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Thoughts on the Establishment of Special Agricultural Science and Engineering Specialty with Wenshan Regional Characteristics

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Abstract: Agriculture is China's primary industry and plays an irreplaceable role in the development of the national economy. With the rapid development of science and technology, agricultural production equipment is becoming more and more advanced, and facilities agriculture has achieved rapid development. however, it is accompanied by a shortage of talents. Many colleges and universities in China have set up agricultural science and engineering majors. This article takes the specialty of Protected Agriculture Science and Engineering of Wenshan University as an example to discuss in detail the issues related to the construction of the Protected Agriculture Science and Engineering specialty of the Wenshan region.

Keywords: Wenshan Area; Protected Agriculture Science and Engineering; Wenshan University; Thinking

On November 13, 2018, Yan Wu, director of the Higher Education Department of the Ministry of Education, proposed the construction of the "new agricultural science" at the Yunnan Provincial Undergraduate Education Working Conference in the New Era. In 2019, the Anji Consensus, Peikang Operation and Beijing Guide trilogy continue to promote the construction of new agricultural sciences. In 2003, Northwest Agriculture and Forestry University and other three universities accept the first batch of Protected Agriculture Science and Engineering. Up to now, there have been 42 agricultural colleges that have established this major in the country[1], and Yunnan Agricultural University, Honghe College and Wenshan College have opened this major in 3 schools.

The Protected Agriculture Science and Engineering major is an emerging major, which integrates agricultural environmental engineering and biological knowledge with a perfect theory and production system. It aims to train professional technical personnel for agricultural production and engineering design. This article will give some thoughts on the construction of Protected Agriculture Science and Engineering in Wenshan University.

1. Background of Wenshan regional agriculture specialty construction

1.1 Comprehensively implement the scientific development concept and develop the internal needs of modern agriculture

Wenshan Prefecture is located in the Tropic of Cancer area and is the property area of Sanqi Road[2, 3]. Sanqi (Pseudo-ginseng) is a valuable Chinese medicinal material and one of the four leading industries in Wenshan Prefecture, Sanqi Industry is one of the hundreds of billions of key industries created by Yunnan Province and plays an important role in the economic development of Wenshan Prefecture. Wenshan College is located in Wenshan Prefecture. With industrial transformation and upgrading as its focus, it has improved the professional system of industry-education integration disciplines and cultivated a large number of talents for the local economy.

1.2 Demand for professional talents in local agricultural development planning

In order to speed up the development of agricultural industrialization in Wenshan Prefecture, the state government has formulated a series of agricultural development plans in terms of agricultural industrialization, standardization, and ecological

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agricultural development. Wenshan College set up a Protected Agriculture Science and Engineering major in 2016, which is the second batch of application-oriented undergraduate training demonstration schools in Yunnan Province. The school closely follows the national strategic needs of the new era, takes key industries and regional development needs as the guide, deepens the teaching reform of agronomy majors, speeds up the construction of "new agricultural sciences", and cultivates talents with distinctive characteristics and services to local areas.

2. Countermeasures for the establishment of special agricultural science and engineering specialty with Wenshan regional characteristics

2.1 Clarify the goal of professional construction

Professional construction is the basis and premise for cultivating high-quality and high-level talents, and it is also one of the standards for testing the comprehensive strength and market competitiveness of colleges and universities. The professional settings of colleges and universities in China have been affected by the planned economic system for a long time. For example, the talent training objectives and training models are similar, the professional settings have not yet met the needs of the development of the market economy, the emerging professional construction is not valued, and the degree of professional integration is not high. To improve the quality and level of professional construction in colleges and universities and meet the market's demand for talents to stand out in the fierce market competition, colleges and universities must build on the actual development of the school and construct a perfect and targeted professional system. As far as the construction of facility agricultural science and engineering majors is concerned, when setting the goal of major construction, it is first necessary to meet the requirements of the long-term disciplines, overall development layout and planning of colleges and universities, to meet the changing forms of talent demand in the market, and to adapt to the direction and running of colleges Ability, school level and characteristics. The Wenshan area of Yunnan Province should pay attention to expanding the educational objectives of "characteristic Chinese medicinal materials and Wenshan plateau-specific agriculture". The major of facility agricultural science and engineering should attach great importance to the cultivation of "entrepreneurial and innovative talents" and pay attention to improving the comprehensive quality of students.

2.2 Construction contents of protected agriculture science and engineering

The construction of Protected Agriculture Science and Engineering specialty is a systematic, complex and wide-ranging project, which takes a long time and effort. The construction of colleges and universities should focus on the following points:

First, actively change the concept of running schools and the concept of professional construction. Under the new situation, colleges and universities should always focus on teaching and educating people, and gradually build a good development trend that attaches great importance to teaching, promotes teaching with scientific research, teaches with management services, and logistical support teaching. the school should focus on the status, promote the rapid development of teaching construction, and continuously improve the quality and level of talent training.

Second, formulate good personnel training goals and training programs. Educators should follow the trend, accelerate the reform of the credit system, and focus on guiding students to fully grasp the basic knowledge of modern facility agricultural science and engineering, cultivate protected agricultural science and engineering skills, and ensure that they can be competent in planning, design and scientific research in related fields after graduation so that teaching and technology can truly promote compound, applied, and highly skilled personnel with excellent business skills. Secondly, we should focus on cultivating students' multi-disciplinary knowledge in protected agriculture of Chinese herbal medicines, engineering, environment, marketing, business management, etc., to improve students' comprehensive ability and level.

Third, strengthen the faculty and improve the conditions for running schools. With the implementation of the strategy of strengthening the country by talents, Wenshan College responded to the call of the country to launch various talent training programs and implemented various talent training projects such as the "Double Hundred Plan" to grasp the characteristics of strong intersect and high comprehensiveness of facility agricultural science and engineering specialty, configure well-equipped faculty, raise the entry threshold for talents, strengthen the training of in-service employees, and introduce agricultural engineers to engage in teaching and scientific research. Secondly, it is necessary to strengthen the introduction and training of young teachers and implement the young teacher mentoring system, which not only helps to accelerate the construction of professional teaching, but also continuously improves the teaching and scientific research level of young teachers. In addition, various scientific research projects should be open up to guide teachers to actively adapt to the needs of professional construction, so that teachers can continuously strengthen the professional theoretical foundation during the process of participating in various national and provincial scientific research projects, and master the most cutting-edge theoretical knowledge and technological processes in time. To enhance teachers'production and practice capabilities and enhance teachers' overall quality. In the long run, the faculty of facilities agricultural science and engineering will gradually become reasonable and present a good development trend.

Fourth, accelerate the construction of courses and teaching materials. In the course of developing courses and teaching materials, under the principle of guiding the overall goal, the following four points are emphasized: First, based on the four-level situation, basic skills should be built that meet the core values of socialism and the needs of professionals in protected agricultural science and engineering. Second, the reform of the curriculum system and teaching content should be accelerated and committed to the construction of standardized curriculum to

continuously improve and standardize the teaching content of the course based on the actual training plan of talents. A complete and qualified professional syllabus shall be established to meet the teaching goals and the teaching requirements, focusing on practical teaching links. Attention should be paid to innovative teaching methods and models to continuously improve the quality of teaching. In addition, the course structure should be constantly optimized. With the implementation of the concept of comprehensive quality education, colleges and universities should always carry out curriculum setting work around the training needs of curriculum professionals. It is important to highlight the major and difficult points in public basic courses, aiming to meet the needs of compressing class hours and expanding. In the professional foundation, the teaching content must adhere to the principle of refining. At the same time, it must also penetrate the most advanced knowledge of science and technology and discipline development, pay attention to improving the curriculum system, and cultivate composite and applied talents. When setting up major courses for majors, we must adhere to the concept of adapting to the goal of talent training in the new era and optimizing the structure of professional knowledge, and pay attention to the cultivation of innovative and entrepreneurial complex talents. Finally, based on the actual positioning of college personnel training, the curriculum system should be improved to actively build a system that meets the individualized development needs of students, aiming to guide students' comprehensive and long-term development. Based on the goal of talent training, the school should optimize the structure of professional knowledge, scientifically set teaching hours, focus on increasing the proportion of practical teaching, students' professional ability and their comprehensive literacy. In terms of teaching materials, while uniformly using national-level planning teaching materials, it is also necessary to take into account that this emerging major is still at the initial stage of development. Special projects should be actively established to encourage and guide the use of teaching materials that are compatible with the credit system in professional courses.

Fifth, the construction of practice bases should be strengthened. Wenshan College Sanqi Industry has provided a practical training base for facility agricultural science and engineering. The leading Sanqienterprises represented by Wenshan Miaoxiang Sanqi Co., Ltd. participated deeply in the construction of the base. The performance is as follows: First, a scientific research platform was built together. The existing provincial key Sanqi laboratories and engineering technology centers of the college are all related to these Joint construction of enterprises. Second, jointly undertake projects such as the National Science and Technology Support Program and major science and technology projects in Yunnan Province, and the platforms have supported each other. Third, the construction of demonstration majors has been implemented under joint efforts. Enterprise, class, and other media work jointly cultivate application-oriented talents. Through the construction of three major platforms, the base aims to promote the transformation and upgrading of the Sanqi industry and improve the training quality to serve the regional social and economic development and lead the development of industrial enterprises. The integration of industry and education highlights the combination of industry chain modules. Scientific and technological innovation and achievement transformation have been achieved that provide scientific and technological services for the development of the Sanqi industry.

Sixth, the relationship between professional construction and discipline construction should be handled properly. Discipline construction is, on the one hand, the foundation of professional construction. On the other hand, it also has its own tasks. At the university level, the training function of the discipline is assumed by the profession. At the social level, the profession is set up to meet the needs of social occupations for training. Under the new situation, the major of Protected Agriculture Science and Engineering should always adhere to the principle of "setting science, highlighting nonferrous metals, superb quality, and distinctive characteristics" to highlight advantages and characteristics, relying on core disciplines, and integrating the whole school to carry out professional construction.

3. Conclusion

When creating the professional science and engineering of Protected Agriculture in Wenshan area, we must conduct in-depth market research, establish the correct concept, and correctly recognize the importance and particularity of Protected Agriculture in Yunnan Province and Wenshan Prefecture to adhere to the principle of adapting to local conditions and give full play to local advantages. The role of facility agricultural science in the construction of modern agriculture should be given full play, and based on the actual situation of the school, the construction of the curriculum system and innovate teaching methods and models should be accelerated, so as to continuously improve the quality and level of construction.

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