

Study on Problems Faced by Xinjiang Organic Producers and Solutions

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Summary

Presently the behavioral features of the organic producers could be concluded as the fact that they are quite confident of the prospects for organic agriculture, while heavily dependent on the guidance and support of the local governments; are in great demand for technological innovation, while in the distinguished intimacy and poor pricing capacity. Such problems as low economic benefit, the imperfect marketing network and serious external economy, are threatening the healthy development of organic agriculture in Xinjiang. In this essay, it is suggested that the government should, taking full advantage of its rich natural resources, pay great attention to the organic development in the local region; establish an efficient organic marketing network; apply the innovation mechanism as a proper compensation for the external economy; promote organic circle economy.

KEY WORDS: organic agriculture; problems; policy inspiration; Xinjiang

1. Introduction

In December, 2003, the county was honored as the Model County for Organic Food Production by Xinjiang Environmental Protection Administration. In order to promote the development of organic agriculture smoothly, the county established a leading team for the construction of the Model County and an office in charge of the supervision and administration of the organic production in this county, and then all the townships owned their leading teams and administrative institutions correspondingly. Furthermore, the county improved the natural environment for organic agriculture, organized to apply for the certification of the organic products and production, and laid down the corresponding technical specifications and procedures in the production. In between 2004 and 2005, 8 agro products were successfully certificated. At present, the organic products in scaled production in the county include LaoMao Lake late-maturing sweet melon and TuKuo salty lake mutton, whose production has initially formed the pattern of "Enterprise + farmer". And the products are purchased, inspected, dispatched and packed by the enterprise and then sole in the specialty stores.

Taking the case of the organic agriculture in Yiwu County, the essay is intending to analyze the behavioral characteristics of the producers, the economic benefit of the organic production; furthermore illustrate the problems faced by the producers and make some recommendations for the development of organic agriculture in Xinjiang. All the data in this essay are taken from the survey in Yiwu County taking place in January, 2007. Among all the 57 effective questionnaires, 21 are for the producers of LaoMao Lake late-maturing sweet melon at Xikan Second Village; 20 for the producers on the verge of the transformation into the organic ones at the newly-built villages and the development zone; 10 for

the traditional producers; 6 for the breeders of TuKuo salty lake organic sheep at the Salty Lake Township.

Through the survey, the essay provides a basic idea of the organic development in Yiwu County. Based on it, the second part of the essay makes a comparative analysis on the behavioral characteristics and the economic benefits; the third part tells us about the problems and the possible reasons; the final part illustrates some policy recommendations for the organic agriculture development in Xinjiang.

2. Analysis on behavioral characteristics of the organic producers in Yiwu County and economic benefits

2.1 Behavioral characteristics of the organic producers

Survey shows the following behavioral characteristics:

2.1.1 Heavily dependent on the local government and have strong intimacy preference

In 2003, the farmers in Xikan Second Village began producing LaoMao Lake late-maturing sweet melon, the earliest organic sweet melon producers in Yiwu County. The farmers in the newly-built villages and the development zone began producing LaoMao Lake late-maturing sweet melon in 2006. In Table 1, the percentage of the chosen producers because of the promotion activity by the government is 38%.

Reasons Farmer Sources	Government promotion	Good economic benefit	Follow others
Xikan Second Village	38	35	27
Newly-built villages & Development zone	17.4	60.9	21.7

Considering the fact that in 2003 the producers were unable to evaluate the economic benefit according to the production situation at that time, the producers formed their judgment on the organic production mainly affected by the governmental propaganda. Therefore, it can be concluded that the earliest organic producers of the melon are encouraged by the local government.

In Xikan Second Village, 27% of the farmers take the attitude of following others to choose the organic production; but three year later, in 2006, still 21.7% in the newly-built village and the development zone are doing so. This indicates that the farmers' attitude of following others is still very strong, and in these places, the influence of the government is weakening, because the farmers in these places have noticed the economic benefits brought to the Xikan Second Village. The percentage of the farmers choosing to produce the organic melon is 60.9%. It is shown that the farmers, constrained by their capacity of developing themselves, strongly depend on the government, and as the typical risk escapers, the farmers have the distinguished intimacy preference.

2.1.2 Strong technical demand

In Table 2, the farmers from both the sources are in strong demand for organic production technology. Most of them have the "little" knowledge of the relevant technology and their technical support is

mainly from the technical promotion agencies in the government. Notably, in the newly-built village and the development zone, the farmers knowing nothing about the organic production technology are 18.5% more than the farmers of the same kind in Xikan Second Village and 41.7% of the farmers learn and master the relevant technology through self-education. From this distinction, it can be found that the newcomers in the organic production need more technical instruction, but the technical service from the government is inadequate.

Table 2 Demand and supply of organic production technology (%)

Farmer sources \ Item	Degree of knowledge on technology			Technical source		Demand for technology	
	Very well	little	Not at all	Self-education	Governmental technological service	Yes	No
Xikan Second Village	25	65	10	19	81	5	5
Newly-built village & Development zone	16.7	55.8	28.5	41.7	58.3	100	0

The same idea could be shown in the aspect of the satisfaction degree of the farmers on the technological service. Table 3 indicates that the farmers are dissatisfied of the service of the agricultural technology servants, esp. in the newly-built village and the development zone, 15% of farmers directly express that the servants could solve any practical technological problems.

Table 3 Farmers' evaluation on the technological service (%)

Farmer sources \ Item	Can solve the practical problems	Sometime can, sometime can't	Can't solve any practical problems
Xikan Second Village	52	48	0
Newly-built village & Development zone	45	40	15

It is shown that the producers have a strong technical demand, but the technical supply from the government is relatively inadequate, esp. that for the new organic producers is declining.

2.1.3 Singular selling mode and poor pricing capacity

Table 4 and 5 show that the prevailing selling mode for the organic producers in Yiwu County is still on-the-site bargaining, which has been lasting for more than 20 years in China. Although, practically, this mode could embody the property relationship under the household contract responsibility system and guarantee that the producers could completely own and handle their output, the defects of the system are becoming obvious.

On the micro scale, when the Shortage Economy in China is over, this selling mode is placing the farmers in the situation of a seller's market. Each producer is only a price taker and do not have a powerful pricing capacity. This is the reason why more than 55% of the farmers are not satisfied with the trading price. On the macro scale, the mode is making the Chinese agriculture in the contradiction between the small-scale production and a big market.

Table 4 Selling channels (%)

Item \ Farmer sources	On-the-site trading	Whole sale	Through intermediate service	Through leading enterprise
Xikan Second Village	76.9	7.7	15.4	0
Newly-built village & Development zone	73.9	4.4	17.4	4.4

Table 5 Selling mode and price satisfaction degree (%)

Item \ Farmer sources	Selling mode		Price satisfaction degree	
	bargaining	Order price	satisfied	dissatisfied
Xikan Second Village	90	10	40	60
Newly-built village & Development zone	100	0	45	55

2.1.4 Producers hold an optimistic attitude toward the prospects of organic agriculture

Among the subjects in Xikan Second Village, 70% think that the demand for organic products will be on the rise and the road to organic agriculture is hopeful, with the increasing requests on the life quality; only 30% think it is still gloomy. Meanwhile, among the subjects in other two places, 90% of the farmers think the future for organic agriculture is bright; only 10% are not clear about it. From the above, we can see that the expectations from the organic producers are inspiring.

2.2 Analysis on costs and benefits deriving from organic products

2.2.1 costs and benefits deriving from organic sweet melon

Survey shows that the organic sweet melon producers, compared to the traditional ones and those in the transformation into organic producers, have 25% and 24.52% , respectively, less income per hectare, and 40% and 43%, respectively, less profit per hectare. The main reason is low yield and high total cost. (See Table 7) Although the price of the organic sweet melon is one Yuan higher than other sweet melon, the margin can not offset the loss because of the decline of the yield, profit and income. The total cost per hectare of the organic sweet melon is 1.6% higher than the traditional sweet melon, because of the increase of field labor cost and the manure cost when planting the organic sweet melon.

The costs in these two aspects are 109.46% and 190%, respectively, higher than that of the traditional sweet melon.

Table 6 Comparison of the benefits between different sweet melons

Types Items	Organic S.M	Transformational S.M	Traditional S.M.
Total cost (Yuan/ha.)	17115	18345	16845
Yield (Yuan/ha.)	22500	30000	32190
Price (Yuan/ha.)	1.35	1.35	1.25
Income (Yuan/ha.)	30375	40500	40245
Profit (Yuan/ha.)	13260	22155	23400

2.2.2 Cost and benefit of the organic sheep

The production of the organic sheep in Yiwu County depends on the natural pasture and the traditional nomadic pattern. For the herdsmen, there is no technical obstacles in front of them for organic production and impact on the change of the production patterns. The production of Tukuosalty lake mutton brings a positive brand effect and so stimulates the sales of the mutton in the whole county. The price of the mutton in Salty Lake Township in the county ranges from 13 Yuan/kilo to 19 Yuan/kilo, averaging 16 Yuan/kilo. After packaging, the price rises to 30 Yuan/kilo.

3. Problems faced by the organic producers in Yiwu County

3.1 Low economic benefits

As mentioned, the benefits from the organic sweet melon are much lower than that of the traditional sweet melon. As the producers, who are always pursuing the maximum benefits, their rational choice is to abandon the organic production and divert to the traditional production. However, the survey shows that quite a lot of farmers, esp. in the transformation period, in practice, claiming that their products are organic while they are still utilizing a certain amount of chemical fertilizer in the production. By doing so, they could benefit from the higher price of the labeled organic products and good sale prospects, and at the same time, would not reduce the yield. There are two reasons for this : 1. the consistency of the aims of both the government and the farmers. For the government, its goal is develop the production and increase the farmers' income. For the farmers, it is the benefit maximization. With the same objectives, it is sure that the implementation and inspection of the organic production procedures will be weakened. 2. the traditional selling mode. The bargains on the site of the field make it difficult to effectively inspect the intrinsic quality of the products. Due to all these, the speculative behaviors of the farmers are allowed and prevailing.

3.2 It is hard for farmers to benefit from the organic agriculture

60.53% of the subjects in the survey think it is difficult to sell the organic products. And there are mainly two difficulties.

(1) difficult to the price acceptable as the organic products

Due to the immature organic market system and marketing network, the scattered farmers are in the inferiority when bargaining. The buyers are asking for the price for the traditional price although they are attracted by the brands of the organic products.

(2) In the mode of Enterprise+ farmers, the relationship between the enterprises and farmers is like the one between the buyers and sellers. The company is taking the property right of the brand, for example, Tukuó salty lake mutton, and so take most of the benefits.

(3) Serious external economy

The certificated area of the LaoMao Lake late-maturing sweet melon is only about 235 hectares. The brand of Tukuó salty lake mutton is only used in Salty Lake Township, or the sheep in the neighborhood villages, after the inspection, processing and package by the company, could be labeled with the brand. The imperfect organic market and the defected market mechanism of self-inspection and self-perfection make the government take the responsibility of inspection and administration. But the cost of inspection and administration is rather high and the initiative is weak. In this case, the governmental inspection and administration are inadequate and leave ample room for speculation in the eyes of the organic producers. In Yiwu County, almost all the sweet melon producers claim their products are organic and all the sheep breeders are claiming their mutton are in the brand of Tukuó organic mutton. This external economy is spoiling the benefits of the real organic producers and furthermore threatening the development of the organic agriculture.

4. Inspirations on the development of the organic agriculture in Xinjiang

In Xinjiang, a big agricultural province in China, the traditional and modern production modes are co-existing. From 1998 on, in the premise of the constructive surplus of agro product supply in China, the competitiveness of the agro products in Xinjiang, because of its special geographical location, far away from the main consumption markets and centers, is not strong and is blocking the increase of Xinjiang farmers' income. The essay thinks that developing unique agriculture and organic agriculture is the way to get Xinjiang agriculture out of trouble. From the development of organic agriculture in Yiwu County, we can find some constructive inspirations:

4.1 Taking advantage of rich natural resources, developing organic agriculture.

Because of its special geographical location the terrain, Xinjiang is in the good position of developing the organic agriculture. Taking its advantages of rich natural resources, Xinjiang may find opportunities to mend the traditional production mode so as not only to meet the technical demand of the farmers, but to suit their capability of absorbing the proper technologies in the present phase of the development.

4.2 Establishing an organic product marketing network

It helps to enhance the power of self-inspection and self-development in the market, regulate the organic market and promote the development of organic agriculture. What is needed is to perfect the certification system and improve the credibility of the producers and traders; reinforce the publicity of

the organic products and organic agriculture, develop the consumption market; increase specialty stores and counters, and the degree of acceptance and trustworthiness of the organic products in the market.

4.3 The leading role of the government

With certain properties of the public economy, the organic agriculture needs the government to play a unique role and take special responsibilities in the development of organic agriculture, which include: (1) to lay down the standards in the organic agriculture, set up the systems of inspection and monitoring so as to have an overall supervision and administration on the whole process. An effective certification and reimbursement system will guarantee the quality of the organic products and prevent the violators. (2) to support the technological research and development. Through different target projects, the researchers could completely learn the technologies on seed breeding, planting, storing and processing of the different crops in different areas, and go on with the work of training, demonstration and promotion. (3) to ascertain some regions for developing organic agriculture and place them on the list of important places with the special attention to environmental protection. The focus is the surrounded areas and the main threats are polluted water and air. (4) to undertake and share some transaction costs. On one hand, the administrative agencies should periodically release the information about the organic agriculture, such as the producers, the products and the market; on the other hand, the government should take some favorable policies on the production and sales of the organic products, for example, tax deduction and subsidies.

4.4 Compensation for externalities

As for the external economy deriving from the organic agriculture, the government should compensate so much as to assure the benefits of the producers in favor of the organic agriculture. The compensation principles should be “Whoever benefits from it should pay for the compensation. That is, if the beneficiary is the public, the government should pay. The externalities in the aspect of the environment should be compensated by the governments located in the benefited regions. If the region is in a county, the government in this county should compensate; if it is multi-regional, the compensation could be shared after the negotiation between the county governments.

4.5 Developing organic circle economy

Follow the circle economy principles of plant production, animal conversion and microorganism reduction to realize the coupling development between the different industries; pursue to establish the circle economy chain to extend the industries. Under circle economy mode, the organic agriculture will certainly optimize the industrial construction, promote the industrial upgrading, improve the industrial benefits and accelerate the construction of the environment-friendly society.

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