

Cultivation of Innovative Talents in Agricultural Information Technology

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Abstract—At present, the cultivation of innovative talents in agricultural information technology in our country is still restricted by some factors, such as the lack of school running conditions, the lack of teacher and students' innovation consciousness and so on. At the same time, teaching staff and strengthening the practice teaching innovation put forward some measures to develop the innovative talent of agricultural information technology in some ways.

Keywords-agricultural information technology; innovative talent; cultivation measure

I. INTRODUCTION

Information technology is an emerging field of science and technology, it studies the process of information production, collection, storage, processing, transmitting and makes it widely used. Information technology has penetrated into every field of our social life. Our country is an agricultural country. Agriculture is not only the foundation of the national economy but also the raw materials sites of industrial production. The whole national economy and society is unable to realize informatization without the agricultural informatization. The development of agricultural information technology is the key for agricultural modernization. It dominates the future direction of agricultural modernization [1].

II. THE IMPORTANCE OF CULTIVATING INNOVATIVE TALENTS OF AGRICULTURAL INFORMATION TECHNOLOGY

Agricultural information technology is a technology that collects, stores, transmits, processes, analyzes and uses natural, economic and social information in the process of agricultural production, operation and management, strategic decisions and so on. Deng Xiaoping had the foresight to point that developing information resources and serving the construction of modernization is necessary in

1984. In order to develop agricultural information technology, we need to improve the quality of workers with modern information knowledge, develop and take advantage of information resources vigorously to save and replace non-renewable material and energy resource. In addition, it's necessary to establish perfect information network for improving the speed and efficiency of logistics. Improving the integrity, systematicness and regulation of agricultural industry will finally realize intensification, automation and intelligentization of agricultural production.

Admittedly, agricultural universities and colleges play an increasingly important role in cultivating agricultural talents. It's the unshakable duty for universities and colleges to cultivate a large number of talents. Comprehensive qualities, innovation and application, are indispensable to the spirit of innovation [2]. Currently, the agricultural technology research is transforming from conventional technology based on experience to modern advanced technology supported by knowledge and experimental skills, and the structure of demand for talents changes too. The talents who master the technology of modern information and have innovative spirit and innovation ability are imperious required [3]. In consequence, to speed up cultivating agricultural information technology talents with innovation does count.

III. TRAINING OF AGRICULTURAL INFORMATION TECHNOLOGY TALENTS FACES SEVERAL PROBLEMS

A. Agricultural Information Technology Talents Are Scarce

At present, in our country, the cultivation is immature and the talents are less. Generally speaking, there are a few agricultural experts and scholars that master computer technology, while some computer professionals don't

master agricultural science. Undoubtedly, there is a big contradiction in combining agriculture and information technology. Although some agricultural colleges set up major of agricultural information technology to meet the needs of talents. Talent training starts late, technology is immature; employment directions changed, talents are absence.

B. The Constraints of Educational System And Lack of Operating Conditions

The colleges of agriculture are coincident in the education system. Professionals are too narrow, required courses are too much, and elective courses are too less. Taking many factors into consideration, teaching program rarely included such courses like related discipline, inter discipline and humanistic and social science. Therefore, it contributes to cutting down the enthusiasm of learning.

Although our country continues to enlarge the investment in education, operating conditions still can't keep up with the speed of expanding enrollment. Professional development gives the background of the problems which includes the restriction of education funds, the small number of laboratory and the poor of practice teaching base. This gives rise to the effect of practical teaching have been affected to some degree. The function of the existing laboratory is low. The contents of experiment are verified most. Besides, comprehensive and designing experiments are very faint.

C. Model of Teaching is Traditional and Quality of Education is Declining

In the traditional teaching, teachers trend to adopt the way of directional thinking as well as spoon-feeding. They don't attach great importance to the ideological development of students which results to students' initiative, enthusiasm and creativity are left in the basket. Test score is standard, high score is winner. Under the circumstances, objective items that rely on memorizing mechanically and enclosed answering account for a significant proportion in the exam. In sharp contrast, subjective items which examine students' comprehensive quality and innovation ability are less or no. All this makes students into position of passive learning. Creative inspiration or spark is difficult to produce.

We cannot ignore the fact that quality of students declined result from the enrollment expansion in recent years. Moreover, agricultural information technology is an emerging professional and teachers engaging in teaching the major are insufficient. This leads to a decline in the quality of education to some degrees. For instance, teaching staff construction of the new professional cannot speed up with the needs of teaching in some agricultural colleges. Besides, it's high time to improve teachers' quality [4]. The main reasons are listed as follows: Some teachers' educational abilities and levels are poor; There are some teachers that cannot integrate theory with practice in teaching which leads to the weak of students' adaptability and creativity. In a word, we still have a long way to go.

D. Lack of Innovation Consciousness

China's traditional education is based on knowledge inheritance. Agricultural information technology still under the influence of traditional thought in teaching in spite that research is an emerging discipline. As Zhenning Yang said, we should attach too much importance to knowledge accumulation. They, Chinese students, learn too much and think too little. They used to take things as they are, follow the beaten track and don't want to innovate. It's essential to deny predecessors' achievements and doubt and challenge the original knowledge for scientific innovation. What talents cultivation lacks may be consciousness of innovation.

IV. SEVERAL MEASURES FOR CULTIVATING AGRICULTURAL INFORMATION TECHNOLOGY TALENTS

A. Innovate the Teaching Staff Construction of Related Disciplines

Innovate construction of teaching staffs is of great importance. It's one of the key of cultivating agricultural information technology talents. Nowadays, teachers of most basic courses are surplus and teachers of new curricula are short. In consequence, agricultural universities and colleges ought to appropriately supplement teachers of emerging course according to the plans for the development of the school. Colleges make the allocation of teachers in the subject be more reasonable on the premise of controlling teachers' number. Teachers, at the same time, should strive to improve their teaching levels and constantly improve themselves. Improving their innovative consciousness and innovative ideas is essential too. To begin with, teachers must have higher attainments and be good at researching, discovering and innovating in this field. Additionally, they should not only have the abilities of initiating knowledge but also clever at understanding and using teaching materials. Furthermore, they are supposed to be sensitive to the reaction of students as well as be adept in arousing their enthusiasm of active learning. Finally, teachers should have high educational qualities and cultivating students when teaching [5].

Agricultural universities and colleges need to lay a solid foundation for improving the quality of the teachers. The following methods can be adopted: colleges can improve teachers' ability and level, strengthen teachers and adopt the combination of export and import. That requires colleges and teachers to make joint efforts because teachers are internal cause while college is external cause. Internal cause and external cause need to be combined, only in this way can they establish excellent teacher troop. These teachers who are devoted to teaching and are brave in innovating may lay a solid foundation for developing talents on agricultural information technology.

B. Improve Operating Conditions and Intensify Practical Teaching

As the proverb goes, innovation comes from practice. In fact, practice teaching is the base of cultivating innovative talents. The practice teaching funds, at present, are insufficient in quite a number of agricultural colleges.

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Meanwhile, laboratory is in short supply and base inside and outside school is lacking, which results in the restriction of quality of practice teaching [6]. Cultivating innovative talents requires colleges to construct modern practice field includes intramural internship bases and labs. It's vital to construct well since the quality of the field affects the quality of practice teaching directly. Students can consolidate the knowledge and strengthen the practice by developing agriculture through science and education as well as developing off-campus bases.

C. Draw Up the Plan of Cultivating Innovative Talents Scientifically

Cultivation of innovative talents is a long-term continuous task. Drawing up a plan of cultivating innovative talents scientifically is conducive to this subject. It, on this occasion, gains talents, achievements and benefits continually. Cultivation of innovative talents should consider such background that the structure of talents is not reasonable and the strategic target of national agricultural science and technology development. All-round improvement is needed and support also when determining the training plan. For instance, agricultural universities and colleges ought to train undergraduate students, masters and doctors. Department of agricultural technology and agricultural scientific research ought to cultivate professional talents. Only in this way can we effectively promote the popularization and application of agricultural information technology.

D. Combine Production, Teaching and Research, Cross Multidisciplinary, Cultivate Applied Innovative Talents

Currently, in market economy conditions, higher agricultural colleges have to combine production, study and research. Colleges could realize the combination of education, science and application by such school-running pattern. It will make contributions to speeding up the transformation of agricultural scientific and technological achievements. We should comprehensively promote the innovation of the agricultural information technology education in the light the integrative goal. Students should adapt themselves to the development of society when they enter society from campus [7]. They can apply technologies to before, during and after production in the process. That is indispensable to create an environment for cultivating students' innovation and make colleges satisfy the ever-accelerated updating of science and technology. Agricultural information technology is quite a big boost to cultivate talents. Hence, we are supposed to set up corresponding demonstration base on the basis of the multidisciplinary joint. We are going to cultivate more high-quality talents by means of acquiring knowledge and skills and integrate theory with practice.

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