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The Current Situation and Development Countermeasures of Creative Agriculture in Miyun

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Abstract Creative agriculture, a new agricultural format formed by integrating agriculture, tourism and creative industries, is an important part of the urban modern agriculture. Proceeding from the functional position as an ecological conservation area, Miyun creative agriculture has obtained rapid growth, relying on its ecological resources, agricultural resources, tourist resources and leisure industry advantages. But there are still some problems. On the basis of analyzing the advantages and problems of creative agriculture in Miyun, the paper put forward the basic principles and thought pattern of developing creative agriculture in there. Besides, several countermeasures in terms of resources integration, scientific planning, exploring local cultural resources, developing theme products, constructing industrial chain, carrying out project design and creative planning, creating creative agricultural advantage brand are put forward.

Key words Creative agriculture, Urban modern agriculture, Miyun County

Creative agriculture, a newly emerged agricultural development model and the manifestation of function expansion of modern agriculture, is modern agriculture-based, market-oriented and culture-backed, which integrates agricultural production and artistic creation, produces creative agricultural products and designs creative agricultural activities to enhance the additional value of industry and optimize resources allocation^[1]. Creative agriculture, which develops gradually accompanying the development of urban modern agriculture, is an important component of urban modern agriculture. The study on the creative agriculture in Miyun County has a great significance in adjusting its economic structure, extending the industrial chain, expanding the functions of agriculture, increasing the added value of agricultural products, developing leisure tourism, creating agricultural brands and promoting the mutual growth of urban and rural areas. Besides, it has a great practical significance in promoting the development of leisure agriculture, increasing farmers' income, constructing new countryside, boosting the course of urban-rural integration and enhancing the industries in the ecological reservation area.

At present, the study on creative agriculture in China still stays at the early stage and the relevant researches are absent. Zhang Jigang is the expert who currently carried out the earliest study on creative agriculture and has published several works^[2]. Dr Zhang put forth the theory in creative agriculture and the development strategy to creative agriculture, he also published the first Chinese work on creative agriculture – *The Development Report on Chinese Creative Agriculture 2007–2008*, in which the connotation

and characteristic of creative agriculture are expounded, and the countermeasures on creative agriculture in Sichuan is put forward. Besides, Li Ruifang has conducted the research on creative agriculture from the relations among modern agriculture, new countryside construction and agricultural technology. The Beijing Municipal Agriculture Committee has established the survey on creative agriculture, so the enthusiasm of some scholars on summarizing the development pattern and experiences of developing creative agriculture has been greatly stimulated, among which the representative ones are Liu Junping, Ren Rong, Zhang Yifan, Qing Xiangyang, etc. Except for expounding the concept and characteristics of creative agriculture, these scholars focused on putting forth the countermeasures of developing Beijing creative agriculture from the perspective of practice, which promoted the combination between research theory and practice.

The development of Beijing urban modern agriculture stays at the leading level in the country with rapid development pace and diversified types. Formed by the integration of agriculture, tourism, creative industries, the creative agriculture has got rapid development as a new format, which has become an important direction and characteristics of the agricultural development in Beijing suburb. Furthermore the creative agriculture has become a new growth point of agricultural economy. With their own actual situation and starting from the realities of the socio-economic development and the protection of the environment, Miyun County has actively promoted the development of creative agriculture. Creative agriculture is also an inevitable choice for Miyun in terms of allocating its special resources and achieving industrial upgrading.

1 Functional orientation of Miyun creative agriculture

Miyun is located at the northeast of Beijing, with the upper hand

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in Chinese fenshui, it is known as the "south in northern China". Under the city planning and positioning of Beijing Municipal, Miyun was identified as ecological conservation area, as well as the capital development of water conservation district. The *General Plan of Beijing Municipal* (2004 – 2020) has clearly identified the functional orientation of taking Miyun as the base for important foreign affairs activities for Capital International exchanges services, the development of tourism and leisure functional orientation, training session and ecological agriculture. According to this, Miyun stipulated the developmental positioning of establishing the "green international resort" and established the concept of green development. It is the functional orientation that promotes Miyun to transfer its industrial development to innovation-driven and creative-driven development model. Standing from the ecological economy, developing leisure industry, creating an ideal leisure space for people from Beijing and Tianjin, prior to developing the green industry of economy and ecology have become the guiding ideology of Miyun economic development. The high-end, high efficiency, high quality and diverse specificity of creative agriculture has made it became one of the important industrial development paths in Miyun. Miyun County will take distinctive and high efficient road of developing creative agriculture, comprehensively develop the economical, ecological, landscape, environmental and cultural functions of agriculture, which will can fully reflect the Miyun ecological environment value, showcase the green image of ecological Miyun, cultivate all the features of the international green leisure industry-creative agriculture, to form the new format of urban agriculture, integrating ecology, economy and landscape and make creative agriculture a new engine suburbs industrial development, economic growth, farmers' income increase^[3].

2 The advantages of developing creative agriculture in Miyun County

2.1 Distinct advantage of ecological resources According to the functional orientation of Beijing Municipal, Miyun County is positioned as ecological conservation area, as well as the capital of an important water source of drinking water. Miyun County has the reservoir water area of 188 km², water storage capacity of 4.375 billion m³. In 2010, the ecological service value of Miyun Reservoir Area has achieved 4 billion yuan. The forest coverage rate of the county is over 57%. The water quality, as well as the air quality reaches the national secondary standards, in most areas, the air quality reaches the national primary standard, the three indicators ranks first in all districts and counties in Beijing. It indicates that Miyun County has become pollution-free green park with clean water, clean earth and air. Ecological resources have become the natural advantages for developing Miyun creative agriculture.

2.2 Varieties of green resources Miyun County has a total household population of 432 000, of which 262 000 are agricultural people. Generally speaking, the major industry in Miyun County is agriculture. The county boasts fertile land, rich natural re-

sources, as well as prosperous agriculture, forestry, animal husbandry and fishery industry. Miyun national is the pilot for demonstrating "three high" (high yield, high quality and high performance) ecological agriculture, and the base for providing subsidiary food for Beijing. The favorable environment allows producing pollution-free, non-polluting, natural green food. At present, the freshwater fish, hawthorn fruit tea and other 10 kinds of products in Miyun have obtained green food certificates. Organic agriculture has formed brand production; the accumulated agro-forestry planting fruit tree varieties have saved substantial costs for sightseeing fruit industry, at the same time, the rich agricultural products has become the resource base for developing creative agriculture in Miyun.

2.3 Abundant tourism resources The county is well known by its rich natural resources and unique tourism resources with almost more than 100 valuable points of tourism resources. In addition, the county is famous for its profound historical and cultural heritage, cultural landscape. In recent years, Miyun County has invested heavily on the restoration, protection and development of the historical and cultural landscape, ruins and remains to improve the city's cultural connotations and create a rich historical and cultural landscape for tourism development in Miyun. The Simatai Great Wall, with its panic, dangerousness, extraordinariness and its unique shape, is regarded as the Best of the Great Wall in China by Professor Luo Zhewen^[4]. The Gubeikou town, a Millennium Town, is one of the two well preserved ancient towns of the Great Wall (the other one is Shanhaiguan). Miyun boasts 618 items of Intangible Cultural Heritage in total, among which one item belongs to Intangible Cultural Heritage at national level and five items belongs to Intangible Cultural Heritage at municipal level. These places of interest have provided important natural and cultural resources for developing the new functions of agriculture.

2.4 The leisure industry has began to take shape After several years of construction, the leisure industrial pattern of "one city four lines" (which takes the eco boutique satellite city as center and has four tourist hotline in the North and South, East and West) has been formed in 2010. In the county, there are 33 open scenic points, 29 resorts and star hotel^[5], 40 folk custom villages, including 23 municipal tourism folk custom villages. Miyun has developed into a famous tourist resort, integrating leisure, vacation, travel, entertainment, business and the meeting and it had won "The Best International Tourism and Leisure County".

3 The status quo and problems of creative agriculture in Miyun County

3.1 The developmental status of creative agriculture in Miyun County Beijing develops agricultural tourism earlier than other cities in China. Relying on the advantage of its location, ecological advantages, resources and market advantages, the urban modern agriculture with multifunction in Miyun County has been developed rapidly. As of the end of 2009, the county has had 157 agricultural sightseeing gardens with the total revenue of 132.26

million yuan; 1 696 folk tourist households with the total revenue of 111.8 million yuan; 5 620 tourism parks and the folk tourism practitioners with the reception population of 4.95 million people and the integrated tourism income of 1.06 billion yuan^[5]. Moreover, there are many emerging creative agricultural products, which greatly improved the added value of agricultural products and the agriculture attraction. At present, the Beijing creative agriculture can basically be summarized as seven kinds of typical models, among which three models are summed up from the Miyun creative agriculture. Namely, the diverse creative mix model "purple sea and flower banks", landscape and creative agriculture model of "plant maze" and the creative model with industry involvement of "Chateau Changyu Afip Global"^[6]. These models are high-end and efficient industry with the functions of production, life and ecology formed by integrating urban modern agriculture, leisure and tourism, cultural and creativity.

3.2 The problems in the creative agriculture of Miyun County On the whole, the creative agriculture in Miyun has got firm development. For some time, its specificity, ecological feature, rustic charm has attracted the attention of tourists. Besides, its efficiency and quality characteristics also make it a new growth point of the agricultural development in the suburbs of Beijing. But the industry has just started and the scale effect and specialty brands have not been formed. With the low popularity and competitiveness, there is still a long way for the creative agriculture in Miyun to test its creative impact of persistent and sustained industrial development, and explore its developmental potential.

In Miyun County, the contribution of creative agriculture on agriculture and industry only takes a small proportion, and the development of creative agriculture also exposes some problems, which is mainly manifested in the following six aspects. (1) The tourist farm generally lacks creativity, travel planning is lagging behind. Over reliance on agricultural resources, many tourist farms are transiting from the original planting with single function^[7]. (2) The resources are not effectively integrated for the lack of scientific overall planning and creative design, so the features not obvious. As a result of the strong seasonal agricultural production, scenic areas within the project are single and uncompetitive^[8]. Compared with other regions, the potential advantages of the Miyun agricultural tourism by means of ecological conservation area may attract more tourists, but they neglect to plan and explore it. (3) The agricultural cultural connotation is not fully explored and the geographical characteristics are not so distinctive. Tourism picking is the main source of the benefits. Although the novelty of the urban-rural difference has started, this alone is not enough. Focus on the local culture is the future and new growth point of rural tourism^[9], as an integrated agricultural type, the creative agriculture has no exception. However, the research and connotation of agricultural culture has long been neglected in the process of modernization, so its cultural elements cannot be embodied in the practice of creative agriculture has become a universal problems. (4) The s industrial chain has not been formed and

the facilities are inadequate, which has affected the promotion and marketing of creative agricultural products. Agriculture is a weak industry, the decentralized management of the agricultural economy model made the contact of pre-production, during production and post production in a spontaneous form of state. Despite the problems of the industrial chain in recent years has got a lot of concern, and there have been many agricultural cooperatives or "enterprises + farmers" models, but in general, the creative agriculture in suburb areas still lack a complete industrial chain, meeting with the laws of the market^[10]. (5) The creative agriculture is in a scattered state, which unable to display the brand effect and the impact on the market is limited. Although the diverse topography and climatic conditions in mountainous areas are conducive to grow the agricultural products with distinctive features the scarce, decentralized land resources is not conducive to the development of creative agriculture scale^[11]. At present, Beijing still does not have so much creative agriculture brands. (6) The management on creative agriculture project is not enough, some creative agriculture has a strong influence at the early stage, but in the latter part of the operations, many problems will emerge, which often leads to low efficiency and failure.

4 The principles of the creative agriculture development in Miyun County

Through analyzing the advantages, status quo and problems of creative agriculture in Miyun, the principles that should be followed in terms of developing creative agriculture are put forward.

4.1 Principles of environmental carrying capacity Miyun, is positioned as the "capital ecological conservation area", so the development Miyun must be promoted under the premise of protecting water source and its ecological environment. Any development activity must be conducted on the basis of the environmental carrying capacity.

4.2 Principles of unique creative products The development and exploration of creative products should be based on the development and utilization of the existing character of the resources. The creative agricultural products with Miyun distinct should be produced to enhance the attractiveness and competitiveness of the industry.

4.3 Principles of intellectual lead After the emergency of tourism travel in the 1990s, the Chinese creative agriculture shows the situation of driving by both modern agriculture and tourism agriculture, that is, on the one hand, continuing to add creativity to modern agriculture, and on the other hand, developing tourism agricultural industry, and on this basis to promote the sightseeing creative agriculture with unprecedented leisure, sightseeing, learning skills, taste and shopping^[12]. The development of creative agriculture in Miyun needs to integrate technological innovation and cultural creativity. The exploration of agricultural products should combine the modern science and technology and intelligence to promote the transformation from the labor-intensive primary industry to intellectual-intensive and service-intensive tertiary

ry industry so as to promote industrial upgrading and enhance the level of industrial development service.

5 The development thought pattern and suggestions of creative agriculture in Miyun County

5.1 Scientifically allocating resources and planning The promotional role of urban modern agriculture in driving the urban and rural integration shall be fully displayed^[13]. The resources should be allocated within the environmental carrying capability of Miyun County to plan the natural landscape, agricultural tourism and the individual farmers-dominated agricultural tourism. By fully using the advantage of Miyun development, the protection of ecological resources, the development of agricultural resources, and the folk customs are integrated organically to foster a high-end and high quality creative agriculture to drive the economic and social development. Specifically, it should establish the developmental strategies according to the several major areas to determine the development goals. Second, it should stipulate uniform service standard according to the sightseeing gardens at present. Third, on the basis of comprehensive requirements, it should choose the garden with development potential and requirements to focus on creative planning.

5.2 Exploring the cultural resources with local characteristics and developing the themed products Beijing boasts profound cultural resources of agriculture, agricultural materials and a vast market of spirit consumption, so highlighting distinctive resources and fostering innovative agricultural products are the direction of developing agriculture in the capital^[14]. The Cherry Valley in the Mentougou is a good case that makes the past serve the creativity^[15]. Through using the unique environmental conditions of Cherry Valley and choosing the modern fine cherry varieties, their own unique products are formed. In the Cherry Orchard, the agricultural achievements are integrated with agricultural culture, temple culture and natural landscape, tourists go there to enjoy cherry, but in their tour, they also enjoy the beauty of mountains and water, and feel the culture, which has greatly enriched the connotation of tourism. It can extend the industrial chain and enhance the efficiency. Miyun is rich in ecological resources and cultural resources, so it should take the themed creative agriculture as the starting point, furthering exploring the tourism resources and developing the themed products. And finally, the creative agricultural products with its characteristics can be produced.

5.3 Building the industrial chain, increasing the value of services Throughout the development of creative agriculture around the world, the complete industrial chain has played an important role. The key to the success of the Dutch creative agriculture lies in its advanced industrial chain. Netherlands is one of the world's largest flower exporter, its flower industry is an integrated agricultural industry, which has a close relations with cultural origins, market demand, human environment, logistics, technology innovation, product marketing, brand building and creative tal-

ent, and is highly related to the relevant industries. The cooperation of several divisions including flower culture, scientific and technological innovation, technology promotion, market information and marketing organizations form the complete industrial chains of the Dutch flower industry. In Netherlands, almost all bulk exports of agricultural products follow the way and the industrial chain strategy has become the secret of its success.

The industrialization level of Chinese agriculture is universally low and the industry chain is not perfect. However, as a highly developed industry, the convergence of creative agriculture has become one of the necessary conditions for the successful development of industrial chain. Miyun County should take market demand as orientation, enhance the creative design and functions of the essential industry, supporting industry, matching industry and derivative industry of creative agriculture, allocate the rural production and living, ecological resources, and combine agricultural products and service products to link each section of agriculture to a complete industrial chain and promote the integration of agriculture, tourism, creative industries, creative agriculture development.

5.4 Carrying out the project design and creative planning to create the competitive brand of creative agriculture Miyun County should plan its landscape by seizing the opportunity of constructing new cities, for example, the Beijing-Chengde expressway urban modern agriculture corridor construction, 101 State Road landscape building, *etc.* to build the garden city with ecological landscape and develop the landscape agricultural advantages, so as to create the high-end leisure area with the focus on health preservation, vacation and cultural leisure. According to the market demand, Miyun County should transform its economy of relying on distinctive agricultural products to creative service industry and provide personalized services for special customers, and establish specific project design and creative strategy, for example, providing private garden, private orchard, *etc.*, to meet the high-end market needs. Besides, Miyun County should allocate resources and strive for the patents, trademarks, logo images with geographical indications to build the creative agriculture brand of Miyun and improve the added value of its products.

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China should carry out timely cultivation and scientific management, based on the natural conditions and market advantages of each region, in order to achieve maximum economic benefits. For example, the banana cultivation in Hainan Province must be based on the growth characteristics and production cycle of bananas, well grasp the cultivation period of banana, conduct timely planting and unify the planting varieties, fertilizers and production technology measures, to ensure that the banana can be sold from April to June, thereby achieving better economic efficiency, otherwise the banana in Hainan Province will lose market advantage after the bananas come into market in the mainland in succession in July.

From April to September in 2012, we conducted a survey on the banana cooperatives in Hainan Province. From April to June in Hainan Province, the banana price was 2.8 to 3.8 yuan per kilogram, while in the acquisition point of Xiushun Banana Cooperative in Haikou on September 17, the banana price was 0.8 yuan per kilogram. Due to different time of harvest, the banana prices vary greatly.

3.3 Brand operation If the brand management is implemented and banana brand is created, the market price would be 30% higher than that of non-branded bananas. In all aspects from planting to marketing, brand production and management strictly implement standardized production, unify planting varieties, unify the fertilizers and pesticides, unify production management and harvesting, and unify product sales, in order to improve product quality and efficiency of bananas, increase farmers' income, and get good economic returns.

For example, Yiminghong Banana Cooperative in Wuming County has 215 members, and grows 2 200 hm² of bananas, accounting for 25% of the banana cultivation area in Wuming County, with annual production of 90 000 t. The "Yiminghong" banana produced in the cooperative strictly implements unified product quality, unified production technology specification, unified agricultural goods supply, unified brand packaging and unified marketing, implementing the whole-process quality management and monitoring from "land to the market". Due to the unification of brand of "Yiminghong" banana produced by the members, the cooperative has established sales windows in Xi'an, Lanzhou, Wuhan, Beijing, Changchun and other places, to expand the domestic market; the farmers' banana marketing has stable market, and the per capita an-

nual incomes in the cooperative reach 6 200 yuan.

3.4 Enhancement of the technical level of production and management The production and operation of the banana cooperatives seek to maximize profits and sustained economic development. It is necessary to continuously improve the technical and management level of banana; plant the high-quality seedling; implement mulching, drip irrigation, fruit bagging and other production techniques; construct high standard banana plantations, and vigorously promote pollution-free standardized production technology; implement a comprehensive ban on the use of high-toxic pesticides; implement the testing and certification of the production base; use advanced harvesting, cleaning, grading, packaging and other technologies.

It is also necessary to enhance the quality safety traceability management of banana product, so that the banana production records can be stored, the banana product flow can be traced, and the storage and transportation information can be found; form the integrated product quality safety traceability information network of banana products from production to sales; innovate upon the production mode, and enhance the management technical level, to promote the banana cultivation to take the road of scale, brand, standardization and sustainable development.

4 Conclusions

This paper gives an overview of the distribution, member scale, production and operation of banana cooperatives in Hainan Province, and points out the market risk and natural risk faced by the production of banana cooperatives in Hainan Province. The production of banana cooperatives should be developed into joint production, to form large industrial organizations, and implement scientific cultivation and brand management, in order to avoid risks and become new agricultural management system integrating organization and intensification.

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