

## Research on Innovation and Development of Agricultural Industrialization in Jiangsu under the Background of Innovation Driven

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### Abstract

In recent years, some achievements have been made in the construction of agricultural industrialization in Jiangsu province. The scale of industrial development has been expanded constantly, the efficiency of industrial operation has been improved obviously, and leading enterprises have been expanding constantly. However, there are still some problems. First, the scale of the industry is not large enough. Restricted by factors such as land circulation and traditional business model, it is difficult for land to be concentrated on a large scale. Second, the scale of enterprises is small and the number of small, agricultural leading enterprises are mostly agricultural processing enterprises, mainly rough processing, precision, deep processing enterprises few; Third, insufficient industrial investment. Agricultural project funds and local supporting agricultural input are mainly used for infrastructure construction such as roads, electricity and water. Direct investment in industrial production, product processing and marketing is insufficient. Fourth, the industrial market is not sound, the number of agricultural professional cooperative economic organizations is small, small, non-standard, low degree of organization, lack of marketing means in the connection between production and market, and it is difficult to play its due role. Through investigation and analysis, the following Suggestions are put forward: adjust the structure of agricultural modernization and build the characteristic agriculture system of Jiangsu; Support the development of agricultural leading enterprises and constantly extend the industrial chain; We should foster new types of agricultural operators and expand large-scale agricultural operations. Strengthen the service system construction of industrial industrialization and improve the agricultural income; We will further introduce policies and improve mechanisms.

### Keywords

Agriculture, industrialization, innovation, research.

### 1. Basic Situation of Jiangsu Agricultural Industrialization Development

Chinese rural economy has experienced from the planned economy period of collective economy have cauldron rice to the reform and opening up the market economy and planned economy coexist during the period of the household contract responsibility system, to now gradually to the development of agricultural industrialization, intensive, large-scale road, run by small and scattered family rural mode to the production of large, agricultural industrialization leading enterprises in the road of development of agricultural

industrialization. From the point of current status of the development of rural economy, small and scattered family management pattern already can not adapt to the current situation of the development of varieties of a single, low quality of agricultural products, market risk ability is poor, far cannot satisfy the demand of the market, especially after China's accession to the WTO, China's economy and the world economy, agricultural marketization development of economic globalization is inevitable trend for agricultural economic development. Only by strengthening and improving the production capacity of agricultural products, improving the production quality of agricultural products, improving the market share and improving the awareness of self-owned brands, thus enhancing the anti-risk capability of agricultural products market and realizing the upgrading and upgrading of agriculture[1].

Agricultural industrialization is the inevitable outcome of the rural economic development to a certain stage, must do a good job in the industrialization of agriculture to solve the current several aspects work: traditional agriculture has entrenched in the countryside, farmers and conservative, low level of science and technology, cultural quality is not high, in order to realize the agricultural industrialization must first find a way of science and education are suggested, improve the level of farmers' scientific farming, a tiller of the ground, fundamentally solve the farmers' ability to accept new agricultural science and technology. Secondly, it is necessary to cultivate the ability of farmers to understand management and management, and to manage agriculture as well as industry. From production to processing to sales, a complete industrial chain should be formed. Only with scientific management ability can the agricultural industry be developed and strengthened. Agriculture itself belongs to the weak industry, also should grasp of agriculture and industry, agricultural production cycle longer effective slow, low social high economic benefits, to scientific planning and reasonable layout, extending industrial chain and find a way of deep processing, grasp the hands will be ready for agriculture, grasping industry base construction, grasping processing value-added marketing marketization road[2]. Future agricultural development in the demand for talent will be integrated comprehensive development-oriented talent, agriculture as basic industry of national economy will exist for a long time, for a China with more than 900 million farmers, to realize the "four modernizations", "agricultural modernization" will "priority" is the development, only to achieve the "agricultural modernization" in China's economy to achieve the comprehensive modernization, also like catch industrial persistence pays special attention to agriculture, with the agricultural industry driving the development of small-scale peasant economy, China's economy is a way out, that kind of "model" of the small-scale peasants instead "factory farming" namely "agricultural industrialization". Comrade deng xiaoping said: "not something inherent in capitalism market economy, socialist market, plans more or market more than capitalism and the fundamental difference between socialism", only plan and market, agriculture only taking the path of the capital market can have a way out, in order to realize the leaping type development, will be more urgent demand for comprehensive and practical talents.

The key to agricultural industrialization lies in talents. Modern agricultural production is no longer the simple slash-and-fire type of the past. It is closely connected with agricultural mechanization and scientific planting. The realization of agricultural industrialization should closely link the development of agricultural economy and agricultural science and education. Without good agricultural science and technology education the scientific and technological quality of farmers cannot be improved, advanced agricultural production equipment cannot be applied, farmers' quality cannot be improved, and agricultural modernization cannot be talked about[3].

Agricultural industrialization is a system engineering, it needs to have a scientific planning, planning and short-term planning and long-term planning, short-term planning focuses on the current urgently needs to solve the problem of production, including before, during and after the three links, antenatal is mainly concentrated on prenatal preparation, such as variety

selection, fertilizer supply, soil fertilizer, etc. Production is mainly focused on the management, water and fertilizer management and pest control, timely harvest and other work; After the main focus on connecting the market, do well from rough processing to deep processing transformation. Long-term planning based on the judgment of agricultural development in the future, it will involve the long-term development of an industry and rise to a local strategy, which will play a decisive role in promoting the economic development of one party.

To realize agricultural industrialization is requires a strong policy support, there is no firm policy as support, a good won't be lasting development of agricultural industrialization projects, weak agriculture because of its quality, determines its existence very big uncertainty, especially the fresh agricultural products shelf life is short, this will increase the production cost, increase the risk of market force, brings to the production of the leading enterprises great economic burden and pressure, if there is no good policy support, the agricultural industry development would not have such as the development of light industry and heavy industry for a long time, the so-called good political environment package transportation, taxes, guarantee mechanism of natural disasters, etc., All these problems require our government to think about. Only when the political environment is created, can the development of agricultural industrialization be sustained and create vigor and vitality[4].

After China's accession to WTO, agriculture has been in line with international practices. Traditional production mode is no longer the mainstream of future agricultural development, and quality plus yield equals to economic benefits. This is the way to survive agricultural development. Just rely on small-scale peasant economy pattern could not be achieved, agricultural development also like catch industry, go out to take people long to fill yourself short, absorbing the world advanced production technology and production experience, through independent innovation combined with digestion, absorption, form with independent intellectual property rights of agricultural science and technology, new achievements, make it into a larger agricultural economic benefits, the ethnic characteristics of agricultural brand to the world, to gain greater economic benefits.

Only realize the industrialization of agriculture to produce powerful economic benefit, to have a certain ability to resist risk, market agriculture to realize the entire development of industrialization should also pay attention to the pluralistic in hand, like this is advantageous to the balanced development between various industries complementary, not industry downturn serious losses, make agricultural industrialization can smooth and healthy and orderly development, the development of agriculture is quite unstable, mainly the production cycle is long, affect the natural disasters, once encountered natural disasters will be wiped out, this can cause a lot of damage to the production enterprise, only the multivariate hand in hand, to reduce the agricultural market risk, By attracting more leading agricultural enterprises to enter the agricultural field, driving and developing more agricultural projects to realize the rapid development of agriculture[5].

Agricultural industrialization is a new thing, also is the industrial enterprises to play its market advantage, extend to a broader wider field an important way, it can not only create more profits for industrial enterprises, at the same time also can absorb more cheap labor, create more jobs, reduce production cost, it is not only conducive to enterprise own development, but also created more jobs for the society, after realize the industrialization of agriculture, farmer's identity will be fundamental changes, from farmers to workers, to realize agricultural modernization will play a large role in promoting.

Accomplishing agricultural industrialization is an inevitable trend in the development of agricultural globalization, intensive scale development pattern, in fighting against natural disasters, the market risk prevention and control, improve the quality of agricultural products, production has a certain advantage obviously, change the traditional extensive mode of production will have to go the way of agricultural industrialization, to reality of agricultural

modernization, only to realize the industrialization of agriculture. China's large population, especially the agricultural population accounts for most of the countries, agricultural industrialization road is imperative, China is a developing country, the poor foundation, backward productivity, realize the "four modernizations" signature in agriculture, with advanced productive forces go the way of the agricultural industry to change the appearance of traditional agriculture, realize the modernization of agriculture[6].

In recent years, jiangsu governments at all levels and relevant departments have attached great importance to the work of agricultural industrialization, taking the development of agricultural industrialization as a major measure to adjust and optimize the structure of agriculture and rural economy, constantly increasing efforts to speed up the development of agricultural industrialization and achieved good results.

(1) Regional leading industries were basically formed. Jiangsu depends on the resources advantage, to ensure the steady development of food at the same time, actively adjust the industrial structure, accelerate agricultural industrialization process, basic formed the order of background, pear, nan fung gold creek honey tangerine, yellow gardenia, silkworm five regional leading industries, emerging features such as spices, pigs and grape industry begun to take shape.

(2) Agricultural leading enterprises are constantly expanding. In the process of promoting the development of agricultural industrialization, jiangsu should take developing leading enterprises as the key to promote agricultural industrialization, adopt various policies and measures, and support the development and expansion of leading enterprises.

(3) Standardized production and brand construction have achieved initial results. Jiangsu gives full play to its resource advantages, highlights its characteristics, attaches importance to its brand, and strengthens the construction of large-scale, high-quality and standardized production bases for agricultural products.

(4) The externality of agricultural industrialization is gradually improved. Jiangsu actively develops export-oriented agriculture, attaches importance to guiding leading enterprises' foreign exchanges and cooperation, and attracts various kinds of social funds into the field of agricultural industrialization by vigorously implementing investment in agricultural industry. A number of well-known large enterprises at home and abroad have successively come to jiangsu to invest and build industrialization projects.

## **2. Problems Exist in the Development of Jiangsu Agricultural Industrialization**

Paying attention to project in jiangsu province as the carrier, give full play to the geographical and resource advantages, and the market at home and abroad, comprehensively promote several solutions, to develop various forms of agricultural industrialization, actively guide agricultural production, processing and marketing links the organic combination and mutual promotion, to further promote the agricultural development in the direction of commercialization, specialization and modernization[7].

Accelerating the synchronous development of new industrialization, urbanization and agricultural modernization, promoting the urban-rural integration, and forming a new type of relations between workers, farmers and urban areas that promote agriculture through industry, and between cities and townships, and between workers and farmers, and that integrate urban and rural areas, are the key to doing a good job in agriculture and rural areas. In recent years, some achievements have been made in the construction of agricultural industrialization in jiangsu province. The scale of industrial development has been expanded constantly, the efficiency of industrial operation has been improved obviously, and leading enterprises have been expanding constantly. But there are some problems: one is that the industry is not big

enough. Restricted by factors such as land circulation and traditional business model, land is difficult to be concentrated on a large scale, and intensive scale benefits cannot be formed. The vast majority of rural households are still the production and operation units, and decentralized operation of rural land is difficult to give play to scale benefits, and it is impossible to form advantageous industries. Second, the enterprise scale is small and the number is small. Agricultural leading enterprises are mostly agricultural processing enterprises, mainly rough processing, precision and deep processing enterprises. Affected by the market and natural disasters, agricultural products market fluctuates, and there are frequent price fluctuations, market instability, low efficiency and other phenomena, which objectively hurts farmers and damages them, dampens farmers' enthusiasm for production and operation, and directly affects industrial development. Third, industrial capital investment is insufficient. In agricultural project funding and supporting local agriculture is mainly used in road, electricity, water and other infrastructure construction and directly used in industrial production, product processing, marketing inputs such as insufficient funds, production, supply and sales and business, industry and trade integration construction lag, look from the appearance of industrial development situation is good, but from a quality benefit analysis and comparison of industry of farmers' income share is not big enough. Fourth, the industrial market is not sound. Agricultural professional cooperative economic organizations are small in number, small in scale, non-standard and low in degree of organization. They lack marketing means in the connection between production and market and cannot play their due role. The industry and the market, the industry and the enterprise lack the effective connection, the mutual dependence is not strong enough, cannot form the symbiosis, the coexistence, the common prosperity the development situation.

The development of agricultural industrialization in jiangsu has played a significant role in promoting rural development, increasing agricultural efficiency, increasing farmers' income and other aspects. The price of agricultural products is unstable. The yield of agricultural products is greatly affected by weather and climate, which leads to the unstable price of raw materials and the unstable price of livestock products. For example, in 2016, the price of raw materials skyrocketed, while the price of eggs kept falling, causing the income of enterprises to exceed their income. What traditional operator neglects is the establishment of brand image. A good brand image is a huge intangible asset, is a good sales guarantee. However, in the market of agricultural products, it is difficult to find local agricultural product brands that are popular with consumers and have a certain status in consumers' mind. Most of the commodities traded in China's agricultural products market are primary products, without paying attention to further exploration of product value and lack of deep processing of products. It is a common problem that the index of non-agricultural construction occupation land determined by the general planning of modern agricultural land use is insufficient. Moreover, the property right of enterprise's fixed assets, such as building and factory building, is not clear. Causes the enterprise to raise funds, the new three - board listing process hinders many[8].

(1) There is a large gap in leading enterprises' leading role. One is from quantity, at present, city level above leading enterprises only have more than 100, development is not happy. Second, from the perspective of quality, the leading enterprises are small in scale, low in scientific and technological content, low in brand, and weak in strength. Although there are 10 enterprises with sales revenue of over 100 million yuan, no enterprises have entered the "double ten hundred" project. Thirdly, from the perspective of management, there are many extensive businesses, most of which are mainly rough processing, with less intensive processing, short industrial chain and low added value. In particular, there are no processing enterprises in the honey orange and honey pear industries, which are the leading industries, but directly enter the market with fresh fruits. Due to the small size and weak competitiveness of leading enterprises, the agricultural industrialization is restricted to further development, and the driving capacity of farmers is also very limited. There are not many farmers directly led by

leading enterprises, and their guiding and organizing base production and the joint role of peasant household management cannot be fully played.

(2) Agricultural standardized production is still very low. Jiangsu's agricultural product quality and safety standard system and testing system are not yet sound, the grassroots agricultural technology promotion system is very weak, the agricultural standardized production coverage is not wide, the extension area is not large, there are few truly standardized production, the agricultural planting and breeding base construction scale, intensification, organization level is still low. Although some agricultural products have technical regulations, they are poorly organized and managed. Some producers do not completely follow the operational regulations in the actual production process to safely and rationally use pesticides and fertilizers. The application of agricultural standardized production technologies has not been popularized, which has affected the quality and safety level of agricultural products and the market competitiveness.

(3) Agricultural product market system construction is still lagging behind. Overall, direct sales, wholesale markets for agricultural products in Jiangsu province construction is relatively lags behind, there is no one on the size of the professional wholesale market of agricultural products, only a few weak radiation and circulation ability of primary market, there is a street market, the function is not complete, market development degree is low, poor agricultural product circulation channels, lead to farmers lack of market information support, production has great blindness, prone to low prices, sales of agricultural products, can't effectively drive the regionalization and specialization of production, restrict the development of agricultural industrialization in Jiangsu province.

(4) The industrial operation mechanism is not sound. Because the production process and the market itself are risky, it is required that the enterprise and the peasant household establish the benefit connection mechanism of risk sharing and benefit sharing. From the situation of Jiangsu province, the relationship between processing enterprises and farmers is still at the order level. Some of them are simple buying and selling relationships. There is no economic community of Shared benefits and Shared risks between enterprises and farmers. Jiangsu farmers organization degree is not high, all kinds of the lack of peasant brokers, most of the farmers' professional cooperative organizations set up time is not long, small in size, some still is not standard, some nominally, no money no site, core members, less operation market and industrialization service ability is poor, it is difficult to play its typical demonstration role in driving.

(5) Industrial support is not strong enough. In recent years, under the circumstance of financial difficulties, Jiangsu has constantly increased its investment in agriculture, but the requirement of agricultural industrialization development is far from enough. Various agricultural AIDS funds of the superior government and departments are relatively scattered in use and lack of effective integration due to different sources and channels of funds, resulting in low efficiency of use of funds, insignificant effect, even crowding out and misappropriation, which does not play a good role in promoting the development of agricultural industrialization. Banks and credit cooperatives have high loan threshold, and it is difficult for enterprises and farmers to finance loans, which also hinders industrial development.

(6) Fewer well-known brands. Agricultural specialization production level is still low, excellent but not serious problems, and there are few well-known brands. Meanwhile, the quality inspection system of agricultural products lags behind, and the quality certification system of agricultural products is slow. Inadequate efforts to encourage and support agro-production organizations to carry out green food, pollution-free agricultural products and organic food certification have resulted in a lack of market competitiveness for quality agricultural products.

(7) Less investment mechanism. We will encourage and guide financial capital, industrial and commercial capital, and social capital to invest in the cultivation of leading enterprises in

agricultural industrialization, the development of a processing system for agricultural products, scientific and technological innovation of leading enterprises, and the development of a modern distribution system for agricultural products, and build a diversified investment support mechanism. At the same time, leading enterprises are encouraged to raise funds through the use of foreign capital and the issuance of corporate bonds and stocks to expand their sources of funds. In accordance with the actual needs of modern agricultural construction and agricultural industrialization development of the province, we will focus on the construction and upgrading of production facilities of agricultural leading enterprises and the upgrading and upgrading of technical equipment for intensive processing of agricultural products.

(8) Insufficient financial support. Financial institutions at all levels should strengthen credit support for qualified agricultural leading enterprises, and provide agricultural leading enterprises with high-quality supporting financial services in terms of the expansion of total credit extension, interest rate preference and expansion of credit varieties. We will establish and improve the credit guarantee system for agricultural industrialization, encourage qualified cities and counties to establish loan guarantee funds for leading enterprises, and guide cities and counties to speed up the establishment of specialized agricultural industrialization guarantee companies. We will give priority to support leading enterprises in their ipo financing, incorporate leading enterprises that have the conditions for listing into the key cultivation plan, and provide corresponding help and guidance. We will further expand the scope and variety of policy-based agricultural insurance, promote centralized underwriting and settlement of claims in agricultural policy-based insurance, and mainly support and subsidize leading enterprises and specialized farmers' cooperatives that participate in agricultural insurance.

(9) Less talent cultivation. Enterprises and parks should be encouraged to pay more attention to the cultivation and introduction of talents, establish strategic vision according to the development needs of enterprises and parks, and speed up the introduction of various kinds of talents, especially the cultivation of talents for industrial operation and management. In accordance with the requirements of the modern enterprise system, we should vigorously train professional managers and middle-level management talents, and introduce high-level technical talents in various ways to provide stronger talent support for the development of leading enterprises. It supports qualified enterprises to build industrial research institutes, academician workstations, post-doctoral workstations, engineering and technology research centers and other platforms, or realizes the sharing of talents with universities and research institutes by means of "flexible entry of professors and doctors into enterprises". We will encourage leading enterprises to give more prominence to the training of skilled workers while increasing the training of scientific and managerial talents.

### **3. Analysis of the Current Situation of Agricultural Industrialization in Jiangsu**

During the 13th five-year plan period, the economy of agriculture, rural areas and farmers will enter a new stage of development. The trend of continuing to pay attention to the basic work of agriculture will not change, and the changes in the field of agriculture, rural areas and farmers will be more extensive and profound. Moderate scale management, industrialization management will make the countryside produce more and newer development prospect.

We will continue to combine ensuring supply with promoting income growth. We will take ensuring food security and effective supply of agricultural products as an important goal for the development of agricultural industrialization, implement the strictest possible system for protecting and intensively using land for arable land, strengthen agricultural infrastructure, upgrade equipment, and steadily increase the comprehensive production capacity of agricultural products. We will accelerate the development of the processing industry for agricultural products, extend the industrial chain, strengthen the close cooperative relationship

between farmers and leading enterprises, innovate and improve the mechanism for distributing benefits between farmers and enterprises, motivate farmers to participate in agricultural industrialization, allow farmers to share more of the value-added benefits of agricultural industries, and increase their incomes[9].

Insist on the combination of market leading and government support. We should give full play to the basic role of the market in resource allocation, foster and develop leading agricultural industries, superior products and leading agricultural industrialization enterprises that meet the needs of the market and have distinctive characteristics and strong competitiveness by relying on the characteristics of regional resources and industrial development. We will accelerate the transformation of government management, improve the guiding policies for all aspects of industrialization, strengthen government public services, and create a favorable environment for the development of agricultural industrialization.

Insist on bringing in and going out. The introduction of foreign outstanding agricultural leading enterprises, outstanding agricultural management and management talents, and advantageous agricultural scientific and technological achievements should be strengthened to promote the development of agricultural industrialization in the whole province. Encourage enterprises to go abroad to explore the market of agricultural products, make use of the land and labor resources which are in short supply in domestic province and abundant and relatively low price in foreign countries, and improve the international competitiveness of jiangsu agricultural industrialization.

We should give priority to efficiency and sustainable development. We will always take improving the economic benefits of agricultural leading enterprises as an important goal, extend the industrial chain and increase the added value of agricultural products. We should innovate our business philosophy, introduce high-level management personnel, strengthen the use of new agricultural technologies, reduce capital costs and save energy, and improve efficiency. Based on the carrying capacity of resources and environment, optimize the distribution of productive forces, properly handle the relationship between agricultural production and ecological environment, rationally utilize and develop agricultural resources, extend and expand the industrial chain, develop various forms of agricultural circular economy, and achieve the goal of both jinshan and yinshan.

Leading enterprises play a leading role in the development of agricultural industrialization and are the main force to promote the development of agricultural industrialization. Therefore, we should actively guide leading enterprises to make excellent brands and make the market bigger. We will guide leading enterprises to strengthen their management and raise their level. We will monitor the operation of leading enterprises in jiangsu province, give key support and services to those leading enterprises that have developed well, promote them to become bigger and stronger, and strengthen their driving force. We will promote the standardization of leading enterprises and industrial parks. We will actively carry out demonstration and popularization of the construction of bases and parks, improve agricultural intensification and specialization, and create clusters of leading enterprises with great potential, high scientific and technological content and strong market competitiveness. We will optimize financial services, expand financing channels for enterprises, and effectively solve the problem of financing difficulties.

Reduce logistics loss and circulation risk, promote seasonal supply, and provide circulation service for agricultural industrialization. In "online", we actively seek to connect with taobao, jingdong and other websites, and at the same time, we pay attention to offline market development. We take the direct selling between farmers, super farmers and enterprises as an important focus. We will optimize the industrial cluster chain, achieve on-site processing and sales of base agricultural products, form an industrial chain integrating agriculture, industry and commerce, production, supply and marketing, and vigorously promote agricultural industrialization.



The establishment and improvement of the benefit connection mechanism is the sustained impetus for the healthy development of agricultural industrialization and a strong grip for realizing the mutual benefit and win-win between leading enterprises and farmers. Leading enterprises and farmers should be guided for mutual benefit and mutual assistance to form a community of interests. Leading enterprises can drive farmers to develop production by means of orders, shares and so on, thus promoting the integrated development of rural primary, secondary and tertiary industries. To actively develop the "company + cooperative + peasant household" model, leading enterprises provide peasant households with such socialized services as purchase and sale of agricultural materials, technical guidance, market information, product sales and logistics distribution. Let the farmer be cooperatives member, also be enterprise shareholder, realize many times thereby share out bonus and benefit. At the same time, lead to encourage farmers to land, capital, technology and other production factors in the development of industrialization, the implementation of cooperative system, a variety of forms such as joint-stock system, including agricultural production, processing, sales, unified management by the company liquidation, shareholders farmers are both migrant workers and enterprises, so as to form with the enterprise of "risk-sharing, benefit-sharing" close community of interests, achieve mutual benefit and win-win results. To improve the mechanism of interest connection, we should first try, on the basis of equality, voluntariness, mutual benefit and win-win results and risk sharing, actively explore and form innovative experience that can be copied and popularized, and promote the healthy development of the industry.

We will vigorously implement the brand strategy, guide industrialized agricultural enterprises and farmers' professional cooperation organizations to strive for high quality brands, and organize enterprises to make full use of such platforms as TV stations, newspapers, the Internet, expos and trade fairs to carry out all-round publicity, promote and promote products, improve their image and expand their popularity. At the same time, we will actively encourage enterprises to strengthen independent research and development, improve the scientific and technological content of products, expand market share and make products go abroad. We will guide leading enterprises to establish r&d centers and research and development teams, develop and apply new technologies with proprietary intellectual property rights, and accelerate the pace of transforming new technologies into real productivity. We will make good use of the results of screening major key technologies for processing agricultural products and comprehensively improve the technological level and market competitiveness of provincial agricultural leading enterprises through research, development, introduction and popularization of a number of major key technologies, processes and equipment for processing agricultural products. Help the powerful enterprises to declare national agricultural product processing technology research and development sub-center, strive for more national or provincial agricultural product processing scientific research projects. We will actively build an innovation system and an application platform for agricultural science and technology, with leading enterprises as the main body and combining production, education and research. Based on the institutions of higher education in ning, the scientific and technological cooperation platform is built from three levels of government, industrial parks and leading enterprises. Key construction 30 professional agricultural products processing research and development of the information, and select the 30 leading enterprises to establish pilot technology research and development center, encourage scientific research institutes, colleges and universities and enterprises production, docking, form a professional research and development of agricultural products processing center or agriculture leading enterprise technological innovation organization, implementation technology of effective docking of supply and demand.

Strengthen scientific and technological innovation, integration of science and technology resources, to do a good job of introducing talents, technology import, improve enterprise technology innovation ability, solve the technical problems in production, give full play to the

technological innovation, demonstration and radiation impetus function, make technical innovation agriculture leading enterprise growing power source, become an important support for sustainable development of agriculture leading enterprises. Strengthen leading enterprise technology drive. We will actively support leading agricultural enterprises in promoting precision processing and deep processing of agricultural products, extending the industrial chain, and increasing the processing rate of agricultural products. We will gradually transform agricultural products from simple and extensive to deep processing and diversified, and increase the added value of agricultural products. At the same time, we will actively encourage and support leading enterprises to set up their own r&d institutions, develop new varieties, products and technologies with independent intellectual property rights, and improve their capacity for independent innovation and core competitiveness.

#### **4. Suggestions for Innovative Development of Jiangsu Agricultural Industrialization**

(1) Adjust the structure of agricultural modernization and build the characteristic agriculture system of jiangsu. To adjust and optimize the agricultural structure and build a modern agricultural industry system, we should adhere to market orientation, adjust products in short supply in the market according to the comparative advantages of market supply and demand and regional development, adjust products with high quality and characteristic, adjust the industrial chain of planting, breeding and marketing, optimize the layout of regional development and actively expand the space for agricultural growth. To increase grain, reduce cotton, stabilize oil as the general tone, constantly optimize planting layout. We will adhere to the strategy of creating a major market for 10 billion tons of grain, continue to push forward and strengthen the construction of core areas for grain production, constantly reduce low-yielding and low-efficiency cotton fields, steadily develop the area under oil planting, and mainly expand the area under double low-yield rapeseed planting. We will vigorously develop the water and poultry industry and promote the development of animal husbandry in taihu lake. We will actively develop modern fisheries, focusing on popularizing famous aquatic products such as crayfish and river crabs. We will strive to build jiangsu into the most concentrated land of high-quality vegetables, the largest aquaculture base and freshwater aquatic products base in southern jiangsu. We will adjust and optimize the structure of primary, secondary and tertiary industries. We will support the development of processing industries for agricultural products, focusing on the development of primary processing in producing areas of agricultural products and the deep processing of postpartum products to raise the level of deep processing of agricultural products. We will speed up the construction of a state-level wholesale market for freshwater products in jiangsu, and link up production, supply and marketing in various forms, such as linking farmers and supermarkets, linking agricultural schools and schools, and directly purchasing and selling freshwater products. We will vigorously develop agricultural e-commerce and expand the distribution channels for agricultural products. We will vigorously develop ecological, leisure, sightseeing and experience agricultural construction.

(2) Support the development of agricultural leading enterprises and constantly extend the industrial chain. The competitiveness of agriculture not only depends on the number of primary agricultural products, but also depends on the development degree of the entire industrial chain. The breakthrough development of agricultural processing industry and supporting the development and expansion of leading enterprises are the fundamental way to promote agricultural industrialization management and improve agricultural economic benefits. Agricultural leading enterprises are an important driving force of agricultural industrialization management. Only through the driving of agricultural leading enterprises, the realization of market leading and the industrialization management of farmers led by the leading enterprises can achieve common development. We should rely on jiangsu's advantage of local resources to

attract investment and speed up the introduction of a number of agricultural processing leading enterprises. We will guide agricultural product processing enterprises to become bigger and stronger through mergers and reorganizations. We will strengthen the capacity for independent innovation of agriculture-related enterprises, support qualified enterprises in establishing research and development centers, support agriculture-related enterprises in marrying with colleges and universities and research institutes, and establish an industry-university-research collaboration mechanism. We should guide agriculture-related enterprises to reform in accordance with the modern enterprise system, break away from the family management mode and constantly improve the management of water management. We will support the in-depth integration of leading agricultural enterprises with cooperatives, family farms and large professional families, and improve the radiative driving role of leading agricultural enterprises. Establish and perfect the benefit connection mechanism between agricultural leading enterprise and peasant household. Establishing stable benefit connection mechanism is the core of agricultural industrialization management development. Through the establishment and improvement of the benefit connection mechanism between enterprises and farmers, the industrial chain should be constantly extended, and every link of production, processing, storage and transportation and sales should be carried out to constantly improve agricultural efficiency.

(3) To cultivate new agricultural operators and expand large-scale agricultural operations. We should adhere to and improve the basic rural operation system, build a modern agricultural operation system based on household contracting, linked by association and cooperation and supported by social services, and constantly improve the level of agricultural organization, scale, intensification and specialization. We will accelerate the development of new types of agricultural business entities. We will vigorously implement the project to cultivate new types of business entities, and support the development and expansion of new types of business entities such as large family farmers, family farms, farmers' cooperatives, agricultural service organizations and leading enterprises. We will support farmers' cooperatives in forming associations and cooperative general societies linked by products and industries. Increase financial support for new agricultural management main body, credit services to the new management main body tilt, actively explore the contracted management of rural land mortgage pilot, promote new agricultural management main body lead manager system, promote "loan + insurance" financing mode, actively explore the farmer cooperatives association internal pooling pilot. We will steadily promote agricultural insurance and raise the participation rate of policy-oriented insurance for agriculture, rural areas and farmers. We will steadily promote moderate scale operations in agriculture. Encourage contracting farmers to subcontract, exchange, transfer in accordance with the contracted land, a stake in circulation, actively guide and promote the land management to cultivated and large family, family farms, farmers cooperatives, leading enterprises, agriculture business service organizations such as new operators to regulate the circulation of orderly, develop various forms of moderate scale management of agriculture. We will build a tangible market for the transfer of contracted rural land rights and establish a sound land transfer service system. We will encourage and guide industrial and commercial capital to develop modern farming practices in rural areas that are suitable for entrepreneurial management. We will strengthen agricultural mechanization, improve the structure of agricultural equipment, improve the infrastructure for supporting agricultural machinery such as machine farming, advance mechanization of key links such as machine planting and machine insertion, take the lead in mechanizing grain crops such as rice and rape, and accelerate the development of mechanization of cash crops, equipment planting and breeding.

(4) Strengthen the service system construction of industrial industrialization and improve agricultural earnings. We will actively cultivate operational agricultural service organizations and encourage cooperative organizations and leading agricultural enterprises to provide social

services to farmers. We will actively promote the comprehensive reform of supply and marketing cooperatives, expand the scope of business services, and better fulfill our responsibility to serve farmers. We will guide public service institutions such as scientific research, technology popularization and testing to transform their functions, gradually withdraw from operational areas, and focus on providing public services such as demonstration and extension of new varieties of new technologies, monitoring of soil environment, unified control of crops, prevention and control of regional epidemics, and supervision and control of agricultural products. We will encourage government orders, incentives and subsidies, and bidding and tendering to guide operational service organizations to provide public welfare services in important areas and key links such as united front control and agricultural machinery operations. The key technologies of high yield and high efficiency production of major crops are integrated and assembled, and a set of standardized operating technical specifications are formed. Efforts should be focused on the technical popularization of staple crops and the technical popularization and training of advanced agricultural mechanization equipment. New operators, such as family farms and large planters, are mainly targeted at carrying out efficient planting and breeding models and the demonstration and popularization of applicable agricultural technologies. Relying on agricultural expert committee, agricultural society and other scientific and technological service groups, and actively carrying out scientific and technological services through training speeches, on-site consultation and field guidance, and guiding leading enterprises, large professional families, family farms and farmer cooperatives to actively participate in the popularization of agricultural science and technology. We will improve the system for popularizing agricultural technology at the grass-roots level, and strive to build a "one main and multiple" system for popularizing agricultural technology, with public welfare agro-technical extension agencies as the main body and social forces such as farmers' professional cooperatives and leading enterprises as the auxiliary body.

(5) Further introduce policies and improve mechanisms. Government guidance and support are key. It is suggested that the government should take agriculture as a rich agricultural industry in the construction of new rural areas and a leading industry in towns and villages, give preferential treatment in personnel, capital and policies, take charge of formulating policies and measures for the development of agricultural industry, coordinate to solve the difficulties and problems faced, and promote the continuous development and expansion of modern agriculture. We will accelerate the development of the agricultural industry with science and technology as the support. To develop agricultural industry, we should strengthen scientific and technological support and raise the scientific and technological level of agricultural operation. We should strengthen the introduction and development of fine varieties of agricultural products, vigorously develop and build demonstration bases to drive and radiate the people around. We will fully support the listing of agricultural enterprises. If give priority to give special fund support, give land policy support. In the process of listing, the original land use right can be transferred by way of filling, and the paid land use procedures can be completed. Because appear on the market need, give priority to arrangement land index, quicken deal with relevant formalities.

(6) Highlight leading industries and optimize agricultural structure. In accordance with the three principles of "optimization of resource allocation, maximization of comparative advantage, and intensification of large-scale production", we will focus on facility agriculture, characteristic agriculture and brand agriculture, and strive to build a number of agricultural production bases with large scale, good efficiency and strong competitiveness. First, we should focus on facility agriculture, take large-scale and efficient agriculture as the key to the structural adjustment of agricultural industry, vigorously develop the cultivation of high-quality fruits, vegetables, flowers and seedlings and other facilities, and strive to build a number of large-scale agricultural parks and bases. Second, develop characteristic agriculture. We will give full play to jiangsu's abundant resource advantages, continue to consolidate and improve grain

industries such as the seed of Job's tears, purple rice and bamboo rice, and continue to develop fruit industries such as watermelon, crystal pear and nari in the greenhouse, striving to create a new competitive advantage of "one has nothing to own, one has something to own, one has something to own, one has something to own". Third, build brand agriculture. Focusing on the key areas and key technologies for the development of modern agriculture in jiangsu, we will vigorously implement the "brand strengthening agriculture" strategy, and constantly improve the market competitiveness of agricultural products by developing, introducing and popularizing new varieties, technologies and achievements with core competitiveness.

(7) Give priority to projects and further increase agricultural input. Attracting investment through foreign investment, and actively guiding various capital into the agricultural field. First, focus on project construction. Agricultural investment promotion and capital introduction to introduce projects as to the speed up the development of modern agriculture, the surrounding agricultural projects and agricultural infrastructure construction, elaborate, packaging project, fully excavate jiangsu agricultural resources, industrial base, the advantages of the ecological environment, aiming at province agriculture leading enterprise, outstanding facilities for agriculture, leisure agriculture, intensive processing areas such as agriculture, mainly introduced a batch of investment scale, high technical content, more market share, has a significant effect on modern agricultural development in jiangsu and leading role of the project. Second, actively cultivate agricultural subject. Heavily in the development of facilities agriculture at the same time, introduce foreign capital to further stimulate local artist, cultivated and large, the enthusiasm of schiscosomiasis technology backbone, etc in the development of facilities agriculture, by helping to solve credit, technology, information, land and other aspects of the problem, efforts to foster a batch of powerhouse for infrastructure development, speed up the construction of facilities agriculture ShiFan Town, demonstration base, and a model household, formed "one household with multi-family, more than one village, village village, village as a base" development pattern. Three is practically strengthen support to further increase the financial investment incentive, continue to put the finance support agriculture in prominent position, the full implementation of national, provincial, municipal, on the basis of the favorable policies, continue to increase investment in local governments at the corresponding level, have the key to integrate agriculture, agricultural project money facilities play a good supporting policy guiding role.

(8) Give prominence to carrier construction to further improve agricultural efficiency. We will speed up the construction of carriers in accordance with the requirements of centralization, concentration and intensification, and strive to promote a larger scale of facility agriculture, a longer industrial chain and stronger industrial competitiveness. First, speed up the construction of modern agriculture demonstration parks. We will speed up the construction of a number of modern agricultural demonstration parks with distinctive industrial characteristics, high scientific and technological content, advanced material equipment and significant comprehensive benefits, in accordance with the idea of "government-led, enterprise-led, market-led and industrial development zones." Second, we will accelerate the development of professional cooperation organizations. Through a series of policies and measures such as financial support, tax reduction and exemption, various subjects are guided to participate in the construction of professional cooperation organizations, and the organization degree of farmers to enter the market is constantly improved. At the same time, we will speed up the cultivation and support of a number of farmers' brokers who have the skills, market knowledge and ability to operate, and guide them to engage in sales, enter the market, and strive to drive the surrounding farmers to get rich together. Third, we will accelerate the development of the market system. We should pay close attention to marketing services, give full play to the guiding role of market sales, and guide farmers to plant what they need in the market and make money. Ensure that produce is produced and sold. At the same time, on the basis of stabilizing the local market, we will continue to expand sales channels, actively develop new logistics such as chain,

distribution and direct supply, and continuously improve the market share of jiangsu agricultural products, so as to effectively solve farmers' worries about developing facility agriculture.

(9) Make further planning and clarify the ideas of agricultural industrialization development. After the development of recent years, jiangsu agricultural industrialization has a good foundation. To adapt to the needs of the development of the new situation, according to the actual, jiangsu province, further develop and improve the agricultural industrialization development plan and specific goals and tasks of agricultural industrialization and key in the new period, the optimization of regional layout, the layout of industry development, the base construction, enterprise and market construction such as formulating specific planning, build a long-term mechanism of the industrial development, to prevent and avoid the low level of industry convergence and redundant construction. We should carry out, by the best "principle, strive to promote the order of background, nan fung pears, orange, gold creek honey yellow gardenia, silkworm, spices, pigs, vegetables, tea, grapes and other characteristics of agricultural production base construction, on the premise of pay attention to quality, efficiency, growing industry scale, real transfer agricultural industrialization to pragmatic, accelerate the development of the track.

(10) Increase support to create a favorable environment for development. First, we should further improve various policies and measures, effectively increase support for the development of agricultural industrialization at the county and township levels, increase financial input, and establish a mechanism for the steady growth of government funds for agricultural industrialization. Second, we should implement the policies of the central government, provinces and municipalities on agricultural industrialization, actively seek the support of policies and funds from higher authorities, strengthen the effective integration of funds for various agricultural projects, and concentrate on the construction of key industries, enterprises and projects for agricultural industrialization. Third, we need to coordinate financial departments to increase credit support for agricultural industrialization, reform loan and mortgage methods, establish a mortgage guarantee mechanism for industrial development, and solve the financing problems of enterprises and farmers. We will improve agricultural insurance mechanisms and improve farmers' ability to withstand risks. Fourth, we should strengthen the efforts to attract investment to the agricultural industry, attract as much as possible non-local funds and various types of social funds to agro-industrial operations, and promote the continuous development of agricultural industrialization. Fifth, we should actively explore new ways to transfer land. On the premise of not violating the land policy, we should improve the land transfer policy and promote the appropriate scale operation of rural land in accordance with the principle of "legal, voluntary and paid". Sixth, we need to improve the comprehensive reform of rural areas, strengthen the system of popularization of agricultural technology at the grassroots level, and improve the socialized service network of agricultural science and technology so as to provide necessary technical support for the industrialized operation of agriculture.

(11) Insist on expanding and strengthening leading enterprises to achieve new breakthroughs led by leading enterprises. We should focus on the development of leading enterprises as the top priority in the management of agricultural industrialization. In accordance with the market orientation and the needs of industrial development, we should speed up the construction of leading enterprises and form a group of agricultural industrialization enterprises. In particular, we should concentrate our efforts to cultivate and support a number of leading enterprises that are large in scale, have a good market prospect, are highly competitive and have a wide range of sectors. We will vigorously develop export-oriented agriculture. We will continue to open up agriculture to the outside world, combine going global with introducing it, encourage powerful leading enterprises to connect with well-known enterprises at home and abroad, improve the

scientific and technological content of agricultural products and their ability to process them in a more sophisticated manner, and promote enterprises to scale up to a higher level.

(12) Vigorously promote standardized production and accelerate agricultural product quality certification and brand building. Agricultural standardization is an important means of implementing quality and safety management of agricultural products, and is the main sign of realizing agricultural modernization. Want to combine the actual need and industry development in Jiangsu, formulate and improve the standardization of agricultural production system and improve the agricultural products detection network, intensify agricultural standardization implementation and promotion, to strengthen the security technology of agricultural production procedures, efforts to enlarge the coverage of quality standards, we will vigorously support and foster pollution-free agricultural production base and agricultural standardization demonstration area construction. Attach great importance to brand building, strengthen brand awareness and quality awareness, and develop brand agriculture. We will continue to vigorously promote the certification and application of pollution-free agricultural products, organic agricultural products and green food products, actively cultivate famous-brand agricultural products, and promote the production of high-quality and safe agricultural products on a scale and at a higher level. We should strengthen the protection of Jiangsu agricultural product brands, create a number of well-known agricultural product brands with high market share, improve industrial competitiveness and lay a solid foundation for the in-depth development of agricultural industrialization.

(13) Vigorously develop professional cooperation organizations and constantly improve the interest connection mechanism. Should be in accordance with the "voluntary, mutual benefit" and "run by the local people, manage benefit, by the people" principle, around the needs of the development of regional characteristic economy, develop the farmers' professional cooperatives, industry association, the association and other kinds of new farmers' professional cooperative economic organization, actively guide eligible SCO to further improve relevant procedures, completes the registration, for some does not yet have conditions of the SCO, actively guide the create conditions and become a professional cooperatives. Give full play to the inline farmer specialized cooperative organization in the industrial system, the action of external market, improve the docking with the leading enterprises and market, vigorously promote the "leading enterprises + base + professional cooperative + farmers" agricultural industrialization organization forms, such as a positive development in profits returned to the joint-stock cooperative system, according to the stock dividends and other form of benefit, through the establishment of various forms of benefit coupling mechanism, the leading enterprises, closely contact base, Shanghai cooperation organization, the farmers, to form closer economic interests of the community.

(14) Increase support for policies on agricultural industry, and set up special subsidy fund. The cultivation funds of agricultural industrialization will be included in the municipal financial budget, and a certain amount of funds will be arranged every year as a special fund to support and subsidize the operation of agricultural industrialization. One is to subsidize the creation of brands. For famous brands recognized by the state or provincial level, the establishment of enterprise legal persons and special contribution personnel shall be subsidized according to the level. Second, the certification of organic food, green food certification, pollution-free agricultural product certification, quality system certification, each received a proper subsidy. Third, the operators who have made outstanding contributions to the leading enterprises of agricultural industry are recognized as national, provincial and municipal leading enterprises of agricultural industrialization with appropriate subsidies.

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