

Research on Green Barriers of China's Agricultural Products and Countermeasures

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Abstract—In recent years, emerging green trade barriers with the theme of environmental protection and rational utilization of resources gradually become the main factors affecting China's agricultural products export and bring many and new problems. Compared with traditional trade barriers, green barriers have greater concealment and pertinence, which not only reduces the export efficiency of China's agricultural products, but also affects the good bilateral or multilateral trade relations. Therefore, in order to realize the health export and sustainable development in Chinese agricultural product, China should launch sound policies on production standards, ideas and management.

Keywords—green barriers; agricultural products export; environmental protection; sustainable development

I. INTRODUCTION

China is a large agricultural country with vast territory, diverse climate and abundant materials. Since China joined the World Trade Organization (WTO) in 2001, the economic and trade relations among China and other countries or regions became closer and closer. The total foreign trade volumes of agricultural products were increasing continuously. While the traditional trade barriers are reducing, the technical green barriers are gradually rising and rapidly upgrading, making the export of agricultural products become more difficult. According to statistics, in the two months from the end of 2016 to the beginning of 2017, due to the obstruction of green standards, the European Union (EU) notified China of 7 cases of refusal to import and 4 cases of warning. The United States has refused to import 6 agricultural products from China. Therefore, it is very necessary to find out the solutions to promote China's agricultural products export and expand market shares in the world market.

II. COGNITION OF GREEN TRADE BARRIERS

A. Connotation of Green Barriers

A green trade barrier is one form of non-tariff barriers, also known as ecological barrier. It refers to the imported countries through the strict green technical standards, complex health quarantine system or use green environmental marks and green subsidies to restrict or prevent imported goods, so as to achieve the purpose of protecting the ecological environment, human and animal and plant health [1]. Its meaning is still controversial in the academic circles: if the original intention

of establishing green barriers is to protect the environment, natural resources, people and animal and plant life, and in line with WTO rules, it's called the friendly green barriers. On the contrary, those restrictions with the intention of trade protection under the guise of environmental protection are called malicious green barriers.

B. Types and Manifestations of Green Barriers

Contents of green barrier are extensive and with various types, the common types are shown as below. The first one is the green tariff system, which means that in order to protect domestic environment and human health, imported country imposes additional taxes or duties on those imported products that are likely to cause environmental pollution or ecological damage, thereby weakening the price advantage of imported products domestically. The second is the green technology standards, which are a series of strict environmental protection technology standards set by the country based on its own technological advantages in order to reduce environmental pollution. At present, the United States, the EU, Australia and other developed countries and regions have established different monopolistic technical standards, for example, ISO14000 environment management system in the EU, "Fresh Care Plan" in Australia, etc. Due to agricultural technology in developing countries temporarily could not reach the requirements of developed countries, parts of agricultural exports were blocked extremely. The third is green packaging system, which requires packaging materials to be environmentally friendly and easy to recycle or decompose naturally. However, many of China's agricultural products cannot meet the standard of export packaging, so they have to be repackaged, which increases the cost and weakens the price advantage of China's agricultural products in world trade. The fourth is the green environment logo, which refers to a pattern issued to enterprises or printed on product packaging through complicated procedures and strict certification standards [2]. This kind of barrier looks like a kind of invisible barrier, bring the huge impacts on China's agriculture exports. The fifth is the green health and quarantine system. In order to protect the health and ecological environment of humans, animals and plants, the customs will carry out a strict health and quarantine system on imported agricultural products. In accordance with the spirit of the 24th United Nations Codex Conference on pesticide residues, the European Community has set maximum limits on more than 20 pesticides in food. Japan also sets

limits for pesticides in tea and antibiotics in honey [3]. However, some fruits and vegetables of China are excluded from developed countries due to the differences on the requirements of testing methods and technical standards between China and other developed countries.

III. IMPACTS ON CHINA'S AGRICULTURAL PRODUCTS EXPORT FROM GREEN BARRIERS

A. Positive Impacts

First of all, China's existing agricultural production technology is relatively backward, production efficiency is not very high, product added value is low. Green standards can improve the quality of China's agricultural products, drive the development of agricultural science and technology, help to adjust the product structure and enhance international competitiveness. At the same time, promote the formulation and implementation of relevant technical regulations and standards in China, and accelerate the realization of green production and higher industrial level in agricultural sector.

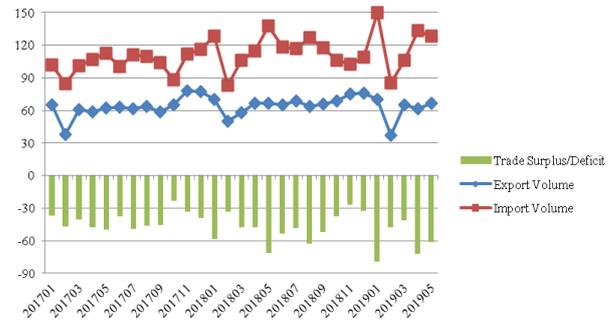
Secondly, the green barrier has the obvious significance on human health and environmental protection. With the enhancement and popularization of people's awareness of environmental protection, China will also increase personnel training efforts, actively develop more green products and environmental protection technologies, and gradually eliminate those products that cause serious pollution and waste resources. This will not only drive the export trade of agricultural products, but also increase the employment of relevant industries in China.

Thirdly, green barriers have great positive effects on promoting China's sustainable development strategy and balancing the benign interaction between trade and environment. Each country can be in accordance with the provisions of the WTO multilateral trade framework to implement coordination and trade diplomacy, so as to improve the country's environmental protection standards, break through the green bottleneck restriction, promote the management level and technical level and reduce the production cost, etc., which is beneficial to resource effective allocation and the ecological balance as a whole. It's helpful to realize the stable development and coordination between economy and environment in China.

B. Negative Impacts

First, green barriers reduce the export efficiency of China's agricultural products and increase the trade deficits. In recent years, China's major trading partners, the United States, Japan, the EU and other developed countries and regions have taken advantage of loopholes in environmental protection provisions of the WTO agreement to limit the export shares of China's agricultural products by increasing testing items and upgrading quarantine standards. In November 2014, the US Food and Drug Administration (FDA) imposed import restrictions on six agricultural products from China, including mushrooms and bamboo shoots, etc., on the grounds that pesticides exceeded the standards and the production and packaging process did not meet the US health standards [4].

According to statistics, from 2010 to 2018, China's agricultural products export increased from \$15.04 billion to \$79.32 billion, with an average annual growth rate of 23.1%. However, the share of agricultural products in total exports is falling, from 6.06% to 3.12%. As shown in Fig. 1, from January to May 2019, China's total export volume of agricultural products decreased by 3.5% on year-on-year basis. Imports volume rose by 5.5% year-on-year; the trade deficits in agricultural products widened year by year, from \$49.69 billion in 2017 to \$57.39 billion in 2018, growth rate was 15.5%.



^a (Data source: China's monthly import and export statistics report released by the Ministry of Commerce in June 2019)

Fig. 1. Trade Volume of China's Agriculture Products 2017.01-2019.05 (in hundred millions of USD)

Second, green trade barriers increase the export cost and weaken the international competitiveness of China's agricultural products. At present, China's agricultural production process, quality standards and packaging technology fail to meet the requirements of developed countries. In meanwhile, global green barriers and various technical standards continue to develop, so that China needs to spend too much time and money to re-evaluate agricultural products, buy quarantine equipment, and they also have to pay high fees to obtain green passes, apply for certification, adjust product packaging and labels, etc., which greatly increases the burden on enterprises and loses their own price competitive advantage in international market. For example, Japan implements strict inspection on China's agricultural products and the United States raises green technical barriers on Chinese goods without any negotiations in advance [5]. In addition, some developed countries impose green countervailing duties on China's agriculture goods, which are actually unfair green trade and seriously damage international transactions of China's agricultural products in the world market.

Third, it aggravates bilateral and multilateral trade frictions between China and other countries. The agricultural products exported by China usually meet or exceed domestic quarantine inspection standards on quality and safety, however, due to the gap between China's quality and environmental protection standards and the stringent standards in many developed countries, the importing countries usually block China's agricultural products on the grounds of substandard quality,

and then claim for compensation and return goods. As a result, trade friction is bound to increase in the long run, it will destroy the good trade relations between China and other countries, and also affect the reputation of China's corporations.

IV. COUNTERMEASURES OF GREEN BARRIERS ON EXPORTING OF CHINA'S AGRICULTURAL PRODUCTS

A. Government Strategies

Firstly, the government should speed up the establishment of the agricultural standardization system, increase the intensity of support, optimize the market structure, improve product quality, control the pesticide residues restriction and make it in line with the international level of quality and safety management system, also comply with China's national conditions, create a green channel which is based on agricultural production, processing, packaging, export, transportation system. Special management agencies should be established and set up integrated supervision system on standards, quarantine, and certification. China also need to develop advanced production technologies and qualified varieties in agricultural products, actively implement the ISO9000 and ISO14000 quality testing systems which were popularized in developed countries, establish a sound export credit insurance system [6], so as to break through barriers and restrictions, and improve the international trade competitiveness of China's agricultural products .

Secondly, we should accelerate the transformation of agricultural production and implement the green development strategy. First of all, we need to step up efforts to publicize environmental protection, strengthen people's awareness of environmental protection, and encourage enterprises to adopt advanced environment-friendly production technologies for green production to meet the growing demand for green consumption. Next, we will formulate and improve relevant laws and regulations on environmental protection. China's relevant legislation is not comprehensive currently, we can refer to the laws of developed countries, take the essence and discard the dregs, build our own green trade threshold, and then close the gap between China and other countries on green packaging system, enforcement of environmental protection tax laws and green subsidy system. By meanwhile, China should make full use of the preferential treatment and trade dispute settlement mechanism owned by developing countries in WTO's agreement on technical barriers, actively participate in the formulation of international green standards, unite the vast majority of developing countries suffering unfair treatment to safeguard the legitimate rights and interests in world trade.

Furthermore, exploit new exporting markets for agricultural products, disperse trade risks and reduce the obstacles of green barriers to China's agricultural products export. At present, China's agricultural exports are over dependence on the three major markets: Japan, the United States and the EU, which with the most serious green barriers and restrictions in the world. Therefore, China should consolidate the existing market and opening up new markets. For example, China and ASEAN are near regions, and the

agricultural products are complementary to each other. In recent years, ASEAN has become one of the main markets of China's agricultural products export. At the same time, with the strategy of "One Belt and One Road", we can strengthen relations between China and those countries, specialized production process, implementation of the strategy of "going out", actively explore emerging markets such as the Middle East and Less Developed Countries. To promote the popularization of the international quarantine inspection certificate and the mutual recognition, thereby effectively circumvent agricultural green barriers and achieve a win-win situation.

B. Enterprise Strategies

The first is to improve the scientific and technological content of exported agricultural products. Agricultural products production and processing enterprises should increase capital investment to carry out technical research and development, and strengthen the cooperation between enterprises and universities or research institutions, to achieve technological breakthroughs in soil conservation, prevention and control of diseases and pests, chemical fertilizers. Through continuous innovation solve the problem of excessive drug residues, hormones and antibiotics. At the same time, the improvement of science and technology is also conducive to reduce the production cost of agricultural products, promote the degree of mechanization, maintain price stability and expand the economic scale.

Second, enterprises should base on the reality, implement the green brand strategy, and establish a good reputation and image. With the popularity of global green consumption concept, consumers are willing to buy those green products and organic food which are pollution-free or less polluting. Therefore, enterprises should expand production of these products and export them to achieve industrial structure optimization. Enterprises must strengthen the awareness of environmental protection and qualities testing, implement fine management on public hazard prevention and control, and take preventing pollution in advance as an important task. In meanwhile, adopt scientific management methods to improve the agricultural production scale, to meet the international standards, strive for the ISO international quality system certification, make sure all the product technology, packaging, transportation can meet the requirement of "green standards", so that China's agricultural products in the international market can set up a high quality product image.

Third, enterprises should implement green marketing strategy. In the process of production and operation, agricultural products enterprises should fulfill their responsibility to protect the ecological environment in accordance with the principle of sustainable development, and meet the green demands of consumers, promote the coordinated development of the environment, economy and society while obtaining their own benefits. In the process of agricultural production, enterprises should take ecological protection as the starting point, take the long-term interests of human beings as the center, and adopt green marketing means and approaches to minimize the damage to the ecological environment. Moreover, enterprises should also guide

consumers to conduct green consumption and promote the formation of China's green agricultural products market.

C. The Strategies of China's Agricultural Export Association

The main duty of the export association is to communicate with the government to seek solutions when the enterprise encounters problems in the process of production and export. Nowadays, China's agricultural export association is unbalanced in development and has a single function. It is still quite weak in dealing with and solving disputes on green trade barriers. Recently, China's agricultural products have been repeatedly returned, detained and even claimed for compensation due to green standards. The main reason is that China's agricultural products enterprises do not collect dynamic information about developed countries and international green barriers to trade timely and cause coordination problems [7]. Therefore, the establishment of agricultural export warning system is quite important. Agricultural association can collect importer for technical standards and quarantine procedures and review the information according to the characteristics of different agricultural products, so that to create a huge database for our agricultural product export and then provide timely and accurate information service and analysis in capital, technology, information and coordination. In that case, many problems and difficulties in the process of agricultural exports from China can be avoided and solved.

V. CONCLUSION

With the continuous development of China's economy, green trade barriers will bring greater impacts on agricultural development, which will make China's international trade in agricultural products become more complex and changeable. Therefore, China should strengthen support for agriculture sector, actively implement green agriculture, ensure the output of high-quality agricultural products, and implement positive export preferential policies to improve the competitive advantage of agricultural exports. Learn advanced international experiences from different countries in order to expand the total volume of exporting, then through a series of optimization measures such as improving export profits to weaken the negative impact of green barriers, and support the environmental protection and sustainable development of domestic agricultural market. By meanwhile, it is necessary to strengthen environmental protection education for Chinese people, improve their awareness of environmental protection, upgrade the quality, safety and health system of agricultural products, increase the production level of agricultural products, so that reduce the restrictions on the export of agricultural products caused by international green trade barriers.

At last, limitations of the paper would be paid attention. All the research and analyses were based on author's current reading materials and research experience, thus, some weaknesses and omissions may exist. The further studies of this topic will be improved by more comprehensive and in-depth research.

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