



## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

## FAO/WHO COORDINATING COMMITTEE FOR ASIA

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DISCUSSION PAPER ON DEVELOPMENT OF A REGIONAL STANDARD FOR *Zongzi*

(Prepared by China)

**Background**

1. On the CCASIA20 held in 2016<sup>1</sup>, China presented the discussion paper of *Zongzi* 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 CCASIA21. Based on the request from the Coordinating Committee, China has made following revisions to the discussion paper and project document:

- Provide additional information on the varieties of this product, its amenability to standardization, food safety concerns and impediments to trade;
- The discussion paper addresses all the information requested under “Criteria for establishment of work priorities”.

2. Regarding the suggestion made at the CCASIA20 that “To consider whether drafting a code of practice for this product would be more appropriate”, we made a research and concluded that the current *Zongzi* product category has clear characteristics and the scope. Apart from the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CXC 8-1976), this standard also involves factors like product quality. Moreover, it is difficult to eliminate the international trade barrier of *Zongzi* by only establishing a code of practice. Therefore, we still propose to formulate a commodity standard for *Zongzi*.

**Introduction**

3. As one of the traditional food of the Chinese nation, *Zongzi* enjoys a time-honored making and eating history of more than 2,000 years. It is widely consumed by China as well as many neighboring countries, forming a lot of *Zongzi* varieties with unique tastes and local characteristics. Apart from special Chinese festival connotations, *Zongzi* also has high nutritional value. Thus, it has become a kind of popular food in many countries.

4. *Zongzi* is made of glutinous rice as the main raw material with or without adding ingredients such as beans, nuts, meat, poultry and eggs and their products as the fillings, whose proportion is generally not more than 40% of the total weight of *Zongzi*. It is completely wrapped and molded with indocalamus leaves, reed leaves etc., tied with cotton threads and steamed and cooked to make it have the inherent flavor and texture of *Zongzi*. After steaming and cooking, vacuum packaging or quick freezing are adopted to preserve *Zongzi* at normal temperature or low temperature respectively.

5. The proposed regional standard for *Zongzi* is intended to improve the quality of *Zongzi* products, protect the health of consumers, solve food safety concerns and safeguard international fair trade.

**Necessity to develop the standard**

6. Relevant data reveal that *Zongzi* product has a huge market potential as the consumption of *Zongzi* continuously grows. It is worth noting that CAC has not formulated a regional standard for *Zongzi* at present. The classification of *Zongzi* products in different countries is different, resulting in different requirements of regulations and standards on the products, which have caused certain obstacles to the international trade. Therefore, the formulation of a regional standard for *Zongzi* should ensure the improvement of *Zongzi* product quality, ensure consumer health, solve food safety concerns and reduce trade frictions.

7. China is the world's largest *Zongzi* exporter. Till now, China has more than 180 registered export

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<sup>1</sup> REP17/ASIA para.118

enterprises for *Zongzi*. In recent years, China's *Zongzi* is exported to more than 20 countries and regions, such as America, Canada, Australia, New Zealand, Japan, Saudi Arabia, Korea, Thailand, Hong Kong, Macao and etc. The output and sales of *Zongzi* in China are increasing year by year, see Table 1.

Table 1 *Zongzi* production and total sales volume in China, 2013-18

Year	Production volume (tons)	Total value (billion US dollars)
2013	253,197	1.48
2014	299,458	1.68
2015	334,000	1.84
2016	401,107	2.20
2017	459,000	2.52
2018	502,300	2.88

Source: estimated by relevant industrial associations in China.

8. China is also an importer of *Zongzi*, the main import sources of which include Japan, South Korea, Malaysia, Australia, Italy, Thailand, Netherland, Denmark and etc.

9. In recent years, with the adoption of HACCP, *Zongzi* production enterprises are becoming increasingly centralized and large-scale. The entire *Zongzi* industry is also continuously improving and the *Zongzi* production technology and product quality become more standardized and stricter.

10. The *Zongzi* commodity standard will bring convenience to international trade. It is expected that *Zongzi* will have greater consumption demand and trade potential in the international market in the future.

#### **Recommendation**

11. China suggests that CCASIA21 agree to submit the new work on the regional standard for *Zongzi* 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 *Zongzi***

**1. The purposes and the scope of the standard**

The regional standard for *Zongzi* aims to protect consumers' health, ensure the quality of *Zongzi* product and promote fair trade. In the whole regional trade, there is no regional or international standard for this product. Certain countries in the region have formulated standard for *Zongzi*, but the standards are not uniform. Establishing a *Zongzi* standard is beneficial to promoting regional and international trade.

**2. Product definition**

*Zongzi* is made of glutinous rice as the main raw material with or without adding ingredients such as beans, nuts, meat, poultry and eggs and their products as the fillings, whose proportion is generally not more than 40% of the total weight of *Zongzi*. It is completely wrapped and molded with *Indocalamus* leaves, reed leaves etc., tied with cotton threads and steamed and cooked to make it have the inherent flavor and texture of *Zongzi*. After steaming and cooking, vacuum packaging or quick freezing are adopted to preserve *Zongzi* at normal temperature or low temperature respectively.

The production process of *Zongzi* is shown in Figure 1.

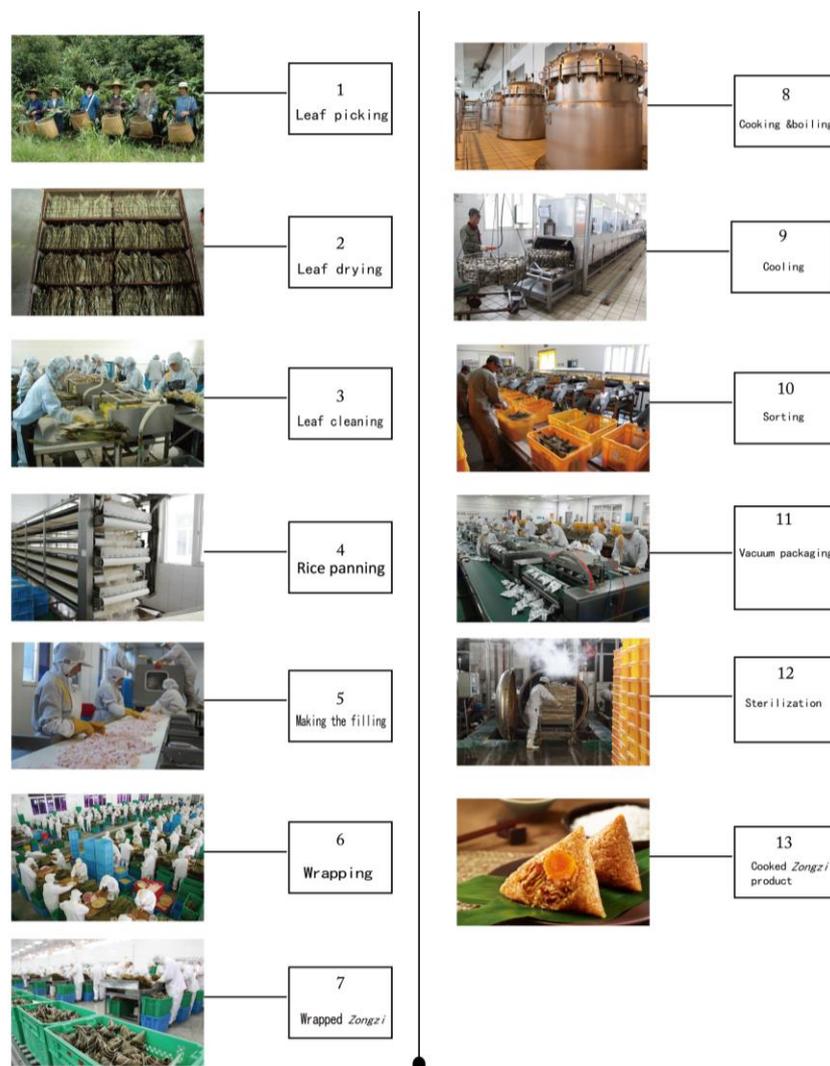


Figure 1 Production process of *Zongzi*

For different kinds of Chinese *Zongzi*, see Figure 2.



Figure 2 Different kinds of Chinese Zongzi

There are also many similar products in the international market, see Table 1.

Example	Country of origin	Descriptions
	<p>Japan</p>	<p>Glutinous rice is used as the main raw material or mixed with other ingredients.</p>
	<p>Vietnam</p>	<p>Glutinous rice is used to wrap pork, peas, shrimps, etc., which can be eaten together with fish sauce after being steamed and cooked.</p>
	<p>Philippines</p>	<p>Glutinous rice is used as the main raw material and meat is usually used as the ingredient.</p>
	<p>Thailand</p>	<p>Glutinous rice is used as the main raw material, and coconut milk, tropical fruits and others are used as ingredients.</p>
	<p>Malaysia</p>	<p>It is made of glutinous rice and coconut milk, and wrapped in banana leaves.</p>

Table 1 Similar products in the international market

**3. Its relevance and timeliness**

Relevant data show that the trade volume of *Zongzi* is growing year by year, and the output is also increasing. Due to the adoption of advanced production technology in *Zongzi* production, the production volume also witnesses a fast increase, which creates broad market potentials. However, since there is no regional standard among trading countries, various obstacles arise in regional trade of *Zongzi*.

The establishment of *Zongzi* commodity standard will bring convenience to international trade. It is expected that *Zongzi* will have greater consumption demand and trade potential in the international market in the future.

#### **4. The main aspects to be covered**

The standard for *Zongzi* will be drafted according to the uniform CAC format. The standard covers the following aspects:

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

#### **5. An 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, food safety, ensure fair practices in the food trade and take into consideration the identified needs of the developing countries.

The new 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 2018, China's production volume of *Zongzi* is 502,170 tons.
- China is the world's leading exporter of *Zongzi*. At present, there are more than 180 registered export enterprises for *Zongzi* in China. In recent years, *Zongzi* is exported from China to more than 20 countries and regions, such as America, Canada, Australia, New Zealand, Japan, Saudi Arabia, Korea, Thailand, Hong Kong, Macao and etc. According to the estimation of relevant industry associations in China, the total sales from 2016 to 2018 reached 36.4 million, 39.04 million and 42.31 million US dollars respectively.
- China is also an importer of *Zongzi*, the main import sources of which include Japan, South Korea, Malaysia, Australia, Italy, Thailand, Netherland, Denmark and etc. In 2018, the total import volume amounted to 257 tons with the total sales of 2.79 million US dollars (see Table 3).
- In the international market, the trade value of *Zongzi* is 110 million US dollars per year, which is expected to grow rapidly along with increasing production capacity. China, Japan and South Korea are the major producers and exporters of *Zongzi*.
- Trade amount of *Zongzi* increases at a rate of 10% each year. China, Southeast Asian countries, North America and European countries are also the major consumer markets.
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Table 2 Export data of *Zongzi* from China to some countries/regions in 2018

Volume: kilograms, Value: US dollars

Country / Region	Export volume	Export value
America	1,267,356	10,138,848
Saudi Arabia	262,021	2,358,189
South Korea	364,400	3,279,600
Japan	380,742	2,958,678
Canada	83,658	752,922
Singapore	90,145	631,015
Australia	85,665	959,448
Thailand	28,068	224,500
Other regions	2,618,485	21,016,280
Total	5,180,540	42,319,480

Source: estimated by relevant industrial associations in China.

Table 3 Import data of *Zongzi* from some countries/regions to China in 2018

Volume: kilograms, Value: US dollars

Country / Region	Import volume	Import value
Malaysia	56,000	616,000
South Korea	53,208	585,288
Chile	2,877	34,524
Australia	17,014	187,159
Japan	20,138	181,242
Thailand	20,334	223,674
Canada	10,483	115,318
Other regions	77,451	851,961
Total	257,505	2,795,166

Source: estimated by relevant industrial associations in China.

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

Countries in the region have different classifications for *Zongzi* products. The applicable standards or regulations for *Zongzi* are quite different. For example, there are different requirements on *Indocalamus* leaves, reed leaves and etc. to wrap *Zongzi*, additives as well as sterilization and vacuum packaging measures for *Zongzi*.

The lack of regional standard for *Zongzi* commodity hinders regional fair trade, so the formulation of this standard should ensure the improvement of *Zongzi* product quality, ensure consumer health, solve food safety concerns and reduce trade frictions.

### c) International or regional market potential

According to the statistics, the demand for *Zongzi* has been increasing in recent years and is expected to continue to grow steadily in the future. From 2015 to 2018, the total sales of international trade of *Zongzi* reached 71.93 million, 79.07 million, 107.07 million and 117.78 million US dollars respectively, representing an annual increase of approximately 10 percent.

The international trade data of *Zongzi* show that the global demand for this product is growing rapidly. With the support of the advancement of science and technology and international logistics, more and more traditional food with distinctive characteristics of various countries are circulating in the international market.

Thus, cross-regional purchases have become much easier. *Zongzi* can be used as daily consumer goods due to its characteristics of easy storage, satiety, low price and delicious taste, and its consumer population and consumption will continue to increase.

**d) Amenability of the commodity to standardization**

China has already formulated national standard for *Zongzi* as early as more than ten years ago. The implementation of the standard plays a positive role in guiding the healthy development of the industry and improving the quality of *Zongzi*. It can be seen that the standardization of *Zongzi* is feasible.

CAC has not formulated relevant standards for *Zongzi* commodities 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 frozen food, it is not targeted at specific product of *Zongzi*.

The proposed *Zongzi* standard will put forward specific requirements for raw materials, such as glutinous rice and plant leaves; ingredients of the product and types of ingredients; product processing technology, such as cooking temperature, time and pressure; processing process management; quality indexes (moisture, fat, protein, stuffing content, etc.); sampling and analysis methods; temperature and environment of product storage and transportation; product labeling and etc. The use of additives and the limit of pollutants in *Zongzi* should comply with the requirements of existing CAC related documents.

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

There are no existing standards specifically covering *Zongzi*.

**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 *Zongzi* 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 *Zongzi* 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 *Zongzi* 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 <sup>st</sup> 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 <sup>nd</sup> CCASIA	2021
Adoption by the CAC as draft standard	2022
Consideration of draft standard by the 23 <sup>rd</sup> CCASIA	2023
Adoption as regional standard by CAC	2024