

Study on the Constraints and Countermeasures of Sugar Industry Development in Chongzuo, Guangxi Province

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Abstract

The sugarcane industry in Chongzuo City, Guangxi, through continuous development, has successfully driven the development of related industries such as local liquor and local fertiliser, and has become an important support for the economy of Guangxi. The sugarcane industry in Chongzuo City has a long history and a large arable area. However, there are still the following deficiencies: the degree of mechanisation of sugarcane planting is low; the overall usage rate of sugarcane products is low; and the supporting facilities of the sugarcane industry are not perfect. On the basis of comprehensive analysis, this study concludes that Chongzuo City sugar cane industry vigorously promotes the mechanisation of sugar cane intensive scale production; improves the comprehensive utilisation rate of products and extends the industrial chain; increases the technical investment and improves the sugar production equipment and facilities.

Keywords

Sugar industry, Constraints, Countermeasure research, Chongzuo City.

1. Introduction

Chongzuo City belongs to the Guangxi Zhuang Autonomous Region, which has a mild climate, abundant rainfall and rich agricultural, mineral and tourism resources. The good soil and climate conditions in Chongzuo City make the sugar cane grow well, which is one of the most suitable planting areas in the world. With the superior resources and environment, the sugarcane industry has become a pillar industry in Chongzuo City through continuous development, and has also become an important industry in Guangxi and even in the whole country.

2. Guangxi Chongzuo Sugar Industry Status Quo

According to the existing data, Chongzuo City has been planting sugarcane since the Han Dynasty, and then the juice of the sugarcane is crushed and squeezed to produce cane juice for human consumption. Since the reform and opening up, the sugar industry in Chongzuo City has been further developed, and the local government has made use of the advantages of regional resources to vigorously develop sugarcane cultivation and sugar industry. Recognised by the China Light Industry Association and the China Sugar Industry Association, Chongzuo was named "China's Sugar Capital" in 2014, and was again named "China's Sugar Capital" in the 2017 re-evaluation.[1] Chongzuo City has developed into the largest sugar city in China. Chongzuo City has developed into China's largest R&D and production base of green sugar food raw materials and food processing operation base. In 2022, the sugarcane planting area was 4.092 million mu, accounting for 52.46% of the crop planting area in Chongzuo City; the sugarcane output was 25.3795 million tonnes.[2] It can be seen that Chongzuo City has a long history of sugar production, with a large area of arable sugarcane, and the output of sugarcane planting accounts for the majority of the output of all local agricultural products.

3. Guangxi Chongzuo Sugar Industry Constraints Analysis

3.1. Low mechanisation of sugarcane cultivation

Chongzuo City sugarcane concentrated planting in the central hills and the surrounding slopes, the land layout is irregular, can not meet the basic requirements of large and medium-sized areas within the hills of sugarcane production machinery planting operations, and most of the region to rural small farmers planting is dominated by the planting of sugarcane, planting sugarcane expenses and costs are large and comparatively high, the labour intensity is high, the use of labourers is large, the employment of workers is difficult, and the cost of labour is high.

3.2. Low rate of integrated utilisation of sugarcane products

Chongzuo City for refined sugar cane processing products, scientific research and production and development of comprehensive utilisation of relatively few, for the lack of in-depth research on the processing of sucrose, the main focus of the current work stays in the production of confectionery and beverages from the COFCO, East Asia and other large-scale sugar factories. And the centre's product development is still under construction and has just begun to start the period. Guangxi Good Youth Vinegar Co., Ltd. to build a 36,000 bottles / hour can production line project, COFCO Tunhe Chongzuo Sugar Co., Ltd. to build a new daily output of 100 tonnes of brown sugar projects, such as 12 major production and industrial construction projects are still in the pre-planning, has not yet been completed the construction of production. At present in the new industrial park through the planning and construction of a total of 61 major industrial projects, has basically completed the project and officially put into production 10 key projects, about only 15.40% of the total number of projects, to achieve the scale of the park's output value of 3.901 billion yuan, the comprehensive use of the relevant products accounted for a relatively low proportion.

3.3. Inadequate support for the sugar industry

At present, Chongzuo City's sugar industry integrated industrial demonstration park has not yet started further construction, most of the projects are still in the preliminary planning and construction, Xinhe Town's sugarcane circular economy industrial park is expected to be completed in December 2021, the industrial support is relatively weak, related to the development of modern agricultural logistics, financial markets, information technology services, technical consulting, market business development, agricultural production management services and other industries. The development of related industries such as modern agricultural logistics, financial market, information technology services, technical consulting, market business development, agricultural production management services, etc. is still at a relatively backward level, unable to meet the requirements of promoting the rapid development of the sugar industry in the context of the new economic development.

4. Promote the Development of Guangxi Chongzuo Sugar Industry Countermeasures Research

4.1. Vigorously promoting mechanised intensive and large-scale production of sugarcane

Further support for the research and development of agricultural machinery and equipment, financial resources and other relevant industrial policy support, support for intelligent pre-cutting sugarcane planting machinery, sugarcane transport combined special harvesting machinery, support for large-scale intelligent pre-cutting planting machinery and equipment, and medium-sized ploughing and cultivating machines. Slowly and gradually realise a series of mechanized operation process of sugarcane production from the beginning of planting to the start of manual sowing to the completion of ground covering, fertilizer, watering and seedling

weeding, removing diseases and the final harvesting of sugarcane. The mechanisation of the whole process of sugar cane production and processing will further reduce the cost of sugar cane production and processing, increase the yield rate of sugar cane, accelerate the development of the sugar cane processing industry, and enhance the market power and competitiveness of the industry.

Government departments should conscientiously implement subsidies for the purchase of agricultural machinery, and actively implement preferential financing policies to strengthen and benefit agriculture, as well as the agricultural machinery promotion system and its construction subsidy programme. Accelerate the mechanisation of the whole process of sugarcane product production, continue to increase the strength of preferential policies and financial support, motivate sugar manufacturers, professional companies and other plantation manufacturers and large households to adopt new intelligent sugarcane machinery, and guide more large-scale enterprises to carry out technological research. Strengthen the communication and coordination with various types of sugar factories, adopt appropriate deduction rates for mechanically harvested sugarcane products, establish green channels for sugarcane mechanically harvested transport operations, and reasonably reduce the cost of mechanically harvested expenses. At the same time, we should also do a good job in education and training activities related to sugarcane mechanisation and organise training for technical personnel related to agricultural machinery, so as to provide strong support for promoting the development of sugarcane mechanisation.

4.2. Improving the comprehensive utilisation of products and extending the industrial chain

Pay attention to the selection and breeding of varieties, and vigorously support the scientific research of sugarcane, in order to cultivate high-quality varieties of sugarcane suitable for planting in the local area.[3] Efforts will be made to promote the construction of marketing institutions and planting bases for good sugarcane seeds, and to gradually form a commercial and industrialised service system. Adhering to the requirements of the "Trinity" plan, and on the basis of water conservancy engineering, we will vigorously carry out soil testing and formulating, intelligent and water-fertilisation medical service integration.

Actively support the cultivation and accelerated development of cane sugar-related emerging industries, increase the recycling of industrial resources of the main raw materials of cane sugar and cane sugar by-products, increase the investment of funds in research on high-tech industries of cane sugar, develop industrial raw materials such as bagasse pulp and paper, yeast, monosodium glutamate, rum, ethanol, caramel pigments, organic fertilisers, etc., and promote the development of clustering, intensification and recycling in the engineering of cane sugar-related industries, so as to establish the cane sugar industry with a In order to establish a modern and new sugar industry development support system with reasonable structure, diversified ways of expanding industrial chain structure, high level of high-tech independent innovation ability, and better economic benefits and environment.

4.3. Increase technical inputs and improve equipment and facilities for the sugar industry

Chongzuo municipal government should actively make full use of its geographical location advantages, strengthen its foreign economic and trade exchanges and business cooperation, introduce foreign advanced science and technology innovation means to support and help develop the modern Chongzuo's sugarcane industry. By making full use of international platforms such as the ASEAN Expo and other international platforms, technical cooperation and promotion exchanges will be carried out on various key stages of Guangxi's sugarcane seed agricultural cultivation, mechanised planting and agricultural production, sugar industry, etc.,

so as to enrich the structure of varieties of raw material series products for the sugarcane sugar industry and enhance the ability of the comprehensive utilisation and development of series of agricultural products for the sugarcane sugar industry.

5. Conclusions

Chongzuo City, as the largest sugar industry base in the country, after continuous growth, Chongzuo City, the development of the sugar industry is good, mainly reflected in: sugarcane planting area is stable, the sugar production rate continues to improve: the regional layout continues to optimise, the advantages of clusters initially appeared; the raw material cane purchase in order, the harmonious development of the sugar industry; industrial structure adjustment and upgrading, the processing capacity is gradually improved; the status of the pillar industry is consolidated, and the socio-economic benefits The status of pillar industry is consolidated, and the social and economic benefits are remarkable.

This paper focuses on the main problems of the sugar industry in Chongzuo City, which are analysed and interpreted. Generally speaking, the current problems in the development of sugarcane industry are concentrated in the three aspects of low degree of mechanisation of sugarcane planting, low comprehensive utilisation rate of sugarcane products, and imperfect supporting facilities of sugarcane industry. The study concludes that the current path to enhance the development of sugarcane industry in Chongzuo City should include: (1) vigorously promote the mechanisation of sugarcane intensive and large-scale production; (2) improve the comprehensive utilisation rate of the products and extend the industrial chain; (3) Increase technological investment and improve the equipment and facilities of the sugar industry.

References

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