

Review Article

The Types, Regional Distribution, and Consumption Trend of Chinese Traditional Wheat-Based Foods

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Chinese wheat-based foods have a long history and a wide range of varieties, which is representative of Chinese food culture. Pasta and bread are made of wheat flour, and the characteristics of pasta and bread are closely related to the quality of wheat flour. The quality of wheat is mainly affected by environmental conditions, and different varieties of wheat are suitable for planting in different regions, so the regionalization of wheat is formed. Due to the different quality of wheat and eating habits in different regions of China, the same kind of wheat-based foods has different flavors in different regions, such as steamed bread, noodles, and stuffed buns. The regional characteristics of food are also formed between different regions. For example, Naan. With the changes in Chinese people's eating habits and consumption level, there are more and more types of wheat-based foods, which are developing in the direction of industrialization. This review clarifies the wheat planting regionalization in China, giving an insight into the relationship between different wheat quality and the variety of traditional wheat-based foods, describing the types and regional distribution of traditional wheat-based food products in China. Moreover, the types of wheat-based foods are classified and whose characteristics are introduced, and the consumption trend of wheat-based foods in China is elaborated.

1. Introduction

Wheat is one of the most important food crops in the world, accounting for about 30% of the global food crops. It is the food crop with the largest planting area, the highest total yield, and the richest variety of food processing in the world [1]. In China, wheat, rice, and maize are known as the three major food crops, among which wheat has been cultivated in China for more than 5,000 years. The planting area of wheat in China accounts for about 1/7 of the world's total wheat sown area, and the total output accounts for 17% of the world's total output all year round [2].

The main component of wheat grain is starch (amylose and amylopectin), which accounts for about 75% of the grain weight, and is the second largest source of starch [3]. In addition, there are biological macromolecules such as protein and fat and small amounts of minerals, sugars, and vitamins in wheat grains [4]. Wheat starch has the characteristics of good thermal paste stability, low gelatinization

temperature, heat resistance and stirring resistance, high gel strength, and so on [5]. Amylopectin can improve the edible quality of steamed bread, enhance the palatability of noodles, and shorten the cooking time. The protein content of wheat is 12–14%, and its quality and value are high [6]. Wheat proteins can be divided into four categories: gliadin, glutenin, globulin, and albumin. As storage proteins, gliadin and glutenin are the main components of gluten, accounting for about 80% of wheat grain proteins, and they are closely related to the elastic viscosity and ductility of dough [7, 8].

Due to the long history of wheat cultivation in China, Chinese people have formed the dietary habit of making wheat flour products as the staple food through cooking methods such as steaming, boiling, baking, and frying for thousands of years. Up to now, Chinese traditional wheat flour products include steamed bread, noodles, dumplings, stuffed buns, and fried fritters [9].

The edible quality of flour products is closely related to the quality of wheat, the raw material for flour production,

TABLE 1: Wheat planting regionalization in China.

Main areas	Subregions	Suitable wheat varieties for planting	
Spring wheat production area	Northeast spring wheat area	Red grain	Strong gluten
	Northern spring wheat area	Red grain	Medium gluten
	Northwest spring wheat area	White grain, red grain	Strong gluten
Winter wheat production area	Northern winter wheat area	White grain	Strong gluten
	Huang-Huai winter wheat area	White grain	Medium gluten, strong gluten
	Yangtze river winter wheat area	Red grain	Medium gluten, weak gluten
	Southwest winter wheat area	Red grain	Medium gluten, weak gluten
	South China winter wheat area	Red grain	Medium gluten, weak gluten
Winter-spring wheat production area	Xinjiang winter-spring wheat area	White grain	Medium gluten, strong gluten
	Qinghai-Tibet spring-winter wheat area	Red grain	Medium gluten

and the quality of wheat flour, which is the secondary processing product [10, 11]. The yield and quality of wheat directly affect the safety and satisfaction of people's food demand, as well as the nutritional balance of human beings and the development of the flour and the food processing industry [12]. In recent years, the yield of wheat in China has increased year by year, and the goal of wheat cultivation and breeding has changed from focusing only on yield in the past to paying equal attention to increasing yield and quality [13]. With the rapid development of the national economy and the continuous improvement of people's living standards, higher requirements have been put forward for the type and quality of wheat products [14–16]. The quality of wheat grain is of great significance to flour and other deep-processed wheat products, which directly affects the quality and use of flour [17–19].

This paper introduces the quality regionalization of wheat, the types and regional distribution of wheat-based foods, and the trend of consumption in China.

2. Wheat Planting Regionalization in China

Wheat in China has a wide geographical distribution and complex ecological types, and there are great differences in wheat quality among different regions. This difference is not only determined by the genetic characteristics of wheat varieties themselves, but also affected by environmental conditions such as climate, soil, tillage system, cultivation measures, and the interaction between varieties and the environment [20–23]. The influence of the difference of environmental conditions on wheat quality is greater than that of wheat varieties, and the regional difference of wheat quality reflects the regional distribution law of wheat quality [24].

Countries with developed wheat industries, such as the USA, Canada, Australia, and so on, have already carried out quality regionalization of their wheat producing areas to meet the needs of the international market [25]. Generally speaking, the wheat planting area in China is divided into winter wheat, spring wheat, and winter-spring wheat production area and further divided into ten subregions [2, 26] (Table 1).

There are few high-quality strong gluten and weak gluten wheat in the main wheat producing areas of China, while the number of medium-gluten wheat is larger, accounting for

TABLE 2: Standard for wheat flour for steamed bread.

Project	Refined grade	General grade
Moisture (%)	≤14.0	
Ash (%)	≤0.55	≤0.70
Wet gluten content (%)	25.0~30.0	
Silty curve stabilization time (min)	≥3.0	
Falling number (s)	≥250	

about 65% [27]. The spring wheat area of China is suitable for the production of bread flour, and it can also be matched with other flour to produce noodle flour and northern steamed bread flour [28]; the fertile land in Huang-Huai and northern winter wheat areas can grow strong gluten wheat and develop bread flour; other places are more suitable for the production of northern steamed bread and noodle flour; the Southwest winter wheat area and Yangtze River winter wheat area are suitable for the production of southern steamed bread flour, pastry powder, biscuit powder, and so on [29].

3. The Types and Regional Distribution of Traditional Wheat-Based Food Products in China

Chinese pasta and bread have a long history and a wide variety, which is representative of Chinese food culture. After a long period of evolution, the wheat-processing culture in China, which includes the preparation of steamed bread, noodles, stuffed buns, dumplings, and fried fritters, is developing steadily. Due to the different qualities of wheat suitable for development in different regions and different eating habits formed over thousands of years, even the same kind of pasta has a different flavor, and different regions have formed their own unique pasta culture and regional characteristics.

3.1. Steamed Bread. Steamed bread refers to a kind of food made by fermenting and steaming the dough, which originated in China and has a history of more than 1700 years [30]. Steamed bread is a traditional staple food of the Chinese people, especially in the north. The consumption of steamed bread accounts for about 2/3 of the northern pasta

TABLE 3: Classification of Chinese steamed bread.

Classification	Characteristic	Distribution
Northern-style steamed bread (Chiang mian mantou)	Chewy, firm, and elastic	Shandong, Shanxi, Shaanxi, Henan, and other northern provinces
Southern-style steamed bread (Xiao mian mantou)	Soft, white, and palatable	Southern provinces and cities, some northern provinces and cities
Cantonese-style steamed bread (Guangdong mantou)	Unique flavor	Guangdong, Hainan, Fujian, Taiwan and Southeast Asian countries

structure and nearly 50% of the national wheat products [31, 32].

The special wheat flour for steamed bread is regulated in China [33]. The indexes of the special wheat flour are shown in Table 2.

Steamed bread was classified by Zuoji Lin in *food processing and wheat quality improvement* (1994). According to this classification, Chinese steamed bread can be divided into Northern-style steamed bread (Chiang mian mantou) and Southern-style steamed bread (xiao mian mantou). Steamed bread has been classified by some foreign experts, which is roughly the same as that of Zuoji Lin. According to the method of phenomenological classification, steamed bread is divided into Northern-style steamed bread, Southern-style steamed bread, and Cantonese-style steamed bread [34, 35]. The characteristics and distribution of all kinds of steamed bread are shown in Table 3.

Steamed bread accounts for about 60% of the pasta structure of people in northern China and occupies an important position in the diet of northerners. Due to different production methods in different regions, a variety of northern steamed buns with different flavors have been formed. Famous steamed buns such as Shandong gaozhuang mantou, Xi'an guanguan mo, Jinnan non-alkali steamed buns, Henan gangzi mantou, and so on [36]. The variety of steamed bread made in the south of China is made from not only flour, water, and yeast but also baking powder, sugar, and shortening. Because of its fluffy structure, soft texture, delicate texture and non-sticky teeth, it is also very popular in the north [37]. Compared with the northern steamed bread as the staple food of northerners, Cantonese-style steamed bread is usually used as an afternoon tea snack or dessert, which is a popular pastry.

The quality of high-quality food is affected by the raw materials, and different flour products have different requirements for wheat flour. Therefore, special wheat flour should be produced according to different quality characteristics and requirements of pasta food [38].

Due to the differences in eating habits between the north and the south, there is a difference in the quality of steamed bread between the north and the south, so there is also a difference in the quality of steamed bread flour for making steamed bread [39]. Generally, medium-gluten flour and medium high gluten flour are suitable for making northern steamed bread, while low-gluten flour is suitable for southern steamed bread. Compared with the steamed bread flour suitable for making steamed bread in the south, the steamed bread flour suitable for making northern steamed bread has the advantages of long stability time, low tensile

resistance to extension, and high extensibility. [40, 41] (Table 4).

The quality of wheat is the key to the quality of wheat flour. Zhao [39] and others pointed out that due to the different regions in the south and the north, most of them are weak gluten wheat in the south and medium and strong gluten wheat in the north, which leads to the different characteristics of steamed bread in the south and north. The effect of wheat quality on steamed bread quality can be analyzed from the aspects of grain characters, protein quality, starch characteristics, and so on [42].

Previous studies have found that the bulk density of wheat grain has a positive effect on the elasticity of steamed bread [43, 44]. Protein content is an important factor in determining the quality of steamed bread, which has a significant effect on the volume and appearance of steamed bread. When the protein content of wheat flour is 10%–13%, the quality of steamed bread is better [45, 46]. The quality of protein in gluten is also closely related to the quality of steamed bread [47]. The ratio of glutenin to gliadin determines the strength of gluten. When the glutenin content is high, the upright degree and elasticity of steamed bread are better, but when the glutenin content is too high, the quality of steamed bread decreases; the content of gliadin was positively correlated with the volume and softness of steamed bread [43]. When the ratio of glutenin to gliadin is appropriate, the elongation and elasticity of gluten are better, the fermentation time of dough is moderate, and the quality of steamed bread is better [48]. The steamed bread made from wheat with high amylose content is characterized by the small size, poor toughness, and sticky teeth. Amylopectin is beneficial in improving the edible quality of steamed bread, and a higher ratio of amylopectin to amylose is better [49, 50].

3.2. Noodles. Noodles are the traditional staple food in China. 35% of the wheat flour consumed every year is used for noodle processing. Noodle food can be traced back to the Neolithic Age. It has a history of more than 4000 years in China, and now it has become a common pasta in China and some countries and regions in Asia [51, 52]. For example, about 1200 years ago, Chinese handmade noodles were introduced into Japan and developed into noodles with local characteristics [53].

A great deal of research has been done on the factors affecting the quality of noodles. Black et al. [54] found that the starch and protein composition of the wheat was an important factor in the quality of the noodles.

TABLE 4: Quality characteristics of wheat flour for making different steamed bread.

Classification	Wet gluten content	Whiteness	Ash	Stability time	Resistance to extension	Extensibility
Northern steamed bread	26.5%–33.5%	≥80%	0.48%~0.6%	3.7–7 min	260~420 EU	130~210 mm
Southern steamed bread	≤25%	≥80%	≤0.56%	≤2 min	480~630 EU	≤110 mm

TABLE 5: Appearance and distribution of different noodles.

Classification	Exterior characteristics	Distribution
Regular salted noodles	With white color and with a smooth, glossy surface after boiling	Most of China
Alkaline noodles	With yellow color, and with a characteristic aroma and flavor	Guangdong, Fujian, Taiwan, Hong Kong

The content, composition, pasting, and swelling properties of starch have significant effects on the quality of noodles [55]. The wheat varieties with lower amylose content had higher swelling power and peak viscosity, and the comprehensive score of noodles was higher [56]. It is generally believed that the noodles made from wheat flour with high peak viscosity are of better quality [55, 57]. Swelling power and expansion volume reflect the expansion ability of starch [57]. The study of Martin et al. [58] showed that the swelling power of wheat flour was positively correlated with elasticity and cohesion and negatively correlated with noodle hardness.

According to Oh et al. [59], protein content is an important index affecting the hardness and elasticity of noodles, and the internal texture of noodles with high-protein content is harder. The higher the glutenin content of the flour is, the greater the dough strength will be [60]. Soluble glutenin and insoluble glutenin can increase the maximum resistance to extension, extension distance, and extension energy of noodles, while the extensibility of gliadin can improve the tensile length, tensile resistance, and tensile resistance of noodles [61].

There are many kinds of noodles in China, which are mainly made of flour, water, and salt. Noodles can be divided into Regular salted noodles and Alkaline noodles according to whether alkaline substances (Na_2CO_3 or K_2CO_3) are added or not [62]. The differences between them are shown in Table 5.

The quality of high-quality noodles primarily depends on the quality of wheat flour. China has stipulated the special wheat flour for noodles [63]. The indexes of the special wheat flour are shown in Table 6.

Noodles are divided into cut noodles, dried noodles, hand-extended noodle, hand rolling noodles, and so on [64]; from the processing method, it can be divided into fresh noodles, dried noodles, steamed noodles, boiled noodles, frozen boiled noodles, and sterilized boiled noodles, steamed and deep-fried instant noodles, steamed and hot-air dried noodles [63]. In terms of regional characteristics, thousands of varieties can be divided, such as the famous Shanxi Sliced Noodles, Chongqing Street noodles, Shaanxi Biangbiang Mian (BBM), Lanzhou Hand-Pulled Noodles, and so on [51].

The unique flavor of different kinds of noodles is closely related to the characteristics of the wheat flour used to make noodles, so according to the characteristics of different

TABLE 6: Standard for wheat flour for noodles.

Project	Refined grade	General grade
Moisture (%)		≤14.5
Ash (%)	≤0.55	≤0.70
Wet gluten content (%)	≥28	≥26
Silty curve stabilization time (min)	≥4.0	≥3.0
Falling number (s)		≥200

noodles, predecessors have studied some special wheat flour for noodles (Table 7) [65–68].

A study of Zhu et al. [65] demonstrated that ash and wet gluten content had no significant effect on the quality of BBM when studying the effect of wheat flour characteristics on BBM quality.

3.3. Other Chinese Pasta

3.3.1. Dumplings. Dumpling is an important traditional wheat flour food in China, which has a history of more than 1000 years [69]. It is also one of the most important and popular staple foods in the daily life of residents in northern China [70]. Now they are popular not only in China but also in Japan, South Korea, and Southeast Asian countries [71].

The development of special flour for dumplings has been studied in China [72]. The special wheat flour for dumplings was stipulated in 1993 [73]. The index of special wheat flour is shown in Table 8.

The characteristic of flour is one of the factors affecting the quality of dumpling wrapper [74]. The formation time of flour has a negative effect on the hardness of the dumpling wrapper, and the peak viscosity and rebound value mainly affect the elasticity and smoothness of the dumpling wrapper [75]. The higher the sedimentation value and the better the rheological properties of the dough, the better the texture quality of the dumpling skin made from wheat flour [76]. Gluten strength and starch pasting properties significantly promote the elasticity and smoothness of raw dumplings [77]. It is considered that the protein content of the flour, dough development time, stable time, and weakening degree are the main factors affecting the quality of quick-frozen dumplings, according to the study of Zhang et al. [78].

3.3.2. Stuffed Buns. There are many kinds of stuffed buns in China. Due to the different quality of raw wheat used in different regions, consumers have different taste preferences.

TABLE 7: Quality index of wheat flour for making different kinds of noodles.

	Ash (%)	Wet gluten content (%)	Protein concentration (%)	Stable time (min)	Weakening degree (FU)	Resistance to extension (BU)
Shanxi sliced noodles	<0.55	27.80~32.50	12.70~15.90	3.90~6.70	67.70~108.30	222.60~303.00
Chongqing Street noodles	0.37~0.55	23.85~26.66	10.17~11.24	3.90~5.67	81.33~91.67	255.00~420.00
BBM			11.02~12.66	5.40~7.86	55.17~89.83	416.18~564.82
Lanzhou alkaline pulled noodles	<0.65	>30.00	11.50~13.00	>9.00	<65.00	>400.00

Therefore, according to the regional classification, stuffed buns can be divided into northern stuffed buns, Yangtze River valley stuffed buns, and southern stuffed buns. The wrappers of stuffed buns in the north are generally more gluten, and most of them choose medium-strong gluten flour; the wrappers in the Yangtze River valley stuffed buns taste soft and are mostly made of medium-gluten flour or medium-low gluten flour; the southern stuffed buns require a softer taste, so low-gluten flour is used [79].

According to Li et al. [80], the quality of northern fermented stuffed buns is mainly affected by wet gluten content and dough rheological properties.

The Yangzhou stuffed buns are typically stuffed buns in the Yangtze River Basin. There are five factors affecting the quality of Yangzhou stuffed buns, including sedimentation value, protein content, wet gluten content, dough stability time, mixing tolerance index, and so on [81].

Barbecued pork buns are traditional Cantonese-style pastries. The quality of protein and starch are important factors affecting the quality of barbecued pork buns. The dough strength is weak, the flour expansion rate is low, and the low-gluten flour with a protein content of 7.5% to 8.0% is suitable for making barbecued pork buns [82, 83].

3.3.3. Fried Fritters. Fried fritters are mainly composed of wheat flour, expanding agent, oil, salt, sugar, water, and other raw materials. As the most important raw material for making fritters, wheat flour plays a key role in the quality of fritters [84]. The quality of protein in wheat flour is very important to the quality of fritters. Fritters made from flour with medium and weak gluten strength have a higher sensory evaluation value [85]. Glutenin and increasing the content of amylopectin and amylose in appropriate proportion were beneficial to improving the specific volume and elasticity of fritters [86]. The quality index of fritters special flour has not been stipulated in China, but predecessors have conducted research on this aspect and provided the reference index of fritters' special flour quality [86–88] (Table 9).

3.3.4. Naan. Flatbread is widely distributed in the world and is popular in many countries and regions, whose origin is very ancient [89]. As a type of flatbread with a unique flavor, Naan (Xinjiang flatbread) is one of the main foods of the Uyghur nationality, and it is also a popular traditional pasta food of other ethnic groups in Xinjiang, China [90]. It has a history of more than 2000 years, according to textual research [91]. According to the eating habits and quality types

TABLE 8: Standard for wheat flour for dumplings.

Project	Refined grade	General grade
Moisture (%)		≤14.5
Ash (%)	≤0.55	≤0.70
Wet gluten content (%)		28.0~32.0
Silty curve stabilization time (min)		≥3.5
Falling number (s)		≥200

TABLE 9: Quality reference index of special flour for fried fritters.

Index	Numerical value
Ash (%)	<0.55
Moisture (%)	≤14
Wet gluten content (%)	29~32
Formation time (min)	4.0~6.0
Stable time (min)	4.4~8.8
Water absorption (%)	58.0~64.7
Resistance to extension (BU)	346.6~525.4
Weakening degree (BU)	41.2~70.5
Amylose content (%)	17.2~23.7
Ratio of amylose to amylopectin	0.315~0.545
Extensibility (mm)	≥180
Chromaticity L value	93.43~94.62

of wheat in different regions, Cao [92] and others classified Naan into “high gluten Naan,” “ordinary Naan,” and “weak gluten Naan” and recommended wheat quality standards for different types of wheat (Table 10).

4. The Consumption Trend of Traditional Wheat-Based Foods in China

The production of flour food requires three links: wheat planting, flour processing, and food processing, which must be linked up with each other; otherwise, the development of the flour food industry will be restricted [93]. For a long time, the goal of wheat breeding in China has been based on yield, but the selection of quality characters has been neglected. The variation range of wheat varieties is wide, there are many quality types, and the cultivation measures are still inadequate, so it is difficult to give full play to the potential of improved varieties. The natural environment also restricts the development of the wheat industry [94].

There are many middle types of wheat varieties in China, which are suitable for handmade steamed bread and noodles. However, there are few varieties suitable for machine-made noodles and steamed bread with the characteristics of rapid mixing resistance of dough. There is a lack of hard,

TABLE 10: Quality index of special wheat varieties with different types of Naan.

Project	Index			
	High gluten naan	Ordinary naan	Weak gluten naan	
Grain	Hardness index	≥60.0	50.0~59.0	<50.0
	Protein content/%	≥13.0	12.5~12.9	<12.5
	Bulk density (g/L)	≥700.0	≥700.0	≥700.0
Wheat flour	Wet gluten content (14% water base)/%	≥28	26.0~27.9	<26.0
	Hydroscopic rate (%)	≥58.0	≥56.0~57.9	<56.0
	Stable time/min	≥6.0	3.0~5.9	<3.0
	Maximum resistance to extension/EU	≥300.0	200.0~299.0	
	Extension area/cm ²	≥65.0	50.0~64.0	

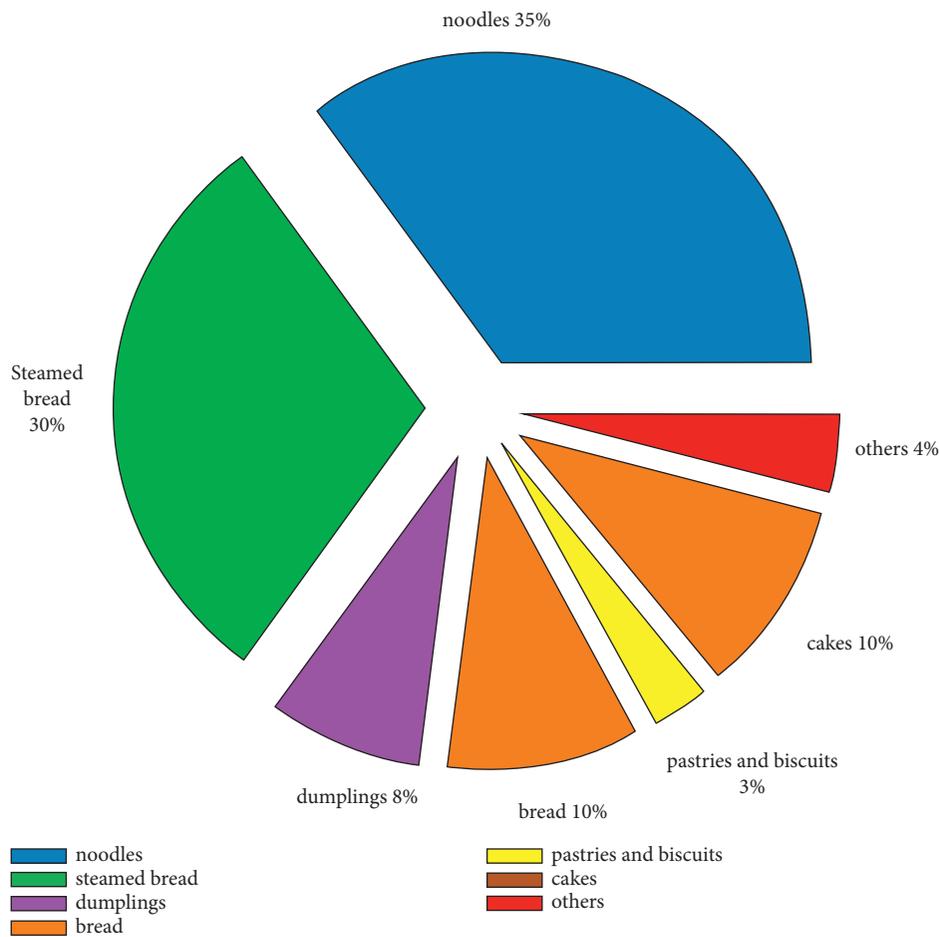


FIGURE 1: Proportion of pasta in flour circulation.

high-protein, and strong-gluten wheat for making high-quality bread and soft, low-protein, and weak-gluten wheat for making high-quality biscuits and cakes.

Chinese consumers' demand for bread and biscuits has increased, but the main demand is still for traditional staples such as steamed bread and noodles. The development of suitable wheat varieties according to local conditions can improve the development potential of improved wheat varieties and improve the quality of wheat. In order to meet the market demand, from the point of view of the whole country, it is necessary to vigorously develop medium-strong gluten wheat suitable for making machine-made

noodles and steamed bread, plant strong gluten wheat in spring wheat areas and some areas with suitable climate and fertile soil, and appropriately develop soft wheat in specific areas of the south. Improve existing varieties of gluten quality, dough formation time and stability time, dough extensibility, starch properties, protein content, and quality of existing varieties.

Chinese traditional pasta is the accumulation product of Chinese national excellent traditional diet culture, with a wide variety and rich nutrition, which is the basis of national nutrition and health, and is accepted and loved by the majority of consumers [95, 96]. According to data, among

the annual consumption of more than 70 million tons of flour, staple food consumption accounts for more than 83%, of which steamed bread accounts for 30%, noodles account for 35%, and dumplings account for 8%. It has a huge market capacity and a broad market demand space [97, 98] (Figure 1).

However, at present, the development level of China's staple food industry is still low, and there is a problem of uneven development between urban and rural areas. The vast rural is the main area where staple foods such as steamed bread and noodles are consumed. Generally, it is the mode of manual workshop production and stall sales, and the quality, hygiene, and safety of raw materials and products cannot be guaranteed. There have been some large-scale and mechanized pasta processing plants in large and medium-sized cities, which have improved in processing efficiency and food safety. However, due to the limitation of technology and equipment, the indexes of influencing factors such as fermentation method and dough structure to determine the quality of staple food cannot be reflected, and there is a lack of market competitiveness [97].

The industrialization of pasta food in developed countries such as Europe and the USA has developed rapidly, and at a high level, the industrialization of pasta has generally reached 70%, while that in China is only 15% to 20% [99, 100]. Promoting the industrialization of pasta can promote the large-scale production of pasta, which is suitable for the fast-paced life of modern people, and can produce wheat flour and pasta in accordance with scientific standards to achieve conservation and nutrition. Therefore, promoting the industrialization of pasta is of great significance in promoting the gradual modernization of residents' dietary consumption and improving people's consumption patterns.

Promoting the industrialization of pasta can extend the wheat industry chain and actively develop new products to meet the consumption needs of different people. For example, convenience foods, frozen pasta, and specialty customized noodles can be developed. Instant noodles and dried noodles are the representatives of instant food in China. In recent years, the total consumption of dried noodles in China has stabilized at about 1.7 million tons, and the per capita consumption of instant noodles in China has ranked among the top five in the world [101]. However, instant noodles are faced with nutritional deficiencies, inadequate innovation, and quality and safety issues. There is a problem of uneven quality of noodles between north and south and large differences in consumption of dried noodles [102]. It is necessary to increase the intensity of product innovation and look for alternatives to food additives that may be harmful to the human body. Corn, soybeans, potatoes, and miscellaneous grains can be added on an original basis to change the flavor and taste of traditional instant noodles and make their nutrition more balanced. Develop whole-grain noodles, miscellaneous grain noodles, soybean noodles, potato noodles, and vegetable noodles to meet the needs of different people [103].

With the rapid development of China's food industry, other instant pasta types has also made breakthroughs, such

as egg yolk pies, soft bread, biscuits, steamed slices, and so on. More kinds of convenience foods will appear in the market in the future. The scale of the frozen food industry in China is expanding rapidly, with frozen dumplings, noodles, steamed bread, and stuffed buns accounting for more than 30% of the total frozen food [104]. Frozen dough technology has also developed rapidly, and it has more remarkable advantages than traditional technology. The chain management of noodle food can meet the needs of consumers and the market and has a wide application prospect [105].

With the demand for healthy food, health care pastry food has a vast market. For special patients, great efforts should be made to develop healthy pastry, dietotherapy pastry, and nourishing pastry [106]. For infants and young children, middle-aged and elderly people, and the three high groups, the market has launched foods such as children's dumplings, infant noodles, whole wheat steamed bread, miscellaneous grain steamed bread, etc. According to the needs of consumers, leisure foods such as seasoning pasta food and expanded pasta products with different flavors can be developed. For different groups of people, featured customized pasta food can be developed to meet the needs of the market.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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