codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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Agenda Item 3

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

FAO/WHO COORDINATING COMMITTEE FOR ASIA

14th Session
Jeju-Do, Republic of Korea, 7-10 September 2004

PROPOSED DRAFT STANDARDS FOR GINSENG, FERMENTED SOYBEAN PASTE (Doenjang), HOT PEPPER FERMENTED SOYBEAN PASTE (Gochujang) AT STEP 3

Governments and international organizations which will attend the 14th Session of the FAO/WHO Coordinating Committee for Asia and wish to submit comments on the following subject matters are invited to do so **no later than 17 August 2004** preferably in electronic format to the Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Viale delle Terme di Caracalla, 00100 Rome, Italy (Fax +39.06.5705.4593; E-mail: Codex@fao.org) with a copy to Mr. Seoungyong Lee, Fax No.: +82-2-388-6396; E-mail: codexkorea@kfda.go.kr

I. Proposed Draft Standard for Ginseng[1]

1. The 27th Session of the Codex Alimentarius Commission decided to develop a Standard for Ginseng as new work with the understanding that the Coordinating Committee for Asia would undertake initial work on the elaboration of a Codex Standard inclusive to all varieties of ginseng and applicable to ginseng products consumed as foods and not as medicinal drugs. The decisions as to whether the Standard should be finalized as a regional or international Standard and if the latter was the case, which Committee should finalize the Standard would be taken by the Commission after adoption at Step 5. The Proposed Draft Standard for Ginseng, drafted by Korea, is attached as **Annex 1** to this working document.

[1] ALINORM 04/27/41

II. Proposed Draft Standard for Fermented Soybean Paste (Doenjang) and Hot Pepper Fermented Soybean Paste (Gochujang)[2]

2. The Commission noted the recommendation of the 54th Session of the Executive Committee that new work on both Standards should be undertaken by the Coordinating Committee for Asia and, if required, finalized by the Codex Committee on Cereals, Pulses, and Legumes. The question on whether the Standards should be finalized as regional or international Standards could be decided when they reached Step 5[3].

3. The Commission noted that the two Standards referred to two different products particularly in respect of processing methods and the raw materials involved. However, in view of its previous decision to develop more horizontal standards to cover a wider range of products or group of products as opposed to specific and detailed individual standards, the Commission agreed to request CCASIA to consider the possibility and implications of broadening the scope to have a single Standard applicable to all soybean paste related-products including the proper titles of the Standards. The Commission entrusted the initial elaboration of both Standards to the Coordinating Committee for Asia and, if required, finalization by the Codex Committee on Cereals, Pulses, and Legumes. However, the decision on whether the texts should be finalized as regional or international Standards would be decided after adoption at Step 5. The Proposed Draft Standard for Fermented Soybean Paste (Doenjang) and Hot Pepper Fermented Soybean Paste (Gochujang), drafted by Korea, are also attached as **Annex 2 and 3** to this working document.

[2] ALINORM 04/27/41

[3] ALINORM 04/27/4, paras. 15 – 17.

ANNEX 1

PROPOSED DRAFT STANDARD FOR

GINSENG PRODUCTS

(N01-2004)

1. SCOPE

This standard applies to the ginseng product as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 Product Definition

2.1.1 Dried Ginseng

Dried Ginseng means the product

(a) manufactured by sorting out and washing fresh ginseng roots, and then sun drying or hot air drying or drying them using other recognized methods.

(b) manufactured by powdering or slicing the dried ginseng in the above section (a)

Dried Ginseng products are classified into four in the following way depending on the types of the products:

Main Root Ginseng processed only from the main root or from the main root with primary lateral roots maintained.

Lateral Root Ginseng processed from lateral roots and/or fine roots

Powdered Ginseng processed by powdering the Main Root Ginseng or the Main Root Ginseng & the Lateral Root Ginseng

Sliced Ginseng processed by slicing the Main Root Ginseng for a regular thickness in its width, length or diagonal.

2.1.2 Ginseng Extract Product

Ginseng Extract Product means the product manufactured by extracting soluble components of the dried ginseng in Section 2.1.1 (a) using water and/or ethanol. The product is classified as the follows:

Ginseng Extract means the product manufactured by extracting soluble components of the dried ginseng using water and/or ethanol, and then filtering and concentrating them.

Powdered Ginseng Extract means the product manufactured by powdering Ginseng Extract.

Ginseng Compound means the product manufactured by mixing Ginseng Extract as a basic ingredient with bulking agents and adding (or not adding) the extracts of edible plants. The product may be powdered or granulated after mixing.

2.2 Types of Ginseng

2.2.1 Dried Ginseng

2.2.1.1 White Ginseng

White Ginseng is manufactured when fresh ginseng roots are sun dried or hot air dried or dried using other recognized methods. The product has a milky white or light yellow color and may be classified in one of such product types as Main Root White Ginseng, Lateral Root White Ginseng, Powdered White Ginseng, and Sliced White Ginseng.

2.2.1.2 Red Ginseng

Red Ginseng is manufactured when fresh ginseng roots are heated using the steaming method or other recognized methods, and dried. The product has a dark reddish brown color and may be classified in one of such product types as Main Root Red Ginseng, Lateral Root Red Ginseng, Powdered Red Ginseng, and Sliced Red Ginseng.

2.2.2 Ginseng Extract Product

2.2.2.1 White Ginseng Extract Product

White Ginseng Extract Product is manufactured when soluble components of white ginseng are extracted. The product may be classified in one of such product types as White Ginseng Extract, Powdered White Ginseng Extract, and White Ginseng Compound.

2.2.2.2 Red Ginseng Extract Product

Red Ginseng Extract Product is manufactured when soluble components of red ginseng are extracted. The product may be classified in one of such product types as Red Ginseng Extract, Powdered Red Ginseng Extract, and Red Ginseng Compound.

2.3 Other Types of Ginseng Product

Other Types of Ginseng Product are permissible if they are in the following conditions:

(a) The types are to be distinctively differentiated from the ginseng product types presented in the above Section 2.2.

(b) The types shall meet all the quality-related requirements of this standard

(c) Characteristics of the types shall be adequately described in the ‘product labeling’ so as to avoid confusing or misleading consumers.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Basic Ingredients

Fresh ginseng root suitable to eating, derived from *Panax ginseng* C.A. Meyer, *P. quinquefolius* L. and *P. notoginseng* Burk which are cultivated for commercial purposes.

3.2 Optional Ingredients

Sugars (including those as defined in the Codex Standard for Sugars, CX-STAN 212-1999) Vitamins Dextrin Extracts of edible plants	applicable only to ginseng compound

3.3 Quality Factors

Ginseng shall have a normal flavor, color, taste and a ginsenoside pattern unique to ginseng.

3.3.1 Dried Ginsengs

(a)	Moisture	
	Main root ginseng	no more than 14.0%
	Lateral root ginseng	no more than 14.0%
	Powdered ginseng	no more than 9.0%
	Sliced ginseng	no more than 14.0%
(b)	Ash	no more than 6.0%
(c)	Water-saturated 1-butanol extracts	no less than 20 mg/g
(d)	Ginsenosides Rb1, Rf, Rg1	to be identified

3.3.2 Ginseng Extract Products

(a)	Moisture	
	Powdered ginseng extract	no more than 8.0%
	Ginseng compound (Granulated and Powdered type only)	no more than 10.0%
(b)	Solids	
	Ginseng extract	no less than 60.0%
	Ginseng compound (Fluid type only)	no less than 60.0%
(c)	Water-insoluble solids	
	Ginseng extract	no more than 3.0%
(d)	Water-saturated 1-butanol extracts	
	Ginseng extract	no less than 70 mg/g
	Powdered ginseng extract	no less than 100 mg/g
	Ginseng compound	no less than 7.0 mg/g
(e)	Ginsenosides Rb1, Rf, Rg1	to be identified

3.4 Definition of Defects

The following defects shall be applied to the main root ginseng and the lateral root ginseng, among dried ginseng.

(a) ***Insect-damaged ginseng***: Ginseng that is visibly damaged by insects or contains dead insects.

(b) ***Moldy ginseng***: Ginseng that is visibly affected by mold

3.5 Classification of "Defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in Sections 3.3 and 3.4 shall be considered a "defective."

3.6 Lot Acceptance

A lot can be considered as meeting the applicable quality requirements referred to in Section 3.3, when the number of "defectives," as defined in Section 3.5, does not exceed the acceptance number (c) of the appropriate sampling plan in the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CAC/RM 42-1969, Codex Alimentarius Volume 13).

4. CONTAMINANTS

4.1 Heavy Metals

The products covered by the provisions of this Standard shall comply with those maximum levels for contaminants established by the Codex Alimentarius Commission for these products**.**

4.2 Pesticide Residues

The products covered by the provisions of this Standard shall comply with those maximum residue limits for pesticides established by the Codex Alimentarius Commission for these products..

4.3 Foreign matters

The products should not contain any foreign matter which can be removed by washing and other methods in the course of treating materials or any unsanitary foreign matter contaminated in the course of manufacturing the products.

5. HYGIENE

5.1 It is recommended that the product covered under the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997), and other relevant Codex texts, such as Codes of Hygienic Practice and Codes of Practice.

5.2 The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997)

6. WEIGHTS AND MEASURES

6.1.1 Minimum Fill

The net weight of the product, as percentage of the indicated weight, shall not be less than 97%.

6.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 6.1.1 shall be considered a "defective".

6.1.3 Lot Acceptance

A lot should be considered as meeting the requirements of Section 6.1.1, when the number of "defectives", as defined in Section 6.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan in the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CODEX STAN 233-1969).

7. LABELLING

The product shall be labeled in accordance with the Codex General Standard for the Labeling of Prepackaged Foods (Codex STAN 1-1985, Rev. 1-1991).

7.1 The Name of the Product

The name of the product types shall be “White Ginseng”, “Red Ginseng”, “White Ginseng Extract Product”, or “Red Ginseng Extract Product” as defined in Section 2.2. In addition, minimum classification types of each of the said product types, as appropriate, can be used as a name of the product.

7.2 Country of Origin and Scientific Name of Species

The country of origin of both ginseng products and their materials shall be specified, and the same shall apply to the scientific name for ginseng species covered by this standard.

7.3 Labling of Non-Retail Containers

Information for non-retail containers shall be given on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer, packer or distributor, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer or distributor may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

7.4 Other Labeling Requirements

If the product is to be made in accordance to Section 2.3, the label shall specify such appropriate and additional words or phrases as will avoid misleading or confusing consumers.

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

Sampling shall be made in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CAC/RM 42-1969).

In addition, the following applies to the sampling:

(a) Samples shall be selected and stored in a safe place to prevent deterioration.

(b) Precautions shall be taken to protect samples, sampled materials, sampling instruments, and sample containers from extraneous contamination.

(c) Samples shall be placed in clean dry glass containers with airtight stoppers or closures. They shall carry details of sampling, date of sampling, name of the vendor, and other particulars of the consignment.

8.2 Determination of Moisture Content

According to AOAC 44.1.03

8.3 Determination of Solid Content

To be conducted according to AOAC 44.1.03, and calculated based on the content of solids.

8.4 Determination of Ash Content

According to AOAC 32.1.05

8.5 Determination of Water-insoluble Solids Content

According to the method described in Annex A

8.6 Determination of Water-saturated 1-butanol Extracts Content

According to the method described in Annex B

8.7 Identification of Ginsenosides Rb1, Rf, Rg1

According to the method described in Annex C

Annex A

Determination of Water-insoluble Solid Content

Accurately weigh 1g sample and place it into a 25ml centrifugal tube that is cooled in desiccator after being dried for 2 hours at 105°C. Add 15ml of distilled water and dissolve it. Centrifuge it for 15 minutes at 3000×g at 10~15°C, discard supernatant, and add 15ml of distilled water to the centrifugal tube containing the pellet. Then, repeat twice this centrifugation. Dry and reduce it to a to constant weight in an oven, cool, weigh and calculate the content of water-insoluble solid content.

$$\text{water-insoluble solid content (\%)} = (W1-W0)/ S \times 100$$

S: weight of sample (g)

W1: weight of centrifugal tube and residue after drying (g)

W0: weight of centrifugal tube (g)

Annex B

Determination of water-saturated 1-butanol extracts

1. Preparation of water-saturated 1-butanol

Mix 1-butanol with water in the ratio of 70:30 in a separatory funnel, shake it vigorously for several minutes, and wait until it is separated completely into two layers. Collect 1-butanol layer (upper layer) for further extraction.

2. Analysis method

2.1 Dried Ginseng

Accurately weigh 5g of the sample which has been passed through a no less than 80-mesh standard sieve, place it in a three-legged 250ml flask, add 50ml water-saturated 1-butanol to it, re-flux it in a water bath at 70~80°C for 1 hour, and filter, cool and collect it in a 250ml separatory funnel. Then, repeat twice the extraction and filtration for the residue. Dissolve the extracts in 50ml distilled water in a separatory funnel, shake them vehemently, and wait until it is separated completely into two layers. Collect 1-butanol layer (upper layer) in an evaporation flask, vacuum-evaporate it, add 50ml diethyl ether to it, re-flux it in a water bath approximately at 46°C for 30 minutes, and decant the diethyl ether. Dry and reduce the residue to a constant weight in an oven, and cool, weigh, and calculate the content of 1-butanol extracts.

$$\text{water-saturated 1-butanol extracts(mg/g)} = (A-B)/S$$

S: weight of sample (g)

A: weight of flask after concentrating and drying extracts (mg)

B: weight of flask (mg)

2.2 Ginseng Extract Products

2.2.1 Ginseng extract and powdered ginseng extract

Accurately weigh 2g of the sample, place it in a 100ml evaporation flask (as for Ginseng extract, vacuum-evaporate it after weighing). Add 50ml 1-butanol, re-flux it in a water bath at 70~80°C for 1 hour, and cool, filter, and collect it in a 250ml separatory funnel. Then, repeat twice the extraction and filtration for the residue. Dissolve the extracts in 50ml distilled water in a separatory funnel, shake them vehemently, and wait until it is separated completely into two layers. Collect 1-butanol layer in an evaporation flask, vacuum-evaporate it, add 50ml diethyl ether to it, re-flux it in a water bath approximately at 46°C for 30 minutes, and decant the diethyl ether. Dry and reduce the residue to a constant weight in an oven, and cool, weigh, and calculate the content of 1-butanol extracts according to the equation in Section 2.1.

2.2.2 Ginseng compound

Accurately weigh 10g of the sample, place it in a three-legged flask, add 50ml methanol to it, extract through shaking it at a room temperature for 1 hour, and filter it in an evaporation flask. Repeat the extraction and filtration for the residue. Wash the filter paper in 50ml methanol. Collect the methanol extract fluid and vacuum-evaporate it in a water bath. Dissolve the extracts in 50ml distilled water in a separatory funnel, place them in the separatory funnel, add 50ml 1-butanol to them, shake them vehemently, and collect the 1-butanol layer from the completely separated two layers. Then, apply twice the 1-butanol extraction to the water layer. Wash the butanol layer in 50ml distilled water. Collect the 1-butanol layer, vacuum-evaporate it, add 50ml diethyl ether to it, re-flux it in a water bath approximately at 46°C for 30 minutes, and decant the diethyl ether. Dry and reduce the residue to a constant weight in an oven, and cool, weigh, and calculate the content of 1-butanol extracts according to the equation in Section 2.1.

Annex C

Identification of ginsenosides Rb1, Rf, Rg1

Ginsenosides of Ginseng products are analyzed by using thin layer chromatography (TLC) and high performance liquid chromatography (HPLC).

1. Preparation of sample solution

Dilute the dried 1-butanol extract of Annex B with a ten-fold volume of methanol, dissolve completely, and filter it (through 0.45μm sieve).

2. Preparation of standard solution

Dissolve standard ginsenosides, such as ginsenoside-Rb1, -Rf, and -Rg1, in methanol to make a 1% solution and filter it (through 0.45μm sieve).

3. Identification

(a) Thin layer chromatography

Spot 2-5μl of the standard and sample solutions, as indicated in the above, on a TLC plate (silica gel), previously oven dried at 110°C for 15 minutes. Develop with an upper solution of 1-butanol:ethylacetate:water (5:1:4, v/v/v) or a lower solution of chloroform:methanol:water (65:35:10, v/v/v). Spray 10% sulfuric acid or 30% sulfuric acid-ethanol solution over a TLC plate and oven dry it at 110 for 5-10 minutes to reveal its color. Identify the ginsenosides of Ginseng products by comparing the Rf values and colors with those of standard ginsenosides.

(b) High performance liquid chromatography

Analyze the standard and sample solutions, as indicated in the above, with HPLC depending upon the operating condition. Identify ginsenosides of the sample by comparing retention times of the peaks with those of the standard.

<Operating condition>

Column : NH2 column, μ-Bondapak C18 column, or carbohydrate analyzing column

Detector : HPLC/RI or UV(203nm) or ELSD

(a) Eluent **:**

- RI : acetonitrile:water:1-butanol(80:20:10, v/v/v), or acetonitrile:water (80:20, v/v)
- UV : acetonitrile:water (30:70, v/v)
- ELSD : acetonitrile:water:isopropanol (94.9:5.0:0.1, v/v/v)

Flow rate **:**

- RI : 1.0ml/min
- UV : 1.5ml/min
- ELSD : 1.0ml/min

ANNEX 2

PROPOSED DRAFT STANDARD FOR FERMENTED SOYBEAN PASTE

(N02-2004)

1. SCOPE

This standard applies to the product defined in Section 2 below and offered for direct consumption including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 Product Definition

Fermented Soybean Paste is a brown or yellowish brown pasty fermented food manufactured when soybeans or soybeans & grains are fermented and then mixed with salt water and others. Subsequently, the mixture is fermented again and aged for a certain period of time. More concretely, it is manufactured in the process below.

The product is classified as in Sections 2.1.1 and 2.1.2.

2.1.1 Fermented Soybean Paste with Starter means the product manufactured in the following process.

(a) *Aspergillus* sp. or *Bacillus* sp. are cultivated as a starter in grains or in the mixture of grains & soybeans.

(b) The product acquired in the above (a) is mixed with steamed soybeans, salt water, etc. and then, the mixture is fermented and aged until the content of amino nitrogen reaches a certain level.

2.1.2 Naturally Fermented Soybean Paste means the product manufactured in the following process.

(a) Without any additional starter, microorganisms in a state of nature (bacteria, molds and yeasts) are cultivated in soybeans or in the mixture of soybeans & grains.

(b) The product acquired in the above (a) is mixed with salt water and others and then, the mixture is fermented and aged until the content of amino nitrogen reaches a certain level.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

3.1.1 Basic Ingredients

3.1.1.1 Fermented Soybean Paste with Starter

(a) Soybeans

(b) Grains

(c) Salt

(d) Potable water

3.1.1.2 Naturally Fermented Soybean Paste

(a) Soybeans

(b) Salt

(c) Potable water

3.1.2 Optional Ingredients

(a) Distilled alcohol derived from agricultural products

(b) Grains (only applicable to Naturally Fermented Soybean Paste)

3.2 Quality Factors

(a) Crude protein	not less than 8.0 % (w/w)
(b) Crude fat	not less than 2.0 % (w/w)
(c) Amino nitrogen	not less than 0.25% (w/w)
(d) Moisture	not more than 57.0 % (w/w)

3.3 Classification of "Defectives"

Any container that fails to meet the applicable quality requirements, as set out in Sections 3.2, should be considered a "defective".

3.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Sections 3.2., when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plans in the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL 6.5.) (CODEX STAN 233-1969).

4. FOOD ADDITIVES

The food additives listed below can be used within the scope of a permitted amount.

(INS No.)	(Name of Food additives)	(Maximum level)
4.1	**Preservatives**	
200	Sorbic acid	1.0g/kg of sorbic acid
202	Potassium sorbate	single or combination
203	Calcium sorbate	
4.2	**Texturizers**	
452(i)	Sodium Polyphosphate	limited by GMP
452(ii)	Potassium Polyphosphate	limited by GMP
4.3	**Flavor Enhancing Agents**	
621	MSG (Monosodium L-glutamate)	limited by GMP

5. HYGIENE

5.1 It is recommended that the products to which this standard applicable should be manufactured and handled in compliance with the Recommended International Code of Practice-General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997) and with other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

5.2 This product should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Food (CAC/GL 21-1997).

6. WEIGHTS AND MEASURES

6.1.1 Minimum Fill

As for a product whose indicated weight is not more than 1,000g, the tolerance allowed shall be less than 20g. As for a product whose indicated weight is 1,000～5,000g, the net weight of the product shall not be less than 98% of the indicated weight. As for a product whose indicated weight is more than 5,000g, the net weight of the product shall not be less than 99% of the indicated .

6.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 6.1.1 shall be considered a "defective".

6.1.3 Lot Acceptance

A lot should be considered as meeting the requirements of Section 6.1.1, when the number of "defectives", as defined in Section 6.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan in the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CODEX STAN 233-1969).

7. LABELING

The products covered by the provisions of this Standard shall be labelled in accordance with the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

7.1 Product Name

7.1.1 The name of product shall be “Fermented Soybean Paste”.

7.1.2 The name of product can be labeled in accordance with domestic laws, so that its characteristics may be expressed.

7.2 Labeling of Non-Retail Containers

Information for non-retail containers shall be given on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer, packer or distributor, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer or distributor may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

Sampling shall be conducted in accordance with FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CAC/RM 42-1969).

(a) Samples shall be stored in such a way as materials may not be heated up.

(b) Great care shall be taken so that samples, sampling equipment, and sampling containers may be protected from outside pollution.

(c) Samples shall be kept in a clean and dry container with its lid. The container shall carry detailed descriptions about sampling such as sampling date, seller's name, and other particulars of consignment sale.

8.2 Methods of Analysis

(Appropriate methods of analysis are under development.)

ANNEX 3

PROPOSED DRAFT STANDARD FOR *GOCHUJANG*

(N03-2004)

1. SCOPE

This standard applies to the product defined in Section 2 below and offered for direct consumption including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 Product Definition

Gochujang is a red or dark red pasty fermented food manufactured when starch derived from grains is saccharified and then mixed with hot red pepper powder. Subsequently, the mixture is fermented and aged. More concretely, it is manufactured in the following process:

(a) Saccharified material is manufactured by saccharifying grain starch with powdered malt, or by cultivating *Aspergillus* sp. in grains.

(b) Red pepper powder, salt and others are mixed with the saccharified material acquired in the above (a). Then, the mixture is fermented and aged.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

3.1.1 Basic Ingredients

(a) Grains

(b) Red pepper (*Capsicum annuum* L.) powder

(c) Salt

(d) Potable water

3.1.2 Optional Ingredients

(a) Powdered *meju*[*]

* Fermented material of soybeans or the mixture of soybeans and grains using microorganisms (bacteria, molds and yeasts) in a state of nature

(b) Soybeans

(c) Sugars

(d) Distilled alcohol derived from agricultural products

3.2 Quality Factors

3.2.1 Quality Factors

(a) Capsaicin	not less than 10.0ppm (w/w)
(c) Crude protein	not less than 4.0% (w/w)
(b) Moisture	not more than 55.0% (w/w)

3.2.2 *Gochujang* shall have its unique flavor, odor, and the following qualities.

(a) Color: The product shall have a red or dark red color derived from red pepper (*Capsicum annuum* L.).

(b) Taste: The product shall have a hot and savory taste. It may also have a somewhat sweet taste and a somewhat salty taste.

(c) Texture: The product shall have an appropriate level of viscosity.

3.3 Classification of "Defectives"

Any container that fails to meet the applicable quality requirements, as set out in Sections 3.2, should be considered a "defective".

3.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Sections 3.2., when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plans in the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL 6.5.) (CODEX STAN 233-1969).

4. FOOD ADDITIVES

The food additives listed below can be used within the scope of a permitted amount.

(INS No)	(Name of Food additives)	(Maximum level)
4.1	**Preservatives**	
200	Sorbic acid	1.0g/kg of sorbic acid
202	Potassium sorbate	single or combination
203	Calcium sorbate	
4.2	**Texturizers**	
452(i)	Sodium Polyphosphate	limited by GMP
452(ii)	Potassium Polyphosphate	limited by GMP
4.3	**Flavor Enhancing Agents**	
621	MSG (Monosodium L-glutamate)	limited by GMP

5. HYGIENE

5.1 It is recommended that the products to which this standard applicable should be manufactured and handled in compliance with the Recommended International Code of Practice-General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 3-1997) and with other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

5.2 This product should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Food (CAC/GL 21-1997).

6. WEIGHTS AND MEASURES

6.1.1 Minimum Fill

As for a product whose indicated weight is not more than 1,000g, the tolerance allowed shall be less than 20g. As for a product whose indicated weight is 1,000 5,000g, the net weight of the product shall not be less than 98% of the indicated weight. As for a product whose indicated weight is more than 5,000g, the net weight of the product shall not be less than 99% of the indicated weight.

6.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 6.1.1 shall be considered a "defective".

6.1.3 Lot Acceptance

A lot should be considered as meeting the requirements of Section 6.1.1, when the number of "defectives", as defined in Section 6.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan in the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CODEX STAN 233-1969).

7. LABELING

The product covered by the provisions of this Standard shall be labelled in accordance with the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

7.1 Product Name

7.1.1 The name of product shall be "*Gochujang*".

7.1.2 The name of product can be labeled in accordance with domestic laws, so that its characteristics may be expressed.

7.2 Labeling of Non-Retail Containers

Information for non-retail containers shall be given on the container or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer, packer or distributor, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer or distributor may be replaced by an identification mark, provided that such mark is clearly identifiable with the accompanying documents.

8. METHODS OF ANALYSIS AND SAMPLING

8.1 Sampling

Sampling shall be conducted in accordance with FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CAC/RM 42-1969).

(a) Samples shall be stored in such a way as materials may not be heated up.

(b) Great care shall be taken so that samples, sampling equipment, and sampling containers may be protected from outside pollution.

(c) Samples shall be kept in a clean and dry container with its lid. The container shall carry detailed descriptions about sampling such as sampling date, seller's name, and other particulars of consignment sale.

8.2 Methods of Analysis

(Appropriate methods of analysis are under development.)