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# Study on Training Scheme for New Farmers

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**Abstract** Farmers play an important role in agricultural modernization, and farmers' quality directly influence the agricultural modernization drive. We analyzed basic situations and existing problems of farmers, including lack of consciousness as a master, cultural awareness, market awareness, skill awareness, and democracy and legal awareness. To build new farmers, we put forward multi-channel and comprehensive training schemes, including enhancing leadership, making clear objective, and giving top priority to subjects; increasing fund input and perfecting new farmer training system; focusing on economic development and combining with new socialist countryside construction; training by classification to improve overall qualities of different level farmers; combining many cultivation ways to improve the overall training effect.

**Key words** New farmers, Agricultural modernization, Training, Measures

New farmers refer to modern farmers who are active in rural areas, adapted to demands of rural modernization construction, have modern thought and rich modern scientific knowledge and higher labor skills. They can not only realize self-survival and self-development, but also improve quality of life. They are educated and skillful, good at operation and innovation<sup>[1]</sup>. Without farmers, it is impossible to develop modern agriculture. In addition, farmers' quality directly determines development process of modern agriculture. In this situation, it is urgent to solve the problem of how to carefully study and explore basic laws of sci-tech training and education for farmers, explore new training ways, improve farmers' sci-tech cultural quality, and cultivate new higher quality farmers.

## 1 Important role of farmers in agricultural modernization drive

Firstly, from theoretical analysis, it is known that the agricultural modernization drive is the process of transforming low-level agricultural productive system into high-level agricultural productive system by modern new and high technology. Agricultural productivity is the sum of three basic elements, farmers, agricultural implements of labor, and subject of labor. If not grasped by farmers, any advanced agricultural technology will not bring the improvement of agricultural productivity. In the agricultural productivity, agricultural implements of labor depend on agricultural laborers. Quality, education and environment of agricultural laborers, as well as their command of advanced technologies, fundamentally determine development level of agricultural productivity. Therefore, agricultural laborer is the leading element among elements of agricultural productivity and plays a decisive role.

Secondly, from characteristics of agricultural modernization practice, it is known that vigorously developing rural human resources oriented towards farmers is an objective requirement of developing agriculture under the background of new sci-tech revolution and knowledge economy. Traditional agricultural production is the process of using abundant agricultural resources and little knowledge (experience) to produce products. By contrast, modern agricultural production makes the knowledge trend of agriculture more obvious. In the long run, it is essential to develop agriculture through changing focus on material elements such as materials, capital and information to human resources.

## 2 Current situations and main existing problems of farmers

The development of agriculture and rural economy lags behind and becomes not adapted to overall development level of national economy, and it is difficult to meet requirement of building new socialist countryside and well-off society. Currently, agricultural and rural economic development is faced with many difficulties, most outstanding of which is slow increase and unbalance of farmers' income, mainly shown in that farmers' income is low, and there is a big gap between urban and rural residents; growth speed of per capita income is slow and the income always comes from agriculture; working has become a major source for increase of farmers' income and has a greater and greater influence on increase of farmers' income; rural consumption demand is still not stimulated and quality of life of farmers is universally low. According to development objective of farmers' education in the Eleventh Five-Year Plan period, new farmers shall have high cultural quality, skilled professional level, and high operating capability. To improve farmers' overall qualities, it is required to strengthen farmers' awareness of being the master, cultural awareness, market awareness, skills awareness and democracy and legal awareness. Due to limitation of economic base and rural environment, currently, most farmers lack these kinds of awareness.

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**2.1 Weak awareness of being the master** Farmers are subjects of application and direct users of scientific and technological achievements. This requires guiding farmers to strengthen the awareness of being the master, pursue overall self-development, and cultivate self-confident, enterprising and independent spirit. Chinese farmers have strong awareness of small peasant and experience awareness, lack the initiative, and have inaccurate knowledge, understanding and grasp of state policies. For farmers in poor areas, they have difficulties in catching opportunities, and some of them lack interest and confidence in new projects and application of new technologies. Consequently, they will not see development prospect, be timorous and hesitant, tend to take short-term actions, and finally it is difficult for them to get rich.

**2.2 Weak cultural awareness** High cultural quality is an essential condition for improving farmers' skill quality, management quality, and legal quality. At present, the overall quality of rural labor forces is not high and the quality improvement makes little progress. According to a survey of well-off society construction of a region in 2003, the average education level of labor forces in this region is 6.16 years, which is below the average level. The distribution of education level of labor forces in the whole region is shown in Fig. 1. Cultural poverty and dull mental life cause that some farmers make no effort to make progress. In slack season, some farmers always play gambling. In this situation, it is urgent to strengthen rural spiritual and cultural construction in rural areas.

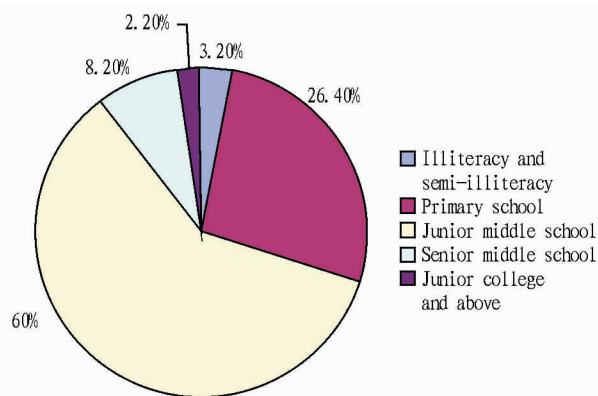
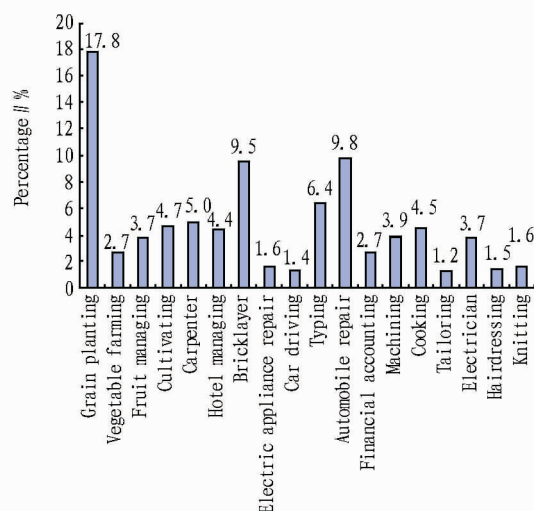


Fig. 1 Structure of farmers' cultural quality

**2.3 Weak market awareness** Farmers should promote their role transition to farmer merchants; cultivate operation awareness; learn basic theoretical knowledge of market economy; understand functions of value laws, laws of supply and demand, and competition laws; grasp certain product marketing skills, such as product development, pricing, and marketing strategies; have certain information receiving and feedback ability, such as market prediction and market survey; adjust production structure and carry out agricultural production activities according to market demand. Closed, conservative, and bad informed, most farmers are apart from open awareness, market awareness, competition awareness and credit awareness. In consequence, agricultural structural adjustment is less than satisfactory, and it is difficult to rapidly realize the objec-

tive of high quality and optimization. At the market, they often show two kinds of tendencies. Some hesitate to move forward or take simple imitation; while the others follow their feeling and have serious short-term actions, or only pay attention to quantity but neglect quality. As a result, it leads to the problem of increase of yield without increase of income. In addition, in the course of large agricultural production, once there are surplus agricultural products, most farmers will fail to actively adjust production capacity in accordance with market changes.

**2.4 Weak skill awareness** New farmers should develop agriculture through science and technology, realize transfer of rural surplus labor, and speed up the urbanization. However, farmers are not adapted to science and technology, and their ability is relatively low in receiving and applying new agricultural technologies and achievements. Agricultural science and technology contribute little to agricultural growth, largely because farmers lack skill awareness. For various reasons, some farmers are not initiative to accept new technologies, so it is difficult to popularize agricultural science and technologies. As a weak industry, agriculture has almost no comparative advantages in current industrial structure. Therefore, the traditional agriculture-oriented thought is gradually abandoned by farmers, and more and more farmers start to take a close interest in the secondary and tertiary industries. For example, survey data of Ningxia (Fig. 2) indicates that agriculture-related demands take a total of 28.9% in the entire structure, while the non-agricultural demands account for 71.1%.



Note: data is selected from rural socio-economic survey team of Ningxia Hui Autonomous Region.

Fig. 2 Structural proportion of demands of farmers' vocational education in Ningxia

**2.5 Weak democracy and legal awareness** Deeply influenced by several thousand years of feudal thought, farmers have weak democracy awareness. Therefore, it is urgent to implement universal legal education, strengthen farmers' democracy and legal awareness through training, help them to grasp general knowledge of laws, guide them to correctly understand the relationship between rights and obligations, ask them to fully enjoy rights, but also consciously perform duties,

expand and develop rural grass-roots democracy, summon up farmers' enthusiasm for participating in village-level democratic management, bring into play model functions of cadres and grass-roots CPC members.

### 3 Multi-channel and comprehensive training schemes

**3.1 Enhancing leadership, making clear objectives and giving top priority to subjects** It is proposed to establish new farmer cultivation leading organ which is in the charge of leaders of the Party and the government and has the participation of leaders of relevant departments; make an overall arrangement of new farmer cultivation works in the area under its jurisdiction, including objectives and tasks, methods and measures, time schedule, teacher staffing, content arrangement, site selection, process management, fund raising, assessment and examination, certificate issuing, job assignment, guidance on starting an undertaking, *etc.* In close conjunction with the requirements of "developed production, well-off living, civilized village culture, clean village environment, and democratic management", it is required to take following points as long-range objective: liberate and develop rural productivity, promote increase of grain yield, growth of agricultural efficiency and increase of farmers' income, beautify village appearance, and pass on and carry forward moral integrity. Besides, we should improve rural school-running conditions and quality of farmer training, to lay a solid cultural foundation for rural material civilization and spiritual civilization construction in accordance with the basic standard of new farmers who are the ones with knowledge, farming technique and management. At the same time of ensuring healthy development of compulsory education in rural areas, it is also required to consolidate education resources, explore potential of local areas, adjust education structure, and encourage various circles of society to start education undertaking, to build a network education system with basic education, vocational education, technical education and special education interdependent on each other.

**3.2 Increasing fund input and perfecting new farmer training system** Financial departments at all levels should include the fund for rural labor training into constant budget items, to increase the support for farmer training. For example, it is possible to take certain proportion out of the fund for agriculture to set up special fund for farmer education. We should encourage economic sectors to invest in special secondary schools and vocational high schools, participate in farmer training and education work, and establish diversified investment input system with government, enterprises and individuals as subjects. Training fund should be provided with a separate account to realize specific fund for specific purpose. With reference to implementing methods of state "Sunshine Projects", we can choose and establish some excellent labor training institutions, and consolidate various social education resources, to form the training system for rural labor transfer. Training institutions should adjust course setting and training direction through closely following market changes and labor demand. Training

subjects should select professional and technical personnel with high quality and ability, being enthusiastic in sci-tech education course of farmers. It is proposed to organize teaching and administrative staff to participate in lectures, further study, and field survey, to constantly improve political quality and professional level of teacher team; encourage sci-tech personnel to implement sci-tech education of farmers, link actual performance of work with promotion, wages and bonus, and post responsibility assessment. In addition, it is required to ensure welfare and social benefits of teachers, improve working conditions, and create favorable environment for sci-tech personnel to launch cultural and sci-tech education of farmers.

**3.3 Focusing on economic development and combining with new socialist countryside construction** New socialist countryside construction is one of major works of government at all levels. Through focusing on central work of government, it is able to win energetic support and help from competent agricultural institutions. It is recommended to take pilot village construction of new socialist countryside in a scheduled way. Then, on the basis of leading agricultural industry in pilot villages, we should assist pilot villages in making development plan for new socialist countryside construction; improve sci-tech and cultural quality of farmers; improve appearance of pilot villages; enhance cohesive and fighting capacity of rural collective; and help farmers in pilot villages to solve difficult problems in agricultural production.

**3.3.1 Improving cultural quality of left-behind farmers.** The important factors promoting rapid growth of grain yield and agricultural productivity are no longer increase of land, labor quantity and stock of capital, but lie in improvement of the knowledge, capability and engineering level. The key to transforming traditional agriculture is to introduce modern agricultural means of production. In this respect, what the government should do is not simply investment in materials, but create multiple cultivation institutions and approaches for farmer investment. On the one hand, it is proposed to focus on compulsory education and make efforts to improve primary and junior middle school education of left-behind children; on the other hand, it is proposed to enhance training of left-behind young and middle aged farmers, especially training of young and middle aged women.

**3.3.2 Promoting migrant workers to return home to start an undertaking.** Promoting migrant workers to return home to start an undertaking plays an active role in establishing and enriching new farmer groups. In this course, government should play a leading role, establish employment service system and information channel, and provide free policy consultation and employment information for migrant farmers and left-behind farmers. Besides, it is required to bring into full play advantages of human resource market and integrate returned migrant workers and left-behind farmers with local enterprises, to provide stock human resource for local enterprises. Government should make policy-related implementation and management methods in line with characteristics of left-behind farmers, and make preferential policies in loan and taxation to encourage and support those migrant workers who want to return home to start an

undertaking.

**3.4 Training by classification to improve overall qualities of different level farmers** It is required to lay out different training objectives according to difference in cultural level and degree of skills, to realize sustainable development of farmer training and constantly improve overall qualities of farmers.

**3.4.1** Classification of training targets. In long-term training, farmers may enter basic class, enhanced class and backbone class according to their quality, grasp of agricultural technologies and speed of accepting new technologies. Which class the farmers should enter can be determined on the basis of their own conditions and adjustment may be made according to their learning schedule.

**3.4.2** Classification of teachers. Apart from the above classification, it is also possible to classify according to teachers. For example, excellent students in enhanced class can teach farmers in basic class; excellent students in backbone class can teach students in enhanced class; if necessary, it is possible to invite professional teachers and experts to teach courses of enhanced and backbone classes. In this way, it can not only save cost for training class, improve technical level of different students to a great extent, but also enhance their confidence in learning new technologies, and attract more farmers to learn skills and culture.

**3.4.3** Classification of training contents. For trainees in basic class, some cultivation technology for crops planted on a large scale and planned to spread and develop in local areas are taught. Considering the characteristics of trainees in basic class with low educational level and difficulties in mastering theoretical knowledge, operating teaching on site can be adopted as far as possible when the trainees are trained so that the trainees can accept easily. Meanwhile, the trainees are taught in grasping the demand of crops for fertilizer and water in different growth periods, prevention from crop diseases, method for basic prune of crops as well as flower and fruit retention, *etc.* For the trainees in enhanced class, it needs to indoctrinate the trainees with some theoretical knowledge of corresponding technology so as to make them know how to use theory to direct the practice and summarize the production law from practices and train their self-taught abilities. For the trainees in backbone class, the focal points of teaching is to introduce new varieties, new agricultural technology and production management method to them, and what's more important is to guide them to get rid of the thought of simply valuing production, to form an overall thought of laying equal stress on speed, scale, quality and benefit of agricultural development.

**3.5 Combining many cultivation ways to improve overall training effect** School education is the basis of improving farmers' quality and it is required to raise the popularization of education. Besides, it should improve teaching types and methods, pay attention to practicability and pertinence of education and training. Especially, it is proposed to bring into full play functions of agricultural colleges and universities, and realize

combination of theory and practice. Due to lack of applicable laws and regulations, enterprise training is greatly different in different regions and enterprises and restricted by traditional model. Consequently, the social acceptance of enterprise training is relatively low. However, actual surveys have indicated that enterprise training model has great potential and is favorable to transformation of traditional farmers to non-agricultural industries, and favorable to professionalization of farmers. Professional institution training is authoritative and has unique advantages, on which it is possible to establish unified skills certification system and qualification certification, for example, launch green certificate project. With advantages of effectiveness and easy to command, media dissemination and model education also play an important role in cultivation of new farmers. On the basis of leading role of government, professional institutions can cooperate with enterprises through order education, to improve pertinence of training and realize triple-win of enterprises, professional institutions and farmers.

It is required to stick to the principle of being "close to industry and close to farmers", suit farmers' convenience, ensure training effect and make efforts to satisfy farmers through training according to demand, video teaching, expert consultation, on-the-spot guidance, and bringing science and technology to the countryside. In particular, it is proposed to enhance following ways of training. Firstly, model training with typical examples. Through building agricultural sci-tech model park and base, set up typical ones of agricultural sci-tech development, establish platform for transformation of agricultural sci-tech achievements, and guide farmers to learn science and technologies. Secondly, on-the-spot guidance. Technical personnel should go to field to explain how to operate to farmers. Thirdly, media dissemination. It is suggested to combine traditional electronic media and printing media with modern media to provide farmers with modern and professional knowledge training. Fourthly, skilled person training. It is required to cultivate agricultural skilled people in line with actual demand of agricultural and economic development, and finally realize common prosperity through their role in affecting and driving surrounding farmers.

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