around the world so they can create their own brand. First of all, when it comes to the planning base, the market demand needs to be considered. Besides, technologies and innovations are encouraged to realize stronger brands^[5]. Foreign investment is sought to find the most appropriate marketing methods.

2.1.2 Centralized vegetation and scale development. The walnut planted in Shangluo is scattered, which thwarts the scale development of walnut industry. In the planning of the construction of walnut base, it is necessary to put two close origins together, which is beneficial to the optimization of land, resources, selling and transporting, and the conservation of manpower and material resource.

2.2 WO strategies

2.2.1 Establishing testing points. It is extremely important in establishing the base construction planning, one the verification of construction planning countermeasures and another the most persuasive expression to farmers. After the success in the pilot places, those pilot places could be the center and around which there were surroundings. Taking Shangluo as an example, Nangou, Liutai, Shijiagou and Chishuiyu are centers (Fig.4).

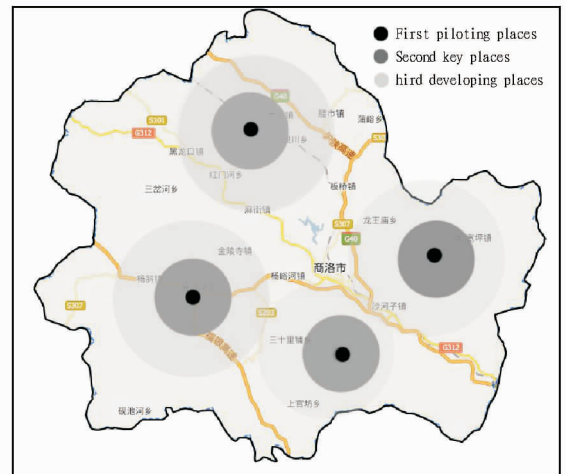


Fig.4 Points signaling

2.2.2 Cultivating refined species and grafting. A group of scaled refined bases are established to refine local walnuts. The walnut grafting technology in Shangluo has matured, and this advantage should be applied. First of all, people easily take it in, and then such technology turns out better and faster, and the period is short.

2.3 ST strategies

2.3.1 Comprehensive advantages and increasing competitiveness. With the intensive external competition, the walnut industry in Shangluo must take advantage of its own features and increase its competitiveness. After the improvement of competitiveness, the brand construction and selling of walnuts in Shangluo make quality progress.

2.3.2 Optimizing use mode. Advanced scientific technologies are introduced and advantageous developing mode is learned. The

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agriculture, guarantee stable growth of financial expenditure for agriculture, ensure fund utilization efficiency, bring into play gathering advantage of financial expenditure for agriculture, constantly improve integrated agricultural production capacity and overall agricultural development level, and effectively promote development of rural areas and agriculture and increase of farmers' income.

Secondly, it is recommended to optimize structure of the financial expenditure for agriculture and bring into play functions of the financial expenditure for agriculture to the maximum extent. Through increasing direct subsidy for farmers and reducing subsidy in circulation processes, it is recommended to increase support for three categories of agricultural science and technology and reduce percentage of various operating expenses, to optimize investment structure.

Finally, it is recommended to balance investment amount for agriculture in all regions. Since economy of Jiangsu Province takes on gradient development and there is a large gap between farmers' income, it is required to increase investment in Northern Jiangsu and Central Jiangsu. Then, it is expected to promote balance of Southern Jiangsu, Central Jiangsu and Northern Jiangsu, which will directly benefit farmers and promote increase of farmers' income.

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deep processing of walnut is being developed, and related suiting facilities should be considered.

2.4 WT strategies

2.4.1 Focusing on scientific research and optimizing management. Regarding the scientific research, it is imperative to establish scientific service system, strengthen technological service websites and suiting facilities, and improve scientific and technological level and service capacity. The construction of local walnut institute in Shangluo is becoming regular, based on which cooperation and institutions are established. As for the management aspect, walnut association is set up, and the walnut science and technology service stations in each place are strengthened.

2.4.2 Deepening processing part and improving facilities. It is suggested to develop local walnut processing industries, and the leading companies are supposed to stimulate local walnut processing industry. Roads leading each planning places are clear to guarantee the introduction of refined species, product output, and transportation of base construction.

3 Conclusions

The geography and climate in Shangluo is appropriate for walnut to grow. However, there are still some disadvantages to make up, such as bad species, low scientific management, and weak deep processing capacity, *etc.* For the development of walnut industry, it is necessary to foster strengths and circumvent weaknesses in order to make the industry develop better.

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