

Exploration and Research on the Training Mode of Innovative Talents in Biological Sciences Under the Background of New Agricultural Science

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Abstract: With the proposal of the construction of new agricultural sciences, it has a greater impact on higher agricultural and forestry education. Accelerating the construction of new agricultural sciences in the new era is an important strategic measure to implement the general secretary's construction of agriculture, rural areas and farmers. In this context, higher requirements are put forward for the training model of agricultural education-related professionals. This article mainly focuses on biological sciences as the main research object, and through the analysis of the training mode of biological sciences professionals, establishes innovative ideas for new talent training models, and explores new ways of training biological sciences professionals.

Keywords: New Agricultural Sciences; Biological Sciences; Innovative Talents; Training Model

Since the introduction of the new agricultural sciences, my country's agricultural development and construction have achieved new directions, while also creating opportunities for the development of agricultural sciences. Biological sciences in colleges and universities are the key majors of talent training. If we want to cultivate high-scientific literacy professionals, we need to use existing scientific and technological concepts and methods to improve the education of agricultural students, and we need to innovate the traditional teaching model and improve the teaching system and reform to achieve the development of new industries and provide innovative talent support for the development of new business formats.

1. The direction of innovative talent training mode under the background of new agricultural science

1.1 Promote the innovation of teaching concepts

The four aspects of the construction concept of the new agricultural sciences pointed out the direction for the education reform in terms of disciplines, professional settings, talent training models, and restructuring of development institutions. The innovation of educational ideas requires moral education as the core of quality education. With the transformation of higher education, the key direction is determined to cultivate students' innovation and entrepreneurial spirit, establish disciplinary ideas, and better improve students' overall quality.

1.2 Continuously innovating training programs

The goal of the cultivation of biological science professionals needs to be determined as the goal of training applied talents, and cultivate elite talents for the promotion of social and economic development. At the same time, biological science has a new exploration direction in terms of practical content, teaching system, quality training and innovative thinking in the teaching link.

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1.3 Strengthen innovation in the talent training model

The cultivation of biological science professionals under the background of the new agricultural sciences requires the establishment of a new training system, such as the establishment of a talent training system that combines academic research, academic training, and education. Create a training base in the school, and set up a research team to achieve diversified talent training. The construction of the education base can build a platform for students to concentrate on learning, so that students can also learn to teach during the learning process, and pass on the knowledge they have learned. In this way, it can provide guarantee for the improvement of students' innovative ability and entrepreneurial ability.

2. Specific measures to reform the talent training model

2.1 Establish a diversion and modular talent training model

The diversified talent training model mainly trains students in groups based on their hobbies, development potential and endowments. Then students in different groups can go to different module bases to carry out practical training, focusing on cultivating students' innovative ability and entrepreneurial skills after graduation Potential, to provide knowledge reserves and relevant learning experience for students to engage in product development and business management in the field of biological sciences. In this process, the explanation of knowledge needs to focus on the combination of theory and practice, and adhere to the teaching philosophy of laying a solid foundation, focusing on abilities, and the common development of innovation and entrepreneurship. In the first stage of education, it is usually necessary to explain theoretical education, focusing on the basic courses of related subjects and the theoretical professional courses of the subject, focusing on training the basic skills of students, and then in the course of combining theoretical teaching and basic practical teaching, gradually infiltrate the cultivation of innovation ability, especially the cultivation of comprehensive practical innovation ability.

2.2 Develop tutor teaching mode

As a guide for students, teachers play an important role in cultivating students' skills and comprehensive qualities. It is very necessary to implement a tutor teaching system in the cultivation of high-skilled talents in biological sciences. Schools need to introduce teachers with senior teacher titles or dual-qualified teachers, strengthen the construction and expansion of the teaching staff, and allow these teachers to serve as mentors in the module group to undertake the task of cultivating innovative talents for students in production and R&D. Strengthen training, and strengthen the combination of student training in school and enterprise training, encourage students and tutors to participate in the research of scientific research topics, guide students to carry out scientific research practice activities, so as to achieve the comprehensive level of students' innovation ability and awareness.

2.3 Set up a multi-directional talent training plan

In terms of talent training, respecting students' personal wishes, allowing students to make their own choices and determining their own development direction, is of great help to the cultivation of students' various abilities. To this end, you can set up a platform for multi-directional selection of talent training programs, set up a multi-directional selection course system, and provide a theoretical foundation course platform. Students can choose teachers from multiple directions according to their own interests and future development directions. At the same time, you can choose the theoretical and practical content of the professional elective courses according to your own situation, so as to realize the cultivation of students' theoretical knowledge and basic practical skills.

2.4 Taking interest cultivation as the mainstream and teaching students in accordance with their aptitude

As the saying goes, interest is the best teacher. In the study of biological science knowledge, as long as students have a strong interest, they can actively participate in the practice of biological skills and cultivate their innovative ideas and awareness. In order to make students realize the importance of innovation and entrepreneurship ability training, it is necessary to strengthen the guidance of students from many aspects, such as the use of freshman enrollment education, seminars, and practice base visits to guide students to have a strong interest in innovation and cultivate strong high-quality talents with strong biological research capabilities. In addition, it is also necessary to establish a scientific innovation and entrepreneurship talent

training system, deepen the reform of the overall teaching process, adopt a model that combines a split module system and a tutor training system, and conduct targeted guidance teaching according to the needs of students' personal development, so as to show split training and the teaching model of classifying talents.

2.5 Promote classroom teaching and the cultivation of technological innovation ability

The innovative talents needed for the construction of new agricultural sciences are mainly the combination of scientific and technological innovation and knowledge innovation. In traditional biological science teaching, the test-oriented teaching method based solely on the memory of knowledge content can no longer meet the requirements of modern education development. In order to better adapt to the requirements of social development, it is necessary to combine classroom teaching with the cultivation of scientific and technological innovation capabilities, and further improve the scientific and technological innovation ability training mechanism of universities. Students majoring in biological sciences can make reasonable use of the biological resource research laboratory platform to guide students to participate in scientific research activities, allow students to organize their own research projects, and encourage students to participate in various competition activities such as college student innovation competitions, biochemical skills competitions, and innovation competitions. Put your own innovative ideas into practice, discover the shortcomings of innovation in time, and constantly improve your own ideas, not only can change the way students think, help them establish correct innovative ideas, but also be able to absorb others in the competition the unique way of thinking stimulates students' exploration spirit. In order to encourage students to invest in scientific research practice and better guarantee the smooth completion of their studies for poor students, the school can provide scholarships and bursaries for experimental class students as basic fund guarantees by improving the talent guarantee mechanism, and for especially outstanding students in experimental research for outstanding students, the school can allow them to participate in more systematic training, for example, to participate in academic exchanges at home and abroad, so as to provide greater help for the improvement of students' innovative ability.

3. Conclusion

In short, through the reform of the teaching model of biological sciences, the cultivation of innovative talents under the background of new agricultural sciences can be achieved to a large extent. For this reason, in the teaching of biological sciences in agricultural and forestry education colleges, it is not only necessary to follow the pace of the times in teaching methods and teaching content, but also to promote the diversified development of teaching methods. Improve students' interest in learning through practical teaching and a variety of teaching methods, let students choose practical teaching models and innovation directions from their own interests, enhance students' innovation and entrepreneurship capabilities through practical training in the practical teaching base, and use a series of scientific research training only by training one's own scientific research level can they achieve greater development in comprehensive ability, promote the improvement of teaching quality, and cultivate new agricultural talents suitable for social needs for the development of agricultural and forestry education.

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