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## **RESEARCH ON THE TRAINING MODE OF INTERNATIONAL AGRICULTURAL TALENTS BASED ON THE CONSTRUCTION OF OVERSEAS SCIENCE AND TECHNOLOGY DEMONSTRATION PARKS**

Since the “Belt and Road” initiative was put forward, China and Belarus have increasingly frequent agricultural trade cooperation. Talents are the fulcrum and key to the construction of the “Belt and Road”. However, the current training of international agricultural talents in Chinese universities still has problems such as a single training structure and low level of internationalization. In order to promote the agricultural cooperation between China and Belarus and adapt to the extensive advancement and long-term development of the “Belt and Road” construction, the training of international talents in agricultural universities in China is very important. China and Belarus should rely on the Belarusian Agricultural Science and Technology Demonstration Park, build an international exchange platform, create an innovative training model for agricultural talents with an international perspective, and provide strong talent support for bilateral agricultural cooperation and development.

**Key words:** One Belt One Road; Belarus; agricultural talent training.

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## **ИССЛЕДОВАНИЕ СПОСОБОВ ПОДГОТОВКИ МЕЖДУНАРОДНЫХ ТАЛАНТЛИВЫХ СПЕЦИАЛИСТОВ В СФЕРЕ СЕЛЬСКОГО ХОЗЯЙСТВА НА ОСНОВЕ СТРОИТЕЛЬСТВА ЗАРУБЕЖНЫХ НАУЧНО- ТЕХНОЛОГИЧЕСКИХ ДЕМОНСТРАЦИОННЫХ ПАРКОВ**

С тех пор, как была представлена инициатива «Один пояс — один путь», Китай и Беларусь все чаще стали сотрудничать в сфере торговли сельскохозяйственной продукцией. Талантливые специалисты являются опорными точками и ключами к построению данной инициативы «Один пояс — один путь». Вместе с тем текущая подготовка международных талантливых специалистов в сфере сельского хозяйства в китайских университетах по-прежнему сталкивается с такими проблемами, как единая структура подготовки и низкий уровень интернационализации. Для развития сельскохозяйственного сотрудничества Китая и Беларуси и адаптации к значительному продвижению и долгосрочному развитию инициативы «Пояс и путь», очень важна подготовка международных талантливых специалистов в сельскохозяйственных университетах Китая. Китай и Беларусь должны полагаться на Белорусский сельскохозяйственный научно-технологический демонстрационный парк, создать платформу для международного обмена, создать инновационную модель обучения сельскохозяйственных талантливых специалистов с международной перспективой и оказывать сильную поддержку талантам для двустороннего сотрудничества и развития в области сельского хозяйства.

**Ключевые слова:** «Один пояс — один путь»; Беларусь; подготовка талантливых специалистов в сфере сельского хозяйства.

**Introduction.** Since the “Belt and Road” initiative was put forward, my country and Belarus have increasingly frequent agricultural trade cooperation. In order to promote China’s agricultural “going out” and explore the “Belt and Road” China-Belarusian agricultural cooperation, our school has successively established the Silk Road Alliance, the Bel-

arusian Overseas Demonstration Park, the Shanghai Cooperation Agricultural Base, etc., creating a new China-Belarus agricultural science and technology cooperation path. In this context, Chinese agricultural colleges and universities need to cultivate a large number of outstanding agricultural talents with international vision and strong innovation capabilities [1; 2].

**Main part. 1. Demand for agricultural talents in the context of the Belt and Road Initiative.** With the introduction of the “One Belt and One Road” initiative, China’s trade exchanges with countries along the route have become closer. Belarus, as China’s strategic fulcrum country in the Eurasian region and the Silk Road Economic Belt extending westward, is co-constructing the “Belt and Road” initiative. A firm supporter and an important participant of China, has unique advantages in terms of strategic position and terms of trade [3; 4]. At present, China has become Belarus’s third largest trading partner and second largest source of imports, and agricultural trade and agricultural cooperation will also be intensified [5]. The agricultural products structure of China and Belarus are complementary to a certain extent. The agricultural products and food that China imports from Belarus are mainly meat products, dairy products, rapeseed oil, flax fiber, chocolate, sugar and starch, etc. Belarus mainly imports fruits and vegetables from China [6]. China’s vegetable and fruit planting technology is advanced, the industry is mature, and its output has long ranked first in the world, while the Belarusian fruit and vegetable industry is relatively backward, and it needs to import a large amount of vegetables and fruits every year to meet domestic demand. With the deepening of Sino-Belarusian agricultural cooperation in the field of agricultural products and the active agricultural trade in recent years, the methods and content of agricultural cooperation between China and Belarus have gradually diversified. On the basis of the all-weather friendship between the two countries, it is particularly important to further strengthen the cultivation of agricultural talents [7; 8; 9].

At present, under the background of the “Belt and Road” initiative, the primary task facing the cooperation between China and Belarus is to train qualified agricultural talents for cross-cultural exchanges. These talents must not only meet the needs of countries related to the “Belt and Road” for cross-cultural exchanges, but also an important link for the countries along the route to achieve cultural tolerance and integra-

tion; these talents must not only understand the language, but also have a solid agricultural experience, and they must also be important to the two countries. Have an understanding of politics, economy, society, culture, etc. Institutions of higher learning are the main positions for the training of cross-cultural communication talents. The main task at present is to seize the opportunities brought by the “Belt and Road” background to cultivate cross-cultural agricultural talents who can adapt to the new environment and new forms.

**2. Problems in the cultivation of agricultural talents under the background of “One Belt One Road”.** As agricultural talents, they must be able to apply the professional knowledge and skills they have learned to their professional social practice and work to better promote social and economic development. At this stage, applied agricultural talents in higher vocational colleges are in the process of training and there are still some problems.

**2.1 The degree of internationalization of the course is not high.** The teaching content is single and lacks an international perspective. The intercommunication at the level of foreign trade and agricultural technology exchanges of agricultural products enterprises is the transmission and expression of cross-cultural in-depth information in the exchange process. The “Belt and Road” encompasses many politically and religiously sensitive areas with diverse ethnic cultures. In the process of foreign trade of agricultural products, we must consciously avoid sensitive issues in certain fields or aspects to avoid unnecessary international disputes and harm national sentiments. The curriculum system is still based on localization, does not follow the concept of internationalization, lacks international vision and thinking, and does not keep pace with the times. There is no special curriculum for policies, trade, and laws of countries along the “Belt and Road” in the general education courses. As a result, Chinese college students have very low awareness of these countries. In teaching, students should have a comprehensive and in-depth understanding of the cultural differences between ethnic groups from different cultural backgrounds through learning, and through cross-cultural training to learn appropriate and authentic communication in cross-cultural communication, so as to improve students' cultural literacy and broaden their horizons.

**2.2 Insufficient curriculum practice.** A large part of the existing graduate students have never participated in international exchange ac-

tivities, and very few students go abroad to participate in study exchanges, international conferences, and foreign practice projects. To become a qualified practitioner in the agriculture-related industry under the “One Belt and One Road” initiative, in addition to receiving training in agriculture and English to complete the theoretical knowledge reserve, agricultural practice is also indispensable. Work in agriculture-related fields requires strong professionalism and technology, and learners need to gradually improve their professional operability and control through learning and practice. However, domestic ordinary colleges and universities generally have insufficient school-enterprise cooperation in agriculture-related industries and fields. The school-enterprise cooperation mechanism lacks policy support and guidance, and lacks an external internship platform for agriculture-related industries. This results in lack of practical experience for learners and insufficiency. The actual work requirements of the “Belt and Road” agricultural industry in the international market.

**2.3 The school failed to complete the transition from “bringing in” to “going out”.** Most of the Sino-foreign cooperative education projects that currently exist in higher vocational colleges belong to this type. They mainly aim at absorbing and introducing high-quality educational resources from English-speaking countries. However, the economies of the countries and regions along the “Belt and Road” are generally underdeveloped. Under this background, the international cooperation between domestic vocational colleges and universities often has the purpose of “education export” or “education import”. For the higher vocational colleges that have come, there are few overall solutions that export their own complete education services.

**3. Innovative training model for agricultural talents.** Under the background of “One Belt One Road”, agricultural universities need to rely on the Belarusian Agricultural Science and Technology Demonstration Park, build an international exchange platform based on the concept of “focus on cooperation, build a platform, integrate knowledge, and seek improvement”, and create a “foreign expert guidance platform construction cooperation + academic team” the innovative training model of agricultural talents with an international vision of “cultivation”

**3.1 Main content.** Build a diversified practice teaching base and practice system. Relying on the Belarusian Agricultural Science and

Technology Demonstration Park, domestic agricultural colleges and universities will use it as an overseas practice teaching base for international talents while demonstrating the achievements of demonstration agricultural science and technology; Use university test demonstration stations to establish domestic practical teaching bases; use national key laboratories and provincial and ministerial joint laboratories to establish scientific research practice platforms to form a diversified practical teaching system; through the establishment of joint laboratories and the signing of inter-school cooperation agreements, The system guarantees the smooth progress of international exchanges between the trainees and foreign experts.

*Build a multi-channel international exchange platform.* Actively explore methods and channels for international exchanges and cooperation, sort out overseas human resources, and organize 1—2 international academic exchange conferences every year through cooperation platforms established with foreign universities and scientific research institutions, and invite domestic and foreign peer experts to come to the school for academic exchanges, and create Good academic atmosphere. At the same time, select outstanding agricultural talents to participate in international academic forums held by the counterpart's colleges and universities abroad. In addition, the use of joint training, short-term visits, etc. to establish a multi-channel international talent exchange model to build an exchange platform for talent education.

*Build a multi-level tutor teaching team.* Establish a team of tutors with a national vision of the “three-teacher system” consisting of international cooperation tutors, school tutors and base practice tutors, running through the entire process of agricultural talent training. The research topics are discussed and decided by the tutor group, forming a multi-level guiding teaching team.

*Cultivate creative thinking ability.* Based on the training goal of “strengthening innovation and cultivating talents”, the traditional teaching and international teaching mode are integrated, through the combination of heuristic teaching and special discussion, to consolidate professional knowledge, enhance the ability of innovative thinking of agricultural talents, and build a building that enhances the ability of innovative thinking Cultivate new models. We will offer targeted courses such as special teaching on the Belt and Road Initiative, and establish an international talent training system for the Belt and Road

Initiative. The course adopts lecture-style, case-style, and seminar-style teaching methods, with self-discussion and reporting as the mainstay, supplemented by guidance and explanation by foreign teachers. Through problem-oriented, the topic content is arranged, the information is consulted in advance, the report is prepared, the thinking ability, the training of literature review ability, reporting ability, and communication ability, so as to enhance their understanding and grasp of professional frontiers.

**3.2 Deepen teaching reform.** *Diversified teaching methods.* Expand the application potential of new technologies such as smart agriculture, digital agriculture, agricultural mechanization, and organic agriculture in curriculum teaching, shorten the distance between the classroom and overseas sites, improve teaching effects, and promote the cultivation of students' international vision. Relying on the construction of overseas demonstration parks, combining the cultivation of international vision with the modern teaching method "task-driven teaching method", guiding students to actively learn about the overseas agricultural production environment, inspiring curiosity, and exploring the adoption of tasks related to the cultivation of international vision Driven teaching method to improve students' sense of project participation. Explore the use of diversified and open seminar-style teaching methods. Reform traditional seminar-style teaching methods, innovate organizational forms, and strive to achieve the internationalization of topic setting and the diversification of participants, so as to achieve diversification of seminar perspectives and internationalization of viewpoints.

*International reform of curriculum content.* Collect materials for training with an international perspective, especially knowledge materials and agricultural industry development case materials in the "Belt and Road" region. Enable students to learn, understand and respect the differences in different systems, cultures, and new ideologies, understand the issues that cross national boundaries, and the interrelationships of different national cultural, ecological, economic, political and technological systems, and have the ability to view the world from multiple perspectives Ability to cultivate a "global perspective".

*Diversified reform of teaching effect evaluation.* Establish an evaluation system that is in line with foreign countries, and make revisions and adjustments based on actual needs. Fully consider the comprehensiveness, diversity, and development of evaluation; establish diversified

assessment methods, including individual or team-based daily assignments, speeches or demonstrations, and essay questions, short answer questions, or case analysis questions. The main formative evaluation system focuses on investigating the comprehensive abilities of students, effectively extending in-class teaching activities to extra-curricular, so as to cultivate students' independent thinking, pioneering and innovative abilities.

**4. Suggestions on the cultivation of agricultural talents under the background of “One Belt One Road”.** 1. Promote the deep integration of industry, university and research. The training of international talents for the Belt and Road Initiative should coordinate with international agriculture-related enterprises, combine actual needs, discover problems in the course of corporate practice, supplement and update teaching content to relevant teaching courses for nationalized agricultural talent training, and increase internationalization in traditional courses. The background knowledge and the proportion of international exchanges enable the cultivated agricultural talents to adapt to the actual conditions of the target country and have the ability to work in the target country.

2. Attach importance to the teaching of small languages such as Russian to reduce language barriers. Colleges and universities should provide targeted teaching in Russian and other majors, create a good language environment, and improve oral communication skills.

3. Strengthen the communication of information. The government agencies of both parties should actively provide corresponding information support for China—Belarus cooperation in cultivating agricultural talents, so that both parties can make full use of Internet resources for information communication, scientific research cooperation and resource sharing.

4. Increase policy support. The governments of the two countries should adopt relevant policies to provide corresponding legal and economic guarantees for the cultivation of agricultural talents to ensure that the cultivation of talents advances steadily.

**Conclusion. 5. Outlook.** In the context of the “Belt and Road”, with the continuous and frequent agricultural cooperation between China and Belarus, a large number of agricultural talents are needed. Through the training model of agricultural talents with an international perspective based on the Belarusian Agricultural Science and Technol-

ogy Demonstration Park, a group of agricultural talents have been cultivated. Capable and high-quality agricultural talents will help promote the further development of the “Belt and Road” and promote in-depth cooperation in agriculture between China and Belarus.

### References

1. *Zhao, Huirong*. The Status Quo and Prospects of Sino-Belarusian Educational Cooperation / Huirong Zhao // Russian Journal. — 2017. — № 7(05). — P. 54—60.
2. *Zhao, Huirong*. Analysis and Thinking on the Relationship between China and Belarus / Huirong Zhao // Foreign Theoretical Trends. — 2017. — № 11. — P. 120—127.
3. *Zhang, Zhongming*. The Development Trend of Belarusian Agriculture and the Analysis of China’s Key Agricultural Investment Fields in Belarus / Zhongming Zhang [et al.] // World Agriculture. — 2015. — № 5. — P. 106—110.
4. *Li, Fujia*. “One Belt One Road” Agricultural Strategic Pattern and Countermeasures / Fujia Li [et al.] // Bulletin of the Chinese Academy of Sciences. — 2016. — № 31(06). — P. 678—688.
5. *Xie, Hui*. A Brief Analysis of the Bilateral Trade Relations between China and Belarus / Hui Xie // Brand (second half of the month). — 2015. — № 1. — P. 48—49.
6. *Rybalkina, L.* Research on Optimization of Belarusian Industrial Structure / L. Rybalkina. — Lanzhou Jiaotong University, 2014.
7. *Zhao, Jingrui*. Research on the Evolution of Trade Relations between China and Countries Along the “Belt and Road” / Jingrui Zhao, Hui Sun // International Economic and Trade Exploration. — 2019. — № 35(11). — P. 36—48.
8. *He, Min*. Analysis on the Competitiveness and Complementarity of Agricultural Products Trade between China and “One Belt One Road” Countries / Min He, Ningning Zhang, Zequn Huang // Agricultural Economic Issues. — 2016. — № 37(11). — P. 51—60.
9. *Xie, Tao*. Research on Influencing Factors of Agricultural Products Export Trade between China and Countries Along the “One Belt and One Road” / Tao Xie // World Industry. — 2017. — № 3. — P. 132—138.