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ARTICLE

AGRICULTURAL TECHNOLOGY EXTENSION STRATEGIES FOR GREEN AGRICULTURE

Velukkudi Santhan*

Department of Machine and Product Design, Anna University, Chennai, India

*Corresponding author: velukkudi@hotmail.com

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ARTICLE DETAILS

ABSTRACT

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In addition to traditional environmental protection and green manufacturing, green economy also includes emerging industries such as green organic food and green ecological agriculture. At present, our country's agricultural economy has widely promoted green agricultural production technology. Under the condition of ensuring the quality of agricultural products, it provides healthier and higher-quality green food, accelerates the development of our country's diversified agricultural market, and improves the speed of green ecological construction and planning to make it more advanced. To standardize and industrialize, to promote the development of agricultural economy, but also conducive to the continuous innovation and development of our country's modern agricultural technology.

KEYWORDS

Green agriculture, agricultural technology extension, measures.

1. INTRODUCTION

As a large agricultural country and a country with a large population, it is very important to ensure food health. In the new era and new background, people's pursuit of food is developing in a high-quality, green and beneficial direction. Therefore, green agriculture has also become the focus of people's attention. As a synonym for new agriculture, green agricultural technology has entered the life of the public and has driven the development of our country's agricultural economy.

2. OVERVIEW OF GREEN AGRICULTURE THEORY

Different from traditional agricultural production technology, green agriculture is an innovative agricultural production technology evolved under traditional agricultural technology. Compared with traditional agricultural technology, it pays more attention to the quality and health of production, and also takes into account the characteristics of engineering technology and economic benefits of traditional agriculture. Under the current promotion of green agricultural technology, the production of green agriculture will pay more attention to the stability and development of ecology. At the same time, while vigorously promoting green production technology, it will gradually replace the traditional agricultural production mode of high pollution and high pesticide production, which not only ensures the quality of agricultural products, but also it also protects the health of agricultural products, which is an important part of the construction of the new rural economy and has received extensive attention from the society [1-2].

3. TYPES OF AGRICULTURAL TECHNOLOGIES FOR GREEN AGRICULTURE

3.1 Green crop planting technology

Green agricultural production technology is a new production technology evolved from modern traditional agriculture. Relatively speaking, this technology is safer and more reliable. For example, green grain and oil planting technology has been promoted in some agricultural production provinces at present, but the promotion effect is not as good as imagined. There are several factors to consider: First, this green production technology has stricter planting conditions for crops, including soil quality, sunlight, climate and temperature conditions, etc., all have an impact on the quality of green crops, which needs to be considered. Second, whether the economic benefits of the crops meet the needs of the local market and whether it meets the requirements of local economic construction also needs to be considered. For example, when this technology is popularized and applied, more high-quality wheat varieties will be selected for cultivation, and all aspects need to meet the requirements of green and high-quality, such as protein content, gluten content, etc., and when selecting crops such as corn, the oil content of the variety needs to be considered, the protein content of crops also needs to be considered, and screening and comparison need to be done.

3.2 Green straw processing technology

In the agricultural economy, straw is a relatively common crop residue. Usually, farmers will incinerate the remaining straw of crops such as corn, sorghum, and rice, and use the ashes for plant topdressing. This treatment technology will not only cause huge damage to the ecological environment, but also affect the quality of surrounding crops. Therefore, under the promotion of green production technology, the recycling and reuse of straw and the use of straw processing machinery to make

agricultural and animal husbandry feed not only improves the utilization efficiency of crops, but also increases economic benefits, and more importantly, meets the requirements of green production [3].

3.3 Green pest control technology

In the current agricultural production, the problem of insect pests is one of the important factors affecting the quality of crops. Traditional production technology uses highly toxic and polluting chemical reagents for prevention. This agricultural technology will change the quality of crops and is neither healthy nor environmentally friendly. The promotion of green technology will be prevented from several aspects. The first is physical prevention, such as the use of frequency vibration technology to kill insects, lighting technology to kill insects, swatches to kill insects or adding greenhouses to prevent insect diseases. The second is man-made pest control, such as extermination of pupae. The third is to promote green and high-quality agricultural drug prevention technology, which is harmless to humans and animals, but can have a good insecticidal effect.

4. AGRICULTURAL TECHNOLOGY EXTENSION STRATEGIES FOR GREEN AGRICULTURE

4.1 Strengthen the publicity of green agriculture

Green agriculture is a new type of agricultural production technology. On the premise of ensuring the high quality of crops, it can obtain higher returns than similar products. Therefore, in the promotion of green agricultural production technology, first of all, it is necessary to improve the public's sense of recognition, such as the popularization of green production technology knowledge and technology propaganda. Incorporate green agricultural production technology into rural economic construction, and increase the training of relevant talents [4]. Improve the daily publicity and maintenance work, so that farmers have a comprehensive understanding of green agricultural technology and know its advantages, which can promote local economic construction. Secondly, improve the technical propaganda and guidance work, the propaganda of the early-stage technology needs to be increased, and the relevant technical guidance work should be done in combination with the government. Finally, let farmers trust green food, like green food, be full of hope for the development of green food, and be able to distinguish green products from ordinary products, so as to accelerate the rapid development of modern green agricultural industry.

4.2 Establish a green agriculture demonstration base

In general, our country's green agricultural industry is still in its infancy, and green agriculture has not been fully recognized by the masses. This is mainly because the advantages of green agriculture and traditional

agriculture have not yet formed a clear difference, and it is difficult for the masses to recognize green agricultural production technology. Therefore, in the early stage, it is necessary to carry out the construction of green production demonstration bases, through more scientific and perfect green agricultural production technical guidance, let farmers participate in it, and strengthen technical guidance, so that they can see the development prospects of modern green agricultural production technology, and actively play the leading role of green agricultural demonstration bases to allow more farmers to participate in it and improve economic benefits.

4.3 Increase the research and development of green agricultural production technology

In order to promote the rapid and sustainable development of green agricultural industry, it is necessary to continuously improve the research and development and investment of green planting technology. Ensure that crops can obtain higher quality and higher income, meet the requirements of green development, and meet the needs of agricultural economic construction. For example, innovation in planting technology, optimization of seed cultivation technology, and the use of more modern agricultural production tools are all important aspects of green production technology, accelerating the sustainable development of modern agriculture. In short, with the sustainable development of the economy, people's pursuit of material life has changed a lot, and they should pay attention not only to comfort, but also to safety and greenness. Therefore, the new type of green agriculture will also be gradually recognized by the market, and it will be inevitable to speed up the construction of green agricultural economy, which requires technical guidance, publicity, innovation and other work, which also promotes the rapid development of society.

REFERENCES

- [1] Ahmadvand, M., Karami, E. 2007. Sustainable agriculture: towards a conflict management based agricultural extension. *Journal of Applied Sciences*, 7(24): 3880-3890.
- [2] Shen, J., Zhu, Q., Jiao, X., Ying, H., Wang, H., Wen, X., Zhang, F. 2020. Agriculture green development: A model for China and the world. *Frontiers of Agricultural Science and Engineering*, 7(1): 5-13.
- [3] Pereira, L., Wynberg, R., Reis, Y. 2018. Agroecology: The future of sustainable farming. *Environment: Science and Policy for Sustainable Development*, 60(4): 4-17.
- [4] Wenhua, L., Qingwen, M. 1999. Integrated farming systems an important approach toward sustainable agriculture in China. *Ambio*: 655-662.

