

# Research on the Cultivation Mechanism of New Liberal Arts Talents Who Know and Love Agriculture in Agriculture-Related Universities--A Case Study of Jiangsu University

Chao Wan <sup>1,\*</sup>, Ran Xu <sup>2</sup>

<sup>1</sup> Office of Humanities and Social Sciences, Jiangsu University, Zhenjiang, China

<sup>2</sup> Jiangsu University of Medicine, Jiangsu University, Zhenjiang, China

\* 240462337@qq.com

**Abstract.** New liberal arts talents is a new requirement of China for universities to cultivate philosophy and social science talents in the new era. Jiangsu University, as a key agricultural-related university featuring agricultural machinery, has a profound theoretical and practical foundation in the cultivation of agricultural-related talents. Jiangsu University has integrated the concept of "cross-border integration" into the cultivation of new liberal arts talents who know and love agriculture, and proposed measures such as ideological and political education in collaboration, cultivating the "Three Rural Issues" culture, strengthening the intersection of arts and sciences, carrying out farming and reading education, and teaching students according to their aptitude, so as to provide talent guarantee for the realization of Chinese style agricultural modernization.

**Keywords:** agricultural-related universities, knowing and loving agriculture, new liberal arts talents

## 1. Research Background

In the Report called for the rich connotation of Chinese modernization [1], that means the realization of Chinese modernization needs for high-quality talents who have both integrity and professional competence, and universities need to train innovative undergraduates with outstanding professional knowledge who are morally, intellectually, physically and aesthetically equipped.

The concept of "China's strength in agriculture" was first written into the report to the national congress of the party, which is a new requirement for agricultural development in the process of realizing Chinese modernization. China's strength in agriculture needs to make up for the lack of science, technology and talent even more. More knowledgeable and talented youths should be rooted in the countryside, serve rural development and play a greater role in agricultural science and technology innovation, so that the continuous progress of agricultural science and technology innovation and productivity levels can be sustainable.

In the Reply Letter to Students of China Agricultural University's Science and Technology Backyards, it pointed out that the mission and task of agricultural universities is providing talent support for accelerating the construction of a strong agricultural country [2]. Agricultural-related universities have the responsibility and mission to train high-quality young talents in agricultural science and innovation. China's strength in agriculture needs to improve both quantity and quality in the fields concerning agriculture, rural areas and farmers, not only in terms of hardware such as agricultural science and technology, but also soft power such as agricultural production methods, organizational methods and management methods, which sets a higher standard for talents in the Arts serving the fields concerning agriculture, rural areas and farmers. Therefore, the cultivation of new talents who know and love agriculture for Chinese modernization has become a realistic problem that Chinese agricultural-related universities need to explore. How to cultivate new liberal arts talents who know and love agriculture is also an important research and practice direction.

## 2. Overview of Research on the Cultivation of New Liberal Arts Talents Who Know and Love Agriculture in the Process of Chinese Modernization

The research on the cultivation of new talents who know and love agriculture and new liberal arts talents in agriculture-related universities is in a fruitful and fast-rising period. However, there are few research results on the cultivation of new liberal arts

talents who know and love agriculture in agriculture-related universities, only Lan J. (2024) conducts research on the cultivation mode of compound talents in rural governance under the guidance of new liberal arts [3]. Especially no in-depth research has been conducted on the cultivation of new liberal arts talents who know and love agriculture in agriculture-related universities in the context of Chinese modernization, and all of them have failed to focus on the subject of new liberal arts talents involving agriculture.

The new liberal arts talents who know and love agriculture refer to professional rural service personnel who have a good knowledge of agriculture, love our rural areas, and care about rural people that will be trained in agriculture-related universities. This professional rural service personnel will serve and devote themselves to the “agriculture, rural areas and farmers” with sincere feelings.

This study firstly will define and enrich the definition of new liberal arts talents who know and love agriculture in agriculture-related universities on the basis of existing studies. Secondly, the concept of “cross-border integration” is integrated into the process of cultivating new liberal arts talents, which is used as a guide to cultivate high-quality new liberal arts talents with a sense of patriotism, humanistic qualities and innovative spirit.

Agricultural enterprises at the Ministry of Agriculture and Rural Affairs of China's “Ying Hunt Action Plan” job fair generally reflected that the biggest bottleneck in their development is the lack of talents, especially compound talents who are good at business, know how to manage, understand foreign language skills and have international vision are hard to find [4]. Consequently, the direction that needs to be pursued in the cultivation of new liberal arts talents in Chinese agricultural-related universities is to further cultivate new liberal arts compound talents who know and love agriculture.

Jiangsu University, as a key agricultural-related university featuring agricultural machinery, has a deep theoretical and practical foundation in the cultivation of agricultural-related talents.

This study concludes and distills the experience of Jiangsu University in cultivating new liberal arts talents who know and love agriculture, provide reference for the cultivation of new liberal arts talents in other agriculture-related universities, so as to ultimately contribute to the prosperity of the new liberal arts talents who know and love agriculture.

### **3. The Aim of Cultivating New Liberal Arts Talents Who Know and Love Agriculture**

#### **3.1. Responding to the Call of the New Era for the Cultivation of Different New Liberal Arts Talents**

In China's higher education system, two-thirds of the disciplines are in the liberal arts, so that the cultivation of new liberal arts talents is of great importance and deserves more practice and research in agriculture-related universities. In the process of achieving the second centenary goal and Chinese modernization, China's issuance of documents such as Action Plan for the High-Quality Development of Philosophy and Social Sciences in Universities for 2035 is a new requirement as well as high expectations for the cultivation of liberal arts talents in universities.

#### **3.2. Laying the Foundation for the Realization of China's Rural Vitalization Strategy and Common Prosperity Strategy**

In September 2019, the reply letter to the secretaries, headmasters as well as expert representatives of national agricultural-related universities pointed out that universities should continue to make new and greater contributions in the process of promoting the comprehensive rural vitalization. The promotion of farmers' ideological and ethical standards is a great opportunity for new liberal arts talents who have great potentials and play irreplaceable roles to give full play to their professional strengths. Following the requirements of government, agriculture-related universities should seize the opportunity of development, stick to the law of higher education development as well as explore the path of cultivating new liberal arts talents involved in agriculture in the great practice of Chinese modernization, with the ultimate aim of establishing new achievements again.

#### **3.3. Giving Wings to the Development of Smart Agriculture**

The government has proposed that the digital development of agriculture and rural areas should seize the opportunity to continuously strengthen the high-quality development of the agricultural industry, further improve the rural governance system and promote the green development of agriculture in Digital Agriculture Rural Development Plan (2019-2025) and “No. 1 central document” for 2023. The prerequisite for achieving these requirements is an adequate supply of new liberal arts talents with good scientific and cultural literacy and high ideological quality.

### **4. The Dilemma in the Process of Training New Liberal Arts Talents Who Know and Love Agriculture**

Firstly, the talents trained by universities are not willing to develop careers in the countryside. The huge contrast between the booming modernization of cities and the relative shortage of educational resources in rural areas has led to university students

from rural areas being attracted by the prosperous scenery of cities, hoping to enjoy the convenience of urban development, and mostly settling down in cities after finishing their studies, with little desire to build up the countryside. Secondly, some of the agriculture-related universities lack education on the value of knowing and loving agriculture for new liberal arts talents, and the knowledge system of knowing and loving agriculture is not sound, consequently students do not want to engage in "Three Rural" related industries. Thirdly, the employment situation for new liberal arts talents in the agricultural sector is tough, which has fewer attractive jobs and insufficient room for subsequent career development. Various reasons have led to a serious shortage of new liberal arts talents who are willing to devote themselves to agriculture, which has restricted the realization of the rural vitalization strategy and the modernization of agriculture and rural areas. China has also become aware of such problems, and China will comprehensively promote its rural vitalization strategy to further accelerate the modernization of agriculture as well as rural areas. However, there are also opportunities for development in this difficult situation. Agriculture-related universities should seize the crucial stage of building a philosophical and social science system with Chinese characteristics, and do their utmost to cultivate the new liberal arts talents who know and love agriculture in order to realize Chinese agricultural modernization.

## 5. Jiangsu University's Experience in Cultivating New Liberal Arts Talents Who Know and Love Agriculture

This study takes the cultivation of new liberal arts talents who know and love agriculture at Jiangsu University as the research object, captures the critical period of building new liberal arts talents cultivation system with Chinese characteristics in the new era, concludes the experience of Jiangsu University in developing the model of new liberal arts talents with core professional competencies and service capacity of "Three Rural", and strive to create socialist builders and successors who are capable of fulfilling their responsibilities.

Since the Ministry of Education put forward the comprehensive launch of the new liberal arts construction in 2019, Jiangsu University has focused on the construction of the new liberal arts, and put forward the development concept of "strengthening agriculture with industry and promoting agriculture with integration" in accordance with the new requirements that the construction of the new liberal arts should adapt to the development of philosophy and social science in the new era and promote the cross-fertilization of philosophy and social science with the new round of scientific and technological revolution and industrial change. To promote the in-depth cross-fertilization of agricultural engineering, agricultural economics, agricultural management and agricultural literature, Jiangsu University carries out the following practices:

### 5.1. Leading the Development of Cross-Fertilization of New Liberal Arts with the Characteristics of Agricultural Machinery and Playing A New Music of Boost Agricultural Prosperity in the New Era

Jiangsu University was jointly built by the People's Government of Jiangsu Province, the Ministry of Agriculture and Rural Affairs and the Ministry of Education in 2021. Jiangsu University has further strengthened its thinking of "to establishing fostering virtue as the foundation, strengthening boosting agricultural prosperity as its mission, running a university to the satisfaction of the people, and creating a first-class university with agricultural and mechanical characteristics". Meanwhile, Jiangsu University has made precise efforts in several aspects such as the new liberal arts characteristics of agricultural research, the new liberal arts research platform, the multidisciplinary service of rural revitalization, the cultivation of talents who know and love agriculture, and the think tank for the development of the agricultural equipment industry in accordance with the requirements of the development of the new liberal arts. Jiangsu University has promoted the in-depth cross-fertilization of agricultural engineering, agricultural economics, agricultural management as well as agricultural literature, and has achieved certain results on this basis.

First, Jiangsu University has developed the new characteristics of the new liberal arts agriculture-related research direction based on agricultural equipment discipline. Jiangsu University has carried out in-depth discipline combing and actively built a multidisciplinary integration ecosystem led by the creation of a world-class discipline of agricultural engineering and supported by related disciplines. Besides, Jiangsu University has established the Department of Agricultural Equipment and the China Institute of Agricultural Equipment Industry Development, and collaboratively integrated the construction of new arts and sciences related to agriculture, such as "Three Rural" issues, "Three Rural" culture, rural economy, rural health care, rural legal system, common prosperity, agricultural equipment industry development and other special research directions.

Second, Jiangsu University builds a new liberal arts research platform around special agriculture-related research direction. The university has adopted a "1+N" cultivation model, focusing on cultivating a national high-end think tank for the development of China's agricultural equipment industry and creating a number of back-up high-end think tanks.

Focusing on rural vitalization, Jiangsu University has been actively sort out internal resources and expanding external channels, establishing the first Common Wealth Research Institute and the first Party Regulations Research Institute in Jiangsu Province, that is Zhenjiang Party Regulations Research Centre; and jointly establishing the Jiangsu Rural Revitalization Research Institute with the Jiangsu Provincial Committee.

Jiangsu University has teamed up with a multidisciplinary team to serve regional rural vitalization. Relying on the university's New Rural Development Research Institute and other platforms, as well as the advantages of talents and science and technology, Jiangsu University has penetrated into the main battlefield of regional rural revitalization, thus promoting the integration of

industry and education. Jiangsu University and Yixing City have jointly built a pioneer county in China's agricultural science and technology modernization, and have cooperated with Yixing City in the field of soft sciences such as the training of talents for the "Three Rural" management, so as to realize the new development model of "humanities and social sciences giving ideas and directions, and multidisciplinary implementation". This will create the smart agriculture with Yixing characteristics and enable Yixing to become a model of beautiful countryside in southern Jiangsu.

## 5.2. Integrating the Concept of "Cross-Border Integration" into the Training Practice of New Liberal Arts Talents Who Know and Love Agriculture

Jiangsu University has taken more solid measures to cultivate new liberal arts talents, and actively carried out the integration construction of "new agricultural science", "new engineering" and "new liberal arts". With the agricultural engineering major as the core, Jiangsu University has formed a cluster of agriculture-related advantageous majors from 40 national first-class majors and national characteristic majors. By adopting the integrated training of agricultural industry, agricultural economics, agricultural management as well as agricultural culture, it has created batches of new farmers who are adapted to modern, information and intelligent agriculture, especially new liberal arts talents who are good at business and understanding management.

First, Jiangsu University has established a mechanism of ideological and political education. Jiangsu University has given full play to its advantages as a pilot university in China's comprehensive reform of "three complete education" and promotes deep cooperation between teachers of ideological and political courses and students' daily ideological and political work teams. Meanwhile, the university has established the Institute of Ideological and Political Work to integrate the ideological and political education strength of the university into daily ideological and political education and classes through organizational restructuring and system reconstruction. The purpose of this is to guide students to give full play to their professional talents, actively devote themselves to the places where the country needs most, and strive for the realization of the rural vitalization strategy and the maximization of their own value. At present, the university has cultivated many patriotic young people, such as someone student who has been to the west twice to carry out voluntary services in rural education and awarded the National College Student Self-improvement Star.

Second, the "Five Projects" promotes ideological and political curriculum. Jiangsu University has established the "Five Projects" of "perfecting the teaching system, building the curriculum model brand, improving the teachers' quality, deepening the teaching reform and building the teaching service workstation".[5] The "Five projects" ensures the full coverage of all teachers and courses, digs deeply into the ideological and political elements of professional courses, condenses the profound thoughts contained in each course, stimulates students' inner desire for knowledge, and build students' sense of mission to rejuvenate the country through science and education. The "Five projects" promotes teaching and learning, together promotes patriotic and family-friendly thinking among teachers and students.

Thirdly, "Three Rural" culture has implanted into the undergraduate curriculum module to cultivate students' feelings of knowing and loving agriculture. At the same time, the university has opened a number of "Three Rural" elective courses for students to study independently. In the activities of the Communist Youth League, a series of activities with the theme of "Knowing agriculture, loving agriculture for agriculture" are held regularly, so that students can fully understand the characteristics of the university, and stimulate students' enthusiasm for knowing agriculture, loving agriculture and working for agriculture. Veteran comrade of the Customs and Working Committee were invited to conduct education lectures for the teachers and students on understanding agriculture love and feelings of agriculture, which were transmitted as the original aspiration of agriculture and passed on as feelings of agriculture.

Fourth, Jiangsu University promotes the intersection of arts and sciences, and strengthens the communication and mutual learning between agriculture-related majors and liberal arts majors. The university has organized interdisciplinary academic exchange forum and held the "Lei Si Forum". Famous experts at home and abroad are invited to lecture at the school, which promotes the integration of liberal arts and science disciplines. In addition, a number of new liberal arts micro majors, such as "Intellectual Property", "New Structural Economics", "Modern Agricultural and Rural Law", "Digital Economy and Industrial Development", "Cross-border E-commerce", "Entrepreneurial Management" and "Big Data Technology and Management", have been added to provide advanced theories and useful knowledge needed for rural construction, so as to better serve the growth of students.

Fifth, Jiangsu University carries out the activities of cultivating culture inheritance. Jiangsu University has published *Agricultural Culture in Tang Poetry* and the *Important Instrument for the Development of Agriculture—Inheritance and Innovation of Chinese Agricultural Machinery Culture*, built the exhibition hall of Chinese Agricultural machinery Culture, built the campus sculpture with characteristics of "Three Rural", and made the special website of "knowing agriculture, loving agriculture for agriculture, my feelings of Jiangsu University". Through the above measures, Jiangsu University inherits the farming culture, cultivates "Three Rural" feelings, forms a good campus atmosphere of "knowing agriculture, loving agriculture for agriculture", and realizes the purpose of educating people through culture.

Sixth, Jiangsu University carries out labor education practice. In addition to building labor education practice bases with the distinctive rural villages of Ju Rong, such as Dai Zhuang and Li xin, and continuing to provide labor education for everyday life and service, the university has also explored more forms of labor education practice. In response to the new form of labor, Jiangsu

University has deepened the integration of industry and education and continuously strengthened creative labor education as a way to cultivate the scientific spirit of students and to enable them to develop good habits of hard work and endurance, thus improving their creative labor skills as well as further enhancing the atmosphere of knowledge and love of agriculture.

Seventh, Jiangsu University orders ideas for student success. The university has set up an academic tutor system, in which outstanding professional teachers and university leaders are selected to serve as tutors, covering all undergraduate students and teaching them according to their abilities. Besides, the university has guided students to do a good job in career planning, regularly organizes special job fairs related to agriculture, provides students with effective jobs related to agriculture. The job fair has achieved full participation, whole process guidance and all-round service, integrating the education of knowing and loving agriculture into study life and playing an important role in the process of cultivating high quality talents with family sentiment, innovation spirit and knowledge and love of agriculture in the country. According to statistics, in the decade between 2012 and 2022, the number of graduating students going into agriculture at Jiangsu University has nearly tripled.

## 6. Suggestions for Building a Cultivation Model of New Liberal Arts Talents Who Know and Love Agriculture in Agricultural-Related Universities

Firstly, liberal arts teachers in agriculture-related universities should change their educational philosophy and promote the effective integration of knowledge and love of agriculture and the elements of innovation in the teaching process. Secondly, it is important for agricultural-related universities to improve the mechanism of ideological and political education in the curriculum, incorporate ideological and political education as well as knowledge and love of agriculture into the teaching process and practical aspects of all arts disciplines, majors and courses, and build a whole staff, whole course and whole curriculum education pattern. Thirdly, the second class in the agricultural-related universities focuses on cultivating and passing on the awareness of knowing and loving agriculture, and truly cultivating new liberal arts talents who know and love agriculture, have broad vision, innovative and entrepreneurial abilities, good modern business management and are willing to be rooted in the countryside. At last, agricultural-related universities should further strengthen labor education and cultivation culture heritage, so that agricultural-related universities have both excellent cultural heritage and practical education and exercise, combining theory and practice, to truly train students to love the countryside, love farmers, understand agriculture, willing to be an excellent new youth of The Times.

In the new journey and new mission, all Chinese agriculture-related universities should thoroughly study and publicize the latest national requirements, bear in mind General Secretary Xi Jinping's ardent wishes, adhere to the general requirements of "science and technology is the first productive force, talent is the first resource, and innovation is the first driving force", and strive to cultivate new liberal arts talents who know and love agriculture and are capable of taking up the important responsibilities of the times, so as to show greater action in the process of promoting Chinese agricultural modernization.

## Acknowledgement

Project Fund support: The ideological and political work research project of Jiangsu University in 2022, "Research on the Training Mechanism of New Liberal Arts Talents in Agriculture-related Universities", Project number 2022JDSZYB08

## References

- [1] Xi, J. P. (2022). Hold high the great banner of socialism with Chinese characteristics and strive in unity to build a modern socialist country in all respects. In *Report to the 20th National Congress of the Communist Party of China* (pp. 23-25). Beijing. [http://www.news.cn/politics/cpc20/2022-10/25/c\\_1129079429.htm](http://www.news.cn/politics/cpc20/2022-10/25/c_1129079429.htm)
- [2] Li, H. (2024). Contribute youth strength to boosting agricultural prosperity: In-depth studying the spirit of Xi Jinping's reply letter to students of China Agricultural University's science and technology backyards. *Journal of China Agricultural University (Social Sciences)*, 3, 16–23. <https://doi.org/10.13240/j.cnki.caujsse.2024.03.001>
- [3] Lan, J., An, H., & Wu, J. (2024). Exploration on the compound talents cultivation in rural governance under the guidance of new liberal arts. *Journal of Anhui Agricultural Science*, 18, 275–279. <https://doi.org/10.3969/j.issn.0517-6611.2024.18.058>
- [4] He, H. L., Xue, J., Qiu, L., Ding, W. B., & Li, Y. Z. (2021). Dilemmas, opportunities, and reform exploration of new talents of "knowing agriculture and loving agriculture." *Higher Agricultural Education*, 10, 22–27. <https://doi.org/10.13839/j.cnki.hae.2021.5.004>
- [5] Wu, Y. (2022). Translate basic principles into vivid truth: The practice of deepening curriculum ideological and political reform in Jiangsu University. *China Education Newspaper*, 5, 5–9. <https://doi.org/10.28051/n.cnki.nccdj.2022.000248>
- [6] Cheng, Y., Pang, L. R., & Li, W. X. (2020). Cultivation approach of "new talents who know agriculture and love agriculture" in agricultural colleges and universities. *Journal of Shenyang Agricultural University (Social Sciences Edition)*, 22, 195–199. <https://doi.org/10.3969/j.issn.1008-9713.2020.02.012>
- [7] Jiang, C., Wang, A. Y., Lin, X. D., Wang, C., & Cai, D. J. (2020). Innovation research on the new practical talent model of "taking roots in rural areas knowing agriculture and loving agriculture" of agricultural universities. *Higher Agricultural Education*, 1, 3–6. <https://doi.org/10.13839/j.cnki.hae.2020.1.001>
- [8] Chen, H., & Wu, B. (2021). Research on the construction of the education system of knowing and caring for agriculture in agricultural colleges under the new development pattern: Take Hunan Agricultural University as an example. *Journal of Hunan Agricultural University (Social Sciences)*, 22, 79–85. [https://doi.org/10.13331/j.cnki.jhau\(ss\).2021.05.009](https://doi.org/10.13331/j.cnki.jhau(ss).2021.05.009)

- 
- [9] Wang, H. C. (2021). Research on the construction of the “great ideological and political” education system in agricultural and forestry universities with the goal of “knowing agriculture and loving agriculture” new talent training. *Higher Agricultural Education*, 8, 15–19. <https://doi.org/10.13839/j.cnki.hae.2021.4.004>
- [10] An, M. C. (2022). Research on the countermeasures of integrating ideological and political education into the cultivation of new talents who know and love agriculture in agriculture-related universities. *Ideological and Political Education Research*, 38, 136–141. <https://doi.org/10.15938/j.cnki.iper.2022.02.025>
- [11] Dong, B. R. (2022). An analysis of the cultivation mode of new liberal arts talents under the guidance of ideology and politics. *Communication of Finance and Accounting*, 18, 35–41. <https://doi.org/10.16144/j.cnki.issn1002-8072.2022.18.002>
- [12] Xu, X. Z., & Feng, J. C. (2021). Cultivation paths for international talents in the field of philosophy and social sciences in the new era: An analysis based on grounded theory. *China Higher Education Research*, 6, 37–43. <https://doi.org/10.16298/j.cnki.1004-3667.2021.06.06>
- [13] Zou, B. L., & Zheng, W. L. (2021). Cultivation of technical talents of liberal arts under the background of new liberal arts. *Heilongjiang Researches on Higher Education*, 39, 13–17. <https://doi.org/10.19903/j.cnki.cn23-1074/g.2021.11.003>
- [14] Deng, Y. Q. (2023). A case study in reforming the cultivation system of agricultural talents who understand and care for agriculture: South China Agricultural University’s approach. *China Agricultural Education*, 24(4), 8–15.