

For Whom - Main Agricultural Products in Guangdong Province Consumer Demand Research

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Abstract. In recent years, the consumption demand of major agricultural products in Guangdong Province presents new characteristics, main consumption of agricultural products is the trend of different, rice and vegetable consumption to smooth fluctuations, edible oil, meat, fruits and aquatic products consumption showed varying degrees of growth. From the perspective of consumption structure, consumption structure of urban and rural agricultural products exist great differences, such as rice, vegetables urban per capita consumption of stabilization, the consumption of rural residents began to decline. The change of consumption structure led to the main agricultural products in Guangdong Province Import and export situation change, the import and export of the main agricultural products in Guangdong was deficit, most of the wheat and other grain need from other provinces transferred. By using GM (1, 1) model on the consumption of main agricultural products in Guangdong make demand forecasting, has found that consumer demand for the next ten years of rice, vegetables, edible oil, meat, fruits and aquatic products showed a trend of increase in the flat, and according to the forecast results to make the corresponding policy recommendations.

Introduction

Consumption of agricultural products in Guangdong Province shows three characteristics: First, the total ranks first in the country. Second, main agricultural products in Guangdong Province regional consumption is relatively concentrated. Third, there is a big difference between urban and agricultural consumption structure of Guangdong Province. In 2015, since Xi Jinping has proposed the implementation of food security strategy 'storing grain on the ground, hidden in food technology', the production of agricultural products in Guangdong Province reform from incremental reform to supply-side structural reform subsequently. However, as a big province with a population of 100 million which has agricultural gap at the same time, the question of "for whom, how much to produce" fails to have an accurate prediction for a long time, we need to study the supply and demand balance problem for a longer period from the angle of main agricultural products in consumer demand.

Consumption of Main Agricultural Products in Guangdong

(I) Rice consumption has crossed the peak stage, and consumption has no big fluctuations. In recent 10 years, the total rice consumption in Guangdong Province has changed little, and the overall stability, and the trend of rice consumption has declined. The demand for rice consumption were 11 million 723 thousand and 200 tons in 2012, and 11 million 317 thousand and 900 tons in 2013, reflecting the overall demand for change is not big. As compared with the consumption of 12 million 216 thousand and 500 tons in 2005, the consumption has decreased by 4.03% and 7.36% nearly two years, reflecting the rice consumption demand of whole province has decreased. In 2007-2009, rice market sales in Guangzhou stabilized at around 1.27 million tons for three consecutive years.

(II) The consumption of vegetables has gradually entered a stable stage, the total amount of consumption is relatively stable. Guangdong is the largest national vegetable production and consumption province, perennial vegetable area has 660 million acres, yield 28.6 million tons,

ranking seventh in the country. However, although the total amount of vegetable production in our province is more than self-sufficient, and the supply is stable, but it is not balanced.

(III) The total consumption of edible oil showed a rapid growth trend. In recent 10 years, with the speeding up of urbanization process, the overall level of consumption of residents has increased, and the total consumption of edible oil has changed dramatically, and the overall situation has increased significantly. The total consumption of edible oil in Guangdong province reached 927 thousand and 800 tons in 2013, and compared with 2004, it has an increase of 33.3%. And at the same time, under the constant influence of using oil scientifically and the healthy consumer concept of constantly, people's habits and diet trend to reduce edible oil consumption direction. And from the beginning of 2011, the edible oil consumption of Guangdong Province growth was slowing trend.

(IV) Meat consumption rose steadily, and the proportion of pork in the meat is more than 60%. Over a long period of time, the demand for meat in Guangdong is strong, but the supply is insufficient. Among them, the proportion of pork consumption of meat accounted for more than 60% in Guangdong, and the phenomenon of shortage of pork is the most serious. The bulk of the supply of beef is maintained by imports, and the supply gap is very large. The poultry are relative balance between supply and demand. After 2010, the meat consumption growth of Guangdong began to slow down, with the continuous improvement of the industry chain of meat product and the development of the scale of production, the supply of meat will gradually adequate. At the same time, meat consumption demand will be relatively stable rise, while meat prices reduce volatility.

(V) Total amount of fruit consumption showed a trend of increasing year by year. The total amount of fruit consumption reached 4 million 825 thousand and 200 tons in Guangdong province in 2013, which has an increase of 3 million 39 thousand and 600 tons compared with 2004. And fruit basically balance between supply and demand. In 2012, the cultivated area of the province's total fruit planting is 12 million 57 thousand hectares, with a total production of 240 million 568 thousand tons, and the fruit size and yield were the highest in recent years.

(VI) The total amount of the consumption of aquatic products showed a trend of rapid and steady growth. The production of aquatic products reached 7 million 290 thousand tons in Guangdong province in 2012, accounting for the proportion of 13.62%, second only to Shandong province. With the increase in production, the per capita share of aquatic products increased significantly, while the total consumption of urban and rural residents also increased. Over the past 10 years, the demand for water products in Guangdong increased year by year, and the demand reached 2 million 96 thousand tons in 2013, which had an increase of 51.82% compared with 1 million 380 thousand and 600 tons in 2004. But on the whole, the consumption growth rate lags far behind the pace of growth in production, and consumption accounted for the proportion of the amount of production is very low, which has a large gap compared with the international average level, indicating that the consumption demand of aquatic products has great room for growth in Guangdong province.

The Consumer Demand Forecast of Main Agricultural Products in Guangdong in the Next Ten Years

Prediction Design

Collect Two Parts of Data. One part is the historical data of the consumption of six kinds of main agricultural products in Guangdong province, and the available time span is 2005-2013 years; the another part is the data of rural and urban population during 2005 to 2013 in Guangdong province. And according to the population growth rate and urbanization rate, calculate 2016-2025 Guangdong province's rural and urban population.

Forecast per Capita Consumption Demand of All Kinds of Agricultural Products in Rural and Urban Areas of 2016-2025. The MATLAB software was used to run the date and got the result by using GM (1, 1) model and the historical consumption data of 2005-2013.

Calculate the Total Demand for All Kinds of Agricultural Products in 2016-2025. Use the population data of the corresponding years and per capita consumption demand of agricultural

products to get the total consumption demand of various agricultural products in rural areas and urban areas in Guangdong province, and add two data together to get the total demand of consumption of all kinds of agricultural products in Guangdong province.

Forecast Results

Rice. Overall, in the case of rural rice consumption demand shrinking and the growth of urban consumption demand, the rice consumption demand of Guangdong province is still showing a gradual increase of the situation in next 10 years. Specifically, in upward and downward trend, the rice consumption of Guangdong province will be 11 million 819 thousand and 700 tons in 2016 up to 13 million 158 thousand and 700 tons in 2025, with an overall growth of 11.33% and an average annual growth rate of 1.26%.

Vegetable. Overall, in the case of shrinking demand for rural vegetables and urban consumer demand tends to be stable, the consumption demand for vegetables of Guangdong province is still showing a steady increase in demand in next ten years. Specifically, under the interaction of upward and downward trend, the total demand for vegetables consumption of Guangdong province will be 11 million 576 thousand and 700 tons in 2016 up to 13 million 350 thousand and 700 tons in 2025, with an overall growth of 11.33% and an average annual growth rate of 1.26%.

Edible oil. In general, in the case of the growth of rural consumption demand of edible oil and urban edible oil consumption demand declining slowly, the edible oil consumption demand is still showing increasing trend in next ten years in Guangdong province. Specifically, under the interaction of upward and downward trend, the total edible oil consumption of Guangdong province is still increasing, and will be increased from 918 thousand and 500 tons in 2016 to 1 million 153 thousand and 500 tons in 2025, with an overall growth of 25.59% and an average annual growth rate of 2.84%.

Meat. In general, under the joint action of consumer demand in rural and town, the demand for meat consumption is still showing a gradual increase of the situation in Guangdong province over the next ten years. Concretely speaking, the total consumption of meat of Guangdong province will grow from 4 million 204 thousand and 400 tons in 2016 to 7 million 766 thousand and 200 tons in 2025, with an overall increase of 84.72% and an average annual growth rate of 9.41%.

Fruits. Overall, in case of the rural and urban consumer demand slowly increasing, the demand for fruit consumption is still showing a gradual increase of the situation in Guangdong province in the next ten years. Concretely speaking, the total consumption of fruit of Guangdong province will grow from 4 million 760 thousand and 100 tons in 2016 to 7 million 919 thousand and 300 tons in 2025, with an overall increase of 66.37% and an average annual growth rate of 7.37%.

Aquatic Product. In general, in the case of rural and urban consumer demand slowly increasing, the demands for aquatic products of Guangdong province still show a gradual increase in demand in the next ten years. Concretely speaking, the total consumption of aquatic products of Guangdong province will grow from 2 million 226 thousand and 200 tons in 2016 to 2 million 759 thousand and 800 tons in 2025, with an overall increase of 23.97% and an average annual growth rate of 2.66%.

Policy Recommendations

Implement the ‘Docking of Production and Marketing’ to Ensure the Stability of the Market Supply of Agricultural Products. The provincial department is in charge of regulating the production and marketing docking, and should actively promote the socialized service of agricultural production and sale. Perfect the market circulation of hard and soft environment construction, and ensure the grain transportation unobstructed.

Support the Construction of Important Agricultural Products Production Base. The county whose rice planting area is more than 150 thousand acres will be listed as a model of grain production demonstration county. The whole province will construct 84 high grain yield demonstration counties and 230 high yield demonstration areas of ten thousand acres, and creates an area of about 3000000 acres of grain yield, and demonstrate to promote large area balanced

production. Continue to increase efforts to build standard farmland, and enhance the level of agricultural disaster prevention and mitigation, and further improve disaster prevention and mitigation plans, and strengthen disaster early warning, in order to reduce the disaster losses maximally. Support the construction of modern vegetable production base. Focus on the development of facilities and vegetables, improves the anti-disaster ability, and increase in leafy and high-grade vegetable supply rate steadily.

Further Explore the International Market, and Guide the Market Regulation and Balance Demand. Guangdong province should improve the quality of agricultural opening up, and use of the international market and resources more effectively, and protect the province's industrial safety more effectively. Firstly, strengthen the monitoring, analyzing and warning of the international agricultural products market, and try to strengthen the effective control of agricultural products trade according to the circumstance; Improve the province's agricultural management organizations to respond to international market fluctuations and risks effectively, to ensure the stability of domestic production and market. Secondly, according to the impact of agricultural products import and foreign investment on the agricultural industry, strengthen trade remedy, trade compensation and supervision of foreign capital. To explore the establishment of industrial damage compensation mechanism, and strengthen trade compensation to the industry of Guangdong. Establish and implement a security system about foreign investment in the agricultural industry as soon as possible, and strengthen the supervision of foreign investment in the agricultural industry. Thirdly, consider the importance of the stable supply of important agricultural products fully, especially the importance of food security, and establish the mandatory information reporting system and the stock reserve system of large enterprises engaged in the operation of large agricultural products and achieving a certain market share, strengthen the social responsibility of large enterprises in ensuring market supply and stability.

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