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# Practice and Exploration of Rural Sci-tech Service Supermarket: A Case Study of Jurong Economic Forest and Fruit Industrial Branch

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**Abstract** The rural sci-tech supermarket in Jiangsu Province is an innovative model of rural sci-tech service. With reference to the concept of modern commodity supermarket, this model integrates variety, technology and achievement information into the sci-tech supermarket platform, provides various agricultural sci-tech services, and improves farmers' recognition and acceptance of science and technology, so as to accelerate conversion of scientific and technological achievements and demonstration and popularization of new varieties, new technologies and new models. This paper analyzes practice of Jurong economic forest and fruit industrial branch and presents recommendations for building Jiangsu rural sci-tech service supermarket.

**Key words** Rural sci-tech service supermarket, Practice and Exploration, Jurong

## 1 Introduction

Jiangsu rural sci-tech supermarket is an innovative model of rural sci-tech service. It draws lessons from concept of modern commodity supermarket and integrates information of varieties, technologies and achievements into the sci-tech supermarket platform. Besides, it provides various agricultural sci-tech services, improves farmers' recognition and acceptance of science and technology, and makes efforts to speed up conversion of scientific and technological achievements and demonstration and popularization of new varieties, state-of-the-art technologies, and innovative models. Sci-tech supermarket features store, team, network, base, achievement and brand. Taking tangible and intangible products as commodities, it combines information flow and technology flow, network service and expert service, routine service and special service, advisory service and training service. In addition, sci-tech supermarket actively explores new distinctive, long-term effective and stable rural sci-tech service mechanism, to improve agricultural production modernization and speed up farmers' income increase and getting rich.

## 2 General information of Jurong economic forest and fruit industrial branch

Jurong economic forest and fruit industrial branch was established with the approval of Jiangsu Provincial Department of Science and Technology in June 2011, and built jointly by first batch of modern agricultural sci-tech parks and agricultural industrial leading enterprises of Jiangsu Province, as well as Zhenjiang Wanshanhongbian Agricultural Park subordinate to Zhenjiang Institute of Agri-

cultural Science for Jiangsu Hilly District. It integrates research, demonstration and popularization. Wanshanhongbian brand is famous trademark in Jiangsu Province. Wanshanhongbian brand pear, peach, grape and strawberry are famous fruits in Jiangsu Province. Its registered capital is up to 10.18 million yuan. Since 1997, with care and support of relevant departments, it has built 4 sci-tech parks: Baitu Town oriented towards new fresh fruit and new technology (covering an area of about 33.33 hm<sup>2</sup>); Maoshan Town scenic spot oriented towards planting grass and raising livestock (covering an area of about 46.67 hm<sup>2</sup>); Tianwang Town oriented towards developing organic agriculture (covering an area of about 66.67 hm<sup>2</sup>); Houbai Town oriented towards cultivation of demonstration fruit trees (covering an area of about 13.33 hm<sup>2</sup>). It has established 6 local standards of Jiangsu Province, 7 local standards of Zhenjiang City, obtained 1 state intellectual property right patent, and registered 5 state intellectual property right patents. Wanshanhongbian series fruits have been widely accepted by the market. In recent years, its annual sales amount exceeds 50 million yuan.

## 3 Practice of sci-tech service supermarket

**3.1 Store construction** In accordance with standard for construction of rural sci-tech service supermarket, it has built a store with an area of 600 m<sup>2</sup> in Zhenjiang Institute of Agricultural Science, built 3 sci-tech convenience stores with area of 100 m<sup>2</sup> respectively in Baitu Town, Houbai Town and Tianwang Town.

**3.2 Team construction** Jurong economic forest and fruit industrial branch holds a team of scientific and technologic personnel engaged in introduction of new fresh fruits, research of new technologies and demonstration and popularization of achievements for a long time. These people have proficient skill and rich and practical experience, as well as specialized knowledge of strawberry, peach, grape and pear. The sci-tech service supermarket store sets 1 researcher as the store manager, 2 assistant researchers as

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store clerks, and 2 other researchers with technical title. An assistant researcher is appointed as store manager, and 2 technical persons with title above assistant researcher as store clerks.

**3.3 Network construction** It has established a sci-tech service network taking sci-tech supermarket branch and convenience store as support, taking Wanshanhongbian base as network wire, and connecting numerous farmers. In addition, it has established agricultural park sci-tech website ([www.zjwshb.com](http://www.zjwshb.com)) to keep updating network technology and information and facilitate communication with outside.

**3.4 Base construction** Both branch stores and convenience stores have over 13.33 hm<sup>2</sup> demonstration bases which are independently managed. They bring into full play their demonstration effect and provide follow-up and guidance services for near 2 333.33 hm<sup>2</sup> bases with Wanshanhongbian brand.

**3.5 Achievement construction** It has improved sci-tech service network and established a sci-tech service network system model with sci-tech branch stores and convenience stores as service windows and basis, to provide services for construction of agriculture, farmers and rural areas. Sci-tech supermarket has introduced more than 200 new varieties, including strawberry, grape, peach, pear, fig, persimmon and apricot, and selected more than 50 varieties suitable for hilly areas.

**3.6 Brand construction** Branch store and convenience store use rural sci-tech service supermarket brand of Jiangsu Province as per uniform standard, implement standardized service, and strengthen construction and propaganda of supermarket brand. At the same time, it comprehensively implements brand strategy of Wanshanhongbian to improve the market competitive power. In cooperation with 16 professional cooperatives, including Laofang Grape Cooperative, Houbai Chinese Pear Professional Cooperative, Sister Peach Orchard Professional Cooperatives, it set up Jurong Wanshanhongbian Seasonable Fresh Fruit Professional Cooperative. Wanshanhongbian agricultural park provides sprouts and technologies for the base, cooperatives are responsible for organizing production, and qualified fruits can be sold with Wanshanhongbian brand free of charge, to help farmers increase income and benefits. At present, it has established more than 3 333 hm<sup>2</sup> high quality and high efficient fruit production base with Maoshan old-liberated area as the major part, helping farmers increase income more than 100 million yuan annually.

## 4 Operation management and mechanism construction

**4.1 Market-oriented operation mechanism** Jurong is situated between Shanghai and Nanjing. Near 50 million consumption people live nearby. Agricultural products it produces can satisfy consumption of local and surrounding areas. Thus, it is an ideal place for building production base of high quality agricultural products. Now, Jurong City has more than 6 666 hm<sup>2</sup> seasonable fresh fruit production base, 1 sci-tech supermarket branch store, and 3 convenience stores, so the market demand is broad. Branch

stores and convenience stores adopt system of responsibility for profits or losses, guide farmers to cultivate crops and fruits, help farmers sell agricultural products, provide high quality sprouts, develop independently researched high efficient, low toxic and low residues of pesticide.

**4.2 Non-profitable operation mechanism** With the aim of setting a good example to farmers, leading farmers, and helping farmers to sell products and get rich, sci-tech branch stores and convenience stores provide service for farmers, develop hilly areas, and promote local rural economy. These sci-tech supermarket branch stores and convenience stores implement the general manager responsibility system. The store manager takes charge of sci-tech training and technical consultation of branch stores or convenience stores, and the general manager shall be responsible for assessing performance of managers of branch stores and convenience stores. Those with poor performance should make rectification within the deadline or make replacement by the order of general manager.

**4.3 Sci-tech service mechanism** Sci-tech branch stores and convenience stores integrate conversion and transfer of sci-tech achievement, consultation, training and 12396 information service into the sci-tech supermarket platform. As for sci-tech force, it dispatches 2 researchers, 5 associate researchers and 5 assistant researchers. In sum, it is providing services for innovative development of seasonable fresh fruit industry and organic agricultural industry in Jurong City, and improving efficiency and actual effect of rural sci-tech services.

**4.4 Communication and coordination mechanism between branch stores and convenience stores** Branch stores and convenience stores are operated and managed by Wanshanhongbian, so their communication is very convenient. After completion of construction, the branch store should coordinate with each convenience store to set up monthly meeting, weekly meeting, and forum system. Also, it should establish information notification, follow-up service, information feedback mechanism through e-mail or by other means.

## 5 Performance of sci-tech services and technology popularization

Every year, Wanshanhongbian scientific and technical personnel hold more than 60 times of various special lectures and technical training in Jurong City and other places of Jiangsu Province, issues more than 300 new agricultural achievements and new technologies, promotes conversion of 100 new achievements and new technologies, provides more than 1 000 pieces of agricultural information, and trains over 5 000 farmers. Through demonstration points, it radiates its effect to surrounding areas. Besides, it expands popularization of achievements. In Jurong City, the technical popularization has covered more than 3 333 hm<sup>2</sup> grape base, honey peach, strawberry base and Chinese pear base. At the same time, it carries out social service of plant protection, independently develops and researches high efficient but low toxic pesticide to

prevent plant diseases and insect pests of seasonable fresh fruits, to ensure product safety and solve farmers' trouble of pesticide use. Setup of sci-tech supermarket branch stores and convenience stores provides powerful scientific and technological support for development of seasonable fresh fruit industry in Jurong City and hilly areas of Jiangsu Province.

## 6 Discussion

The rural sci-tech supermarket in Jiangsu Province is an innovative mode of rural sci-tech service. It can strengthen sci-tech services of leading industries, enhance high quality sci-tech services and build up famous brand on the precondition of ensuring grain security.

(1) It is recommended to support technical popularization department, agricultural colleges and universities and non – profitable institutions to take part in rural sci-tech supermarket construction in Jiangsu Province. Through building bases and supporting public agricultural sci-tech demonstration project area, it can

improve the mechanism of connecting benefits of farmers, and popularize effective forms of rural sci-tech supermarket, parks and cooperative organizations, to bring more benefits for farmers.

(2) It should increase scientific and technological content and strengthen demonstration advantage. Rural sci-tech supermarket provides excellent carrier for sci-tech demonstration, popularization and training. On the one hand, new technologies and achievements will be firstly applied and extended in the base. On the other hand, through high efficient agricultural planting mode and training farmers on site, it is able to realize quality improvement and efficiency increase.

(3) The development scale should be moderate and give prominence to characteristics. Too small scale will not bring into play the significant effect, while too large scale will not realize the function of promote work in all areas by drawing upon experience gained in the work on key points. Thus, it should put together limited input and bring into play its functions in a short time.

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