

Research on the Current Situation, Problems and Countermeasures of National Geographical Indication Products in Beijing

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Abstract. Products with National Geographic Indications (NGI) represent a breakthrough for Beijing in achieving national agricultural regional development, agricultural industrialization, and addressing the problems faced by agriculture, rural areas, and farmers. Against the backdrop of the rural revitalization strategy, this paper identifies the main issues and proposes countermeasures for development by comparing the development status of NGI products in Beijing. By conducting interviews with government officials and enterprises, as well as a survey of farmers, this research presents a comprehensive picture of the development status of the NGI product industry. It highlights that NGI products are currently facing uncoordinated management measures, bottlenecks in enterprises, and insufficient income for farmers. To improve the protection and development of GI products in Beijing, it is recommended to strengthen government management capabilities by establishing cross-departmental and cross-regional coordination mechanisms, increase technical investment in agricultural data platforms, develop leisure agriculture, and help farmers sell products online, thus getting them more involved in agricultural cultural activities.

Keywords: National Geographical Indication (NGI) · Agricultural Products · Development countermeasures

1 Introduction

National Geographic Indication (NGI) is an essential element of intellectual property protection, an effective carrier to promote the development of the regional economy, and plays a positive role in enhancing the value of agricultural products, revitalizing the rural economy, and inheriting rural culture. Currently, 13 NGI products have been approved in various districts and counties in Beijing, involving nine districts and counties, ten of which will be the focus of this paper. NGI agricultural products, represented by Daxing watermelon and Pinggu Peach, act as a pillar in local agricultural development and rural reconstruction.

Compared with countries and regions that started earlier, the protection and development of NGI products in Beijing still face issues such as unbalanced development,

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mixed-use and counterfeit use, and emphasis on declaration rather than operation. Based on research conducted with farmers, leading enterprises, and supervisory departments in core production areas, this study focuses on the current situation and main problems of NGI product development in Beijing and discusses how to promote the development of related industries, with a view to realizing their long-term effects in rural revitalization.

2 Development Status of Beijing NGI Products

2.1 Status of Protection of NGI Agricultural Products in Beijing Districts and Counties

This study attempts to take stock of NGI product protection and development in Beijing districts and counties, and to organize the application parties and approvals of each NGI product. Additionally, it aims to understand the arrangements, requirements, and plans for NGI tasks in Beijing, as well as the approval, protection, and supervision of NGI. Moreover, it seeks to identify the roles and responsibilities of executive departments at the district and county levels, agricultural associations, applicants, and leading enterprises in participating in the protection and development of NGI products. Finally, this paper explores the farmers' understanding, input, and income from NGI products, as well as the information and resource support they receive in production and their feedback on it.

As of August 2022, Beijing has approved 13 NGI products, listed by approvals in chronological order as shown in Table 1.

Due to geographical limitations, the number of NGI products in Beijing is smaller compared to other provincial administrative units, but the protection and development of products in the system showcase innovation. This paper takes Pinggu, Daxing, and Changping as examples. Pinggu is known as "China's peach township," which began to be planted in the 1970s, and increased from 300 mu in 1963 to 220,000 mu in the 1990s, with an annual output of 20,000 tons. In 2017, the total output reached 31,000 tons, with a total output value of 1.35-billion-yuan, accounting for about 80% of the income of large peaches in Beijing and 34% of the agricultural income of Pinggu District. The brand value has risen five times, from 1.856 billion yuan in 2010 to 9.439 billion yuan in 2020, and in 2011, it officially entered the "10 + 10" geographical indications international product mutual recognition project between China and Europe, and gained strict protection in 27 EU countries [1]. In the development and protection of NGI products, the development of Pinggu peaches actively relies on sci-tech and trade means to promote industrial development.

In 2004, Daxing watermelon was the first to obtain the NGI certification trademark from the State Administration for Industry and Commerce, and in 2007, it obtained the first NGI registration [1]. At present, the region's watermelon planting area reaches 40,000 mu, with an annual output of 80 million kilograms of watermelon. Daxing's promotion of NGI products combines local cultural and historical resources and develops from the perspective of cultural tourism based on scientific and technological planting. Daxing Watermelon Festival has been held since 1988, and has been held 34 times so far, which is the longest history of agricultural theme festival in China, attracting a large number of tourists every year and promoting watermelon sales. Nearly 78% of

 Table 1. Registration of NGI Products in Beijing

Regis No.	Name	Applicant	Approved by	Approval	
110.	rvanie	(People's Government of Beijing Municipality)	Approved by	Announcement/Registration Certificate/Registration No.	
1	Niulanshan Erguotou Series Liquor	Shunyi District	AQSIQ	No. 96 [2022]	
2	Beijing Alcohol Series Liquor	Shunyi District	AQSIQ	No. 96 [2022]	
3	Pinggu Peach	Pinggu District	AQSIQ	No. 52 [2006]	
4	Fangshan Mopan Persimmon	Fangshan District	AQSIQ	No. 211 [2006]	
5	Changping Apple	Changping District	AQSIQ	No. 155 [2006]	
6	Daxing Watermelon	Daxing District	AQSIQ	No. 49 [2007]	
7	Yanshan Chestnut	Miyun District	AQSIQ	No. 28 [2008]	
8	Changping Strawberry	Changping District	AQSIQ	No. 33 [2011]	
9	Jingbai Pear	Mentougou District	AQSIQ	No. 37 [2012]	
10	Zhangjiawan Grape (Zhangwan Grape)	Tongzhou District	AQSIQ	No. 55 [2013]	
11	Beizhai Red Apricot	Pinggu District	AQSIQ	No. 109 [2014]	
12	Longshan Mineral Water	Huairou District	AQSIQ	No. 112 [2016]	
13	Qiaozi Olive-like Dates	Huairou District	AQSIQ	No. 39 of 2017	

^{*} AQSIQ: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

melon farmers currently sell watermelons through tourism festivals based on traditional wholesale sales.

However, some NGI products face challenges in terms of protection and development. For instance, the Beizhai red apricot has limited development due to its small output and low production value. Similarly, the Yanshan chestnut also faces difficulties in the protection and development of its NGI due to its cross-regional coordination and product characteristics.

2.2 Supervision and Management System of NGI Products in Beijing

China's protection of NGI is regulated by the Provisions on the Protection of Geographical Indication Products and the Rules for the Implementation of the Provisions on the Protection of Geographical Indication Products (Provisional). In March 2018, the State Council's institutional reform transferred the full responsibility for the management of geographical indications of origin from the former AQSIQ to the CNIPA (China National Intellectual Property Administration), which is specifically responsible for implementation. In Beijing, the Beijing Municipal Intellectual Property Office is responsible for managing NGI in the city, and the intellectual property departments of each district and county are responsible for the relevant local supervision and management.

A three-tier application system is implemented in China for the protection of NGI products, i.e., applications for product protection and applications for the use of special signs for NGI products are first examined by the intellectual property department at the district and county levels, then submitted to the provincial intellectual property office, and finally reviewed and approved by the CNIPA. In December 2019, CNIPA launched an early pilot protection policy, selecting Beijing as the representative of the 12 provinces and municipalities directly under the jurisdiction as a pilot. After this, applications for the use of NGI by relevant enterprises in Beijing will be approved by the Beijing Municipal Intellectual Property Office, and then filed by the CNIPA.

2.3 Applicants and Routine Maintenance of NGI Products in Beijing

Although the applicant of NGI is the district people's government, in practice, the district government generally designates the unit that has a better understanding of the specific situation of the products as the one to take the lead in the declaration and follow-up management, and the relevant laws and regulations have not been uniformly stipulated.

Taking Daxing as an example, the specific unit responsible for the application and routine route maintenance of the NGI of Daxing watermelon is the Daxing District Agricultural Technology Promotion Station. Daxing Watermelon Festival is the specific responsibility of the publicity department of the district government. To improve the watermelon variety and popularize new technology, Daxing District Agricultural Technology Promotion Station has set up field school workstations to promote improved varieties among farmers, and invested funds to guide leading enterprises to carry out improved seedling raising, which has achieved good results. Under the effect of these comprehensive measures, Daxing watermelon is developing rapidly in the direction of good seeding, green planting, etc. In the Watermelon Festival, the Agricultural Technology Promotion Station is responsible for watermelon planting and good seeds, such

Table 2. Beijing NGI Product Declaration and Maintenance Unit

No.	ng NGI Product Declara Name	I	Declaration Maintenance Unit	
NO.	Name	Applicant (People's Government of Beijing Municipality)	Lead	Maintenance Unit
1	Niulanshan Erguotou Series Liquor	Shunyi District	Beijing Shunxin Agriculture Co., Ltd. Niulanshan Winery	
2	Beijing Alcohol Series Liquor	Shunyi District	Beijing Shunxin Agriculture Co., Ltd. Niulanshan Winery	
3	Pinggu Peach	Pinggu District	Fruit Industry Office of Agriculture and Rural Bureau	Intellectual Property Division of District Market Supervision Administration
4	Fangshan Mopan Persimmon	Fangshan District	Fangshan District Garden Afforestation Administration Forest Center	
5	Changping Apple	Changping District	Beijing XianLvAn Fruit Industry Co., Ltd.	Garden Greening Administration in Changping District
6	Daxing Watermelon	Daxing District	Daxing District Agricultural Technology Promotion Station	
7	Yanshan Chestnut	Miyun District	Miyun District Quality and Technical Supervision Administration	Miyun District Market Supervision Administration
8	Changping Strawberry	Changping District	Changping District Agricultural Service Center	Changping District Agricultural Environment Monitoring Center
9	Jingbai Pear	Mentougou District	Mentougou District Fruit, Vegetable and Flower Research Institute	
10	Zhangjiawan Grape (Zhangwan Grape)	Tongzhou District	Tongzhou Zhangjiawan Agricultural Office	
11	Beizhai Red Apricot	Pinggu District	Pinggu District Beizhai Village Committee	
12	Longshan Mineral Water	Huairou District	Longshan High Strontium Mineral Water Production Base	

(continued)

Beijii	ng NGI Product Declar	ation and Maintenance	Unit	
No.	Name	Applicant (People's Government of Beijing Municipality)	Declaration Lead	Maintenance Unit
13	Qiaozi Olive-like Dates	Huairou District	Huairou District Agriculture and Rural Administration	Qiaozi Town Village Committees

 Table 2. (continued)

as the "watermelon tournament", taking the opportunity to promote good varieties. In the routine management and maintenance of NGI products, the Agricultural Technology Promotion Station is responsible for the printing, packaging and distribution of NGI.

3 Major Problems in the Development of NGI Products in Beijing

3.1 Unclear Division of Management Functions of NGI Agricultural Products and Lack of Communication and Coordination Mechanism

Since the State Council's institutional reform integrated and rebuilt CNIPA, the management authority of NGI-protected products in Beijing was also transferred to the Beijing Intellectual Property Office, which follows the world trend of geographical indication protection. From the top-level system design, the division of functions between the CNIPA and the Trademark Office of the CNIPA on geographical indications is still unclear. In addition, the CNIPA and the Ministry of Agriculture and Rural Development still manage each other separately, lacking coordination and cooperation mechanisms [2]. And in the grassroots, the supervision, maintenance and enforcement of NGI products belong to different entities, which adds difficulties to the joint management.

In addition to supervision, the protection and development of NGI products depend on the daily use and maintenance of the marks. As seen from Table 2, the units responsible for routine management vary among districts and counties, involving different subjects, lacking unified systems and standards, and with great differences in their ability to protect and develop NGI. The lack of coordination mechanism among management entities of different levels and regions may not only result in "multiple dragons ruling water", but also lead to gaps in management. For example, the NGI area of "Yanshan Chestnut" covers 28 towns and villages in Miyun, Changping, Pinggu and Yanqing. However, the lack of coordination mechanism among the four districts and counties for the protection and development of this geographical standard has led to the actual use of the mark mainly in Miyun.

In addition, the existing route maintenance units of NGI in each district and county were designated before the institutional reform of the State Council in 2018, and the functional specialties of these units are more adapted to the regulatory standards of

the AQSIQ, such as the Agricultural Technology Promotion Station, which is the unit responsible for setting production quality standards. There is a consensus in the academic community that "geographical indications are one of the objects of intellectual property rights" [3]. It is worth considering whether the units responsible for maintaining geographical indications can adapt to the development needs of today's intellectual property protection, cultural creation and tourism development.

3.2 Leading Enterprises Confronting Institutional Bottlenecks in Development

Beijing NGI Products has formed an industrialized business model of "company + NGI + farmers" with NGI as a link, and the leading enterprises "make space for small farmers in terms of land shareholding, land transfer, agricultural production and sales" [4]. They have played a leading role in the marketing, branding and breeding of NGI products. NGI products play a leading role in marketing, branding, breeding and many other aspects. In terms of branding, only leading enterprises also have the will and ability to promote their own brands and NGI when they have reached a certain economic scale.

The bottleneck effect is caused by the nature of land to the diversified operation of the leading enterprises. Most of the land that can be used for its picking activities belongs to agricultural land, and the nature of the land restricts the development of the enterprise in the direction of sales, cultural tourism and other related directions. The management should help the leading enterprises to rationalize the land relationship, guide them to make legal and sound investments and avoid policy volatility, so as to comply with the development characteristics of Beijing's NGI products that are highly dependent on urban consumer groups.

3.3 Lack of Access and Awareness of NGI Among Farmers

It has been pointed out in a study that "the reasons for the emergence of phenomena such as 'registration without later use' and 'hurry application but reluctant use' in the development of NGI industry are mainly related to the lack of sufficient understanding of geographical indications by producers of agricultural products, who do not recognize and appreciate the benefits brought by geographical indications to enhance their own interests" [5]. From the data of fruit trading price, agricultural products with NGI have a 5% premium over similar products in non-protected production areas, but 85.9% of farmers in the research believe that they have not generated additional income because of NGI, and the sense of gain is not obvious. 84.9% of farmers said they know the protection of NGI, and 87% of farmers in the research believe that NGI highlights the quality of products. However, only 31.4% of the farmers surveyed would promote NGI to customers in sales, and the majority of farmers think they do not know enough about NGI.

4 Development Suggestions for Beijing NGI Products

4.1 Strengthening Government Management Capacity and Establishing a Multi-sectoral Coordination Mechanism

We shall strengthen both legislation and enforcement of NGI management. At the legal level, it is suggested to rationalize the relationship between laws and regulations, formulate a special law for the protection of geographical indications, and clarify the boundary of rights protection. It is recommended to establish the Beijing Geographical Indication Brand Development Committee as a coordination platform for the development of NGI products in Beijing, encompassing multiple departments such as CNIPA, the Trademark Office of CNIPA, the Market Administration, the Agriculture and Rural Management Department, and the Landscape and Greenery Management Department.

We shall improve and strengthen the capacity of intellectual property management departments in quality inspection and grade assessment of NGI products, establish, update and improve the quality standards of relevant agricultural products, and increase the supply of high-quality standards applicable to the market [6]. Protecting geographical indications is a long-term project, and it is necessary to change the current state of "attention on administrative approval but not market system construction" [7] and "attention on registration but not operation". We shall implement quality supervision of NGI products, encourage third-party organizations to provide data for NGI product protection, maintain confidence among consumers, and avoid excessive use by users in the NGI area, and even more so by people outside the area where the geographical indication is located [8].

4.2 Further Developing Leisure Agricultural Resources to Clear Obstacles for Enterprises

The leisure picking activities of urban tourists promote the transformation of traditional agriculture to modern agriculture. It has been pointed out in a study that "the government should coordinate the relationship between land for tourism development and agricultural land for farming and forestry" [2]. Most of the NGI agricultural head enterprises are developed by farmers, and the most suitable land for their development of picking business mostly belongs to agricultural land. The nature of the land has great restrictions on the multiple operations of the enterprises and is not conducive to the development of the enterprises in the direction of sales, cultural tourism and other related directions. How can we rationalize the land relationship, enhance the innovation and relevance of the agricultural products supply system, guide enterprises to make legal and sound investments and avoid repeated policies is a problem that needs to be solved outside of agricultural development.

4.3 Promoting the Integration of Farmers and the Internet to Increase Farmers' Income

The main sales route of farmers in core production areas is still through wholesalers to acquire, in Daxing and Pinggu, which are rich in cultural tourism and picking activities.

The income of farmers through wholesale and acquisition still accounts for 71%. The small scale of production and seasonality of small farmers make it difficult to connect with the big market, resulting in a slow increase in income. In 2021, China's rural ecommerce transactions have reached as much as 2.05 trillion. The Internet allows farmers to connect with the huge consumer market outside their area and reduce information blockage. The logistics and storage facilities in the rural areas of Beijing are relatively well developed, but it is important to focus on training farmers in sales, logistics and services to take advantage of the resources in rural areas [9]. Strengthening rural ecommerce in core production areas will, on the one hand, increase farmers' income, reduce production blindness, and increase their sense of access, and on the other hand, allow farmers to appreciate the scarcity value of NGI in the consumer market, strengthen farmers' confidence and willingness to invest in NGI, and further spawn new, Internet-based business concepts and service ideas.

4.4 Focusing on Rural Reconstruction and Increasing Farmers' Participation in Cultural Activities

The establishment of the NGI system is intended to "standardize" the traditional inherent characteristics of certain products that already exist and the relevance of the natural and human factors of their origin. [10] NGI agricultural products have distinctive cultural attributes, and the in-depth excavation of the historical and cultural resources, local nature and human environment of agricultural products is the characteristic and strong point of Beijing in developing NGI. However, the current agricultural cultural activities are disproportionately tilted toward tourists, "excessively highlighting the value of capital and neglecting the cultural function of rural culture" [11]. It neglects to take care of the needs of local farmers and residents and lacks the design of cultural programs for farmers. Cultural care for residents and farmers should be strengthened, and new rural culture should be enhanced by combining advantageous agricultural cultural activities.

5 Conclusion

The protection and development of NGI agricultural products in Beijing started early. Relying on the market scale of the mega city and combining it with the cultural advantages of Beijing, it has developed a development path with sample significance. However, there are still problems such as unclear division of management functions, institutional bottlenecks in the development of leading enterprises, and insufficient income of farmers. Beijing NGI agricultural products should strengthen the coordination and management ability of government departments, establish cross-departmental and cross-administrative communication and coordination mechanisms as soon as possible, and provide policy support for relevant enterprises. The government should take the lead to increase scientific and technological investment, establish NGI agricultural products information platform, and increase protection for farmers. It shall also increase the existing agricultural festivals to meet the cultural needs of farmers, so that cultural activities can better serve rural reconstruction. The protection and development of Beijing's NGI agricultural products will not only become a powerful support for rural revitalization but also provide a model for the development of similar agricultural products nationwide.

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