CODEX ALIMENTARIUS COMMISSION E

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DISCUSSION PAPER ON (I) THE CLASSIFICATION OF "COMPRESSED SOYBEAN CURD"; AND (II) THE FOOD ADDITIVE PROVISIONS FOR "COMPOSITE/FLAVOURED SOYBEAN MILK"

Prepared by China, with the assistance of India, Indonesia, Japan, Malaysia, Republic of Korea, Thailand, France, Peru, Russian Federation, Biotechnology Industry Organization (BIO), European Vegetable Protein Federation (EUVEPRO), International Dairy Federation (IDF), Institute of Food Technologists (IFT).

BACKGROUND

1. The 18th Session of the FAO/WHO Coordinating Committee for Asia (CCASIA) noted that fundamental aspects of the proposed draft Regional Standard for Non-fermented Soybean Products had been solved and that only two points required further discussion.

2. In order to solve the outstanding issues and finalize the document at its next session, the Committee agreed to establish an eWG working in English only, chaired by China, open to all Members of the Region and observers, to develop a discussion paper on: (i) the classification of "compressed soybean curd"; and (ii) the food additive provisions for "composite/ flavored soybean milk". It further agreed to establish a pWG to be held immediately before the next session, chaired by China and working in English, to consider the draft standard at Step 6 and the report of the eWG.

3. The Committee also agreed to forward the proposed draft regional standard to the Commission for adoption at Step 5 and to forward the relevant sections to CCMAS and CCFL for endorsement (REP 13/ASIA, para.109 and Appendix III).

4. The 34th session of CCMAS endorsed the methods of analysis with amendment (REP 13/MAS, para. 33). The 41st session of CCFL did not endorse the labelling provisions as presented and proposed revising section 8.2 and deleting section 8.3. Concerning section 8.4, the Committee noted that section 2.2 of the proposed draft standard needed further consideration in the CCASIA taking into account the relevant provisions in the *General Standard for Use of Dairy Terms* (CODEX STAN 206-1999) and relevant discussions in other Codex committees such as the Committee on Food Additives and the Committee on Milk and Milk Products (REP 13/FL, paras 14-26).

5. The 36th Commission adopted the proposed draft Regional Standard at Step 5 and advanced it to Step 6, with the recommendation that the CCASIA should review the standard in the light of the advice from the CCFL (REP 13/CAC, paras 92-95).

DISCUSSION BY THE EWG

6. The eWG has been active since 20 November 2013. The proposed draft Regional Standard for Non-Fermented Soybean Products prepared by China was sent to members of the eWG for two rounds of circulation. The List of Participants of the eWG can be found in Appendix II. According to the TOR of eWG, the discussion focused on the classification of "compressed soybean curd"; and the food additive provisions for "composite/ flavored soybean milk".

<u>The Classification of "compressed soybean curd"</u>

7. There was general support for the current classification of "compressed soybean curd" and its definition. One country proposed compressed soybean curd (2.2.3) should be presented as a sub-class of soybean curd and related products (2.2.2). Their concern is that the difference between soybean curd and compressed soybean curd is not obvious. They would like to reiterate that it may cause confusion to make independent category of "compressed soybean curd" (2.2.3) from "soybean curd and related products"

(2.2.2), and propose to return to the original definition to clarify the difference between “soybean curd” (2.2.2) and “compressed soybean curd” (2.2.3).

8. The eWG recommends the classification of “compressed soybean curd” adopted as it is in Appendix I.

The food additives provisions for “composite/flavored soybean milk”

9. The eWG agreed that the same food additives were technologically justified in “soybean-based beverages” (2.2.1.3) and “composite/flavoured soybean milk” (2.2.1.2) since they have similar composition and only differed for protein content.

10. According to the *General Standard for Food Additives* (CODEX STAN 192-1995), soybean milk, composite/flavoured soybean milk and soybean-based beverage are all in Food Category 06.8.1. According to the definitions in the proposed draft Regional Standard for Non-Fermented Soybean Products, both composite/flavoured soybean milk (2.2.1.2) and soybean-based beverage (2.2.1.3) are allowed to use optional ingredients. Therefore, 4.2.1 and 4.2.2 were merged into one part.

11. The food additives that are listed in Table 1 and 2 of GSFA were deleted from the table in 4.2.1, and the following paragraph were added to 4.2.1, since there is no need to repeat what GSFA has already covered.

> *"Acidity regulators, antioxidants, colours, emulsifiers, flavour enhancer, preservatives, stabilizers and sweeteners used in accordance with Tables 1 and 2 of the General Standard for Food Additives (CODEX STAN 192-1995) in Food Category 06.8.1 are acceptable for use in foods confirming to this standard."*

12. One country raised concern on the use of Chlorophylls, copper complexes (INS 141(i)), Chlorophyllins, copper complexes (INS 141(ii)) in composite/flavoured soybean milk and soybean-based beverage. It proposed that these colours should be reviewed for the technological justification of the use. The use of these green colours in composite/flavoured soybean milk and soybean-based beverage can mislead or deceive consumers by manufacturing adulterated products. For this reason, the use of food additives in composite/flavoured soybean milk and soybean-based beverage needs to be limited.

13. The eWG recommends the food additives provisions for “composite/flavored soybean milk” adopted as it is in Appendix I.

Others

14. Several editorial corrections were made in the proposed draft RegionalStandard for Non- Fermented Soybean Products.

15. Although the TOR had been stated at the beginning of every circulation, members of the eWG made comments on several other parts of the proposed draft Regional Standard for Non-Fermented Soybean Products.

16. The eWG notes that comments on other parts of the proposed draft standards will be considered during the pWG to be held immediately before the 19th session of CCASIA and the 19th session of CCASIA.

Appendix I

Proposed Draft Regional Standard for Non-Fermented Soybean Products (N06-2005)

(Step ~~5~~6)

1. SCOPE

This standard applies to products, as defined in Section 2, and offered for direct consumption, including for catering purposes, repacking or further processing if required.

2. DESCRIPTION

2.1. Product Definition

Non-fermented soybean products are the products, the main ingredients of which are the soybean and/or soy derivative(s) (e.g. soybean flour, soybean concentrates, soybean isolates or defatted soya) and water which are produced without fermentation process. The products should be processed, in an ~~appropraite~~appropriate manner,before or after being packed in a container, so as to prevent spoilage.

2.2. Classification

2.2.1. Soybean Milk and Related Products

2.2.1.1. Soybean milk

Soybean milk is the milky liquid, prepared from soybeans with eluting protein and other components in hot/cold water or other physical means, without adding optional ingredients. Fibres can be removed from the products.

2.2.1.2. Composite/ flavoured soybean milk

Composite/flavoured soybean milk is the milky liquid, prepared by adding optional ingredients to soybean milk.It includes products such as soybean milk sweetened with sugar, spiced soybean milk,salted soybean milk.

2.2.1.3. Soybean-based beverages

Soybean-based beverage is the milky liquid products prepared by adding optional ingredients to soybean milk, with lower protein content than composite/flavoured soybean milk (2.2.1.2).

2.2.2. Soybean Curd and Related Products

2.2.2.1. Semisolid soybean curd

Semisolid soybean curd is the semisolid product in which soybean protein is coagulated by adding coagulant into the the semi-finished soybean milk.

2.2.2.2. Soybean curd

Soybean curd is the solid product with higher water content, and is made from semi-finished soybean milk and coagulated by adding coagulant.

[2.2.3] Compressed Soybean Curd

~~Compressed soybean curd is partially dehydrated soybean curd, of which the water content is much lower than Soybean curd and has a chewy texture.~~

Compressed soybean curd is made from semi-finished soybean milk and coagulated by adding coagulant, then broken, squeezed and moulded. Mostly the product is the coagulum produced by cooking, flavoring and other processes.

2.2.4. Dehydrated Soybean Milk Film

Dehydrated soybean milk film is obtained from the uncovered still surface of semi-finished soybean milk, with or without folding up, which will be dehydrated. It may be dipped in salt solution prior to dehydration.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1. Basic Ingredients

a) Soybean and/or soy derivative(s)

b) Water

3.2. Optional Ingredients

a) edible oil

b) sugars

c) salts

d) spices, seasoning and condiments

e) other ingredients as appropriate

3.3. Quality Criteria

~~3.3.1~~ The non-fermented soybean products shall have the characteristic flavour, odour, color and texture of the product. There are no visible foreign matters in the products.

3.4. ~~3.3.2~~ Component Requirement

The non-fermented soybean products should comply with the requirements listed in Table 1.

Table 1~~ Components requirement~~

Type		**Moisture（g/100g）**	**Protein（g/100g）**
Soybean milk and related products (2.2.1)	Soybean milk (2.2.1.1)	-	≥ 2.0
	Composite/flavoured soybean milk (2.2.1.2)	-	≥ 2.0
	Soybean-based beverages (2.2.1.3)	-	≥ 0.8 but < 2.0
Soybean curd and related product (2.2.2)	Semisolid soybean curd (2.2.2.1)	> 92.0	≥ 2.5
	Soybean curd (2.2.2.2)	≤ 92.0	≥ 3.5
Compressed soybean curd [2.2.3]		≤ 75.0	≥ 13.0
Dehydrated Soybean milk film (2.2.4)		≤ 20.0	≥ 30.0

3.5. ~~3.4~~ Classification of “Defectives”

Any products in minimal package that fail to meet the quality requirements, set out in Section 3.3, shall be considered a “defective”.

3.6. ~~3.5~~ Lot Acceptance

A lot can be considered as meeting the applicable quality requirements referred to in Section~~s~~ 3.3, when the number of "defectives", defined in Section 3.4, does not exceed the acceptance number (c) of the appropriate sampling plan.

4. FOOD ADDITIVES

4.1. General ~~requirements~~ Requirements

Only those additive functional classes indicated as technologically justified in ~~the table below~~ Table 2 may be used for the product~~s~~ categories specified. Within each additive class, and where permitted according to the table, only those food additives listed may be used and only within the functions and limits specified.

In accordance with Section 4.1 of the Preamble to the *General Standard for Food Additives* (CODEX STAN 192-1995),~~-~~additional additives may be present in non-fermented soybean products as a result of carry-over from soybean ingredients.

Table 2

Food additive/functional class	Soybean milk and related products (2.2.1)			Soybean curd and related products (2.2.2)		Compressed soybean curd (2.2.3)	Dehydrated soybean milk film (2.2.4)
	Soybean milk (2.2.1.1)	[Composite/flavoured soybean milk (2.2.1.2)]	Soybean-based beverage (2.2.1.3)	Semisolid soybean curd (2.2.2.1)	Soybean curd (2.2.2.2)		
Acidity regulators	-	~~[~~][X]	X	X	X	X	-
Antioxidants	-	~~[~~][X]	X	-	-	-	-
Colours	-	~~[~~][X]	X	-	-	-	-
Emulsifiers	-	~~[~~][X]	X	-	-	-	-
Firming Agents	-	-	-	X	X	X	-
Flavour enhancer	-	~~[~~][X]	X	-	-	-	-
Preservatives	-	[-]	-	-	-	X	X
Stabilizers	-	~~[~~] [X]	X	-	X	-	-
Sweeteners	-	~~[~~] [X]	X	-	-	-	-

X= The use of food additives belonging to the functional class is technologically justified.

-= The use of food additives belonging to the functional class is not technologically justified.

Acidity regulators, antioxidants, colours, emulsifiers, firming agents, flavour enhancers, preservatives, stablizers and sweeteners listed in Table 3 of the *General Standard for Food Additives* (CODEX STAN 192-1995) are acceptable for use in non-fermented soybean product~~s~~ categories as specified ~~in the table above~~ Table 2.

4.2. Specific ~~food additive provisions~~ Food Additive Provisions

4.2.1. Composite/flavoured Soybean Milk and ~~Soybean~~ Soybean-based Beverage

Acidity regulators, antioxidants, colours, emulsifiers, flavour enhancer, preservatives, stabilizers and sweeteners used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in Food Category 06.8.1 are acceptable for use in foods confirming to this standard.

Table 3

Functional Class	INS No.	Name of Food Additives	Maximum Level
Antioxidant	304	Ascorbyl palmitate	500 mg/kg
	307a,b,c	Tocopherols	20000 mg/kg, singly or in combination
Colour	100(i)	Curcumin	1 mg/kg
	100(ii)	Turmeric	2000 mg/kg
	102	Tartrazine	300 mg/kg
	110	Sunset yellow FCF	300 mg/kg
	132	Indigotine	150 mg/kg
	133	Brilliant blue FCF	100 mg/kg
	141(i),(ii)	Chlorophylls and chlorophyllins, copper complexes	30 mg/kg, as copper
	150b	Caramel II-sulfite caramel	20000 mg/kg
	~~150c~~	~~Caramel III-ammonia caramel~~	~~20000 mg/kg~~
	150d	Caramel IV-sulfite ammonia caramel	20000 mg/kg
	160a(i),a(iii),e,f	Carotenoids	2000 mg/kg
	160a(ii)	Cartenes, beta-, vegetable	2000 mg/kg
	160b(i)	Annatto extracts, bixin based	5 mg/kg as bixin with maximum 28% of norbixin
	160b(ii)	Annatto extracts, norbixin based	100 mg/kg as norbixin
	163	Anthocyanins	100 mg/kg as anthocyanin
Emulsifier	432-436	Polysorbates	2000 mg/kg

Functional Class	INS No.	Name of Food Additives	Maximum Level
	472e	Diacetyltartaric and fatty acid esters glycerol	200 mg/kg
	473	Sucrose esters of fatty acids	20000 mg/kg
	475	Polyglycerol esters of fatty acids	20000 mg/kg
	491-495	Sorbitan esters of fattey acids	20000 mg/kg
Stabilizer	405	Propylene glycol alginate	10000 mg/kg
Sweetener	950	Acesulfame potassium	500 mg/kg
	951	Aspartame	1300 mg/kg
	~~955~~	~~Sucralose(Trichlorogalactosucrose)~~	~~400 mg/kg~~
	~~960~~	~~Steviol glycosides~~	~~200 mg/kg~~
	-	Trehalose	500 mg/kg
Flavour enhancer	508	Potassium chloride	1000 mg/kg
	640	Glycine	1000 mg/kg

4.2.2. Soybean Curd

~~Stabilizers~~Acidity regulator, firming agent and stabilizers used in accordance with Tables 1 and 2 of the ~~Codex~~General Standard for Food Additives (CODEX STAN 192-1995) in ~~food category~~Food Category 06.8.3 are acceptable for use ~~for~~ in foods confirming to this standard.

4.2.3. Compressed Soybean Curd

Table 4

Functional Class	INS No.	Name of Food Additives	Maximum Level
Preservatives	262ii	Sodium diacetate	1000 mg/kg

4.2.4. Dehydrated Soybean Milk Film

Table 5

Functional Class	INS No.	Name of Food Additives	Maximum Level
Preservatives	220-225,227-228,539	Sulfites	200 mg/kg, calculate by SO_2

4.3. Processing Aids

Processing aids with antifoaming, controlling acidity for coagulant and for extracting soybean milk and carrier functions can be used in the products covered by this standard.

4.4. Flavourings

The flavourings used in products covered by this standard shall comply with the *Guidelines for the Use of Flavourings* (CAC/GL 66-2008).

5. CONTAMINANTS

The products covered by this Standard shall comply with the Maximum Levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

6. HYGIENE

It is recommended that the products to which this standard applies should be manufactured and handled in compliance with the *General Principles of Food Hygiene* (CAC/RCP 1-1969) and with other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

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

7. WEIGHTS AND MEASURES

Quantity tolerance should be as follows:

Table 6

Nominal quantity of product (Qn) in g or mL	Tolerable deficiency (*T*)[a]	
	Percent of Qn	g or mL
0~50	9	-
50~100	-	4.5
100~200	4.5	-
200~300	-	9
300~500	3	-
500~1000	-	15
1000~10000	1.5	-
10000~15000	-	150
15000~50000	1	-

[a]T values are to be rounded up to the next 1/10 of a g or mL for ≤Qn 1000g or mL and to the next whole g or mL for Qn>1000g or mL.
(Reference:Quantity of product in prepackages(OIML R 87-2004)

8. LABELLING

~~8.1~~ The product covered by the provisions of this Standard shall be labelled in accordance with the latest edition of the *General Standard for the Labeling of Prepackaged Foods* (CODEX STAN 1-1985).

~~8.2~~ If genetically modified soybean is used in the process, it shall be indicated in the label in accordance with national legislation.

~~8.3~~ If the product is meant to be sold as vegetarian food, the type of oil and fat added should be indicated with regards to its origin.

8.1. ~~8.4~~ The Name of the Product

The product should be designated with the appropriate term in section 2.2 or other names in accordance with the composition and the law and custom of the country in which the product is sold and in the manner not to mislead the consumer.

9. METHODS OF ANALYSIS AND SAMPLING

9.1. Methods of Analysis

9.1.1. Determination of Moisture Content

According to AOAC 925.09.

9.1.2. Determination of Protein Content

According to AOAC 955.04D, nitrogen factors for non-fermented soybean products are 5.71.

APPENDIX II

List of participants

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