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A Study on the Agricultural Scientific Research Management in the New Situation

Ximei SONG*, Xuelian SANG, Jiangping LIU, Jiaying CHEN

Key Laboratory of Tropical Fruit Biology, Ministry of Agriculture/South Subtropical Crops Research Institute, Chinese Academy of Tropical Agricultural Sciences, Zhanjiang 524091, China

Abstract As the core of the management of agricultural institutes, scientific research management plays a vital role in strategic development, and also affects the strategic development of agricultural research institutes. This paper expounds the connotation and characteristics of agricultural scientific research management as well as management ability requirements of management personnel. This paper puts forward the recommendations for improving agricultural scientific research management from the view of management personnel.

Key words Agricultural scientific research management, Management personnel, Recommendations

1 Introduction

Stabilizing food yield, increasing income, adjusting structure, improving quality, increasing efficiency and transforming ways is the main task to speed up agricultural modernization and promote sustainable development of agriculture in the current period, which places a higher demand on agricultural science and technology innovation.

The agricultural scientific research management, directly supporting agricultural scientific research, is an indispensable important link in agricultural science and technology innovation. With the further deepening reform of science and technology, the CPC Central Committee and the State Council have made decentralization and service optimization plan, and the agricultural scientific research management is facing new demands and challenges.

In the new situation, from point of view of management personnel, some recommendations are put forward to improve agricultural scientific research management in order to provide a reference.

2 Connotation

The scientific research management is to combine the basic research and applied research results with the national and social needs, and guide, plan and control it. The scientific research management of agricultural scientific research institutes is to strive for and rationally allocate various resources inside and outside the units to reflect technological innovation and achievement transformation functions of the units, and maximize output and transformation efficiency of scientific achievements^[1].

The scientific research management is an integral part of the daily management of scientific research institutes, and also the key factor affecting the successful implementation of strategic development goals of scientific research institutes.

3 Characteristics

3.1 Grasping correct political orientation and working direction Briefly, it is necessary to pay attention to the important points to grasp the correct direction of scientific research management.

On the one hand, there is a need to understand the state policy about agriculture, science and technology and foreign affairs and recognize the country's political economy situation and the direction of social development; on the other hand, it is necessary to understand the development trend of the world's tropical agricultural science and technology, grasp the progress of international tropical agricultural research, and well know the gap between China's research institutions and world-class research institutions.

3.2 Having a scientific way of thinking and working Different ways of thinking help to solve different problems, such as using strategic thinking for global planning issues, using creative thinking to overcome difficult problems, using dialectical thinking to solve complex problems, using bottom line thinking to grasp the principle problem, using the thinking of rule of law to grasp the thorny problems and using the systematic thinking to integrate various issues.

There is a need to use scientific way of thinking to complete onerous scientific research management. In scientific research management, we must pay attention to ways and means. The scientific methods include six steps: making clear goals; analyzing information; making rational decision; making plans; implementing work; improving evaluation.

3.3 Seeking a factual and realistic work style A factual and realistic work style is to respect the actual situation and the objective laws, propose work programs and suggestions and develop assessment objectives in line with the reality, objective law and spirit of science.

Taking breeding which is very important in the crop research for example, the work requires the scientific research personnel to persevere, so we must not be too anxious and unrealistic in managing the process of scientific research projects^[2].

4 Agricultural scientific research management personnel's ability and quality requirements

4.1 Needing to have comprehensive quality The outstanding managers of modern research institutes need to have both a good character and professional competence, highlight moral character and focus on ability. America's "Anthony structure" organically decomposes the scientific research management personnel's ability into three components: technique; coordination; experience.

The so-called "technique" refers to the professional and technical capabilities; coordination and experience refer to the management personnel's management experience, management skills and professionalism^[3]. It can be seen that the scientific research management personnel need to have comprehensive quality in research, management and communication.

4.2 Needing to have a certain degree of technical expertise The agricultural scientific and technological achievements are the result of cooperation of professional multi-level personnel. The research management personnel need to possess the necessary technical expertise to well understand the discipline areas, academic level of the units and academic research progress at home and abroad, analyze and study the scientific research advantages and disadvantages of the unit, scientifically develop development plans, and respect the law of scientific research in organizing the specific research plans.

4.3 Needing to have strong management capabilities and ability to innovate In the three kinds of capabilities mentioned by "Anthony structure", "coordination" capability is a basic requirement, while "technique" and "experience" will vary with the change in the level of management. With the upgrade of management level, it places an increasingly higher demand on the management capacity and experience of management personnel, while the demand on professional and technical capacity declines^[4].

The scientific research management personnel of agricultural scientific research institutions need to innovate upon the management model, pose the agricultural scientific research institution management model suitable for industrial development, so as to improve management efficiency and promote the transformation of scientific research achievements^[5].

4.4 Needing to have a high sense of responsibility and dedication The agricultural research management personnel must have a high sense of responsibility to promote the progress of scientific research and speed up obtaining scientific research results. Compared with the professional and technical personnel who undertake research projects, the scientific research management personnel are facing trivial work difficult to quantify, and the performance of the work is difficult to directly reflect.

The appropriate management evaluation system has not yet been established, and the sense of accomplishment is low for the scientific research management personnel, so the dedication is essential quality^[5].

5 Recommendations

5.1 Making bold and innovative action and focusing on effect Affected by the traditional management philosophy, the scientific research management departments are usually in a passive state of service. In addition, the technology information management platform has not yet been built, and the efficient information processing can not be completed, having a direct impact on the efficiency and quality of scientific research management^[6].

The innovation of scientific research management is to innovate upon management concepts, methods and models^[1]. In the process of project management, the scientific research institutes often take the research group and research room as unit for management, but there are some drawbacks.

First, the additional procedures are added to the formal communication between management personnel and scientific research personnel, which is not conducive to timely information conveyance and accurate communication.

Second, the scientific research projects should be implemented by the project team for which the project leader is responsible, but in fact, the project team is often constituted by different research groups, and the simple management of research groups is not conducive to project management.

So, we can enhance the dynamic management of project team instead of static management.

5.2 Improving coordination and making steady progress The scientific research management involves acquisition and optimal allocation of manpower, material resources and various other resources within and without units, so it is necessary to improve the coordination for scientific research management.

On the one hand, the cause of scientific research can not rely on sporadic forces, and it needs collaboration. Cooperation and exchange require the scientific research management personnel to facilitate or promote communication and negotiation.

On the other hand, the process of scientific research or scientific research management will inevitably encounter resistance and contradictions, so the work can be smoothly promoted by timely solving conflicts and problems^[7].

5.3 Making precise and standardized management For the specific aspects of the management content and business processes, the precise and standardized management is to develop a series of rules and regulations to promote the institutionalization and normalization of management around the project, funding, results, platforms and talents involved in the scientific research management^[8].

Taking project notification form for example, we often see errors in abbreviated company name and financial information which do not meet the requirements, and our scientific research management personnel have certain responsibilities. The insignificant little things done by the technology management personnel in the project declaration process often get twofold results with half the effort.

5.4 Sticking to people-oriented, inclusive and open management With the progress of human society, people's pursuit has

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Cyanophyta (1), Chrysophyta (1), Pyrrophyta (1).

The phytoplankton abundance was $(15.6 - 810) \times 10^4 \text{ ind} \cdot \text{L}^{-1}$; the biomass was $(0.07 - 2.876) \text{ mg} \cdot \text{L}^{-1}$; Shannon-wiener index was 1.05 - 3.24; Pielou evenness index was 0.27 - 0.96. Using Shannon-wiener index and Pielou index, the water quality of Genhe River was assessed, and the results showed that the water quality was the best at 5# sampling point, the water quality was good in 3#, 4#, 7#, 8#, 9# sampling points, and there was a state of pollution at other sampling points.

Canonical correspondence analysis and Pearson correlation analysis showed that iron ion, transparency, pH value, water depth and water temperature were important environmental factors that affect the distribution of phytoplankton, and copper ion, nitrite ion and COD also significantly affected the distribution of phytoplankton. The water of Genhe River was in a moderate pollution state and the overall water quality was good.

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broken through the pure material satiation, and the spiritual needs become more comprehensive and diverse. Work has become the carrier of self-worth, and accomplishments become the signs to reflect one's life meaning^[9].

In the scientific research management, we often make contact with scientific research personnel while most of them are the highly educated intellectuals of distinctive personality, who focus on the spiritual needs. People-oriented management is to respect, understand and care for people^[10].

Only by the human care from the spiritual level can we improve the satisfaction of scientific research personnel and mobilize their enthusiasm in order to form greater combined innovation force.

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