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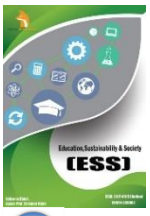

RESEARCH ARTICLE

ENHANCED PROFESSIONAL PRACTICE TRAINING SYSTEM FOR MASTER OF AGRICULTURE STUDY IN CHINA

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ABSTRACT

A professional practice training system of the Master of Agriculture which based on the base rotation was built to make sure the quality of the professional practice. Taking the field of agronomy and seed industry (Horticulture) as an example, the professional practice training system has distinguished the required courses and the optional courses, formulated the rotation training plans, and regulated the practical operation technique, minimum number of cases and the requirements of the skills according to the rule of practice base rotation from the near to the distant in accordance with the relatedness of field.

KEYWORDS

Master of Agriculture, Standardization, Professional Practice, Training

1. INTRODUCTION

In 1999, the Academic Degrees Committee of the State Council established the Master of Agriculture, which was renamed in 2014 and merged in 2018. The Master of Agriculture has entered a period of rapid development and research results have emerged. Yang Ping and others have put forward some measures to guarantee the implementation of the cultivation mode of master's degree from the aspects of concept change, management system reform and policy support; on the basis of analyzing the characteristics, training status and existing problems of part-time agricultural extension master degree postgraduates; Li Yanmei and others have put forward corresponding countermeasures and suggestions; Tang RenHua has taken the internal quality management of training school as the core, and have established a quality assurance system and operating mechanism of certification, self-discipline and evaluation in line with China's national conditions; Xie Yong and others have introduced the "University Practice Platform - Enterprise Practice Base - Agricultural Production Cooperatives Base" the trinity of practical training mode; Bai Yongliang and others has proposed that the training quality of full-time Master of agriculture should be improved on the basis of talents serving the local areas and the employment oriented goal; Kang Yebin has proposed that the postgraduate should further enhance the professional practical skills, strengthen innovation ability, especially the cultivation of practical innovation ability (Yang et al., 2017; Li et al., 2016; Tang, 2017; Xie et al., 2018; Bai and Zhang, 2018; Kang, 2012).

There are still some problems in the training process of agricultural masters: first, many agricultural masters' training results are inconsistent with the training objectives, and graduate students lack professional skills and cannot complete agricultural production independently. Secondly, the professional practice of Master of Agriculture is mostly empty talk. There is no clear boundary for the cultivation mode of agricultural master between professional degree and academic degree. The professional practice is mostly a symbolic random filling in a "professional practice manual", and many graduate students have never entered the practice base. Finally, the professional practice of Master of Agriculture is lack of standards and norms, and the training requirements are not strict. Tutors and graduate students generally attach importance to papers rather than practice, thus losing the significance of establishing the professional degree of Master of Agriculture. The main reason for the above phenomenon is the lack of unified standards and norms for the professional practice of Master of Agriculture, and the weak implementation of professional practice.

2. METHOD

In this article, a professional practice training system of the Master of Agriculture which based on the base rotation was built. Taking the field of agronomy and seed industry (Horticulture) as an example, the professional practice training system has distinguished the required courses and the optional courses, formulated the rotation training plans, and regulated the practical operation technique, minimum number of cases and the requirements of the skills according to the rule of practice base rotation from the near to the distant in accordance with the relatedness of field to solve the current situation of weak implementation of professional practice of the master of agriculture.

3. RESULTS AND ANALYSIS

The specific measures for the standardized training of professional practice of the Master of Agriculture include two parts: the basis of standardized training and the requirements of standardized training.

3.1 Basis of Professional Practice Standardized Training For Master of Agriculture

The professional practice standardized training of Master of Agriculture should rely on the establishment of a unified standardized training program in the whole province and a detailed and monthly standardized training plan.

3.1.1 Unified standardized training program in the province

The unified professional practice training program for the Master of Agriculture is the guarantee of standardized training quality. The National

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Steering Committee of Agricultural Graduate Education shall provide overall guidance for the standardized practice training of Master of Agriculture, and organize the national practice base to formulate training standards and assessment norms for demonstration. According to the guidance, training standards and assessment specifications, the Provincial Agricultural Credit Committee shall formulate a unified standardized training program for the whole province in 8 fields such as agronomy and seed industry. The training program shall specify the required and optional subject training tasks to be completed by the practice participants in each field, such as professional practice operation technology, minimum number of cases and skill requirements.

3.1.2 Detailed and monthly standardized training plan

The detailed and standardized training plan is the guarantee for the implementation of the unified training program. Taking the full-time Master of agriculture of Hebei North University as an example, the 2-year (22 months) full-time Master of agriculture professional practice standardized training time shall not be less than 10 months. According to the characteristics of the Master of Agriculture, during the 10 months' training process, 6 months are the training of the required subjects for the base in his own field, and 4 months are the training of the optional subjects for the practice base in related or similar fields. On the basis of completing the training of the required subjects in his own field, we would implement the linkage of related or similar fields and complete the training of optional subjects, so as to enhance the Master of Agriculture's mastery of professional skills in related similar fields.

3.2 Requirements for Standardized Training in Professional Practice of The Master of Agriculture

Taking the field of agronomy and seed industry (horticulture) as an example, this paper expounds the objectives, methods, content, and requirements of the standardized training of professional practice of Master of Agriculture.

3.2.1 Training objectives

Professional practice in this field requires graduate students to master solid basic theories of plant cultivation and production, systematic professional knowledge, and related humanities, social sciences and management knowledge, master the technical development needs and laws, application technologies and communication modes of new agricultural business entities and have the production and operation management, theoretical and practical skills of the whole plant industry chain, master the production and management engineering technology of field crops, horticultural crops, grassland and seed industry, have the awareness of innovation and the ability to independently engage in research, development, operation and management in the field of agriculture and seed industry.

3.2.2 Training methods

Standardized training is based on the rotation of professional practice bases. The relevance of practice bases in related or similar fields has distinguished the required courses and the optional courses, formulated the rotation training plans. The Master of Agriculture in the Field of agronomy and seed Industry (Horticulture) participates in the planting practice of food crops, cash crops and ornamental plants, participates in crop storage and processing, agricultural product management and sales, breeding, agricultural informatization, rural enterprises, and village committee professional practice base training, and completes professional practice tasks in related fields. The Master of Agriculture participates in the work of the practice base and various teaching and scientific research activities (teaching case analysis, subject research, professional lectures, etc.), fills in the "Standardized Training Manual for Agricultural Master", fills in the professional practice operation records, and independently completes the implementation plan of technical operation.

3.2.3 Training content and requirements

The basic skills of Master of Agriculture are cultivation and production, and the core training tasks are food crops, economic plants and ornamental plants planting bases. This is a required courses with two months' training for each base, six months in total; the most related field is crop storage and processing, grain crop processing base, economic plants processing base, agricultural and sideline product processing base. This is an optional subject, with one- or two-months' training; further subject is sales link, food crops sales base, economic plants sales base. This is an optional subject with one month's training; the furthest is the cultivation base, agricultural informatization, rural enterprises, and professional practice base of village committee. This is an optional course with one month's training. The rotation arrangement is as follows:

Table 1: Subject Rotation Arrangement in Agronomy and Seed Industry (horticulture) Practice Base

Practice Base	Rotation Time (Month)	Required/ Optional	Involved Field
Food Crops Planting Base	2	Required	Agronomy and Seed Industry
Economic Plants Planting Base	2	Required	Agronomy and Seed Industry
Ornamental Plants Planting Base	2	Required	Agronomy and Seed Industry
Grain Crop Processing Base	1	Optional	Food processing and Security
Economic Plants Processing Base	1	Optional	Food processing and Security
Agricultural And Sideline Product Producing Base	1	Optional	Livestock industry
Grain Crop Sales Base	1	Optional	Food Processing and Security
Economic Plants Sales Base	1	Optional	Agricultural Manage
Mentcultivation Base	1	Optional	Livestock Industry
Agricultural Informatization Practice Base	1	Optional	Agricultural Engineering and Information Technology
Rural Enterprises Base	1	Optional	Agricultural Management
Village Committee	1	Optional	Rural Development

The practical operation technology and the minimum number of cases reflect the requirements of the professional practice standardized training for the practice of Master of Agriculture in the field of agronomy and seed industry (horticulture). Among them, operation technology is the requirement of training operation quantity, and the basic demand is the requirement of training level.

4. Discussion and Summary

The National Steering Committee of Agricultural Graduate Education organizes national professional practice bases to formulate professional practice training standards and assessment standards for Master of Agriculture, and provides demonstration, so that professional practice has standards and norms to follow. Provincial agriculture committee, under the guidance of the national standard, combining with the provincial agricultural resources distribution, agricultural talents demand and the current situation of agricultural production, formulate the provincial training plans according to local conditions to ensure that agricultural colleges would fully implement the professional practice training policy of the National Steering Committee of Agricultural Graduate Education. This is advantageous to the development of professional practice work of the Master of Agriculture. Agricultural colleges and universities take standardized professional practice as the criterion, and strictly distinguish professional degree and academic degree graduate students of agriculture master with the training procedures.

Table 2: Minimum Number and Basic Requirements of Professional Practice Techniques in Agronomy and Seed Industry (horticulture direction)

Operative Technique	Minimum Number of Cases	Basic Requirement	Involved Fields
High-Yield Cultivation Techniques	2	Master	Agronomy and Seed Industry
Heterosis Utilization Technology	2	Master	Agronomy and Seed Industry
Molecular Marker Technology	2	Master	Agronomy and Seed Industry
Plastic Film Mulching Technology	2	Master	Agronomy and Seed Industry
Transgenic Technology	2	Master	Agronomy and Seed Industry
Precision Sowing Technology	2	Master	Agronomy and Seed Industry
Identification And Identification of Plant Pests	1	Grasp	Plant protection and resource utilization
Safety And Detection of Pesticide Residues in Pollution-Free Agricultural Products	1	Grasp	Food processing and safety
Detection Of Heavy Metals (Microorganisms, Pesticides) in Food	1	Grasp	Food processing and safety
Artificial Oviposition Promotion Technology	1	Understand	raise livestock/poultry
Artificial Insemination	1	Understand	raise livestock/poultry
Whole Mechanization Technology	1	Understand	Agriculture and information technology
Agricultural Information Collection Technology	1	Understand	Agriculture And Information Technology
Popularization Technology of Agricultural and Sideline Products	1	Understand	Agricultural Management

If the standardized professional practice task is not completed, the students cannot get the degree of Master of Agriculture. For professional practice tutors, the guidance work of professional practice is clearer, from cooperating with graduate students to formulate professional practice plans, guiding graduate students' professional practice, to organizing professional practice assessment. All procedures are based on evidence, which is conducive to the implementation. For graduate students, professional practice training work has a reference standard. They can promote professional practice to the same important status as dissertation and gave the professional practice a practical implementation. After standardized training, our Master of Agriculture would master the agricultural production skills in this field, have scientific research foundation, have some understanding of the production of relative fields, and also have the ability of comprehensive application of agricultural knowledge. They would be a qualified agricultural production talent when they leave our school.

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Research Project in 2019 of National Steering Committee of Agricultural Graduate Education (2019-NYYB-48). Reform Project for Graduate education in 2021 of Hebei North University (2021JG002).

References

Bai, Y.L., Zhang, Y.H., 2018. Practice base construction of agricultural master's in applied Universities. Read and Write Periodical, 15 (1), Pp. 29-31.

Kang, Y.B., 2012. Constitution and Cultivation of Professional Practice Technique in Master of Agriculture Extension. Higher Education Forum, (12), Pp. 106-115.

Li, Y.M., Xu, S.S., Yang, Y.J., 2016. Thinking for characteristics of and current situation of part-time agricultural extension masters. Education Teaching Forum, 85, Pp. 117-120.

Tang, R.H., 2017. A Study of the Postgraduate Education Quality for Master Candidates in Agriculture Extension. Journal of Huazhong Agricultural University (Social Sciences Edition), 85, Pp. 117-120.

Xie, Y., Li, R., Xie, S.Q., 2018. Exploration and Reflection on the training mode of agricultural masters. Higher Education Forum, (8), Pp. 71-75.

Yang, P., Pang, Q.H., Zhang, M., 2017. Research on the training mode of full-time Postgraduate in local teaching and research Agricultural Universities Based on classification training. Helongjiang Animal Science and Veterinary Medicine, (11), Pp. 252-254.