# Analysis and Suggestions of the Current Production and Marketing Situation of Rice in Tianjin

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**Abstract:** Based on the random sampling investigated data of the consumption situation of rice in Tianjin, the authors analyzed the characteristics of the residents of Tianjin in rice consumption market. Combining with the facing opportunities and challenges of the production and marketing of rice in Tianjin, the suggestions to promote the production and marketing of rice were put forward.

Keywords: Tianjin; Rice; Production; Marketing; Suggestions

### 1. Introduction

Food is not only fundamental to human survival, but also the basis of the food industry raw materials. Rice production accounts for 36% of grain production in China, and rice is the staple food for two-thirds of the population. The work of the rice production and sales is a very important part in food. Under the condition of market economy, for effective utilization of rice resources, the government should strengthen the guidance and the support of rice production, rice sales enterprises should pay attention to the quality of the product and promotion.

# **2.** The Necessity of Rice in Grain Production in Tianjin

Rice is the most important staple food of Tianjin residents. Compared with other grain, rice contains least crude fiber, small starch grains, easy to digest, a variety of high nutrients digestibility and absorption rat and best for the need of human body. Traditional Chinese doctors hold that rice tastes sweet and mild, tonifies middle-Jiao and Qi, strengthens the spleen and nourishes the stomach, benefits essence and enhances will, makes the five internal organs harmonious, promotes blood circulation, makes ear sensitive and let eye bright, stops irritability thirst, diarrhea, the doctors also think rice can make the body good and the complexion better. Our survey found that rice is the staple food for 84% of residents of Tianjin. Although the demand of rice is great, the percentage of rice is not high in grain production in Tianjin. In Tianjin, the area of cultivated land is 395,000 hm2, food crops planting area is 333,000 hm2, rice planting area is only 20,000 hm2. [1] Rice production of Tianjin is currently facing double pressure: one is the shortage of water resources, the other is increasing production accompany-

ing with unchanging income of farmers, the pressure results in declining sharply of Tianjin rice planting area. According to the theory of comparative advantage, Tianjin can stop the rice planting, rice supply of it can be all from the surrounding areas and abroad to meet the consumer market, it won't have too big problem if the prices and the production of grain is stable. But in the long run, if there are any situations, such as natural disasters, sharp reduction of grain and high food prices, no grain supply surrounding the situation, the security problem of grain will immediately emerge. Furthermore, planting rice has not only a production function, but also has the ecological function and cultural function, at the same time, planting rice can meet the needs of the people's life, as part of the environment, it also can protect the environment. For example, organic rice in the process of planting do not use the chemical synthesis of pesticides, fertilizer, plant growth regulator, only rely on planting green manure, returning straw to field and farming in ecological system to obtain nutrients and to improve soil fertility, organic rice planting control diseases, insect pests and weeds by methods of taking advantage of varieties with resistance to disease and pest, cultivating strong group, planting-breeding and biological prevention and control, the cultivation process has a significant effect on the improvement of the ecological environment.

# 3. The Survey about Rice Consumption of Tianjin Residents

#### 3.1. The market capacity of rice consumption

According to the data from Tianjin bureau of Statistics, the total permanent population is 15.4695 million in Tianjin at the end of 2015, the urban population is 12.784 million people, which accounting for 82.64% of the total

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population in the city. 84% of the respondents makes rice as their staple food, and 77% of the respondents like eating japonica rice. In 2015, Tianjin urban residents have strong purchasing power, their capita disposable income and per capita consumption expenditure of are 34101 RMB and 26230 RMB respectively. A family of three rice consumptions is 13.32 kg per month, so urban residents' consumption of rice is expected to 56,761,000 kg per month (not considering the purchasing of the rural population and floating population). In the face of the consumption quantity, many investors have focused on Tianjin rice market.

#### 3.2. The factors of affecting consumers to buy rice

We make a list of a total of 12 options for respondents to choose (multiple choices) in the questionnaire: freshness, uniformity, price, brand, nutrition value, flavor, origin, packaging, product novelty, identity-embodying, marketing environment and other factors. We can see from the figure 1, consumers will prefer buying the rice of current year under permitting conditions. The second factor is the price to influence consumers, this shows that people's income is increased, but before it reaches a certain level, the price is still the main factors influencing the consumer. In addition, the origin of rice is also one of the important factors affecting consumers to buy. Among the few rice origins, the northeast rice topped the purchasing list with the proportion of 48%, the ratio of purchasing is low in southern rice in figure 2, and this has something to do with Tianjin people's diet and habits and so on.

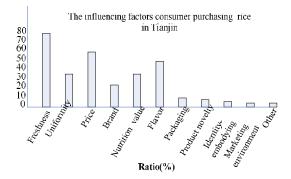


Figure 1. The influencing factors of consumer purchasing rice in Tianjin

#### 3.3. Buying habits of consumer

Consumers have characteristics in buying rice in the packaging specification (seen from table 1), 30% of the respondents choose to buy in bulk rice; the respondents which buying specifications of 2.5 kg, 2.0 kg, 10.0 kg and 25.0 kg accounts for 21.8%, 11.9%, 10.3% and 11.9% respectively; Only 4.0% of the respondents make a choice to buy more than 25.0 kg packaging. To investigate in the supermarket found that many young people,

including the renting house group and looking for a job, are not willing to buy in bulk rice; Under the circumstance of packing rice, when buying packing rice, only 14.0% of respondents prefer greater than or equal to 10.0 kg rice wrapped, the main reason is: on the one hand for buyers, 5.0 kg packing is convenient to carry; On the other hand, rice consumption per month to a family of three is about 10.0 kg, it is more convenient for them to buy 2 times a month.

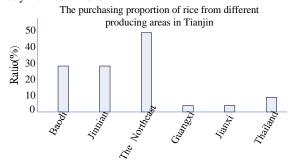


Figure 2. The purchasing proportion of rice from different producing areas in Tianjin

Table 1. The purchasing proportion of rice w	ith different
packages in Tianjin (%)	

packages in Tianjin (70)	
Packing specification	Proportion
bulk	19.0
2.0kg	11.9
2.5kg	21.8
5.0kg	30.0
10.0kg	10.3
25.0kg	10.0
>25.0kg	4.0

# 3.4. Competition condition of rice consumption market

At present, there are dozens of rice brands in Tianjin, market competition is stiff, but it is less obvious advantages brand. Most of rice brands are named with origins as their extension, in a sense, it can indicate the attributes of the product, but the real mature brands have not yet appeared. There is little less market promotion and few public relations activities. While only 35% of respondents are aware of the probability of rice appearing on the table on the decline, at the same time, 70% of the respondents express that they will choose consumption of high-grade rice with fewer rice consumption. Therefore, the future of Tianjin will form a very large, high-grade market in rice consumption, the rice freshness and flavor will become the key factors to decide producers' profit.

## 4. The Facing Opportunities and Challenges in Production and Marketing of Rice in Tianjin

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# 4.1. The facing opportunities in production and marketing of rice

Functionality and palatability has become a new concept of rice varieties. Functional rice is a variety of rice which having the ability to adjust human body's physiological function, to be suitable for the general population, and not to be for the purpose of treating diseases, in addition to having the characteristics of general rice: nutrition and sensory function, the rice also has the third function which the general rice does not have, that is the function of adjusting human body's physiological activity. [2]Again, the palatability of rice is that people can obtain an intuitive feeling through tasting rice after taste it, it is generally acknowledged that delicious rice has the condition of white color, shiny look, smooth rice having sweet feeling, rich in stickiness, elasticity and softness. [3]Because our country is a populous country, the research and development mainly focus on the production of rice, with the sustained and rapid economic development of our country in recent years, people's living consumption structure began to change, but scientific researchers have not paid attention to the research and development for its nutritional quality and physiological active substances enough, lead to the excess of ordinary rice and the lack of quality rice supply.

In recent years the country has improved the price of the high quality rice, and widened the different level of quality rice price, the two close levels of rice price gap is commonly in 5% ~ 10%. Farmers have realized that high quality rice might get a good price, therefore, they have the enthusiasm of high quality rice planting. In addition, the government has increased subsidies for agricultural supplies and food year by year to further improve graingrowing enthusiasm of farms. National direct subsidies to grain capital is 15.1 billion RMB in 2014, during the same period, general subsidies for purchasing agricultural supplies capital is 107.1 billion RMB. For example, rice seed subsidies, fertilizer subsidies, diesel and deinsectization subsidies totally reached 1800 RMB per hectare at Huang Zhuang township of Baodi district in Tianjin in 2014. And in addition to establishing rice risk compensation fund, the country also set up a special fund, that is the implementation of the "harvest plan", the study of rice is one of the key support projects of national ministry of science and technology, in the meantime to promote advanced practical technology is the important means. The country provides the support of allowance of 50% to 70% for buying every farm machinery, such as large rice transplanter, tractors and harvesters too.

# **4.2.** The facing challenge in production and marketing of rice

In China, the development of agriculture in recent decades, Using quantity of the chemical fertilizers and pesticides has increased dramatically, moreover, on account of the reasons of economic and technology, those mostly belongs to toxic compounds. In the process of spraying, 80% - 90% of the pesticide goes into the soil, some of them accumulate to lead to toxins with higher percentage in the soil. In addition, the lack of effective management of enterprise sewage discharge results in intensifying the pollution of water and soil environment. Therefore, we should strengthen the protection of rice production and circulation of grain of cleaning production, especially technology about energy saving , water saving, dust preventing, noise preventing, pollution preventing and intelligent control and so on in the production and manufacturing process, participants should pay attention to all of the problem during the rice production and processing process.

Under the condition of market economy, except for monopoly or rare commodity, any enterprise or commodity will inevitably meet the challenge of competitors. Statistics of 20 kinds of rice brands in the supermarket, low rice is generally priced from 4.70 to 9.60 RMB per kilogram. If a new rice brand is positioned in the mid-range or high-end, it will face the fierce competition from the northeast rice which pricing from 15.2 to 23.8 RMB per kilogram and Thailand rice which pricing from 19 to 25 RMB per kilogram, and it is high for the cost of new products launching at the beginning of marketing, more promotional activities are needed for market landing in the short term, fake product control in retail requires to pay out a lot of energy. Moreover consumer groups is on the small size, the demand for the quality of advertising of target consumers is higher, consumption habits of the group is not easy to be changed, etc., all of those are important constraints for the new brand rice.

## 5. Several Suggestions about Promoting Tianjin Rice Production and Marketing

#### 5.1. To speed up integration process to promote agricultural production, study and research as well as business by the government

The integration of production, study and research as well as business is that scientific research achievements which developing by combining the basis of theoretical research in colleges and universities with scientific research units are directly actual implementation and application in manufacturing enterprises, accelerate the industrialization of research results to go into the market directly and produce results for the society. A combination of all three of them is beneficial to giving full play to their respective superiority to accelerate the formation and application of the achievements. Government supporting policies should be taken to encourage rice high-tech institutions jointly relevant enterprises, to boost the implementation of science and technology of rice industrialization projects, to build community of interests which having the implementation of scientific research, production,

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processing and transforming, management and service in rice production, processing and transforming, to drive the formation of a new situation in rice processing and transforming.

Palatability rice of "Doctor" which cultivating by the professor named Jing Cui of Tianjin Agriculture University has been stepped into the industrialization road through signing rice production contracts with farmers, unifying the supply of same high quality rice seeds named No.1Jinchuan, unifying cultivation technique, unifying purchase and processing by a pre-specified unit named Tianjin Ninghe JinLu rice industry co., LTD.. In 2016, purchasing price of the unhusked rice (water content for 20-25%) of the brand is said to 4.00 RMB per kilogram, it is 33% higher than that of ordinary unhusked rice(water content for 15%), and sale price of fine packaging is 52 RMB per kilogram, the price of ordinary packaging reaches 20 RMB per kilogram in the supermarket. The road brings a higher profit for farmers and processing enterprise, at the same time captures the market and creates famous brands in the market. It is obvious for farmers to get rich.

# 5.2. To pay attention to shape the product brand by enterprises

According to the survey data, the packaging of rice should give priority to be 5.0 kg plastic bags, which can make consumers clearly to see the content: crystal clear color and equal-sized and complete grain, consumers not only demand the quality of rice and eating well, but also require no harmful substance content exceeding the standards and even no residue, nearly 80% of the respondents were concerned about the problem. At the same time, enterprises also should pay attention to brand shaping, take advantage of the consumers' mind which looking for reputation to set a higher price of the products. Once excellent brand rice has the opportunity to be accepted by the group of trying new things and a higher price to bear ability, pollution-free product attributes must have larger influence on their buying behavior, and can cultivate the consumers' brand loyalty. At present, there have been no strong brands in Tianjin rice market, so it will have the opportunity to become a strong brand in the future when paying attention to the brand shaping of rice quality.

#### 5.3. To take effective means of promotion by enterprises

Now rice sales promotions is less in Tianjin rice market, the appropriate promotion tool will greatly improve the effect of advertising. Can be seen from the statistics, the consumer can accept promotions, such as giving out gifts and free taste, they rank first and second place respectively, the ratios of them is 45% and 43% respectively. So when it comes to sales, marketers can use the means of promotion of giving rice-measuring spoon as a present. During the holidays, when selling in the supermarket, salesmen also can undertake free taste promotion; Green cultural marketing is one of the alternative means too. Every the New Year's day and Spring Festival merchants also can adopt promotion of welfare coupon on various units, because the storage time of rice is not long at this time, feeling of freshness is very good, it is easy to purchase by group, to satisfy the demand of consumers, to make a good impression on the brand, and to form a stable customer base at all possible.

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