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# Problems in Construction of Subsidy System for Agricultural Product Identification and Countermeasures——A Case Study of Xinjiang

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**Abstract** In line with current situations of extension of Xinjiang's agricultural products, the paper put forward and analyzed existing problems in extension works of agricultural product identification. The problems mainly include: (i) general identification of agricultural products is basically blank and both producers and consumers lack awareness of identification; (ii) creating (famous) brand is a weak point of agriculture in Xinjiang; (iii) certification of non-hazard, green and organic agricultural products lags behind; (iv) it neglects problem of agricultural product packaging. On the basis of these problems, the paper present our recommendations: (i) government provides financial subsidy to actively guide certification of agricultural products; (ii) it should increase financial fund input in brand construction and support (famous) brand construction of agricultural products; (iii) it should provide subsidy for those enterprises creating famous brand, to encourage agricultural producing and processing enterprises to strive for famous brands; (vi) it should stress agricultural product packaging from the source and provide subsidy for agricultural producers who have affixed the identification; (v) it should gradually promote agricultural product identification, to constantly improve the farmers' awareness of agricultural product identification.

**Key words** Agricultural product identification, Subsidy system, Xinjiang

Agricultural standardization is the only way of China's agricultural development. Agricultural production identification system is an important part of agricultural standardization. Agricultural production identification is not only external manifestation of agricultural standardization, but also the foundation stone for reinforcing supervision of agricultural product safety and quality. The identification of Xinjiang agricultural products develops from single registered trademark of agricultural product processing enterprises to the present multiple product identification including certificate of origin, agricultural product quality certification of production enterprises, as well as agricultural product brands of processing enterprises. These are inseparable from administrative promotion and financial support of the government. However, in the course of extension of agricultural product identification, there are still many problems, including imperfect product identification, simple package, and brand effect not significant. In particular, the identification subsidy system is not well established and not favorable for cultivation and market open-up of agricultural product brands. In this paper, we take Xinjiang Uygur Autonomous Region as an example to have a preliminary study of problems related to subsidy system of agricultural product identification.

## 1 Current situations of construction of subsidy system for agricultural product identification

### 1.1 Gradual acceleration of development of non-hazard, green and organic foods

In 2010, Xinjiang built 60 standard-

ization model zones at the autonomous region level, bringing along 866 700 hm<sup>2</sup> area; certified 413 non-hazard agricultural products, and 113 production bases for non-hazard agricultural products. There were 44 green food enterprises, 75 kinds of products were certified as green foods, 413 300 hm<sup>2</sup> area of raw material base for green foods was certified; there were 24 organic food production enterprises, 79 kinds of organic products were certified; 12 kinds of products obtained the agricultural product geographic identification from the Ministry of Agriculture. Some characteristic agricultural products with certification of organic foods and green foods in the whole region have been put on North American, European, Central Asian, Southeast Asian and China's Hong Kong, Macao and Taiwan market, fully showing broad prospect and considerable benefit of non-hazard, organic and green agricultural products.

### 1.2 Gradual enhancement of agricultural product brand construction

As special marks in agricultural product identification, brand and trademark represent goodwill and assurance of quality of agricultural products. Xinjiang is a large agricultural province and the production base of cotton, grain, melon and fruit, livestock products, hops, tomato ketchup, beet sugar, seeding-watermelon, oil sunflower, flax, fennel seeds, safflower, potato, aromatic plant, and herba cistanches. Cotton takes up 40% of the total output of the state; total grain yield exceeds 12 million tons; forest and fruit area is greater than 1 133 300 hm<sup>2</sup>; beef, mutton and milk output respectively ranks the 5th, 2nd and 6th position, and the output of aquatic products has been in the first position for several consecutive years in north-western regions. Among existing agricultural products in Xinjiang Uygur Autonomous Region, registered trademarks of agriculture-related products are more than 9 700, 6 well-known trade-

marks of China, 13 famous brands of China, 32 geographic identification products, 75 famous agricultural product of China, 138 famous trademarks of Xinjiang, 49 famous brands of Xinjiang, and 165 famous agricultural brands of Xinjiang.

**1.3 Launching of construction of export platform for agricultural products** In 2009, Xinjiang took the opportunity and turned the concentration of modern agriculture to market exploiting type, and rapidly launched the construction of export platform for agricultural products. Xinjiang Uygur Autonomous Region actively organized and participated a series of exhibition and consulting meetings for agricultural and sideline products, with total contracted amount up to 25 billion yuan. In cooperation with the Ministry of Agriculture and the State Forestry Administration, it held exhibition of Xinjiang agricultural products in Beijing, Shanghai and Guangzhou, to put forth effort to set up these three export platforms for agricultural products. Major agricultural products of Xinjiang Uygur Autonomous Region march forward against the market, having a growth of 45.5% compared with the same period last year, showing broad prospect and potential of its export-oriented agriculture.

## 2 Problems in construction of subsidy system for agricultural product identification

Currently, variety of agricultural products in Xinjiang is simple, the standardization level is low, identification is not perfect, package is simple, brand effect is not obvious, and the ability of adapting to fluctuation of domestic and foreign agricultural product market is weak.

**2.1 General identification of agricultural products is basically blank and both producers and consumers lack awareness of identification** At present, primary agricultural products of Xinjiang are sold mainly at country fairs and supermarkets. Most agricultural products sold at country fairs are not affixed with relevant identifications. In the largest agricultural product wholesale market, Beiyuanchu Wholesale Market, of Urumchi City, most edible agricultural products, such as eggs, fruits and vegetables are still identified by "experience", and only few agricultural products, such as rice, peanut oil, have specific information of date of production, quality guarantee period, origin, and manufacturer. Some stalls sell more than ten kinds of vegetables but only have one label; some have label but only one or two column(s) is (are) filled in; some date of production and quality guarantee period are wrong or altered. In some small country fairs, nearly all agricultural products have no identification. Those sold in supermarkets are better; most have identification, but identification is basically not up to specification or not indicated clearly. For example, unpacked vegetables and fruits sold in many large supermarkets are not affixed with any label, only provided with simply information such as price or origin on the bulletin board beside them, but no specific information, including date of production, name of producer or seller, address, and contact phone, etc. Some vegetables wrapped with plastic film are indicated with date of packaging, but not the date of production, which is not consist-

ent with the specified requirement. Besides, the identification of origin of some agricultural products is also ambiguous. For example, apple is only marked as Shandong, as to exact place of Shandong, it is unknown. According to special administration survey results of national pesticide product quality and labels in 2006, among the 183 random samples of Xinjiang agricultural products, 48.63% fail to meet the standard, and the rank the second lowest in the whole country. Fundamental reason for this situation is that producers and sellers of agricultural products in Xinjiang lack identification awareness, do not value the product quality and safety, and ignore quality of pesticides and label. Another reason is that affixation of identification will increase the product cost and bring unfavorable effect to sales.

**2.2 Creating famous brand is a weak point of agriculture in Xinjiang** Brand brings competitive power and economic benefits. In recent years, Xinjiang Uygur Autonomous Region has made certain achievements in the construction of agricultural product brand. However, to bring agricultural products of Xinjiang outside, it is essential to create famous brand. At present, the brand construction of agricultural products in Xinjiang remains a low level, market awareness and brand awareness are weak, market open-up lags behind for a long time, characteristic and quality agricultural products fail to form brand and market advantage. In addition, it lacks brand protection and management. The market is full of some inferior products. These seriously affect reputation of agricultural products in Xinjiang. Creating famous brand is an important section in market exploiting, but becomes a bottleneck in modern agriculture and the weakest point. Therefore, Xinjiang Uygur Autonomous Region should implement famous brand strategy, rely in superior products, set up famous brands, give play to leading function of brands, strengthen competitive power of agricultural products in domestic and foreign market, form industrial advantages and promote the transformation of large agricultural region into strong agricultural region.

**2.3 Certification of non-hazard, green and organic agricultural products lags behind** At the beginning of 2007, the certified non-hazard agricultural products in Xinjiang only took up 1.47% of the total number of the whole country, which is out of proportion with its position of large agricultural region. Even compared with other provinces or regions, there is still a big gap. For example, Shandong Province has 1 263 certified non-hazard agricultural products, 766 green foods, and over 200 organic food; Inner Mongolia Autonomous Region has 907 certified non-hazard agricultural products, 507 green food, 173 organic food. These are much higher than that in Xinjiang. In 2009, after Xinjiang established special fund for quality and safety of agricultural products, certification of agricultural products developed rapidly. But as to the total production output, the certification work still lags far behind. (i) Some local regions do not value the identification, and believe that it is permissible since the production origin of Xinjiang is not polluted. (ii) Some towns and villages are restricted by funds. Although they have been listed as model villages of non-hazard vegetable, there are also services and guidance of specialized techni-

cal personnel, and the planting procedure of vegetable completely meets non-hazard technical procedure. However, there is no fund to support the certification. Lagging of certification of non-hazard, green and organic products has directly influenced the implementation of agricultural product market access system.

#### **2.4 It neglects problem of agricultural product packaging**

Package is a sharp weapon for increasing added value of products. For consumers or buyers, good brand image is a guarantee of product quality, service and safety, while characteristic packaging design is a key to attracting consumers. Especially, agricultural products for export have to compete with products of other countries at the international market. Therefore, developing highly identifiable brand image in line with international trend and developing convenient and attractive package have become key factors for improving competitive power<sup>[1]</sup>. Nevertheless, package of agricultural products in Xinjiang is simple, which leads to relatively low price and greatly influences increase in farmers' income. Especially fruits, vegetables, dry fruits and preserved fruits, compared with other packaged ones of foreign countries, there is a big gap. Some agricultural products imported from Xinjiang and packaged before entry into their market will be sold at a much higher price.

### **3 Countermeasures for improving the subsidy system for agricultural product identification**

In the course of implementing agricultural standardization, agricultural product identification management system plays a more and more important role in improving the level of agricultural product quality and safety, promoting quality certification of agricultural product, implementing market access of agricultural products, guaranteeing people's consumption safety, as well as promoting market exploiting and international trade of agricultural products. In addition, the subsidy for agricultural product identification is an effective approach to reducing safe production cost in the course of agricultural standardization. Therefore, all levels of agricultural departments should attach great importance to subsidy of agricultural standardized identification.

**3.1 Government provides financial subsidy to actively guide certification of agricultural products** At the same time of speeding up certification of non-hazard, green and organic agricultural products, government of autonomous region should provide subsidy for certification of these products. It is recommended to implement the compensation mechanism for certification of non-hazard, green and organic (three kinds of) agricultural products, to actively guide rapid development of "three kinds of agricultural products and one identification".

**3.2 It should increase financial fund input in brand construction and support famous brand construction of agricultural products** Since 2009, the autonomous region has planned to cultivate and create a batch of advantageous, characteristic and famous brands that have distinct Xinjiang characteristics. Since 2010, finance department of the autonomous region has allocated special fund for brand construction of agri-

cultural products, to support relevant works of administrative departments and production enterprises. However, the funds for creating brands in some business segments are still not incorporated into the financial budget. In this situation, the autonomous region should allocate special funds to relevant departments, especially those competent authorities of agricultural products, livestock products, and aquatic products, support their works in agricultural product quality evaluation, consumer opinion survey, and product market cognition. Besides, it is recommended to energetically propagate famous brand products with the aid of media and network, support building strong brands, and constantly expand popularity and influential power of Xinjiang's characteristic agricultural products, to form a batch of famous brand products.

#### **3.3 It should provide subsidy for those enterprises creating famous brand, to encourage agricultural producing and processing enterprises to strive for famous brands**

Influenced by financial crisis, prices of primary agricultural products in Xinjiang rise constantly, and raw material cost and labor cost of many agricultural product processing and producing enterprises greatly increase. As a result, the profit margin decrease and enterprises experience hard times. If enterprises participate in agricultural product exhibitions and famous brand evaluation meeting, it will also increase cost. In addition to lack of brand awareness, many enterprises give up the opportunity provided by the government for propagating agricultural products. Consequently, some local high quality and good reputed brands are not famous brands of Xinjiang. To summon up enterprises' enthusiasm of participation, finance department should provide certain subsidy for those enterprises participating in agricultural product exhibition and famous brand evaluation meeting.

**3.4 It should stress agricultural product packaging from the source and provide subsidy for agricultural producers who have affixed the identification** Appropriate package is the precondition for implementation of agricultural product identification. Agricultural products with the same quality will have higher added value if finely packaged and affixed with identification. There are many circulation sections in agricultural products, if package fails to start from the source, the affixation of identification will lack carrier and the identification system will not be implemented. Therefore, the identification should be affixed at the first stage of circulation of agricultural products (producers and primary sellers of agricultural product, including farmer households, farmers' professional cooperatives, and agricultural product production bases). In this way, when agricultural products get to final consumers, they can be inquired for identity and traced for quality, to practically implement the agricultural product identification system. However, affixation of identification requires great effort and much time, so it will increase burden of producers. It is recommended that government should provide subsidy (for example 50% of the identification cost) for producers to summon up their enthusiasm and implement the quality tracing of agricultural products.

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(Table 2)

Code	Name	Actual distribution amount of cash dividend	Type	Network output	Type	Wrong judgment or not
600313	ST Zhongken Agricultural Resource Development	0	A	0.0579	C	Yes
600354	Dunhuang Seed	0	A	0.0039	A	No
600359	Xinjiang Talimu Agriculture Development	0.1	C	0.4587	C	No
600371	Wanxiang Denong	0.2	C	0.2544	C	No
600438	Tongwei Group	0	A	-0.0426	A	No
600467	Homey Group	0.06	B	0.0605	B	No
600506	Xinjiang Korla Pear	0	A	0.0052	A	No
600540	Xinjiang Sayram Modern Agriculture	0.04	B	0.1028	C	Yes
600543	Gansu Mogao Industrial Development	0	A	-0.0034	A	No
600598	Heilongjiang Agriculture Company	0.14811	C	0.185	C	No
600965	Fortune Ng Fung Food	0.03	B	0.0358	B	No
600975	Hunan New Wellful	0.12	C	0.0938	C	No

Remarks: actual distribution amount within  $-\infty$  to 0.01 belongs to Type A (zero cash dividend); actual distribution amount within 0.01 to 0.1 belongs to Type B (low cash dividend), and actual distribution amount within 0.1 to  $+\infty$  belongs to Type C (high cash dividend).

## 4 Conclusions

Taking 2007 to 2010 data of China's agricultural listed companies as samples, according to agency cost theory and stock right structure theory of dividend policies, and focusing on 6 indicators of listed companies' stock right structure, this paper uses BP ANN to build the identification model for cash dividend policies, and verifies the classification and identification ability of the model. Results show that the model established in this study has higher accuracy, relatively small error fluctuation, indicating high stability and generalization ability. The identification model of cash dividend policies can help investors accurately predict distribution of cash dividend of listed companies, to reduce investment risks to some extent. Since only 2007 to 2009 data of agricultural listed companies in the main board market was taken as training samples and corresponding data of 2010 taken as testing samples, number of samples needs to be increased and applicability of the model needs to be further verified.

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**3.5 It should gradually promote agricultural product identification, to constantly improve the farmers' awareness of agricultural product identification** The popularization of agricultural product identification can not be reached at a single leap. In the situation of weak awareness of farmers and enterprises in identification, it is required to seize the opportunity, base on actual situations of Xinjiang, and follow the principle of first simple then difficult, to gradually promote the identification system. All levels of agricultural departments should take various measures to bring into full play propagation function of news media, stress the capability of increasing farmers' income, and propagate the significance of agricultural product identification in many ways such as law dissemination, training or going to fields, to help agricultural product producers and farmer households strengthen their awareness of agricultural product identification. In addition, it is required to popularize knowledge that should be possessed in making and using identification of agricultural products. Finally, it is

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recommended to guide farmers and agriculture-related economic organizations to realize the benefits of obtaining added value of through strengthening identification of agricultural products.

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