 DOI: 10.19601/j.cnki.issn1943 -9903.2023.08.008

Development Strategies of Chaidamu Wolfberry

Yishan YANG

Qinghai University, Xining 810016, China

Abstract With the continuous improvement of people's living standards, wolfberry (*Lycium chinense* Miller) has penetrated into a large number of families. Chaidamu wolfberry, as the main superior product in Northwest China, has brought more economic benefits to Qinghai Province through the cultivation and sale of wolfberry. In recent years, with the aid of the new technology, the yield of Chaidamu wolfberry has increased rapidly, and the market scale has also expanded rapidly with the publicity. In order to help farmers increase their income and ensure economic benefits, it is of great significance to the healthy development of the whole industry of Chaidamu wolfberry and effectively improve people's living standards. This paper combines the actual situation of the wolfberry market and studies its development status. It is expected to provide some ideas for the development of Chaidamu wolfberry.

Key words Wolfberry (*Lycium chinense* Miller), Agricultural products, Marketing ideas

1 Introduction

Wolfberry (*Lycium chinense* Miller) became popular in 2021 -2022 because of its neuroprotective effect on retinal cells and its effect on subthreshold depression, and became popular nationwide in 2022. Qinghai Province seized the opportunity to take advantage of the green and pollution-free characteristics of "Chaidamu wolfberry" and alleviate the problem of unsalable wolfberry through the new media platform. With the continuous improvement in the quality of life, consumers are facing more and more brands, and most of them choose high-quality agricultural and sideline products. Therefore, the introduction of the corresponding quality standard system of wolfberry in Qinghai Province, the establishment and improvement of the wolfberry industry base and the breeding base of improved varieties have become the top priority of the next development. How to get high yield and increase the income of farmers has become an urgent problem to be solved.

2 Research purposes and significance

Chaidamu wolfberry in Qinghai Province grows in the Chaidamu Plateau Basin, which is the "world ultra-clean zone". Because of the long sunshine time, large temperature difference between day and night, zero industrial pollution sources, dry and clean climate, pure snow water, and sandy soil rich in selenium, potassium, nitrogen and other trace elements, it is the only production area of "Chaidamu" plateau wolfberry. Studies have shown that Chaidamu wolfberry contains active and nutritional components such as polysaccharides, flavonoids, amino acids, linoleic acid and oleic acid. The highest content of flavonoids is 1.34%, and the lowest is 0.96%, which belongs to the excellent ranks in the whole country; the content of polysaccharides is 5.38% to 6.79%, which reaches the premium level. Since the introduction of wolfberry in Ningxia in 1970, the planting area of wolfberry in Chaidamu region has been continuously expanded under the influence of wolfberry industry in Ningxia, and now some wolfberry products can be exported to foreign countries. In this paper, we analyzed the current development situation of Chaidamu wolfberry, and put forward the development strategies, in order to provide certain development ideas for Chaidamu wolfberry.

Received: May 10, 2023 Accepted: July 24, 2023

3 Current situation of Chaidamu wolfberry

3.1 Overview of Chaidamu wolfberry industry The wolfberry industry in Qinghai Province is mainly distributed in Nuomuhong, Dulan and other places in Chaidamu Basin. Compared with other wolfberry production areas, wolfberry produced in Qinghai Province has the characteristics of large particles, thick pulp and high sugar content. Chaidamu wolfberry is mainly distributed in the oasis agricultural fine soil zone of Chaidamu Basin. Wolfberry industry is an industry with economic, social and ecological benefits. It is mainly concentrated in Huaitoutala Town and Keluke Town of Delingha City, Dagele Township of Golmud City and Nuomuhong area of Dulan County, turning the Gobi desert in Chaidamu Basin into oases. According to statistics, in 2022, the planting area of Chaidamu wolfberry was 30 510 ha, with the yield of 88 900 t. In Haixi Prefecture, the wolfberry planting area accounts for 63% of the total crop area in the Chaidamu Basin, and its export and foreign exchange earning rank first among the agricultural products in Qinghai Province. The wolfberry industry has become an engine driving the sustained economic growth of agriculture and animal husbandry. By 2025, it is estimated that the annual output value of wolfberry industry in Qinghai will reach 11.8 billion yuan, of which the annual yield of dried fruit will exceed 130 000 t and the annual output value of dried fruit will exceed 5.2 billion yuan. The processing capacity of dried fruits reaches 70 000 t, and the annual output value can be increased by more than 5.6 billion yuan. The annual output value of cultural tourism and other tertiary industries would reach 1 billion yuan.

3.2 Overview of construction of wolfberry brand The first brand of Chaidamu wolfberry is Chaidamu, but in the development of the brand, due to the backward brand management concept,

there are Sanjiangxue, Ningxiahong, Ninganbao, Nuomuhong and other brands, wolfberry products have no well-known trademarks in China. In 2013, Chaidamu wolfberry was awarded the "National Certificate of Registration of Geographical Indications of Agricultural Products" by the Ministry of Agriculture, obtaining a "quality name card". Nuomuhong Farm was named "the hometown of wolfberry in China" by China Cash Forest Association (CCFA). In 2015, Chaidamu wolfberry successfully applied for Chaidamu geographical indication brand at the 2nd National Agricultural Geographical Indication Brand Conference, which was an important turning point in the development of Chaidamu wolfberry brand. By 2022, Qinghai Chaidamu wolfberry ranked 42nd in the national regional brand list, with brand strength of 845 and brand value of 92.510 0 million yuan. The above information shows that Chaidamu wolfberry brand has great development potential in brand integration and protection.

3.3 Problems Chaidamu wolfberry industry has some problems, such as the lack of backbone human capital and supporting technology, the influence of internal and external environment, the superposition of long-term and short-term factors, the existence of deep-rooted structural contradictions, and the downward pressure of internal and external economy. Therefore, its industrial transformation, evolution and upgrading has a long way to go.

4 Development strategies for Chaidamu wolfberry

4.1 Formulating a development strategy for localized characteristic agricultural products It is recommended to seize the opportunity of "Chaidamu wolfberry" to win the national geographical indication protection product, establish the brand effect of "Chaidamu wolfberry is organic wolfberry" as soon as possible, and form the market recognition that "Chaidamu wolfberry" is organic wolfberry and green wolfberry. In addition, the Qinghai provincial government should update and improve policies such as "Chaidamu wolfberry local standards for national geographical indication products" and "Chaidamu wolfberry local standards", improve the quality supervision and standard system of wolfberry in Chaidamu area, and establish the high-end brand positioning of "Chaidamu wolfberry" in wolfberry industry. It is recommended to integrate the protection of geographical indication products into the overall situation of local economic development and into the routine work of market supervision, continuously expand the influence of the "Chaidamu wolfberry brand, and continuously enhance the brand value".

4.2 Strengthening intensive management Chaidamu organic wolfberry cultivation should further promote the transformation from the family workshop model to the modern enterprise management model, and form the development of "four modernizations" – standardization, intensification, specialization and large scale. It is necessary to form a centralized area integrating Chaidamu organic wolfberry cultivation demonstration base, intensive cultivation demonstration base and water-saving irrigation demonstration base, which is convenient for wolfberry quality assurance and thus conducive to sales. In addition, it is recommended to adhere to the development of green agriculture, greening, branding, quality and standardization are not only important goals of modern agricultural development, but also the basic path of modern agricultural development.

4.3 Enhancing brand publicity and broadening sales channels Although wolfberry in the Chaidamu area is good in good quality and exported abroad, its reputation in China is far inferior to that of Ningxia wolfberry. Chaidamu local government should strongly recommend merchants to enter various large e-commerce platforms to gradually expand their marketing scope and product awareness. While cooperating with e-commerce platforms, the government and local farmers should urge the platforms to set up corresponding supply chains for "Chaidamu wolfberry ", promote the high-quality image of "Chaidamu wolfberry" as natural and pollution-free, and stimulate consumers to buy wolfberry with high-quality, green and pollution-free as the main selling points. In terms of sales methods, the method of live streaming of agricultural products can be adopted, which can not only increase the sales of products, but also publicize the characteristic agricultural products of Qinghai Province. The Forestry Department of Qinghai Province should work with the market supervision department and other relevant departments to issue corresponding policies to encourage e-commerce to help farmers while supervising this new platform. This unique market is also a new opportunity for wolfberry growers in the Chaidamu Basin.

4.4 Cultivating professional digital network marketing talents There are very few talents in the online marketing of domestic characteristic agricultural products, so government departments should pay attention to cultivating talents to benefit farmers. Local governments at all levels may introduce corresponding online education courses in the compulsory education stage, especially in the vast rural areas, to popularize Internet knowledge content, enrich farmers' knowledge structure, and correctly guide farmers to learn to apply the Internet. Through network technology, it can truly benefit farmers and facilitate farmers, drive farmers to increase income and production, and continue to promote the development of poverty alleviation areas and the comprehensive revitalization of rural areas. It is recommended that experts in wolfberry product sales provide regular given lectures and training for growers in the Chaidamu area, and use the network training mode to teach more growers network knowledge and help farmers establish information awareness, so as to improve the current situation of unsold high-quality wolfberry in the Chaidamu area.

5 Conclusions

The sustainable development of wolfberry industry in the Chaidamu area should focus on the advantages of environmental location and the resource advantages of "Chaidamu wolfberry", and take a different development path from other production areas. It is necessary to formulate a standard system and corresponding measures to ensure the quality of wolfberry in Chaidamu area of Qinghai Province, with the goal of strengthening brand building, establish and improve the construction of seedling breeding technology system with independent intellectual property rights, so that wolfberry cultivation and planting in Chaidamu area can achieve

the characteristics of improved seeds, standardization and scale. In addition, it is recommended to enhance the level of scientific and technological innovation of Chaidamu wolfberry industry as a whole, extend the industrial development chain, create an organic wolfberry industrial cluster, and comprehensively enhance the popularity and influence of Chaidamu organic wolfberry both home and abroad.

References

[1] LIU ZR. A brief study of wolfberry wilt[J]. Science and Technology of Qinghai Agriculture and Forestry, 1980(3): 43 - 45. (in Chinese).

[2] ZHONG SY. A new variety of wolfberry: Ningqi 1[J]. World Agriculture, 2008(4): 70 - 71. (in Chinese).

[3] NAN XX, WANG JX, CHANG HY, *et al.* New varieties of table wolfberry Ningqi 6 breeding research[J]. Ningxia Journal of Agriculture and Forestry Science and Technology, 2014, 55(4): 11 - 15. (in Chinese).

[4] YUAN JQ, HUO CY, CAI KQ. The salt-forming environment of the deep mountain basin: An analysis of a new salt-forming pattern[J]. Geological Review, 1983(2): 159 - 165. (in Chinese).

[5] MA PS, ZHU RY, BAI CC, *et al.* Investigation on plant resources and industrial development of wolfberry in Ningxia[J]. Chinese Traditional Patent Medicine, 2021, 43(11): 3245 - 3248. (in Chinese).

[6] PEI LX, ZHANG J, YANG YX, *et al.* Analysis of the development of wolfberry industry in Bayannur City[J]. Inner Mongolia Forestry, 2022(3): 34 - 36. (in Chinese).

[7] LI YH, CHEN QZ, QIN JH. Development and financial support of Chaidamu wolfberry industry[J]. Qinghai Finance, 2017(6): 48 - 51. (in Chinese).

[8] FAN GH, WANG ZL. Opportunities and challenges for industrial upgrading of Chaidamu wolfberry in Qinghai[J]. Qinghai Science and Technology, 2011, 18(6): 15 - 17. (in Chinese).

[9] MA DC. Research on the industrialization of Qinghai Chaidamu wolfberry[J]. China Economist, 2010(3): 236 - 237. (in Chinese).

[10] WU ZL, WANG J. The study about the evaluation of the specialty industry competitiveness of Qinghai wolfberry industry[J]. Journal of Qinghai Normal University (Social Sciences), 2014, 36(1): 11 - 16. (in Chinese).

[11] LIU FY. Analysis of the current development situation of wolfberry industry in Qinghai Province[J]. Agricultural Technology Service, 2016, 33(11): 144 - 145. (in Chinese).

[12] ZHANG ZH, WEN SP, WANG JF. Current situation, existing problems countermeasures in development of top quality Chinese wolfberry products in Ningxia[J]. Journal of Agricultural Sciences, 2014, 35(1): 46 - 50. (in Chinese).

[13] CAO L, ZHANG AL. Study on present situation, development stages and trends of Chinese wolfberry industry[J]. Forest Resources Management, 2015(2): 4 - 8,30. (in Chinese).

[14] WANG N. Analysis of the main problems in the quality and safety of agricultural products in China[J]. Knowledge Economy, 2011(23): 79, 82. (in Chinese).

[15] HE MF, YANG RZ, YAN LH. Research on the construction of e-commerce characteristic brand of agricultural products for rural revitalization[J]. Journal of Fujian Computer, 2021, 37(7): 65 - 67. (in Chinese).

[16] WEI M. Marketing model and optimization strategy of featured agricultural products under the background of new media[J]. Agricultural Economy, 2021(9): 135 - 137. (in Chinese).

[17] ZHANG XM. Analysis of the path of young villagers participating in the digital construction of agricultural products production and marketing system: A case study of Lishui City[J]. Shanxi Agricultural Economy, 2021(17): 26 - 27, 30. (in Chinese).

[18] YANG JJ. Research on the digital transformation of marketing of featured agricultural products[J]. Marketing Management Review, 2022(2): 126 - 128. (in Chinese).

(From page 37)

varieties and advanced applicable technology models from point to line, improve the efficiency of agricultural technology extension services, provide comprehensive technical solutions, and provide strong scientific and technological support and talent guarantee for comprehensively promoting rural revitalization and accelerating the construction of an agricultural power.

4.4 Attaching importance to the construction of agricultural network platform In the era of Internet and information, the establishment of agricultural network platform can release agricultural technology and information in time to promote the popularization of agricultural technology. It is beneficial for technicians and farmers to release and understand agricultural information and technology in time through the network, so as to better apply it to agricultural production and promote rural economic development. At present, agriculture has entered the digital age, which is the third green revolution of agriculture. Smart agriculture integrates modern agricultural biotechnology, information technology, intelligent equipment and other productivity technologies, showing the characteristics of high quality, high efficiency, convenience and humanization, which plays an important role in promoting the high-quality development of agriculture. To speed up the construction of a powerful agricultural country, the key is how to realize the organic connection between small farmers and modern agricultural development. Developing various forms of agricultural socialization services is of great significance to solving this problem. It is necessary to give full play to the role of "Internet plus agriculture" in promoting the allocation of agricultural production factors, and at the same time narrow the digital divide between groups and regions.

References

[1] CPC Central Committee and State Council. Opinions on Doing a Good Job in Promoting Rural Revitalization in an All-round Way in 2023[Z]. 2023-01-02. (in Chinese).

[2] SHANG YL. Research on improving the comprehensive strength of county economy under the background of rural revitalization strategy[J]. Business Culture, 2022(15): 20 - 21. (in Chinese).

[3] The Central Committee and the State Council. Outline of the Construction Plan of Shuangcheng Economic Circle in Chengdu - Chongqing Area[Z]. 2021-10-21. (in Chinese).

[4] CHEN H, ZHU XY. Research on the realization mechanism of high-quality supply of rural public services to promote urban and rural common prosperity[J]. Journal of Changzhou University (Social Science Edition), 2023, 24(2): 31 - 41. (in Chinese).

[5] YANG HR. Research on the influence of rural education public service supply on urban-rural income gap[D]. Kunming: Yunnan University of Finance and Economics, 2023. (in Chinese).