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Characteristics and Cultivation of Horticultural Innovation and Entrepreneur Talents under the New Situation

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Abstract: China is a big country in the production and consumption of horticultural products. Horticultural products play an irreplaceable role in improving human health, beautifying and improving the environment. In recent years, China's horticultural industry has experienced rapid development. The modern horticultural industry is developing in the direction of ecological agriculture, leisure agriculture, high-efficiency agriculture and digital agriculture. This puts higher requirements on the cultivation of talents in horticulture in higher education institutions. Therefore, the establishment and improvement of the cultivating model for innovative talents in horticulture plays an important role in the development of the horticultural industry. The basic features of the text of the new situation horticultural innovation and entrepreneurship, and quality make a preliminary analysis, and discusses the conditions under the stage, how to speed up the training to adapt to the way of innovation and entrepreneurship, gardening Industrial Development needs.

1. Introduction

The eighteen party clearly put forward that "China will implement the innovation driven strategy, and finally be able to enter the ranks of innovative countries in 2020". In the "national medium and long term education reform and development program (2010~2020)", it is also clear that we should follow the law of teaching and the law of talent growth, deepen the reform of education and teaching, innovate the methods of education and teaching, explore various ways of training, and form the situation of the emergence of all kinds of talents and the emergence of new talents. Training high-quality and innovative talents to meet the development needs of the state and society has become an inevitable requirement and an important goal of higher education. As the main position of knowledge innovation, higher agricultural colleges should shoulder their responsibilities actively and serve the development of the state and local areas through the cultivation of innovative talents. By combining the development of socialist market economy and the big background of

horticultural industry to the needs of professional talents, this paper optimizes the training mode of the creative talents of horticultural specialty, and puts forward that the education and teaching research will be vigorously promoted by adhering to the discipline construction as the leading part, taking the training of teachers as the foundation, and taking the brand and specialty construction as the breakthrough. To promote professional research and promote teaching by teaching reform, from the formulation of talent training program to the monitoring of all aspects of teaching, to enhance the strength of professional education and to improve the quality of personnel training.

2. The Basic Characteristics of Horticultural Innovation and Entrepreneurial Talents

Today, with the rapid development of world science and technology, innovation has become the focus of attention of the world. The concept of innovation was first proposed by American Austrian economist Schumpeter in 1912. According to the definition of bear bit, innovation is to establish a new production function, introducing new ideas and methods into economic activities to achieve a new combination of production factors. The concept of innovation encompasses a wide range of innovations involving both technological changes and non-technical changes. Later, people divided innovation into two major types of technological innovation (in addition to generalized technology, including science and technology) and institutional innovation. In a general sense, horticultural innovative talents refer to talents with innovative consciousness, innovative thinking, innovative ability, innovative emotion and innovative personality. It has the concepts and consciousness of advocating innovation, pursuing innovation and being proud of innovation. It has keen insight and creative imagination and active inspiration. Its thinking has the characteristics of divergence, diversity and rigor, and has strong information processing. Ability, ability to work, hands-on ability. As well as proficiency in the use of innovative techniques, but also with lofty ideals, firm beliefs and strong passion for innovation, such as a sense of humor, independence, perseverance, meticulous and good personality characteristics.

In addition to solid horticultural professional knowledge and certain innovative spirit, horticultural entrepreneurial talents should also have good social communication skills, complete humanities and social science knowledge, high organizational leadership, business understanding, and comprehensive coordination. Familiar with market analysis and economic principles. Because of the horticultural professional graduates who leave the school, most of them are engaged in horticultural production and horticultural products related industries. The horticultural crops need not only scientific technical guidance and services, but also organizational management and services. In order to adapt to the development of the social horticulture industry, management, invigorating circulation, deep processing of garden products, establishing market awareness, and creating brands and other talents.

3. The Main Problems in the Cultivation of Innovative Talents for Horticulture

The horticulture majors of higher agricultural colleges in China are mainly composed of two disciplines, such as fruit trees, vegetables, ornamental gardening, etc., which have the characteristics of wide professional discipline, basic content and large amount of information. At present, many horticultural majors in higher education institutions in China have attached great importance to the cultivation of innovative talents and have actively promoted through various measures. However, due to subjective and objective reasons, there are still some outstanding problems. The existence of these problems has always affected the quality of innovative talent training and its rapid improvement.

3.1. Professional Training Model of Convergence with the Prevalent Custom

Analysis of the existing talent training programs of higher agricultural colleges and universities found that the training model of horticultural professionals is similar to that of similar professions across the country, emphasizing and realizing the requirements of wide-caliber and thick-based education, but lacking the specialization, individualization and specialization of talent cultivation. That does not reflect professional features. Some key agricultural colleges are often famous for their distinctive colleges and specialties. The colleges and departments are famous for their specialties, but the existing professional training programs do not reflect professionalism, individuality and specialization, and regional economic development. There is still a certain gap in demand, which is not in line with the direction of local agricultural economic development. The horticulture major is a practical agricultural science major. In addition to mastering a solid basic theory, the professional talents trained should also possess scientific innovation ability, experimental ability, practical operation ability and practical ability. The existing professional training mode often ignores the professional characteristics; at the same time, the horticultural professional students learn professional knowledge under the same mode, lacking specific specialization and individualized training programs.

3.2. The Curriculum is Lack of Systematic and Comprehensive

Due to the intersection of disciplines, the content of a certain course of the horticulture profession will appear in several disciplines, which will result in duplication of the course content, wasting college students' time and reducing their enthusiasm for learning. In addition, the curriculum setting tends to focus on the teaching of decentralized courses, such as organizational training techniques, the various steps and methods of organizational training will be taught in the plant organization training course, and the application of tissue culture techniques in breeding will be analyzed in the breeding course. In the cultivation course, tissue culture is a form of asexual reproduction, but the design and teaching of comprehensive organizational training technology courses is lacking. At the same time, the focus of the course is not combined with future practice, forming a systematic knowledge system, the decentralized teaching of the course content and the intersection between the courses, so that the imparted knowledge is not well absorbed. The cultivation of innovative ability often needs college students to establish in comprehensive learning. The existing training programs lack comprehensive design experiments, and it is difficult to give full play to the innovative thinking and creativity of college students.

3.3. Urgently Improve the Quality and Level of Practical Teaching

The contradiction between the conditions for running horticulture and the needs of social development is outstanding. The speed of improvement of school-running conditions lags behind the expansion of school-running scale, while the horticultural science and technology achievements are mostly public welfare, social benefits and low economic returns. The expansion of school scale and the surge in personnel make it difficult to meet the development needs of laboratories and practical teaching bases. The original suitable places have gradually failed to load a large number of teaching experiments and resource learning needs, which has affected the cultivation of practical hands-on ability and quality of college students. As an important part of the teaching system of colleges and universities, practical experimental teaching has always played an important role in strengthening the practical ability and innovation consciousness of college students and achieving the coordinated development of knowledge, ability and quality.

4. An Empirical Investigation on the Cultivation of Innovative Talents

4.1. Objective and Object of Investigation

In recent years, newly established universities have transformed into application-oriented universities to cultivate application-oriented talents for social development. In order to have a deep understanding of the talent training mode of application-oriented universities in the transition period and provide real data support for this study, the author needs to design a targeted questionnaire to analyze the current status and existing problems of the training mode of innovative horticulture talents in application-oriented universities.

4.2. Multivariate Statistical Analysis

There are many kinds of multivariate statistical analysis methods, and correlation analysis and multiple regression analysis are mainly adopted in this study.

First, correlation analysis is a statistical method to study the correlation between random variables, which studies whether there is a certain interdependent relationship between phenomena, and discusses the correlation direction and degree of specific interdependent phenomena. The correlation coefficient r has a value between -1 and 1, but can be any value in this range.

Second, multiple regression analysis is used to solve the problem of using multiple independent variables to estimate or predict the value of a dependent variable, and to make clear the actual influence of different independent variables on the dependent variable. The expression is:

$$y = b_1 x_1 + b_2 x_2 + ... + b_K x_K + a \quad (1)$$

$$Y = B_1 X_1 + B_2 X_2 + ... + B_K X_K \quad (2)$$

4.3. Results of Questionnaire Survey

Table 1. The investigation of the understanding degree of training objective and employment direction

	Know very well	Basic understanding	Don't know much	It is not understand
Number of people	20	54	104	22
Proportion	10%	27%	53%	11%

Table 1 shows a survey of students' understanding of the training objectives and employment direction of their major. The results showed that 10% knew very well, 27% knew very well, 53% didn't know very well, and 11% didn't know very well. From the above survey data, it can be seen that almost half of the students are not very familiar with the training objectives and employment direction of their major.

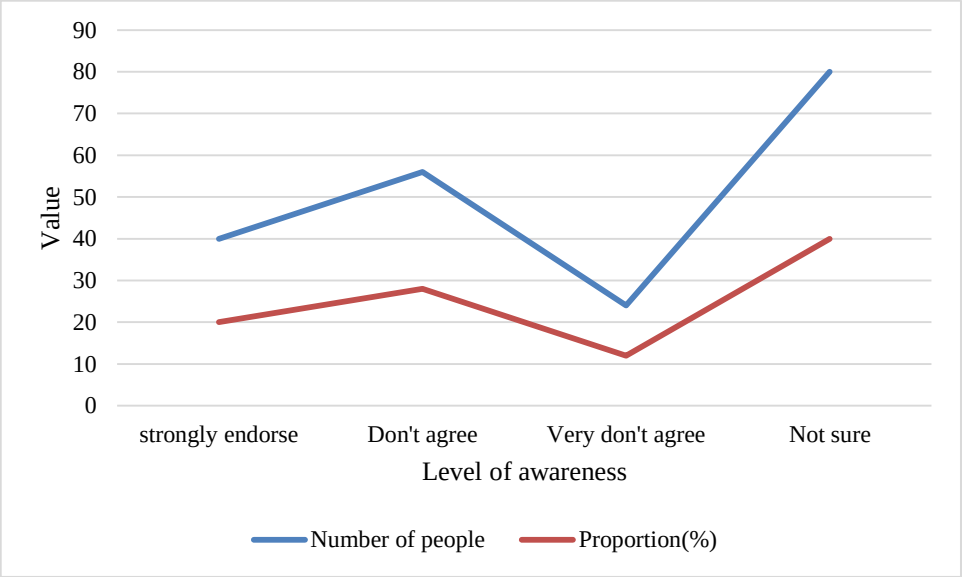

Figure 1. Investigation on the cognition of the orientation of cultivating creative talents in horticulture

As shown in Figure 1, students' approval of applied innovative talents and skilled talents is the same kind of talents. The results: 20% strongly approve, 28% disapprove, 12% strongly disapprove, and 40% are unsure. According to the analysis of the above data, it can be concluded that more than half of the students are not clear about the orientation of the cultivation of applied and innovative talents and skilled talents, as well as their own orientation, according to the proportion of those who strongly agree with and are not sure about the choice.

5. Research and PRACTICE on the Cultivation Mode of Innovative Talents in Horticulture Specialty

5.1. Strengthen the Construction of Basic Conditions

In order to ensure the quality of horticultural innovation and entrepreneurship training, we should strengthen the teaching infrastructure such as horticultural laboratories, practice bases and curriculum materials with local characteristics. We will build innovative laboratories, enrich the professional laboratory equipment of horticulture, open up to university students' innovative projects, create excellent research environments and conditions, and provide a platform for the development of innovative projects at all levels of college students. On the basis of professional laboratories, it fully reflects the new requirements of modern science and technology, comprehensively upgrades the level of horticultural professional laboratory equipment, establishes a teaching and skill training center for horticulture, and creates a platform for innovation and entrepreneurship. We will improve the existing practice bases and increase the number of practice bases including high-tech horticulture and urban horticulture, including leisure agriculture, sightseeing and gardening, factory seedlings, and plant factories, to achieve school-enterprise joint education.

5.2. Cultivate and Introduce Teachers from the Horticulture Profession

Based on the talent resources of the school, we regularly study and analyze the current situation of the echelon structure of the discipline, formulate and implement the personnel training,

introduction planning and annual plan, and give priority to the existing teachers of the discipline to send their studies at home and abroad or study for doctoral degrees to accelerate the improvement of their scientific research quality. And teaching level. In the introduction of talents, it pays attention to the "gold content" of its undergraduate education experience, and prioritizes the selection of educational personnel as "985 Project", " 211 Project" schools or graduates from key disciplines, laboratories and research institutes at or above the provincial and ministerial level. Improve the educational level of the teaching staff, optimize the structure of the professional title of the teaching staff, build a teaching team, and train key teachers to become teaching experts. Appointed senior experts in the production line as part-time instructors. He has rich practical experience in the field of horticulture, can improve the construction level of the practice teaching link of the subject, and has the technical expert who is instructing the undergraduate teaching practice activities to be employed as a part-time tutor. He comes to the school from time to time or opens a professional in the production practice base. Course lectures, guide undergraduate thesis, help establish an internship base, improve practical teaching conditions, guide or assist in the declaration of scientific research projects, participate in the formulation of professional development plans, and guide graduate employment.

5.3. Optimize Curriculum and Increase Student Flexibility

Some proportion with the flexibility to existing gardening courses restructuring, optimization, focusing on basic courses in basic and professional courses, professional core courses of the premise, should increase the students to take courses to encourage students to take courses outside the professional horticulture Courses , such as economics, management, bank currency, land management, law, literature, etc. ,broaden the knowledge , optimize the knowledge structure , and lay a solid foundation for students to start their own business after graduation ; at the same time actively guide students to participate in the cultural quality education practice of college students , participate in social practice With the activities of science and technology going to the countryside , we are constantly honing our various capabilities , such as social communication skills, organizational management capabilities, cooperation and coordination capabilities, and psychological endurance.

5.4. Students Actively Involved in Innovation and Entrepreneurship Project

In accordance with their own training plans, college students actively apply for innovative, entrepreneurial projects at the national, provincial, and university levels, either individually or by a team of several college students under the same tutor's name, and require at least one school level to be successfully completed before graduation. College students' innovation and entrepreneurship projects. In addition, through the development of innovative entrepreneurship projects and other research projects, leading college students to publish academic papers. The purpose of education is to enable university students to absorb and transform knowledge into a practical ability. The college aims to improve the innovative ability of college students, and the tutors help and guide them, so that college students can boldly practice, struggle in the difficulties, and make continuous progress. Through the development of college students' innovation and entrepreneurship projects, college students' professional knowledge, comprehensive ability, practical level and innovative thinking ability are all trained and improved. Publishing academic papers can also improve students' language expression ability and ability of summarizing analysis and logical reasoning.

6. Conclusion

China is a big agricultural country. In recent years, China's horticultural industry has developed rapidly, and society has a huge demand for horticultural talents. The optimized horticultural professional innovation training model has made breakthroughs in strengthening quality education, innovative education, classified education and practical ability training. Through the pilot application in the construction of national and provincial brand specialty in horticulture, the professional teaching conditions of horticulture, the construction of internal and external bases, the construction of teachers, and the construction of teaching materials have been significantly improved and enhanced. The comprehensive strength has been greatly improved.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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