Research on Ideas of Innovation in Agricultural Science and Technology

Fengxiang Jiang
Xi’an Peihua University, Xi’an, Shaanxi, China

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Abstract: With the development of science and technology, the construction of modern agricultural system cannot be separated from science and technology, science and technology can promote the adjustment of rural industrial structure, come into the formation of efficient agricultural production mode, and improve the efficiency and efficiency of agricultural production. We will increase the number of peasants and farmers, and effectively solve the problem of agriculture, rural areas and farmers. It is necessary to clarify the innovative ideas of agricultural science and technology development in order to promote the agricultural scientific and technological revolution in China and speed up the realization of agricultural modernization in China In the new era. This paper firstly expounds the important strategic value of the development of agricultural science and technology, then analyzes the present situation and problems of the development of agricultural science and technology, and then analyzes the causes of the problems existing in the development of agricultural science and technology. Finally, this paper tries to put forward the idea of agricultural science and technology innovation.

1. Introduction

With the continuous development of society, in today’s knowledge-based economy era, agricultural development should closely combine science and technology, strengthen scientific and technological agricultural innovation, improve the potential of agricultural resources with science and technology, and promote the formation of agricultural production mode of saving cost and increasing efficiency. Effectively improve and protect the rural ecological environment, promote the sustainable development of agricultural economy. China’s agriculture needs to make full use of information technology, big data technology, etc., to develop scientific and technological agriculture, to further consolidate and promote the status of agricultural scientific and technological innovation, to strengthen investment in agricultural scientific and technological innovation, and to optimize environmental allocation. We will adjust the direction and focus of agricultural scientific and technological innovation in a timely manner, constantly enhance the ability of agricultural scientific and technological innovation, build a number of agricultural scientific and technological demonstration bases, test areas for comprehensive agricultural reform, and agricultural high-tech demonstration areas, and support a number of key enterprises in agricultural industrialization. it is necessary and important to cultivate a number of scientific and technological achievements of high-tech agriculture, to realize fine agriculture, to highlight the significance of agricultural scientific and technological innovation to rural revitalization strategy, but there are also many problems in the development and extension of agricultural science and technology, which need to be further solved.

2. The important strategic value of agricultural science and technology development

Agricultural scientific and technological innovation is undoubtedly an important means to solve the three agricultural problems in China. Promoting the innovation of agricultural science and technology plays an important role in the construction of modern agriculture, the improvement of farmers’ income and the strengthening of the core competitiveness of the national agricultural industry.
2.1. Agricultural science and technology helps solve the three agricultural problems

The key to solving the problems in the village of agricultural development lies in strengthening the key technology of agriculture, strengthening the extension of agricultural science and technology, and establishing the innovation system of agricultural science and technology. Agricultural science and technology can provide strong technical support for the development of modern agriculture, realize the refinement of agricultural production, improve the efficiency of agricultural production, enhance the efficiency of agricultural production, and then increase the income of farmers. We will promote the harmonious and stable development of rural society.

2.2. Agricultural science and technology is conducive to the development of modern agriculture

Agricultural modernization is based on the premise of high quality and high yield of grain, green ecological security, high degree of industrialization of intensive standardization, infrastructure, machinery and equipment, and service system. Science and technology and farmers’ quality support strong agricultural modernization. The key to speed up the modernization of agriculture lies in scientific and technological progress and innovation, and agriculture can be beneficial to the development of modern agriculture.

2.3. Agricultural science and technology is conducive to enhancing agricultural competitiveness

Agriculture will be transformed from the traditional resource-dependent type to the intelligent-dependent type. Natural resources are no longer the most important factors affecting the development of agriculture. The level of science and technology and the quality of laborers ultimately determine the level of agricultural development in a country. Agricultural science and technology is a technological revolution to the traditional agricultural mode of production. Only by vigorously developing agricultural science and technology and promoting related technological innovation can advanced industrial technological achievements, industrial production methods and engineering management methods be applied to agricultural development. In order to greatly improve the efficiency of agricultural production, reduce the dispersion and controllability of agricultural production, realize the visualization, digitization, intelligence and precision of agricultural production, and then enhance the competitiveness of agriculture.

3. The current situation and problems of agricultural science and technology development

3.1. The current situation of agricultural science and technology development

The talent structure of agricultural scientific and technological innovation is continuously optimized, the number of agricultural scientific and technological personnel with high academic degree is increasing, and the experimental development of agricultural scientific and technological research is emphasized. The main body of agricultural scientific and technological innovation presents a diversified trend. Colleges and universities, scientific research institutions, agricultural enterprises and intermediary organizations have jointly undertaken the task of agricultural scientific and technological innovation in China, and the innovative ability of agricultural enterprises is being strengthened. Innovation in agricultural science and technology is constantly advancing.

3.2. The problems of agricultural science and technology development

Judging from the current situation in China, universities and scientific research institutions are still the main forces in China’s agricultural scientific and technological innovation. Statistics show that more than 80% of the current achievements in agricultural scientific and technological innovation are completed by universities and scientific research institutions. The proportion of technology developed independently by enterprises is less than that of scientific and technological agricultural innovation, that is to say, the transformation rate of scientific and technological agricultural innovation results is relatively low, the demand for funds in the development of
agricultural science and technology is very large, and the personnel structure needs to be further optimized. There are some problems in agricultural science and technology, such as insufficient innovation ability, less capital input, low technology conversion rate, great difficulty in popularizing technology, imperfect service platform and so on.

4. The problems existing in the development of agricultural science and technology

There are still many problems in the development of agricultural science and technology. The main reasons are that the environment of agricultural scientific and technological innovation needs to be improved, the low level of agricultural industrialization is difficult to popularize technology, and the construction of agricultural scientific and technological service personnel is backward and so on.

4.1. The environment of agricultural science and technology innovation needs to be improved

Agricultural scientific and technological innovation needs a large amount of capital input. Although the government of our country pays more attention to the agricultural innovation of science and technology, but the investment of the government is still insufficient, it cannot meet the overall pace of the innovation of agricultural science and technology, and the innovation of agricultural science and technology needs to obtain more funds. At present, the management system, incentive mechanism and evaluation system of agricultural science and technology need to be improved, and the environment of agricultural science and technology development needs to be improved.

4.2. The low level of agricultural industrialization is difficult to popularize technology

Although the level of agricultural industrialization in China has improved rapidly, it is still on the low side, mainly reflected in the short industrial chain of processing and circulation of agricultural products in recent years. The low degree of agricultural industrialization and the short chain of agricultural products processing and circulation industry make it very difficult to popularize technology in agricultural science and technology in our country. It is necessary to coordinate and communicate with many companies or institutions in the same industrial chain to popularize a technology. Only then is it possible to put it into practice.

4.3. The construction of agricultural science and technology service personnel is backward

The service of agricultural science and technology in our country generally presents the condition of low quality, aging knowledge, outdated service concept and backward concept, which makes it difficult to adapt to the urgent demand for technology in the current rural industry. At the level of service level, the existing agricultural production services are mainly concentrated in the fields of planting and breeding, and the overall supply of agricultural services is insufficient, especially in the storage and processing of agricultural and livestock products and advanced agricultural production technologies, and so on. Both quantity and quality, cannot meet the needs of rural industrial development.

5. Ideas of innovation in agricultural science and technology

In the new era, the innovation of agricultural science and technology requires the government to increase the investment in the development of agricultural science and technology, implement the preferential tax policy of agricultural science and technology, attach importance to the construction of agricultural scientific and technological talents, and strengthen the transformation and application of agricultural scientific and technological achievements. We will launch regional cooperation in agricultural scientific and technological innovation.
5.1. The government increases the investment in the development of agricultural science and technology

The government is the main body of funding for the development of agricultural science and technology. The government needs to put agricultural scientific and technological innovation at the core of agricultural and rural development, further improve policy measures, and provide financial support for scientific and technological innovation of agricultural-related enterprises. It is necessary to increase the financial input of agricultural science and technology research, through increasing the support for agricultural science and technology, establishing and perfecting the government-led diversified investment mechanism, setting up special funds for the development of agricultural scientific and technological personnel, and further increasing the support for the construction of agricultural scientific and technological personnel. We will speed up progress and innovation in agricultural science and technology.

5.2. To implement the preferential tax policy of agricultural science and technology

The preferential tax policy plays a significant role in promoting the achievements of scientific and technological innovation. Government departments need to further deepen the reform of agricultural science and technology system, increase the tax optimization policy formulation of agricultural science and technology, to support the development of agriculture, the state has issued a series of preferential tax policies to support the development of agriculture. It is necessary to effectively implement the preferential policies of agricultural science and technology to create good conditions and environment for speeding up the innovation of agricultural science and technology.

5.3. To attach importance to the construction of talents in agricultural science and technology

It is important to pay attention to the construction of agricultural scientific and technological talents, pay attention to the cultivation of agricultural scientific and technological talents, further strengthen the cultivation of agricultural scientific and technological talents, strive to build a talent training and education system, strengthen the scientific and technological training of agricultural scientific and technological talents, to improve the use, service, evaluation, assessment system of agricultural scientific and technological personnel, optimize the objective environment for the growth of agricultural scientific and technological personnel, agricultural scientific and technological personnel continue to develop and expand, play a role in the service of agricultural and rural areas.

5.4. To strengthen the transformation and application of agricultural scientific and technological achievements

In the development of agricultural science and technology, we should follow the law of agricultural science and technology, find out the direction of breakthrough of agricultural science and technology, and try our best to solve the outstanding problems of science and technology which restrict the development of agricultural innovation. Focusing on the needs of agricultural modernization development, vigorously promoting the innovation of agricultural science and technology industry, giving full play to the main role of enterprises in innovation decision-making, R & D investment, scientific research organization, and the transformation of achievements, it is so as to promote the integrated development of industry, university and research. We will speed up the transformation of achievements in agricultural scientific and technological innovation into realistic productive forces.

5.5. To carry out regional cooperation in agricultural scientific and technological innovation

Adhering to the concept of equality, openness, joint construction, sharing, and common development, we have steadily promoted regional and regional cooperation in agricultural scientific and technological innovation, and established a mechanism for regular exchanges and cooperation in agricultural science and technology. We should strengthen the communication of agricultural science and technology culture and policy, discuss the strategies of cultivating agricultural scientific
and technological talents and scientific and technological innovation, share agricultural scientific and technological resources and development experience, and promote agricultural scientific and technological innovation.

6. Conclusion

In a word, agriculture, as the basic industry of our national economy, also needs scientific and technological innovation to support the development of agricultural modernization, improve farmers’ income, and enhance the core competitiveness of China’s agricultural development. Agricultural scientific and technological innovation needs to clarify its own strategic positioning, focusing on the talent reserve, theoretical foundation, technological innovation, industrial application and market competition, focusing on the hatchability of talents, theoretical innovation, technical reliability. The adaptability of the industry and the dominance of the market will effectively put the most advanced reliable and efficient technology into the application of the agricultural industry.

References


