

A Study on the Predicament of Family Farm in Our Country and Its Solving Measures -- Taking Yongbin Family Farm as an Example

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Abstract: *In the actual development process, the family farm in our country is mainly faced with the problems of low specialization, insufficient financial support, and lack of social service system. These problems have a negative impact on the development of family farms. In the specific work, we should take into account the current situation and difficulties of the development of family farms, focus on raising the level of farmers' specialization, carry out reasonable financial reform, and perfect the relevant social service mechanism, to ensure that the new era of the environment to find a better way forward.*

Keywords: *Family farm, Solution, Dilemma*

1. The dilemma in the development of family farms

1.1. Financial reform is weak

At present, the family farm in our country is in the early stage of development, financing is difficult and needs financial support, but most banks do not set up corresponding loan business for the family farm operators. Family farm operators lack sufficient funds to transfer land. At the same time, the relevant departments have not prepared a sound agricultural insurance system, the government departments to give very little subsidy. In the long-term decentralized management environment, the peasant household management level is low, in the agricultural production lacks the certain disaster-resistant ability, very easy to appear the loss phenomenon. The unwillingness of insurance companies and financial institutions to provide services to farmers has made it difficult for farmers to access adequate financial funds. In the aspect of financial support for the development of family farms, due to the lack of financial reform, the financing channels and financing mechanisms can not be improved according to the needs of the development of family farms, it is difficult to provide sufficient funds for the development, construction and innovation of family farms.

1.2. Land transfer efficiency is low

Land is an important foundation for the development of family farms. At present, the efficiency of land circulation is low in our country, which has a negative impact on the scale development of family farms. Compared with the western developed countries, the scale of family farm in the middle and east of our country is very small [1-2]. Although our country to solve this kind of problem has issued the related policy, but the concrete operation effect is poor, it is difficult to promote the land circulation efficiency [3]. It is difficult to promote the scale development of family farm under the condition of low efficiency of land transfer. If we can not change the land is too scattered, lack of scale of the status quo, it will lead to serious economic development problems and agricultural standardization development problems.

1.3. The specialization of rural households is relatively low

In general, the combination of family farm labor and production machinery and equipment should be set according to the needs of each family. From the point of view of commercial production, it needs to be adjusted dynamically in the light of market changes. This requires operators with professional management skills, insight into market conditions and Everything Changes adjustments to their business models [4]. At present, many managers and farmers have not received professional education, do not

understand the family farm management model, concept, lack of professional knowledge and good management concept. The transfer of rural labor force with high professional quality to cities leads to the shortage of professional personnel in family farms, which is not conducive to the standardization and specialization of Management. The main reason for the low professionalism of farmers is that most farmers do not pay attention to the development of family farms and lack the enthusiasm to learn professional knowledge and advanced skills, at the same time in daily life, the lack of learning all kinds of knowledge channels and platforms. In the long run, the lack of specialization of farmers will do harm to the construction and development of family farms [5].

1.4. There is a lack of a sound social service system in agriculture

The agricultural social service system provides services for family farms and can better safeguard the legitimate rights and interests of farmers. At present, the service system in our country is lagging behind, which can not ensure the service level and meet the needs of the family farm in the development. The current service system does not clearly define the functional requirements of the service organizations, does not unify the relevant standards, and most of the service organizations are lack of professionalism, which makes it difficult to provide effective and diversified services for the operation and management of family farms, it is difficult to solve the family farm-related problems fundamentally.

2. Yongbin family farm industry difficulties and solutions

2.1. Introduction to the farm

Yongbin farm in Zhenjiang's Jurong Houbai town is located on Houmao Road, which is bordered by Yanteng Farm and beautiful Huahai Road. Farm owner Mr. Tu Yongbing was born in August 1975, junior high school education, Agricultural College, professional farmers. Yongbin Farm's main business is farm food, peach sales, grape sales, yellow peach sales, kiwi sales, free-range chicken and egg sales, also provide picking business. The farm is run by Mr. Tu Yongbing and his wife, Ms. Wang Yufang. In 1992, Mr. Tu began to devote himself to fruit tree planting, and now has nearly 30 years of planting experience. Yongbin farm now has 40 mu of land under centralized management. The main feature of the farm is that it has very good facilities, with high-quality cultivation shed, warehouse and cold storage, the greenhouse also has insect nets and sticky insect board, and supporting agricultural tools.

2.2. The reasons for choosing agriculture

Economic pressures forced Mr Tu into agriculture. After graduation, Mr. Tu did not have a stable professional employment direction, under the pressure of the family economy, he began to plant fruit trees into agriculture. Technological dependence drove Mr Tu into agriculture. Because his brother-in-law was a researcher at the Institute of Agricultural Sciences in Zhenjiang, he was able to provide him with technical support, which was the main reason for his involvement in agriculture. There is a market for fruit and high returns. He chose grapes and peaches as his main business because peaches cost less and yield more. In the early cultivation production, Mr. Tu found that the fruit market demand is very large, especially the grape is very easy to sell, coupled with Mr. Tu planted high-quality grapes, often in short supply. But the cost of growing grapes is high, so Mr Tu has added a relatively low-cost peach crop.

2.3. How to get rid of the agricultural predicament

2.3.1. Industry Choice

An important choice before agricultural production is the choice of industry, choosing an agricultural direction is an important step before starting production and management. Mr. Tu in the choice of agriculture for the vast number of farmers to provide a reference for example. In 1992 Mr Tu started growing grapes because he found there was a big market for them and his brother-in-law could provide him with technical support, and they sold well. But once the grape market was not good, the high-cost grape cultivation would face losses, so he chose the low-cost peach cultivation again. First, he could use the peach to cover the bottom for himself, second, peach cultivation has also enriched his product range. Then slowly expand the industry, kiwi, yellow peach also planted up. Not only that, Mr Tu also kept free-range poultry, launched a farm-based vegetable service, providing farm-picking services. Mr. Tu's agricultural industry choice from the beginning of a single grape growing slowly to the direction of diversification, enrich the variety of agricultural products, optimize the agricultural structure.

2.3.2. Production technology

Agriculture is an industry that needs technology, only with technology can produce high-quality agricultural products. The greenhouse production has provided the farm with innumerable conveniences. Natural factors have a great impact on fruit trees, rain, bird pests, diseases and pests, light, temperature and so on are the main difficulties encountered before greenhouse production. After the construction of the shed, the rain obviously reduced a lot of disasters, do not worry about the rain caused by falling fruit and other phenomena, because the shed has insect nets, insect boards, bird nets, so insect and bird disasters also significantly reduced. The disease can also be avoided to a considerable extent by enhancing the air permeability in the greenhouse. The height of the grape frame in the greenhouse is not high, so it is convenient for manual management and picking.

Application of integrated production technology of fertilizer and water. The integrated technology of water and fertilizer refers to the new agricultural technology that combines irrigation and fertilization. Water-fertilizer integration is the use of pressure system (or natural terrain drop), soluble solid or liquid fertilizer, according to the soil nutrient content and crop types of fertilizer laws and characteristics of the need, mixed fertilizer and irrigation water together, after the water and fertilizer are mixed by the controlled pipeline system, drip irrigation is formed by the pipeline and the dripper, and the growing area of the crop root system is infiltrated evenly, regularly and quantitatively, at the same time, according to the characteristics of fertilizer requirement of different crops, the soil environment and nutrient content, the water requirement of different growing stages of crops, according to the law of fertilizer requirement, we designed the requirement of different growth period, and provided the water and nutrient to the crop directly. The advantage of this technique is that the efficiency of irrigation fertilization is fast and the nutrient utilization efficiency is improved. It can avoid the problem of volatilization loss, slow dissolution and slow application of fertilizer in the drier topsoil layer, especially the problem of volatilization loss of ammonium and urea nitrogen fertilizer in the surface soil layer, it can save nitrogen fertilizer and benefit environment protection. Therefore, the water-fertilizer integration technology makes the fertilizer utilization rate increase greatly. According to Zhang Chenglin, a South China Agricultural University professor, the irrigation system saves 50-70% of fertilizer use compared with conventional fertilizers and significantly reduces water pollution caused by excessive fertilization in protected vegetables and orchards. Because the integrated technology of water and fertilizer can satisfy the need of "Eating enough" and eliminate any symptom of deficiency of element through artificial quantitative regulation, therefore, the goal of good yield and quality of crops can be achieved in production.

Application of drip irrigation technology. Mr Tu's farm uses drip irrigation. Drip irrigation techniques do not sprinkle or channel water flow, only let water slowly drip, and in the role of gravity and capillary into the soil. Drop in water near the roots of the crop, so that the soil in the main root zone of the crop often maintain an optimal water content. This is an advanced method of irrigation. Drip irrigation is the most effective water-saving irrigation mode in arid and water-scarce areas. Its water use efficiency can reach 95%, and it has higher water-saving and yield-increasing effect than other irrigation methods. The use of drip irrigation to grow vegetables, flowers and other Cash crop in greenhouses can generate higher economic benefits, help develop the rural economy of the Western Region, and solve the problem of poverty alleviation and prosperity in poor areas. Save Water and labor, increase production and income. Because water does not move in the air during irrigation, does not wet the leaf surface, nor does it evaporate on the soil surface other than the effective wetting area, so the amount of water directly lost to evaporation is the least; it is easy to control the amount of water, do not produce surface runoff and deep soil leakage. It can save water 35% ~ 75% than sprinkler irrigation. It opens up a new way to realize water conservancy in mountainous areas with little water source and water shortage. Because there is not enough water supply between plants, weeds are not easy to grow, so the interference between crops and weeds fighting for nutrients is greatly reduced, reducing the use of weeding. Because the crop root zone can keep the best water supply and fertilizer supply, it can increase the yield.

Standardized use of pesticides. Mr Tu points out that they use pesticides very regularly. The role of pesticides is pest control, the second is to prevent bacteria. But Mr. Tu rarely uses pesticides, and he has his own methods. For insect pests, Mr. Tu use insect nets and armyworm board and other physical means to control insect pests. For bacteria, Mr. Tu will often to the greenhouse ventilation, through strengthening the greenhouse permeability, control greenhouse humidity to prevent bacteria. He pointed out that he does not use herbicides, all of the use of artificial weeding, because of the impact of herbicides on soil quality.

2.3.3. Production management techniques

For farm management, labor is a problem, because Yongbin Farm's labor is basically local people,

older, and sometimes there will be labor shortages. So Mr Tu will hire permanent workers and keep skilled ones. In terms of safety management, Mr. Tu will also provide reliable and complete agricultural production equipment. In production, mainly with workers to carry out fruit and vegetable pruning, pruning process to be carried out three times, workers first carry out the overall pruning, and then through pruning to control the spatial layout of grapes, fruit type. On the use of fertilizer, Mr. Tu will open ditches to fertilize, using their own exclusive fertilizer formula: straw paving, the use of chicken manure and other organic fertilizer and crushed leaves and weeds mixed. The fruits grown in this way are naturally harmless.

2.3.4. Selection of varieties

In the choice of varieties, Mr. Tu requirements are delicious good kind, mature cycle to stagger. Mr. Tu's choice of grape varieties is mainly summer black, Kyoho, Sunshine Rose, your son. Peach varieties are mainly Baifeng, fxiao. Yellow Peach is mainly jinxiu. Excellent varieties are derived from excellent genes, good-looking color, suitable hardness and softness, high sweetness, aroma, and easy to grow. For the advantages of varieties I take the example of summer black: summer black grape is an excellent variety, with disease resistance, high yield, early maturity, storage tolerance, good taste and so on. Young branches yellowish green, leaves large, light green, densely hairy. Most 4-lobed, margin serrate. Mature buds reddish brown, winter buds are large and full. After hormone treatment, the ear was cylindrical or cone-shaped, and the grains attached tightly, the ear shape was neat, the average weight of the ear was 670 grams. Fruit round, closely arranged, single fruit weight 8 grams. The peel is thick, dark blue, fast coloring, consistent coloring, thick powder, beautiful appearance. Crisp pulp, reddish juice, sweet, disease-resistant, excellent quality. The flower bud differentiation rate and bud germination rate were above 85%. Garden the first year, the second year can hang fruit, yield up to 2250 kg per mu. The growth characteristics of xihei are similar to but better than that of Kyoho. High sugar content, better than the general varieties of storage and transport capacity, in the transport process is not easy to burst due to extrusion. From germination to fruit ripening 100 ~ 105 days. Fruit began to soften, spraying 1 time grape early-ripening sugar color, 7 ~ 10 days ahead of market, can greatly increase the commodity value. This shows how important genetically superior grapes are to fruit growers.

Mr. Tu also has something to say about the elimination of varieties. Because of the high management cost of the grape variety, difficult to build, yield does not go up, Mr. Tu intends to eliminate this variety. The sweetness of each variety, Mr. Tu use the instrument strict control, sunshine rose must reach 18 sweetness above, must reach 17 peak above. So the selection and management of varieties is very important for a farm.

2.3.5. Diversification of sales methods

Mr. Tu's products in addition to pull to the market to sell, order, but also use e-commerce and on-site picking. Compared with the traditional sales, the advantages of online sales are obvious, online sales to reduce the cost of sales for the farm to bring more customers. Mr. and Mrs. Tu used the form of network friend circle to promote their farms and commodities, attracting many consumers. Many customers from other provinces will also ask Mr. Tu to send their products by post. Mr. Tu also uses the free-market method of on-site picking. Mr. Tu asked consumers not to destroy farmland, to regulate into the field. For grapes, a fruit whose customers can not tell how ripe it is, Mr. Tu offers to help.

2.3.6. Product certification

The quality certification system of agricultural products is a certification body for the quality of agricultural products in accordance with the relevant standards and certification regulations of the state and local governments, after scientific and reliable monitoring of the agricultural production environment, technical regulations and product quality in the region, it is confirmed that it conforms to the relevant grade standards, to provide effective access to the corresponding level of market access credentials of a local certification implementation system. Issue certificates for products and production bases that are deemed to be qualified. Pollution-free agricultural products refer to the environment of the producing area, the process of production and the quality of the products meeting the requirements of the relevant standards and norms of the state, high-quality agricultural products and their processed products that have been certified and qualified and are allowed to use the pollution-free agricultural product mark.

At present, Mr. Tu's agricultural products are certified as pollution-free. Pollution-free agricultural products are produced and processed in a clean and pollution-free ecological environment by adopting pollution-free cultivation (feeding) technology and its processing method, in accordance with the technical specifications for the production of pollution-free agricultural products, high-quality agricultural products and their processed products whose safety conforms to the national standards for

non-pollution agricultural products. The production of pollution-free agricultural products is to ensure the health of the public consumption of agricultural products and to improve the safety and quality of agricultural products. In a broad sense, pollution-free agricultural products, including organic food (also known as eco-food), green food and other non-polluting safe nutritional food. Consumers have a higher level of trust in products that have agricultural product quality certification, so agricultural certification for farmers is also very important for farmers. Mr. Tu said he would further green certification of agricultural products.

2.3.7. Actively seek policy support

Mr. Tu has participated in a number of government-subsidized programs, such as provincial-level programs: efficient facility agriculture construction, and circular agriculture in orchards. Agricultural facilities are the most heavily subsidized. The cost of one mu of greenhouses needs 50,000 yuan, it is difficult to do without policy support. Accept agricultural subsidy projects also need to carry out training, extension of experience, Mr. Tu has led more than 40 households in agricultural production. Not only have they received financial assistance, technical guidance, but also led everyone to get rich.

3. Benefits of family farms and future development plans

3.1. Personal aspects

Mr. Tu has been involved in agriculture for nearly three decades, and his farm has grown to 40 acres, with annual sales of 350,000 and annual net profits of one hundred thousand per cent, excluding costs. For him personally, agriculture has been his settled industry, agricultural production so that he industriously rich.

Mr. Tu is already a professional farmer with specialized agricultural knowledge. For Mr. Tu, who has a junior high school degree, agricultural production has brought him many skills and knowledge. Under his own groping and the guidance of agricultural experts, his farm is getting better and better, more and more knowledge and skills. Mr. Tu also uses his spare time to participate in the study of Agricultural College, using his professional knowledge and experience to guide many farmers into agricultural production.

3.2. Social aspects

First, Mr. Tu's farm case is a replicable and replicable case. His personal experience is highly replicable and has a positive effect on encouraging more farmers to develop agriculture. Second, to a certain extent, Mr. Tu's farm production and management of the region's employment. Third, Mr. Tu used his skills and experience to help dozens of nearby farmers into agricultural production and management, promoting the development of local agriculture.

3.3. Planning for the future of family farms

Mr. Tu pointed out that, first, the current agricultural production of the employment of workers generally present high age, the number of workers is small difficulties. Agricultural workers tend to be in their 70s, and often can not be hired when the farm is busy. Fewer young people are engaged in agricultural production and management. Mr. Tu pointed out that agriculture needs more young people to enter, agriculture needs fresh blood injection, should encourage young people into agricultural production and management. Second, small-scale farmers lack financial support. For example, in the construction of greenhouses, high-quality greenhouses cost 50,000 yuan per mu to build. More farmers can not afford such high prices and choose small sheds or even more rudimentary greenhouses, some don't even build greenhouses. The shortage of funds makes it impossible for farmers to invest in agricultural production efficiently and then expand production, which is the biggest weakness that ordinary farmers encounter.

For the next step of development, Mr. Tu pointed out that he will enrich the varieties of peach, strengthen farm management, produce higher-quality agricultural products. Mr Tu is optimistic about the future. He believes that with his hard-working hands and knowledge and skills, he can do a good job in agriculture. In the future, high-quality fruit will be more and more popular in the market.

4. The way forward for the development of family farms across the country

4.1. Enhanced financial support

At present, in order to effectively solve the difficulties in the development of family farms in our country, we should increase the financial support, perfect and innovate the agricultural financial system, and perfect the policy system, to provide sufficient financial support for the development of family farms. First of all, we should set a reasonable proportion of subsidies, in the implementation of interest-free loans or lower interest policy, reduce the cost of interest loans to farmers and enhance the enthusiasm of financing. Secondly, the establishment of crop insurance system, a reasonable forecast of agricultural market conditions, the creation of price support mechanism, enhance the family farm market risk prevention and control and resist the ability. Thirdly, we should use network information technology to create a platform for agricultural products, improve the risk assessment system, innovate financial subsidies, improve the income of family farms, and ensure their operating efficiency and development level.

4.2. To enhance land transfer efficiency

The low efficiency of land transfer is the key factor that restricts the development of family farm. In this case, it is suggested that the relevant departments should improve the system of land transfer in the light of the development needs of family farms, so that farmers can better enjoy the benefits of land. The relevant government departments need to improve the rural social security mechanism to provide life security for the rural masses, so that farmers can voluntarily transfer land. This can speed up the transfer of land, the soil together to enhance the scale of family farms.

4.3. Enhancing the professionalism of farmers

The specialty of farmers has a direct impact on the operation and management of related family farms. In the development of family farms, emphasis should be placed on improving the professionalism of farmers and enhancing the effectiveness of management. First of all, operators need to master a certain degree of professional knowledge and management methods, the concept of family farm, management and other in-depth understanding, effective implementation of management work. Secondly, education and training activities for family farm operators will be carried out to train relevant personnel in the application of agricultural technology and marketing capabilities. Organize farmers to visit family farms with mature management model, learn excellent management experience, improve the professional management of family farms, promote the rapid and stable development of family farms. In order to strengthen the specialization of farmers, it is suggested that relevant departments should provide training services for farmers regularly, and adopt network training and on-the-spot training to continuously enhance the specialization of farmers and enhance the standard level of operation.

4.4. The mechanism of agricultural social services shall be improved

At present, the western developed countries in the family farm management and development has made good achievements. In the process of seeking the way out for family farm development, our country can learn from other countries' excellent practices, establish perfect agricultural social service mechanism, and promote the effect of production and management. From the actual situation, the family farm to carry on the individual management is unable to satisfy its own development needs. Relevant departments shall, in light of the actual situation, create diversified social service working mechanisms and systems and create favorable operating conditions. Family farm operators should introduce better varieties and more advanced technology to improve the quality and level of family farm production. The authorities also need to focus on improving infrastructure, providing financial subsidies to operators, guiding and developing agricultural social services and promoting the development and progress of family farms. In the service system of agricultural socialization, farmers should be encouraged to unite with each other to create diversified, systematic and multi-level cooperative organizations of farmers, to provide farmers with low-cost, convenient and effective business services covering pre-production, production and post-production, so that farmers in the mutual joint formation of a good family farm business model and development mechanism.

5. Conclusion

In the course of the development of family farms in our country, we are faced with such difficulties as the lack of professionalism and good financial support, which are not conducive to the good development of family farms. In view of the difficulties in the development of family farms, we should improve the professional level of relevant personnel, provide sufficient financial support, improve the mechanism and mode of agricultural social service, and perfect the management system of family farms, in the new era, the development level of family farm management is constantly strengthened.

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