

# *Upgrading Strategy on Intensive Processing Industry of Agricultural Products in Ji 'an under the Background of Rural Revitalization*

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**Abstract:** Under the existing conditions, the agricultural product processing industry in Ji'an city is in the primary stage to be developed, and has not formed large-scale operation. In order to accelerate the rapid upgrading of agricultural products processing industry, it is necessary to fully combine the actual situation of agriculture in this city and fully understand the development stage of agricultural products industry. In this paper, based on the development status and predicament of agricultural product processing industry in Ji'an city, the upgrading strategy of agricultural product deep processing industry under the background of rural revitalization is constructed to provide important support for agricultural and rural modernization.

## **1. Introduction**

The 14th Five-Year Plan of the State lays out overall arrangements for giving priority to agriculture and rural development and promoting all-round rural revitalization in the new stage of development. Since the release of the No. 1 Central Document in 2021, the implementation of "agriculture, rural areas and farmers" has become the consistent goal of the whole country, and agricultural and rural development has become the top priority. To rejuvenating the nation, rural areas must be revitalized, and industrial revitalization is the top priority of rural revitalization. To vigorously promoting industrial revitalization, the most effective way is to actively develop the intensive processing industry of agricultural products. In recent years, the government of Ji 'an City has continuously promoted and supported the high-quality development of the intensive processing industry of agricultural products. The intensive processing industry has begun to take shape, opening up a new path for the local rural revitalization and development. However, such problems as short industrial chain, weak leading enterprises and incompact interest linkage mechanism further restrict the process of high-quality development of refined and deep processing industry[1].Therefore, it is necessary to strengthen the research on the upgrading strategy of Ji 'an's agricultural products intensive processing industry, which can not only improve the overall development level of rural economy, help farmers achieve income increase, consolidate and expand the achievement of poverty alleviation and effectively connect with rural revitalization, but also promote the city's industrial revitalization and realize the integrated development of three industries.

It is of great practical significance and research value to provide important support for agricultural and rural modernization [2].

## **2. The Effect on the Development of Intensive Processing Industry of Agricultural Products on Rural Revitalization**

### **2.1 Realizing "One Industry" to "Three Industries", and Accelerating the Engine of Agricultural Modernization**

As the pillar industry of our city's economic development and an important engine of agricultural modernization, the intensive processing industry of agricultural products is the top priority in the process of comprehensively promoting rural revitalization [3]. As one of the core of rural industry. The deep processing of agricultural products is connected to agriculture, rural areas and farmers at one end, and to industry, cities and citizens at the other. The primary production is connected to the second production and the third production. With wide industry coverage, high industrial correlation degree and strong radiation driving effect, it is an important growth pole to promote rural economic development and farmers' employment and income, and it is also of great significance to build a new development pattern around service and smooth economic cycle [4].

### **2.2 The Effective Way to Realizing the Prosperity of Farmers and the Growth of Rural Economy**

The development of agricultural product processing industry will fundamentally optimize the structure of agricultural industry, promote the transformation of agricultural development mode, accelerate industrial upgrading and improve economic benefits[5]. The initial and deep processing of surplus products in the market is not only conducive to matching market supply and demand, improving the comprehensive utilization rate and added value of agricultural resources, extending the industrial chain and value chain, but also promoting the local transformation and added value of agricultural products, and improving farmers' income and economic benefits[6]. At the same time, the development of agricultural product processing industry plays an important role in promoting the overall development of rural economy. The research shows that the development and agglomeration of processing industry have significant positive effects on local economic growth[7].

### **2.3 Solving a Series of Social Problems in Rural Areas and Building a Beautiful Countryside Is an Important Step**

Building a beautiful countryside is a major measure to promote the economic and social development of rural areas, improve the quality of farmers' lives, accelerate the process of urban-rural integration, and build a happy Dapu[8]. It is the main way to promote the construction of a new countryside and ecological civilization. The continuous expansion of agricultural product processing industry can stimulate the vitality of rural development by attracting capital, talents and science and technology back to the countryside, which will help solve the problems of the aging of farmers, the hollowing out of the countryside and the marginalization of agriculture, develop and strengthen the rural industry, broaden the channels for increasing farmers' income, and build a vibrant "beautiful rural economy"[9].

### **3. Current Situation of Development on Intensive Processing Industry of Agricultural Products in Ji 'an City**

In recent years, the city to implement the rural revitalization strategy as the overall focus, accelerate the cultivation of agricultural industrialization leading enterprises, accelerate the construction of agricultural products storage and preservation cold chain facilities, agricultural products intensive processing industry has shown a good development trend, the market size maintained a stable growth, the industry development prospects are considerable, mainly reflected in the following aspects:

#### **3.1 Rapid Development of Industrial Scale**

In recent years, it around the green, organic agricultural advantage industries, vigorously develop related production operators, build a batch of green, organic agricultural products processing enterprises, encourage family farms, farmers' professional co-operatives and other new type of agricultural management main body development of green, organic agricultural products, constantly expand the scale of green agricultural products deep processing development. At present, Ji 'an agricultural products processing enterprises are increasing at a rate of more than 10 every year, and the scale of leading enterprises is gradually expanding. In 2021, there were more than 200 leading enterprises of agricultural products processing in the city, among which Yongfeng County Lvhai Oil Co., LTD and Jiangxi Jintian Grain and Oil Group Co., LTD were rated as national leading enterprises of agricultural industrialization, and Xingan County Ganzhong Green Grain and Oil Food Processing Park was recognized as the first batch of national agricultural industrialization Demonstration base by the Ministry of Agriculture. The total revenue of leading agricultural products processing enterprises at or above the municipal level reached 13.1 billion yuan.

#### **3.2 Industrial Development Has Been Intensified**

Industrial construction efforts are concentrated in the improvement of the processing level and the brand effect of agricultural products. In terms of intensive processing level, the city's agricultural product processing conversion rate in 2021 was slightly higher than the provincial average level; Agricultural product processing industry and agricultural output value are basically equal to the provincial average level; More than 70% of the provincial leading enterprises are engaged in intensive processing. In terms of agricultural products brand effect, jinggangshan rice and interact because has successfully registered geographical indication marks, including rice is one of the rice brand of jiangxi province key support of the jinggang mountains, jinggang because the fourth batch of China's characteristic agricultural advantage area, enter the imperial examination hall 2020 fruit area public brand value list, in 2020, the most popular fruit area public brand 100 strong, With a brand value of 2.537 billion yuan, Gu Gu Nao tea ranks 31st among regional public tea brands in China.

#### **3.3 The Industrial Support System Was Gradually Improved**

Ji 'an City vigorously develops the "Internet + modern agriculture" platform to promote online and offline interaction of agricultural products and solve sales problems. District built agricultural e-commerce platform 6, rural electricity service station 21, 11 companies a iot in agriculture, built in 37 country beneficial information club and one county benefit farmers information club operations center, widen the marketing channel of agricultural products, driving the increase in the

income of farmers, for it provides important conditions for the further development of deep processing of agricultural products. Ji 'an City has accelerated the improvement of market circulation system. At present, there are 60 wholesale markets for all kinds of agricultural products, including 22 comprehensive markets, 15 professional markets and 23 origin markets. There are 298 grain storage enterprises with a total storage capacity of 3.2 million tons. It has 352 storage facilities for vegetables, fruits and other agricultural products, with a storage capacity of 1.1 million cubic meters.

#### **4. Dilemma of Development on Intensive Processing Industry of Agricultural Products in Ji'an City**

Although the intensive processing industry of agricultural products in Ji 'an has made certain achievements, there is still a big development gap compared with the intensive processing industry in developed areas, and it also faces some development difficulties, mainly reflected in the following aspects:

##### **4.1 Short Industrial Chain, Low Added Value and Weak brand Market Competitiveness**

The intensive processing of agricultural products is a production link of deep development, processing and production of agricultural products to maximize the benefits of agricultural products. At present, most agricultural products in Ji 'an are still in the processing and supply of fresh raw materials and primary products, and only the primary products are simply packaged, so the products are not suitable for storage, and the added value of the products is not high. Provincial and domestic lack of well-known agricultural products processing enterprises brand, brand market competitiveness is weak. For example, Jinggangshan Grain and Oil, Yijiangqiu, Jiaofeng and other rice processing enterprises have their own brands, but the external publicity is not enough, the influence is limited to the local; The jams and preserved fruit products developed by Yifang Agriculture are of high quality, and they are directly supplied to well-known enterprises such as KFC, McDonald's and Liangpin Store. However, they have not formed their own brands, and are only limited to OEM processing, resulting in a situation where the products are of high quality but the enterprise has no brand.

##### **4.2 The Leading Enterprises Are Not Strong, and the Strength of R&D Technology Is Weak**

Relatively few farmers benefit from the enterprise, and there is a prominent contradiction between the decentralized production of farmers and the centralized processing of enterprises. In some periods, human resources are in serious shortage. Most of the existing interest linkage mechanisms between leading enterprises and farmers are loose and semi-compact interest linkage, such as ordering type and labor type. There is a lack of tight interest linkage, such as farmers' capital or land investment in enterprises or cooperatives and leading enterprises, in which farmers' investment is made. For example, Jinggang Lubao Company has an annual processing capacity of 30,000 tons. However, except for rice oil, the vegetable oil needed for processing, such as tea oil, peanut oil, sesame oil and corn oil, are all distributed to Ji 'an from other places, which has little effect on promoting the development of local agricultural products and increasing farmers' income. Many enterprises is still in the growth period, relatively backward production technology, processing equipment is old, product independent development ability, the new craft, new material, new technology in low degree of agricultural products processing applications, technical equipment and processing level compared with the advanced level gap is larger, the lack of innovation awareness, lack of products with core competitiveness. At the same time, the overall quality of the

enterprise is not high, and there are certain problems in the management level.

### **4.3 The Scale of Enterprises Is Small and the Degree of Industrial Concentration Is Not High**

In 2021, the processing capacity of major agricultural products in Ji 'an was only more than 3 million tons, and the processing conversion rate was lower than the national average level. The number of enterprises producing low-value-added products such as grain and oil processing, slaughtering and meat processing accounted for more than half of the total number of enterprises in the food processing industry. In terms of intensive processing of food and leisure and health food manufacturing, the number and revenue of enterprises are less than 20% of the total. The situation of primary processing of agricultural products has not been fundamentally changed, there is not much intensive processing, and the cold chain logistics capacity of agricultural products storage and preservation needs to be improved. There are not many large processing leading enterprise groups. There is not one processing enterprise whose sales revenue exceeds 1 billion yuan, and only 7 processing enterprises exceed 300 million yuan. Industrial concentration is not high reflected in: first, the layout is not centralized. The intensive processing industry of agricultural products is distributed in the 13 districts and counties of Ji 'an City. Even within the districts and counties, the layout of bases is very scattered, and there is no influential industrialization base, and the scale and cluster effect have not been formed. Second, the varieties are not concentrated. There are many forms of agricultural products processing in a district and county. Because of the inconsistency of type and maturity, it cannot form the same batch intensive processing of agricultural products, which brings great difficulties.

### **4.4 lacking of Processing System, and Secondary, Tertiary Integration Is Not Enough**

Although the integration of primary, secondary and tertiary industries in Ji 'an city has made some progress, it is still in the initial stage of development. The integration degree is low, the level is shallow, the development of new business entities is slow, and the diffusion and penetration of advanced technological elements is poor. Mode of operation is mostly dry production oriented, insufficient consumer oriented, interconnection and interoperability between different industries is not strong, a large number of agricultural products processing conversion without the consideration at the beginning of the production, did not consider the function of agricultural development, is engaged in the production of not engaged in processing, logistics, marketing, is engaged in the processing is not engaged in the production, engaged in logistics, distribution is not engaged in the production, processing; The industrial chain and value chain of bulk agricultural products are not fully realized. Most of them are in the stage of cultivation and harvest. There is a disconnect between production, sales, trade, industry and agriculture.

## **5. Upgrading Strategy of Ji 'an's Intensive Processing Industry of Agricultural Products under the Background of Rural Revitalization**

Short for it deep processing industry chain, low added value, the brand market competitiveness is not strong, lack of processing system and the industrial concentration is not high, need to combine rural revitalization strategy, highlight the top-level design, strengthening planning guidance and macro management, establish work promoting mechanism, from the following four aspects to upgrade intensive processing industry[10].



## **5.1 Build the Whole Agricultural Industry Chain and Create a Well-Known Processing Industry Brand**

Centering on the leading agricultural industry in the region, it guides the leading enterprises of agricultural industrialization in the region to lead the establishment of agricultural industrialization consortium integrating agricultural research and development, breeding, production, processing, storage and transportation, sales, brand, experience, consumption, service and other links, so as to continuously enhance the influence of agricultural products deep processing industry. Adhere to the development of the whole industrial chain of "variety research and development, fine planting, deep processing, brand sales", truly realize the transformation from increasing production to increasing efficiency. At the same time, we will guide the qualified leading enterprises to build a digital platform for the whole industrial chain.

Establish processing enterprises to quality and integrity as the core of the brand concept, vigorously enhance the quality control ability of the whole process, constantly excavate the connotation of brand culture, enhance brand added value and soft power. Cultivate standard "leader", plastic strong regional public brand, guide enterprises and farmers to create enterprise brand, cultivate a batch of characteristic product brand. Enterprises are encouraged to make full use of platforms such as We-media, social media and terminal consumer groups to accelerate the comprehensive upgrading of brand, production and sales capabilities. Encourage brand planning agencies to participate in enterprise brand cultivation activities, to provide enterprises with a forward-looking, in line with the characteristics of The Times of brand cultivation model.

## **5.2 Building a Close Interest Linkage Mechanism and Integrate Processing Technological Achievements**

In the early stage of industrial transformation, it is inevitable that leading enterprises will not have strong driving force and weak strength in R&D technology. In view of this situation, interest linkage mechanism can be established by means of stock linkage, service linkage, labor linkage and lease linkage. At the same time, we will support a number of agricultural industrialization complexes led by leading enterprises, followed by cooperatives and family farms, and participated by the majority of farmers, so as to form an industrial aggregate "closest to agriculture and closest to farmers". We will actively expand agricultural product processing projects, encourage farmers to set up their own cooperatives, and actively invest in agricultural product processing enterprises. This vertical integrated agricultural industrialization management mode with farmers as the main body can effectively promote farmers to participate in the process of modernization on an equal basis, share the fruits of modernization together, and promote the strategic goal of urban-rural integration.

At present, the processing technology of the intensive processing industry of agricultural products includes the canning technology of agricultural products, the drying technology of agricultural products, the thermal processing technology of agricultural products, and the vacuum freeze-drying technology, etc. The above processing technology can guide the agricultural products processing enterprises to base themselves on "agriculture, rural areas and farmers". According to the advantages of agricultural products and agricultural resources of Ji 'an city, strengthen the cultivation and development of products, promote product innovation, and speed up the renewal of products. We will guide agricultural product processing enterprises to take the lead in joint research on "production, education, research and application" to overcome technological bottlenecks such as food pretreatment, mixing and homogenization, loss reduction and efficiency enhancement. Organize processing enterprises, research and development teams and equipment enterprises, build

common technology research and development platform and innovation consortium, create information, intelligent, engineering processing equipment, and promote application in the intensive processing and production of agricultural products in Ji 'an city.

### **5.3 Cultivating High-Quality Leading Enterprises and Optimize Industrial Layout**

We will accelerate the cultivation of leading enterprises with great development potential and strong agricultural income growth, and form an echelon of leading enterprises at the national, provincial, municipal and county levels. Encourage and guide large agricultural product processing enterprises to establish large agricultural enterprise groups through mergers, reorganizations, equity participation and other forms. With reference to the practice of the city's Special leading group on cost reduction and Excellent Environment, we will establish a support mechanism for agricultural enterprises, increase assistance in resources, policies and other aspects, and coordinate to solve prominent problems and bottlenecks encountered by agricultural enterprises.

On the whole, the agricultural product processing industry of Ji 'an City is still in the development period. The development of agricultural product processing industry will be of great significance in the future. Therefore, scientific planning and layout to promote the rational development of agricultural product processing industry is the primary premise. Focusing on major agricultural products such as grain and oil, honey pomelo, tea, vegetables, livestock and poultry, this paper proposes a targeted and feasible layout strategy for agricultural products processing industry according to the characteristics of agricultural products resources, geographical environment and development advantages of this city, and forms a block agricultural products processing industrial park with relatively distinct characteristics. At the same time, we should strengthen the construction of agricultural product processing industrial park with high standards, strengthen the awareness of "project is king", deepen the docking and communication with the Guangdong-Hong Kong-Macao Greater Bay Area, Yangtze River Delta, Pearl River Delta and other regions, focus on listed agricultural companies and leading enterprises, based on local industrial characteristics, carefully package investment projects, and innovate ways of agricultural investment attraction. We will attract a number of large and good agricultural product processing projects worth more than 1 billion yuan to the park.

### **5.4 Building an Efficient Processing System and Strengthen the Deep Integration with Secondary and Tertiary Industries**

In constructing efficient processing system layer, it is necessary to support farmers cooperatives and family agriculture (animal husbandry) focus on developing pretreating, guide the large agricultural enterprises, food enterprises to speed up the development of deep processing, cultivating raw material base, the central kitchen and delivery (food and beverage outlets, business super sales), and the central kitchen + catering outlets (chains, community network, terminal customer) model.

In order to solve the dilemma of insufficient integration of agricultural product processing industry with secondary and tertiary industries in Ji 'an City, it is necessary to strengthen planning guidance and macro management to carry out "integrated development". "Integrated development" means that the primary, secondary and tertiary industries in rural areas promote each other, build a new type of relationship between industry, agriculture and rural areas, boost the development of rural urbanization, and achieve mutual benefit and win-win results. First of all, we will vigorously promote the deep integration of agricultural production and agricultural product processing industry, foster a variety of business development models, encourage and guide the integrated development of agricultural product processing industry and the primary, secondary and tertiary industries, and

create multi-form development. We will accelerate the development of rural service industries, make innovations in distribution methods and forms, integrate e-commerce with physical distribution, improve the backbone network for the distribution of agricultural products, and promote various forms of connecting direct sales. Secondly, new technologies, new business forms and new business models will be introduced into agriculture, and modern business models such as e-commerce and logistics will be actively used to transform the mode of agricultural production and management. At the same time, we will guide the deep integration of agricultural product processing industry with leisure, entertainment, environmental protection, culture, education, pension and other industries to form an organic combination of primary, secondary and tertiary production development mode.

## 6. Conclusion

At present, the scale of intensive processing industry of agricultural products in Ji'an is developing rapidly, the industrial construction is constantly increasing, and its supporting system is gradually improved, forming an organic combination development mode of primary, secondary and tertiary production. The development of modern agricultural products intensive processing industry, the way out of integration, the focus is on processing, agricultural products processing industry capacity improvement can provide a source of power for the development of rural industrial economy. And the country has a large number of agricultural and sideline products, actively developing agricultural product processing industry has the in situ transformation, cost saving, the advantages of the abundant labor resource, economic less developed areas to implement the strategy of rejuvenating the country, must have new breakthrough in the industry, to provide new drive to new era new rural development, strengthen agricultural products deep processing and the new rural revitalization of kinetic energy, and promote rural revitalization walk in the forefront of the city.

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## References

- [1] Xiaoying Yang, Dexin Wang. *Study on the Improvement of Agricultural processing capacity and the strategy of rural development: A case study of Heze City. Rural Economy and Science and Technology*, 2019 (21): 23-28.
- [2] GENG J P. *Path exploration of implementing the strategy of rural revitalization -- Deep cultivation of agricultural processing industry. Statistical Science and Practice*, 2018 (07): 33-36.
- [3] Duan Y Yang. *Rural Revitalization, industry first, the practice of Enabling Rural revitalization by Happy Industry Alliance. Journal of the Chinese Nation*, 2021 (10): 71-72.
- [4] WANG K J. *Path analysis of rural industry revitalization based on the development of regional public brands -- A case study of urban geographic indication agricultural products. Journal of Agricultural Sciences*, 2019 (06): 92-100.
- [5] WANG Fenfang. *Path selection of Agricultural products Brand Construction in Western Minority Areas under rural revitalization. Modern Agricultural Research*, 2018 (11): 28-29.
- [6] ZHANG X F. *Analysis of deep processing predicament of cereals under the background of rural revitalization -- A case study of cereals processing industry in Xinzhou City, Shanxi Province. Modern Agriculture*, 2019 (12): 77.
- [7] Zhang Yihong, Xu Shiqiang. *Discussion on the construction of agricultural product processing industry upgrading mode under the background of rural revitalization. Agricultural Economic and Science and Technology*, 2020 (08): 198--199.
- [8] Jiang J J, Sun Guiren. *Analysis on the development of deep processing industry of featured high quality agricultural products in Minqin County. Gansu Agriculture*, 2021 (06): 42-44.
- [9] Lyu J, Sun Y. *Research on the integration and upgrading of agricultural industry chain in Heilongjiang Province*



*under the background of COVID-19. Business Economics, 2021 (02): 14-15.*

[10] Zheng Hongmei, Gao Bo, Li Jingyuan, Wang Jianmin. *Thoughts on the high quality development of Yunnan characteristic agricultural products intensive processing Industry. Agricultural Outlook, 2021 (05): 54-57.*