

## Research and Practice on the Training Model of Innovative and Entrepreneurial Talents for Modern Agriculture

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**Abstract:** Building an innovative country with an innovative national soul, deepening the reform of innovative entrepreneurship education, and cultivating creative talents serving the needs of the construction of an innovative country and the development of modern agriculture are the important missions of agricultural and forestry universities. Aiming at the problem of how agricultural and forestry universities can better cultivate innovative and entrepreneurial talents adapted to the development of modern agriculture, this paper constructs a new model of “1334” double-creative talents cultivation based on five projects, such as the pilot project of the National New Rural Development Research Institute and the key topic of provincial education and teaching reform. That is to establish a high-quality talent training goal of “three rural” feelings, knowing science and technology, being able to innovate, and dare to start a business, and establishing a full-member participation, all-round financing, and the whole process through three mechanisms. We will open up three ways to cultivate spiritual consciousness, build a knowledge system, and enhance the ability of dual innovation, and establish a system, a mentor, a platform, and a fund. As an important carrier for deepening the reform of education and teaching and the construction of disciplines, this model is an all-round collaborative education platform system that integrates production, study and research, and agricultural science and education. It is characterized by the guidance of the mentoring scientific research project and the cultivation of scientific and technological service projects. After a certain period of exploration and practice, it effectively solves the two major drawbacks of training talents in agricultural and forestry universities and how to cultivate dual-creative talents, and enhances the dual-creative talents. Cultivate quality, with a view to the emergence of a large number of innovative entrepreneurial models that serve modern agriculture.

### 1. Introduction

The Central Committee of the Communist Party of China and the State Council pointed out in “Some Opinions on Adhering to the Priority Development of Agriculture and Rural Areas and Doing Well the Work of “Agriculture, Countryside and Agriculture”. They pointed out that we should accelerate the modernization of agriculture and rural areas, train the working force of “Agriculture, Agriculture and Agriculture” who understand agriculture, love rural areas and love farmers, and strengthen the construction of To build an innovative country with innovative national soul, innovate the training mode of talents and train specialized talents for rural revitalization, agricultural and forestry colleges and universities shoulder the important mission of cultivating innovative talents serving the needs of the construction of innovative country and the development of modern agriculture [2]. All along, the universities have carried out active and effective explorations on how to better cultivate innovative and entrepreneurial talents that adapt to the development of modern agriculture. They have also gained a lot of experience and achievements. However, there are also some common or typical problems.

## 2. Existing Problems and Pattern Construction

### 2.1 The inaccurate orientation of training objectives for double-creative talents in agricultural and Forestry Universities

The orientation of the goal of cultivating double-creative talents fails to keep abreast of the need for talents for the construction of an innovative country and the development of modern agriculture. Innovation and entrepreneurship quality and ability development have not been fully integrated into the goal of talent development.

### 2.2 The train of thought of double creative talents training is not clear

The train of thought on how to train double-creative talents is not clear. Specific manifestations are as follows: First, the current mechanism of double-innovation education is not perfect, the participation in schools is not enough, the cooperation outside schools is not enough, the integration with enterprises and markets is not tight, and the three parties of production, education and research are out of touch; Second, the current dual-innovation education has a single approach, the methods and methods are outdated, and there is no organic integration with professional education. Third, the system, teachers, platforms, and funds for the training of dual-creative talents are insufficient.

In order to solve the above problems, the “1334” mode of dual-innovation talents training has been constructed. The structural system is shown in the following Figure.

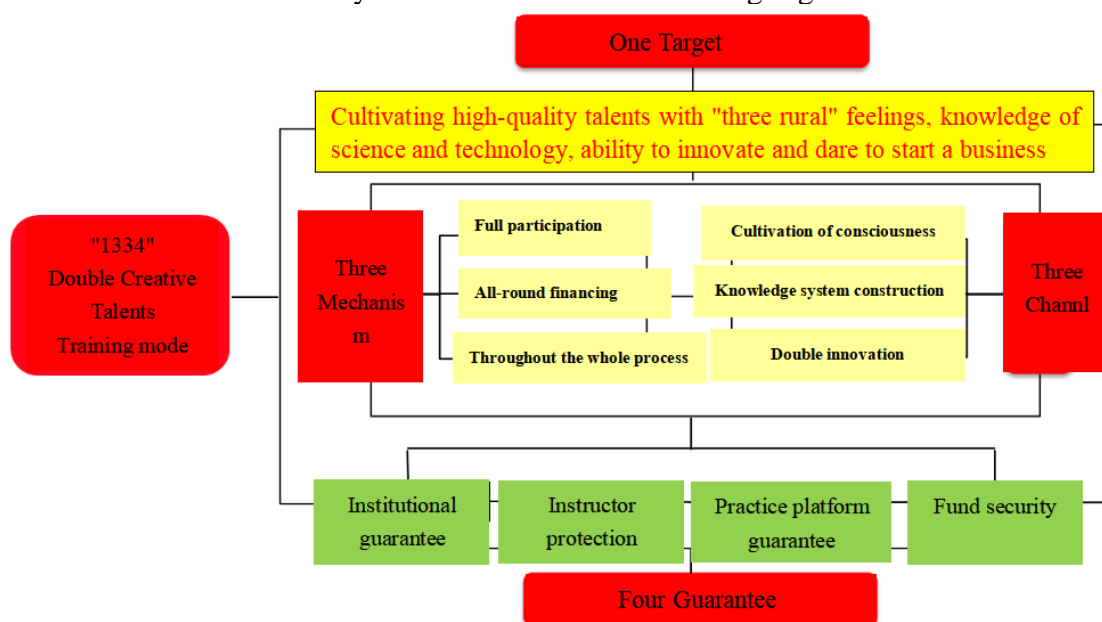


Fig.1. Full-membership Participation Operating Mechanism

## 3. Establishing the Training Objectives of Double-Creative Talents with School-based Characteristics

In order to carry forward the fine tradition of “revitalizing agriculture in China”, adhere to the school-running idea of “talent training is the foundation of school-building, scientific research is the road to strengthening school, social service is the policy to revitalize school, cultural inheritance and innovation is the soul of school-honoring”, take the construction of a new country as the guide, and closely follow the needs of modern agricultural development for double-creative talents training. Relying on the specialty characteristics and advantages of agricultural and forestry universities, we should cultivate the feelings of “agriculture, countryside and farmers”, have the mind of “agriculture, countryside and farmers” and serve “agriculture, rural areas and farmers”. Cultivate high-quality talents who have mastered modern science and technology, have the spirit of innovation and entrepreneurship, have the ability to innovate and innovate, dare to innovate and

start a business in agriculture and benefit agriculture, and can understand and innovate and dare to start a business [3].

### 3.1 Establishment of Three Mechanisms for Talents Training

Building a student-centered, school-led innovation and entrepreneurship center, college sub-centers as the backing, subject-based professional innovation and entrepreneurship workstation as the basis, The Student Innovation and Entrepreneurship Club (Association) is the carrier, the student's full coverage, the teacher's full participation, the department's joint management, coordination, and coordination.

### 3.2 Omni-directional accommodation mechanism

Focusing on the cultivation of double-creative talents, we should establish a multi-faceted accommodation mechanism of school education, teaching, scientific research, promotion and service, and multi-faceted coordination among government, enterprises, society and schools. Form an effective collaboration between off-campus and off-campus, organic integration of production, study and research, and cross-cultivation of different disciplines.

### 3.3 Whole process penetration mechanism

According to the quality requirements of the society and the growth law of dual-creative talents, the quality development plan for the first and second classes is carefully designed, and the whole process of dual-creative talents training from admission to graduation is formed through stages, levels and step by step.

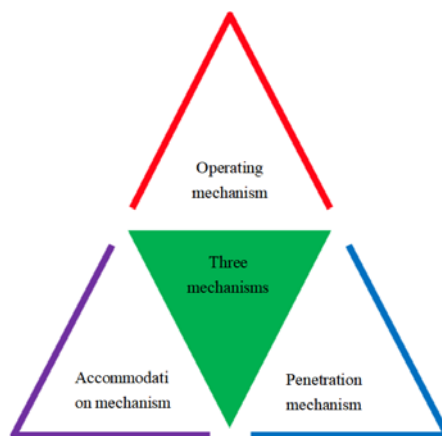


Figure 2

### 3.4 Three Ways to Construct Double Creative Talents Training

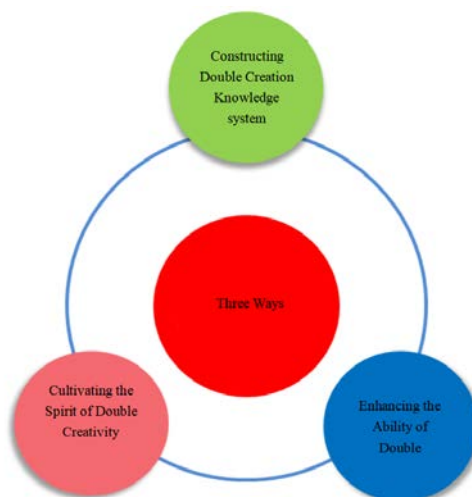


Figure 3

### **3.5 Cultivating Double Creativity and Spirit**

Constructing Innovative and Entrepreneurial Culture on Campus and Forming an Atmosphere of Advocating Double Creative Culture

Integrate innovation and entrepreneurship education into freshmen's entrance education, ideological and political education, career planning education and graduation education, guide students to learn, love and develop agriculture, and enhance students' sense of mission and responsibility in serving modern agriculture. Cultivate the quality of students' hard work, innovation, and entrepreneurship.

We will open “Shuangchuang Lecture Hall”, “Shuangchuang Salon”, “Alumni Forum” and “Academic Lecture Hall” to invite top 500 Chinese and foreign business executives, entrepreneurs, experts and scholars as well as graduates to teach Shuangchuang successful experiences, experiences and achievements, and enlighten and guide the formation of Shuangchuang consciousness.

We will carry out activities such as community culture, class culture, apartment culture and public welfare culture that incorporate double creative elements. Organize students to participate in various types of dual-innovation simulation practice activities, form a cultural atmosphere that advocates innovation and entrepreneurship, and foster a dual awareness and spirit.

### **3.6 Relying on discipline and professional education to stimulate double creativity and enthusiasm**

Offering a professional introduction course to enable students to fully understand the prospects and requirements of the development of modern agricultural science and technology, new achievements of innovative research, new problems facing the development of modern agriculture and new opportunities for innovation and entrepreneurship. Introduce professional curriculum teaching to stimulate students' interest and enthusiasm for serving modern agriculture.

### **3.7 Constructing Double Creative Knowledge System**

Deepening the reform of curriculum system and teaching content, integrating innovative achievements and innovative contents into specialties, writing into textbooks, bringing them into the classroom, establishing a three-tier progressive curriculum system of double-creative education, and realizing the construction of double-creative knowledge system. The first level integrates double-innovation education with professional education, highlights the “big basic education (general basic education + professional group education)+professional education + double-innovation education” of comprehensive quality training, mainly through flexible school system and credit system, incorporates innovative entrepreneurship, venture capital, agricultural policies and regulations into the teaching plan, and quotes them. Enter SYB, KAB and other special training courses; The second level is based on the innovation and entrepreneurial workstations, and provides cross-professional dual-creation courses. The third level is based on the innovation and entrepreneurship center, and provides entrepreneurial training courses such as entrepreneurial sandbox simulation and innovation entrepreneurship training. Encourage students to independently choose the cross-innovation education curriculum within the whole school, effectively promote the organic integration of dual-innovation education and professional education, and build a relatively complete dual-creation knowledge system.

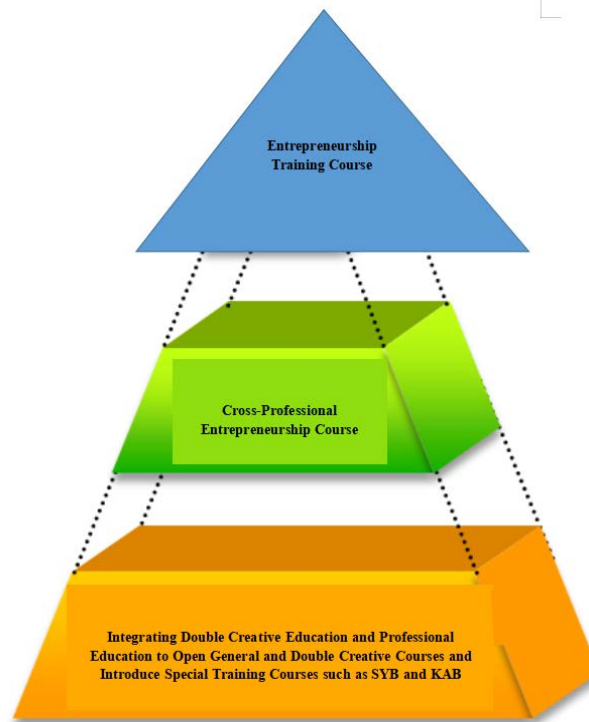


Figure 4

#### 4. Enhancing the Ability of Double Creation

Five plans are implemented, including the quality improvement plan for college students, the innovation training plan, the entrepreneurship training (practice) plan, the scientific research interest training plan and the professional skills upgrading plan, and various innovative entrepreneurship competitions at all levels are organized. The establishment of school-school, school-enterprise, school-ground and school-office cooperation channels to cultivate dual-generation talents; The implementation of scientific research projects and scientific and technological service projects to guide the implementation of double-creation simulation practice. To cultivate students' innovative and entrepreneurial qualities and enhance students' innovative and entrepreneurial abilities.

##### 4.1 Establishing Four Guarantees for the Training of Double-Creative Talents

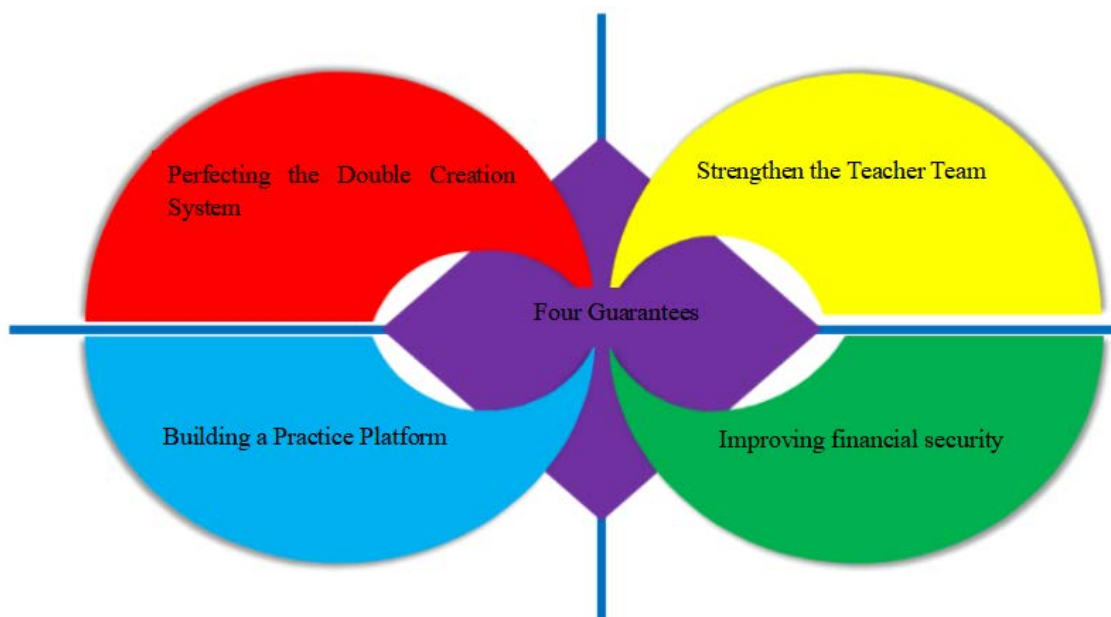


Figure 5

## **4.2 Perfecting the Double Creation System**

To formulate the Implementation Plan of Sichuan Agricultural University on Deepening Innovation and Entrepreneurship Education Reform, to revise and improve the teaching management methods, to set up innovative and entrepreneurial credits, and to implement the system of accumulation, transformation and suspension of innovative and entrepreneurial credits. To formulate the Interim Measures for the Management of Student Entrepreneurship Fund. Indicators of typical graduate candidates for innovation and entrepreneurship are listed separately. Excellent undergraduate graduates with dual creativity and ability are selected to study for master's degree without first try. Establish an incentive system for the evaluation of innovative entrepreneurial achievements, and incorporate teachers to guide students' innovation and entrepreneurship into teachers' work performance scores and faculty rewards, and reward students for the achievements of innovation and entrepreneurship.

## **4.3 Strengthen the Teacher Team**

The implementation of the undergraduate full-staff tutorial system, teachers to guide students to innovative entrepreneurship education and practice into the scope of tutors' responsibilities. To set up a team of full-time and part-time innovative entrepreneurship tutors with professional teachers as the main body, double-creation full-time teachers as the backbone, and Extra-School experts and entrepreneurs as the supplement, formulate a training plan for mentors, and strengthen the professional training of innovative entrepreneurship instructors. Strengthen the tutor's dual awareness of educating people, encourage colleges, teachers, amateur entrepreneurs to run companies and social part-time jobs, undertake the “three rural” science and technology consulting service projects, and improve the ability of tutors to guide innovation and entrepreneurship

## **5. Building a Practice Platform**

### **5.1 Practice Platform inside and outside School**

Make full use of all kinds of resources to build a platform for innovation and entrepreneurship practice. We will actively promote the construction and opening of professional laboratories, teaching demonstration centers, virtual simulation experimental teaching centers and off-campus practical education bases in order to fully meet the needs of students in fields, materials, instruments and equipment. Relying on the internal and external research and development bases, experimental demonstration bases, agricultural science and technology parks, and expert colleges, we will build a platform of “diversified, multi-level and multi-channel” dual-use practice bases.

### **5.2 Project support platform**

Relying on the national, provincial and school-level innovative training projects, focusing on training students' innovative practical ability; relying on professional skills competition projects to enhance students' professional interest and professional skills; relying on scientific research interest training projects, focusing on cultivating students' scientific literacy and scientific research ability; The establishment of “Start-up Seedling Project”, “Innovation and Entrepreneurship Competition”, Entrepreneurship Simulation Training Project, Innovation and Entrepreneurship Funding Project, and organization of “College Student Entrepreneurship Leading Program” to cultivate students' entrepreneurial awareness and entrepreneurial practice ability.

### **5.3 Project Incubation Platform**

Establishment of school-level business incubation base, college students business nursery, professional innovation and entrepreneurship workstation. School sites, Schools and enterprises jointly build a business entrepreneurial incubator and “Chuangchuang Space” and a business incubator base, and build an innovative and entrepreneurial incubation platform jointly built by schools, localities and enterprises.

#### **5.4 Providing financial security**

Every year, special funds are invested to fund innovative entrepreneurship projects for college students, to build double-creation platforms, and to reward teachers and students who have made outstanding achievements in innovative entrepreneurship education. To lay a stable material foundation for the implementation of dual-creation talent training.

#### **6. Conclusion**

In a word, as an important carrier for deepening the reform of education and teaching and the construction of disciplines and specialties, the mode is characterized by the construction of a comprehensive cooperative education practice platform system integrating industry, education and research, agricultural science and education, and the creation of training channels for tutors'scientific research projects and scientific and technological service projects. After a certain period of exploration and practice, it effectively solved the two major drawbacks of training talents in agricultural and forestry colleges and how to cultivate dual-creative talents, and improved the quality of dual-creation talents, with a view to emerging a large number of innovative entrepreneurial models serving modern agriculture

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