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Countermeasures for Development and Present Situation of Chives in Xiaogang Town, Xiaogan City, Hubei Province

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Abstract Through the overview of main problems existing in chives production, its current situation and history, the thesis puts forward countermeasures for developing chives industrialization in Xiaogang Town, Xiaogan City.

Key words Chives, Present situation of industry, Countermeasures for development, Xiaogang Town

Chive^[1] is a perennial herbaceous plant which belongs to the family Lily, and it has been cultivated for a long time in China. It is widely distributed in Shandong, Hebei, Henan, Hubei and other main producing places. According to historical records, people have grew and eaten chives since 3 000 years ago in China. Since Marco Polo (a world famous traveler as well as a businessman) brought it from China to Europe, Europeans have began to eat chive. Onions mainly grown in the North China are tasted pungent with no flavor, whereas chives in the South China are tasted with light flavor, no pungency. Chives grown in Xiaogang Town^[2], the northern end of the Jiangnan Plain, also the most northern place where chives are grown in the country, bearing a relatively long growing period, as well as the coldness, are tasted with slight pungency, strong flavor, and great mouthfeel. Chive is a necessity in daily kitchen items. And in fact, it is not only a great esculent vegetable, but also a kind of health food to kill pain and remove pathogen. The drug properties of chives were recorded early in China's traditional books on medical knowledge, and the oldest medical monograph "Chinese herbal medicine" described it as "a plant with pungent and plain flavor, non-toxic can treat typhoid fever, stroke, edema of the face and make people sweat when making soup." The medicinal part of chives is near the root, containing protein, fat, carbohydrate, vitamin A, B and C, calcium, iron, magnesium, as well as more important allium compound, with the effect to kill pathogenic bacteria such as dysentery bacillus, staphylococcus and dermatophyte discovered by modern pharmacological researchers.

1 History and current situation

1.1 History The history of growing chives in Xiaogang Town, Xiaogan City of Hubei Province can be traced back to the Ming dynasty. It was recorded by Xiaogan Local Chronicles that in 1368, Zhu Yuanzhang took a series of measures to develop agricultural production for keeping the country stable permanently, and

one of the measures was immigrating to the north and reclaiming wasteland. The residents in Xiaogan City of Jiangnan Plain mostly came from Macheng City in Jiangxi province by migration. It was said that chives had then been brought into Xiaogan City from the south with the migration, and have set down roots there ever since then. According to the record of Xiaogan County Annals, Sancha Gangji Town (today's Xiaogang Town) was formed 300 years ago, and it had 800 people residing there, 156 industrial and commercial households of all kinds, among which 19 households and 80 people engaging in chives dealership in the late Qing Dynasty, and it was the well-known collecting and distributing chives centre then. In 1953, Cooperatives Union of Wuhan City signed purchasing contracts with Xiaogan Town, and it has become the chives production base of Wuhan City since then.

1.2 Current situation Currently, people in Xiaogan Town have made "Xiaogan Town' Chives" a large industry. The area of planting chives in 2010 reached 1 667 hm², radiating to 45 administrative villages. The town has become the largest one to plant chives in the whole province, and chives industry has become one of its pillar industries. It can be harvested for 3 times there in one year, and its annual output is as large as 103 500 kg/hm², its output value to 262 500 yuan/hm², 4 times the common vegetables. Especially in recent years, Hubei Province and Xiaogan City have respectively formulated the local standards of *Xiaogan Town' Chives* and *Regulations on Growing Chives Technologies in Xiaogan Town*. The implementation of all standardized growing, the use of organic fertilizer, the groundwater, and the traditional manual cultivation and harvesting have not only guaranteed its good-looking appearance, but its good quality with dark green, sturdy and shiny leaves. Chives growing there clump erectly with green leaves into thin tubes, rich flavor (the sand soil formed by Huan River and the unique soil held together by the yellow loam on the original surface cultivate the unique quality of "Xiaogan Town' Chives"). Moreover the registered "Xiaogan Town' Chives" trademark gained the national geographical indications protection in 2009, and was certified as organic food in 2010, as well as winning the Gold Medal of the sixth China (Wuhan) Agricultural Fair

in 2009. Recently, the value of chives has soared dramatically, and they have been sold to Beijing, Wuhan, Shanghai, Changsha, more than 20 large and medium-sized cities in the country. And its annual sales reach more than 170 000 t, the annual output value more than 430 million yuan. In order to make Xiaogan Town' Chives sold to much farther place and their fragrance wafting farther, the town has set up farmers professional cooperatives, and unified regulations for technical operations, quality management system and supply of means of production to improve product quality, and expand production scale. Right now, Xiaogan Town' Chives have occupied more than 70% market share of the whole chives market in Wuhan, and 47 chives outlets have been established in more than 20 large and medium-sized cities. In the town, the number of people selling chives full time is more than 70, and that of engaging in the collecting and selling chives is up to 400.

1.3 Therapeutic effect of chives Chive has antipyretic and expectorant effects. The effective components as volatile oil in chives can stimulate the gland to secrete, obtaining the effect of cooling through sweating. It can also stimulate the upper respiratory tract to cough the mucus easily. Meanwhile, it can improve digestion and absorption, stimulating the digestive juices in bodies to secrete, which is good for spleen and stomach, as well as improving appetite. It has the effects of antibiosis and anti-virus. The allicin in the chives has obvious effect to resist against bacteria, viruses, especially against dysentery bacteria and dermatophyte. It has anti-cancer effects. The pectin in it can significantly reduce the incidence of colon cancer, showing an anti-cancer effect, and the allicin in it can also inhibit the growth of cancer cells.

2 The main problems

2.1 Weak ability to resist flood A strong storm pelted down in the city in 2008, affecting 1000 hm² of chives, of which 667 hm² were damaged, causing direct economic losses amounting to 35 million yuan.

2.2 Unformed industry chain with no leading processing enterprises There are three sale modes to sell chives: (i) Chive planting→sales→thousands of households; (ii) Chive planting→dehydration processing→instant noodles factory; (iii) Chive planting→dehydration processing→export. The first is the primary sales model, while the second one is much more stable, and the third one is with more potential. As there is no dehydration processing company there, Xiaogan Town can only adopt the first sales model, which limits its further development.

2.3 Great fluctuation in its prices Chive is the daily consuming condiment, not the bulky life necessity. When its planting area is too large, and the market is oversupplied, its prices will decrease substantially, resulting "low price of chives hurts farmers"

2.4 Farmers with lower literacy level Among the rural labor force of the town, as most of the young farmers go out to work, most of those engaging in agriculture are basically women, chil-

dren, the elderly with low literacy, as well as weak ability to use new technology, and accept new knowledge. The fact that they are unable to meet the requirement of developing modern agriculture has restricted the application of agricultural science and technology achievements, and the popularization of new technologies to grow chives.

3 Countermeasures and suggestions

3.1 Increasing government support and improving the healthy development of chives industry It is important to use the central agricultural comprehensive subsidies and funds to develop agriculture, renovate water pumping station, and construct standard farmland play their regulating functions. It is important to gain the state's financial support by actively declaring "the national agricultural comprehensive development of high-quality chives base" project. In particular, it is also good opportunity to take the chance of investing \$ 4 trillion yuan for constructing water conservancy works in the future 10 years, according to the No. 1 document from the national central government of this year and return the chives bases in Xiaogan Town to fertile farmland enjoying stable yields despite drought or excessive rain with high standard. It is also possible to apply agricultural insurance to reduce the impact of natural disasters on chives production, stabilizing the chives farmers' revenue.

3.2 Intensifying the efforts to attract investment and developing chives processing industry The chive planting area and its yield in Xiaogan Town rank first in the towns of Hubei Province, and the chives grown there are well-known to the whole country. But still it has no chives processing companies there, which has impacted the benefits of the whole industry directly. Measures should be taken to step chives industry in Xiaogan Town to a new level by introducing leading enterprises to dehydrate chives for preservation, taking the advantages of Xiaogan City's orientation, the help of "the strategy of the rise of Central China" and the "1 + 8" strategy of urban economic circle in Wuhan City of Hubei Province, as well as its traffic convenience as the Beijing - Guangzhou railway travel through the town, and the 107 316 national highways are adjacent to it.

3.3 Strengthening the order agriculture services to achieve win-win As chives belong to the daily flavoring family, not the bulky necessities of life, so when there is no market, there is no way out for them. However, their growing area should not be expanded blindly, and should be decided by their sales. The government departments, and chive Industry Association^[3] should take the lead as contacting the domestic large instant noodles production enterprises, large-scale dehydrating chives enterprises^[4], exporting processed chives enterprises^[5] to form agricultural production mode of "leading enterprise + base + association + brand + farmers" to process industrial orders. The "eight unifications" implemented refer to the unification of providing seeds, layout, technical guidance, formula to fertilize, pest control, quality standards,

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a lot of labor to support the development of urbanization and industrialization.

4.4 Establishing urban-rural coordinated land market It is necessary to deepen and improve the land consolidation mode of "whole village advance", promote the reform of the homestead, and provide ways and means to build urban-rural integrated land market. Under the the premise of conforming to land use planning, the urban residents should be allowed to purchase rural homestead, to attract enterprises to invest in the countryside, in order to develop agricultural industrialization and promote the surplus rural labor's employment.

5 Conclusions

The consolidation potential of rural settlements is huge, but we should not use this as evidence to urbanize this great asset in disguise in the process of promoting new urbanization and urban-rural integration. The new urbanization should put protecting the interests of agriculture, countryside and farmers on the top agenda, and release the bonus from reform and opening up to farmers. Therefore, the urbanization in China should not follow the old path of low cost, but get rural construction land quota according to the laws of the market, return the interests to agriculture, countryside

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purchasing prices and brands. Only in this way can the sides involved realize a win-win situation, and gain mutual development.

3.4 Strengthening scientific and technological training to constantly improve the quality of farmers It is good way to gain money from national sunshine project, and select the right household to demonstrate technology in 45 agricultural villages growing chives in the whole town, according to the standard of cultivating 2 households to demonstrate technology in a village. To improve their abilities to accept knowledge and develop themselves and their driving force, it is also important to support the demonstrating households according to "six ones", which means displaying one signboard of demonstrating technology for each demonstrating household, putting on one bulletin board to demonstrate technologies, sending each demonstrating household one handbook about new practical technology to grow chives, giving them preferences to purchase one motorized sprayer, organizing them to give one centralized training course about chives technologies and holding one small project to demonstrate and test chives technology.

3.5 Strengthening the horizontal integration to constantly improve its quality and yield It is essential to cooperate with colleges, academies and research institutes for the introduction of intellectual resources. And the establishment of college practice base, scientific research institute experimental base should be put the agenda to help to select the breeding and introduce new kinds of chives, as well as make test of the new high-yield mode, and solve the problems encountered in production, so as

and farmers, so that farmers truly become the owners of the land in rural areas, and realize the vision of using rural land to manage rural areas.

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to continuously improve its quality and yield.

3.6 Improving brand awareness and gaining more popularity The growing area of Xiaogang's chive reaches 1 667 hm², with a yield of more than 170 000 t, and its annual output value is more than 430 million yuan. Meanwhile, Xiaogang's chive has gained its registered trademark and has been recognized as organic food, as well as protected by national geographical indications, and in 2009 it won the Gold Medal of the sixth Agricultural Fair of China (Wuhan). However, with no systematic and timely publicity, the brand awareness has been directly affected. And three methods should be applied to gain its more popularity: one is to set up an exclusive web site, which is very important in the Internet highly developed today. Another is to exclusively use the brand of "Xiaogang's chive" with significant mark in the main sales points. And the last is to manufacture brochures. In general, all methods should be applied to make "Xiaogang's chive" a household name, well-known to everyone.

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