

# The Necessity of Agricultural Education in the New Era

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**Abstract :** Agricultural education is the basis of strengthening agriculture and developing agriculture. Currently, China's agricultural education is faced with such problems as the "new agricultural science" reform of higher agricultural education is still in progress, the effect of agricultural technology promotion is not satisfactory, and the shortage of high-quality farmers' training is in short supply. It is difficult to play its due role in guaranteeing national food security and promoting green and low-carbon agricultural development. Based on this, this paper proposes that food security and green and low-carbon agricultural development should be taken as the main clue to actively promote the construction of new agricultural sciences and encourage agriculture-related talents to take root in agriculture, rural areas and farmers. We will strengthen the establishment of a team of agricultural technology extension personnel at the grass-roots level in terms of operating systems and incentive mechanisms, and smooth the path for promoting green and low-carbon grain production technologies. We should improve the cultivation system of high-quality farmers by innovating training modes and methods, selecting the best training objects and enriching the training contents.

**Keywords:** Food security; Agricultural education; Construction of new agricultural science; Agricultural technology extension; Low carbon agriculture

## 1. Introduction

Food security bears on the national economy and people's livelihood, and is the foundation for economic and social stability and prosperity. After entering the new era, China's grain industry has entered a new stage. On the one hand, China is not only the largest food producer and consumer in the world, but also the largest food importer in the world, so it is very critical to improve the food security guarantee capability at a high level of opening-up. Especially in the post-epidemic era, a series of new changes have taken place in the world food development and security pattern, and the utilization efficiency and risk prevention of "two markets, two resources" need to be strengthened. On the other hand, while China has made great achievements in grain production, problems such as resource waste, environmental pollution and ecosystem degradation have become increasingly prominent, posing major challenges to the green and low-carbon development of the grain industry. In this context, discussions on food security must keep pace with The Times in order to better ensure national food security.<sup>[1]</sup>

## 2. The concept of agricultural education has evolved tremendously

### 2.1 The reform of "new Agricultural Science" in agricultural colleges is in the ascendant, and "wisdom of colleges and universities" is urgently needed for food security

In the current teaching and training mode of agricultural colleges and universities, there is an obvious phenomenon that "farming" and "reading" are separated. In the theory of food security propaganda and education pay insufficient attention. From the perspective of the survey data of college students for agricultural universities, despite the fact that 92.53% of college students think that food safety is more important to the development of China's future, 88.18% of college students thought to develop agricultural education helps to ensure national food security, but only 15.27% of college students often take the initiative to care about food safety problems in their daily lives, 14.09% of the university Students have a better understanding of China's food security situation.<sup>[2]</sup>

### 2.2 Agricultural technology promotion urgently needs to break through the "last mile", and the green and low-carbon transformation of food production is not satisfactory

Resource constraint and environmental pollution are becoming more and more serious in the development of China's grain industry. Therefore, in the process of food production, the coordination and unity of food supply and ecological protection have become the task of The Times. In this regard, it is necessary to intensify the research and development, promotion and application of green and low-carbon grain production technologies, guide and promote the formation of new forms and models of green and low-carbon grain production, promote the green and low-carbon transformation of the grain industry, and help achieve the national goal of "carbon peak" and "carbon neutrality". However, the current education level of farmers is generally low, and the ability to accept, comprehend and apply new technology is insufficient. In addition, in recent years, a large number of young rural labor force outflow, local consensus in the local society gradually weakened, further enhance the promotion of green and low-carbon grain production technology difficulty.<sup>[3]</sup>

### 3. Necessity and countermeasures of developing agricultural education

In order to steadily accelerate the development of agriculture in China, we should not only rely on science and technology, but also strive to improve the level of agricultural education. Modern agricultural education has achieved remarkable results in training agricultural scientific talents, improving systematic agricultural knowledge and technology, and improving the comprehensive quality and technical level of farmers. Therefore, agricultural education is the main means to solve these problems, but also an important start to promote the construction and development of agricultural economy. Modern agricultural education makes agricultural development form with information, network and innovation, and gradually becomes an important pillar of constructing a new agricultural system under the background of the current hot development of artificial intelligence.<sup>[4]</sup>

#### 3.1 Promote the reform of “new agriculture” in agricultural colleges and universities

The three agricultural technological revolutions in the past century have exerted a profound influence on the grain industry. The first agricultural technological revolution marked by dwarf breeding, heterosis and the application of chemical fertilizers and pesticides greatly increased the grain yield and ensured the quantity security of grain. The second agricultural technological revolution, marked by the application of biotechnology, not only further increased grain output, but also improved the quality and structural safety level of grain.<sup>[5]</sup>

#### 3.2 Reform the agricultural technology extension system at the grass-roots level

National agricultural technology extension agencies have the characteristics of public and public welfare. Therefore, to fulfill the functions of agricultural technology extension, food quality and safety supervision, and low carbon and environmental protection of food production, it is necessary to strengthen the construction of grass-roots agricultural technology extension personnel from the aspects of operation system and incentive mechanism. First, we will further improve the management system, assessment and promotion mechanism for the selection and employment of agricultural technical extension personnel. The reasonableness of the agricultural technology extension team and the enthusiasm of the staff are ensured through the system of “the superior is promoted and the mediocre is lowered”.<sup>[6]</sup> At the same time, the contents and methods of assessment can be refined and quantified according to the differences of post responsibilities of agricultural technical extension personnel, and the modes of technical ability assessment and skill assessment can be innovated.

### 4. Conclusion

The new era has endowed agricultural education with new missions, new responsibilities, new obligations, new requirements, new opportunities, new ideas.<sup>[7]</sup> Running agricultural education well has become an important bridge and link for the Party and the government to develop agriculture and ensure food security, and has become an important mission and responsibility to win a decisive victory in building a moderately prosperous society and meet people’s needs for a better life.<sup>[8]</sup>

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