



JOINT FAO/WHO FOOD STANDARDS PROGRAMME

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DISCUSSION PAPER ON DEVELOPMENT OF A REGIONAL STANDARD FOR QUICK FROZEN DUMPLING (*Jiaozi*)

(Prepared by China)

Background

1. On the CCASIA20 held in 2016, China presented the discussion paper of quick frozen dumpling (*Jiaozi*) and many countries expressed interest in work on this product. CCASIA20 requested China to revise the discussion paper and the project document for new work for consideration at the next Session¹. Based on the resolution of CCASIA20, China made following revisions to the discussion paper and project document:

- Provide more information on the diversification of national legislation, food safety concerns, impediments to trade and amenability of this product to standardization.
- The discussion paper clearly addresses all the information requested under “Criteria for establishment of work priorities”.

Introduction

2. Quick-frozen dumpling (*Jiaozi*) is a type of food consisting of a piece of dough, which is made by wheat flour and etc., with a mixed ground meat, eggs or vegetables filling (whose proportion should exceed 50% of the total weight of *Jiaozi*) completely wrapped into a thin piece of dough; the finished dumplings (*Jiaozi*) product should be quick-frozen.

3. The regional standard for quick frozen dumpling (*Jiaozi*) will stipulate the specifications, processing procedures, hygiene and labeling requirements for the products, so as to improve food safety and product quality and protect consumers' health and fair trade. *Jiaozi* has unique taste, balanced nutrition, and high nutritional value, so it is very popular among Asian countries.

Necessity to develop the standard

4. According to the estimation by relevant industry associations, quick frozen food is one of the fastest growing food industries in the world, whose average annual growth rate reaches 15% to 20%. Quick frozen dumplings (*Jiaozi*) play an important role in quick frozen food, which is the largest category in quick frozen food production. In recent years, quick frozen dumplings (*Jiaozi*) production in China has witnessed continuous increase, see Table 1.

Table 1 Quick frozen dumplings (*Jiaozi*) production and total sales volume in China, 2013-18

Year	Production volume (tons)	Total value (billion US dollars)
2013	857,987	2.58
2014	881,082	2.67
2015	983,475	2.81
2016	1,081,823	3.02
2017	1,390,005	3.89
2018	1,715,974	4.80

¹ REP17/ASIA para 115

Source: estimated by industrial associations of China.

5. Quick frozen dumpling (*Jiaozi*) is a kind of food frequently eaten in Asian countries. It is popular in this region because of its rich varieties, balanced nutrition, convenient way of eating and various cooking methods.

6. The consumption of frozen dumplings (*Jiaozi*) shows a fast growing trend and enormous market demand. China is a major producer and exporter of quick frozen dumplings, and its products are mainly exported to 17 countries such as Japan, South Korea, the United States, Canada, France, Italy, Australia, New Zealand, Singapore, Germany and etc. In recent years, ISO 9001, ISO 22000 quality systems and HACCP have been widely adopted in this industry, and such perfect quality assurance systems ensure the product quality. At the same time, advanced production technology is applied in the production process, which gives rise to a continuous increase in the production volume, creating a huge market potential.

Recommendation

7. China suggests that the CCASIA21 agree to submit the new work on the regional standard for quick frozen dumplings (*Jiaozi*) for approval by Codex Alimentarius Commission. The project document is attached as Appendix I.

PROJECT DOCUMENT

Proposal for the Development of a Regional Standard for Quick Frozen Dumpling (*Jiaozi*)

1. The purposes and the scope of the standard

The regional standard for quick frozen dumplings (*Jiaozi*) is aimed at protecting the health of consumers, improving the quality of products, and promoting fair trade. However, there is no regional or international standard for quick frozen dumplings in the whole region. While certain country in the region has issued relevant standard, the standards are not consistent. The establishment of this standard will help promote regional and international trade and solve the food safety concerns of consumers.

2. Product definition

Quick frozen dumpling (*Jiaozi*) is a type of food consisting of a piece of dough, which is made of wheat flour and etc., with a mixed ground meat, eggs or vegetables filling (whose proportion should exceed 50% of the total weight of *Jiaozi*) completely wrapped into a thin piece of dough; the finished dumplings (*Jiaozi*) product should be quick-frozen.

There are various *Jiaozi* in China, see Figure 1.



Figure1 Various *Jiaozi* in China

There are various types of quick frozen dumplings circulated in international food market, see different types of quick frozen dumplings from different countries in Table 1.

Image	Country of origin	Descriptions
	Japan	Gyoza is one of the most popular cuisines in Japan.
	Vietnam	The dumplings are usually filled with pork and shrimp meat. The most important ingredient is special sweet and sour sauce.

	Korea	Kimchi dumplings are Korean dumplings. Onion, ginger, soybean curds and spicy kimchi can be added to the meat filling.
	Russia	Dough is made of flour, eggs and water. The filling of is made of beef, pork or mutton, and various spices are added.
	Nepal, Bhutan and India	Momo is a snack in Nepal, Bhutan, Sikkim in India and Darjeeling in India.

Table 1 Dumplings with various cooking ways in different countries

Quick frozen dumplings are widely eaten in China and other parts of the world. Japan, the United States, Germany, Poland, Russia, Nepal and other countries all have similar dumpling products. Although different countries have different ways of making dumplings, each with its own characteristics, they are all made from wheat flour or other starch-rich flour as the dough, stuffed with meat, eggs, or vegetables and other materials as the fillings.

3. Its relevance and timeliness

According to the estimation by relevant industry associations, quick frozen food is one of the fastest growing food industries in the world, with an average annual growth rate of 15%-20%. As an important part of quick frozen food, quick frozen dumplings have the largest output. In recent years, the consumption of quick frozen dumplings (*Jiaozi*) has witnessed a growing trend. The production process of it adopts advanced production technology, and the production volume is also continuously increasing, creating huge market potential.

At present, CAC has not formulated standards for quick frozen dumplings (*Jiaozi*). Due to a lack of uniform regional standard among trading countries, various obstacles like different product quality requirements and etc. have arisen in the region. The establishment of regional standard for quick frozen dumplings (*Jiaozi*) will be beneficial to Asian countries, because the major producing, consuming and exporting countries of frozen dumplings in the world are mainly located in Asia. It is expected that quick frozen dumplings (*Jiaozi*) will have greater consumption demand and trade potential in the international market in the future.

4. The main aspects to be covered

The standard of quick frozen dumplings (*Jiaozi*) product will be drafted according to the Format for Codex Commodity Standards in the Procedural Manual. The main aspects to be covered by proposed standard are:

- Specifications of the product, such as identification, description of products;
- Processing;
- Essential composition and quality factors;
- Food additives;
- Contaminants ;
- Hygiene ;
- Packaging, preservation and storage methods;
- Labeling requirements;

- Methods of sampling and analysis.

5. Assessment against the Criteria for the establishment of work priorities

General criterion

The proposed standard should protect consumer from the point of view of health and food safety, ensure fair practices in the food trade and take into consideration the identified needs of the developing countries.

The proposed standard will cover the following aspects to meet the above requirements:

- Protect consumers and preventing fraud;
- Improve the quality of products, and solve the food safety concerns of consumers;
- Resolve trading barriers.

Criterion applicable to commodities

a) Volume of production and consumption in China and volume and pattern of trade between countries

In recent years, the output and trade volume of quick frozen dumplings (*Jiaozi*) in China have been on the rise year by year (see Table 2). Among them, 2017 saw a substantial increase, with output registering at 28.5% and output reaching 28.4% over the same period. From 2014 to 2018, the output value of quick frozen dumplings (*Jiaozi*) in China increased by 3.4%, 3.9%, 7.8%, 28.4% and 10% respectively.

Table 2 Output and total value of China's quick frozen dumplings (*Jiaozi*), 2013-18

Year	Production volume (tons)	Total value (billion US dollars)
2013	857,987	2.58
2014	881,082	2.67
2015	983,475	2.81
2016	1,081,823	3.02
2017	1,390,005	3.89
2018	1,715,974	4.80

Source: estimated by relevant industrial associations of China.

In the international market, the trade volume of quick frozen dumplings is increasing rapidly. China's quick frozen dumplings (*Jiaozi*) are mainly exported to Southeast Asia, North America, Europe, Hong Kong, Macao and other countries and regions. Since 2015, the export volume of quick frozen dumplings (*Jiaozi*) in China has shown a rising trend (see Table 3). From 2015 to 2018, the export volume of quick frozen dumplings (*Jiaozi*) increased by an average of 25% per year, with products exported to 17 countries such as Japan, the United States, Canada, France, Italy, Australia, Singapore and Germany.

Table 3 Export data of quick frozen dumplings from China to some countries/regions from 2015-18

Volume: tons

Country/ Region	2015	2016	2017	2018
Europe	5,700	5,500	6,530	7,960
America	2,550	3,200	3,900	4,933
Australia	1,800	2,090	3,430	4,030
Canada	1,700	1,506	1,998	2,100
Malaysia	260	271	286	293
Japan	655	587	630	686
Korea	430	406	468	503
Singapore	525	603	589	831
Other regions	13,500	24,303	30,840	40,670
Total	26,530	38,466	48,671	62,006

Source: calculated by relevant industrial associations in China.

b) Diversification of national legislations and apparent resultant or potential impediments to international trade

Due to a lack of uniform commodity standards in the region, the regional trade of quick frozen dumplings (*Jiaozi*) is affected to some extent, which makes it difficult to protect consumers' health and fair trade.

The difference of processing and consuming habits leads to different classifications and quality requirements for quick frozen dumplings (*Jiaozi*) in this region. The regional standard for quick frozen dumplings (*Jiaozi*) standard should eliminate the quality problems of quick-frozen dumpling products, solve the safety concerns of consumers, and is expected to expand the trading opportunities of importing and exporting countries.

c) International or regional market potential

At present, the consumption population of quick frozen dumplings (*Jiaozi*) in the international market is expanding. Its output, export volume and international trade volume are increasing. Its consumption will show rapid growth in the near future.

From 2015 to 2018, the export volume of quick frozen dumplings (*Jiaozi*) increased by an average of 25% per year, and the products were exported to 17 countries such as Japan, the United States, Canada, France, Italy, Australia, Singapore and Germany (see Table 3).

With the quickening pace of modern life, the production of quick frozen dumplings (*Jiaozi*) has gradually changed from traditional manual production to mechanized one. According to relevant investigation, quick frozen dumplings (*Jiaozi*) occupy a very important position in the quick frozen food industry at present, with its output accounting for about 30% of the quick frozen food, which is the largest category of quick frozen food production. About 65% of the total export volume of dumplings is exported to countries in this region.

Japan, Singapore, South Korea, Hong Kong, Macao, Taiwan and other countries and regions in the region, as well as the United States, Canada, Australia and some European countries outside the region all import quick frozen dumplings (*Jiaozi*).

d) Amenability of the commodity to standardization

Regional standard for quick frozen dumplings (*Jiaozi*) will play a positive role in guiding the healthy development of the industry and improving the quality of quick frozen dumplings (*Jiaozi*). CAC has not established relevant standards for this product at present. Although *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CXC 8-1976) can provide guiding principles for major categories of quick frozen food, it is not targeted at specific product of quick frozen dumplings (*Jiaozi*). Therefore it cannot regulate ingredients, key process requirements, quality indexes, processing and etc of this product.

The proposed regional standard for quick frozen dumplings (*Jiaozi*) will put forward specific requirements for raw materials of the products; ingredients; processing; quality index, such as water, fat, protein and etc.; sampling and analysis methods; temperature and environment for product storage and transportation; labeling and other aspects. The use of additives and pollutant limit of the product should comply with the requirements of the existing CAC related documents.

e) Coverage of the main consumer protection and trade issues by existing or proposed general standards

The existing standard *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CXC 8-1976) mainly covers the processing, quick frozen procedures and temperature requirements, but it does not include the ingredients, technology, indexes, additives, processing machinery and process, hygiene and quality requirements of quick frozen dumplings (*Jiaozi*).

f) Number of commodities which would need separate standards indicating whether raw, semi-processed or processed

Currently there is no need of any other separate standard other than the proposed, since the proposed standard will cover both raw and processed products of quick frozen dumpling and the hygienic conditions of production.

g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies)

None identified.

6. Relevance to the Codex strategic objectives

With regard to the CODEX STRATEGIC PLAN 2020 – 2025, developing such a regional standard of quick frozen dumplings (*Jiaozi*) is closely associated to the objective 1.1 Identify needs and emerging issues, and 1.2 Prioritize needs and emerging issues. As the regional standard of Quick frozen dumplings (*Jiaozi*) will help to enhance food safety of Asian consumers and ensure fair international trade practice on this specific food product.

7. Information on the relation between the proposal and other existing Codex documents as well as other ongoing work

The proposed standard will take into account existing applicable Codex guideline documents such as:

- Code of Practice General Principles of Food Hygiene (CXC 1-1969),
- Code of Practice for the Processing and Handling of Quick Frozen Foods (CXC 8-1976),
- Code of Practice Concerning Source Directed Measures to Reduce Contamination of Food with Chemicals (CXC 49-2001),
- General Standard for the Labeling of Prepackaged Foods (CXS 1-1985),
- General Standard for Food Additives (CXS 192-1995),
- Recommended methods of Analysis and Sampling (CXS 234-1999).

8. Identification of any requirement for and availability of expert scientific advice

Currently there is no identified need for expert scientific advice.

9. Identification of any need for technical input to the standard from external bodies so that this can be planned for

Currently there is no identified need for technical input from external bodies.

10. The proposed time-line for completion of the new work

Subject to consideration by CCASIA21 in 2019, proposal for standard development will be submitted for review and approval by CAC in 2020. As per proposed time schedule the process will take approximately five years.

Procedures	Timeline
Consideration of the proposal by the 21 st CCASIA	2019
Critical review by Executive Committee and approval by CAC for new work	2020
Preparation of draft standard and circulation for comments	2020-2021
Consideration of draft standard by the 22 nd CCASIA	2021
Adoption by the CAC as draft standard	2022
Consideration of draft standard by the 23 rd CCASIA	2023
Adoption as regional standard by CAC	2024