

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of the  
United Nations



World Health  
Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: [codex@fao.org](mailto:codex@fao.org) - [www.codexalimentarius.org](http://www.codexalimentarius.org)

Agenda Item 8

CX/NE 17/09/09

May 2017

ORIGINAL LANGUAGE ONLY

## JOINT FAO/WHO FOOD STANDARDS PROGRAMME FAO/WHO COORDINATING COMMITTEE FOR NEAR EAST

Ninth Session

FAO Headquarters, Rome, Italy, 15-19 May 2017

PROPOSED DRAFT REGIONAL STANDARD FOR DOUGH (at Step 4)

Comments at Step 3 in reply to CL 2017/08-NE from USA, IDF and YLFA

### USA

#### General comment

The U.S. appreciates the opportunity to provide comments relative to CL 2017/8-NE: Request for Comments at step 3 on the proposed draft Regional Standard for Doogh.

#### Specific comments

In Section 2 of the proposed draft standard. Description, optional language may provide clarity for the following items:

- Paragraph 1: suggest referencing “sodium chloride” in lieu of “regularly edible salt”
- Paragraph 3: the use of the phrase “mandatory or optionally” creates confusion, suggest clarification here.
- Paragraph 4: the use of “abundant” is unclear, perhaps it may be clearer to reference the table in section 3.3.
- Paragraph 4: “probiotic” is not defined in CODEX STAN 206-1999 General Standard for the Use of Dairy Terms, we suggest not including this term unless it is properly defined. Please note this term is also used in sections 3.2.2, 3.3, and 8.1.4.

In section 3.2.5, the term “prebiotics” is not defined in CODEX STAN 206-1999 General Standard for the Use of Dairy Terms, we suggest not including this term unless it is properly defined. Additionally, it would be helpful to omit the phrase “fortifying agents” and instead provide more specificity regarding which fortifying agents are permissible.

In section 3.3, we suggest harmonizing the Composition table with the Composition table in CODEX STAN 243-2003 Standard for Fermented Milks.

### IDF

#### General comment

The International Dairy Federation (IDF) acknowledges the hard work done by the eWG led by Iran in preparing this proposed draft standard for Doogh and notes that some of our earlier comments have been taking into account. We welcome the opportunity to comment on the latest draft as outlined in CL 2017/08-NE.

IDF believes that:

- This draft regional standard, as a minimum requirement, should not contradict the requirements specified in the Codex Standard for Fermented Milks (Codex Stan 243-2003).
- Some additional details can be referenced to other horizontal standards. The draft regional standard should include only those provisions necessary to characterise Doogh as sold throughout the CCNEA Region.
- It is IDF's understanding that Codex standards are not intended or do not seek to prohibit products that are already sold legally on the market(s) of (a) country/countries but rather to facilitate fair trade (internationally or intra-regionally) in such products.
- IDF notes that the word yogurt is used throughout the Standard, which is not consistent with the Codex Standard for Fermented Milks (Codex Stan 243-2003) where the word yoghurt is used throughout.

Our comments that follow are based mainly on these general principles.

### **Specific comments**

## **2. DESCRIPTION**

We would suggest that the description in paragraph 1 would be subdivided into a) describing the traditional method of manufacture and b) the alternative manufacture procedure as follows:

*Doogh is a 'Drink based on Fermented Milk' as defined in Section 2.4 of the Standard for Fermented Milks (CODEX STAN 243-2003), obtained by mixing yogurt as defined in Sections 2.1 and 3.3 of the same standard, with potable water and regularly edible optionally food grade salt*

Or

*b) mixing milk with potable water and regularly edible optionally food grade salt prior to heat treatment and fermentation to give an end product with similar physical, chemical and organoleptic character as the product defined under (a)*

IDF would like to rephrase the following sentence "However, other harmless and suitable microorganisms than these specific starter cultures (starter/nonstarter, claimed/unclaimed) could be used.", with the following in order to have it consistent with the Codex Standard of Fermented Milks (Codex Stan 243-2003):

Other microorganisms than those constituting the specific starter cultures may be added.

In addition, IDF notes a typo in paragraph 5 sentence 2 the word "cucamber" should be replaced by cucumber. The sentence would then read "... ziziphore or wild thyme, pennyroyal and cucumber cucumber) or with..."

## **3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**

### **3.1 Raw materials**

IDF would like to suggest the following amendments to the second indent:

*"Potable water for dilution of yogurt or milk, and/or probably for the use in reconstitution or recombination (if milk is prepared by reconstitution or recombination)."*

### **3.2 Permitted ingredients**

IDF seeks clarification on the use of mould as starter culture in Doogh as mentioned in 3.2.2. We recognize that yeast is used for carbonation and other technological properties.

IDF suggests that in 3.2.4 the word 'substances' is replaced by 'ingredients' as follows:

*3.2.4 "Natural flavoring substances ingredients such as, fine particles of aromatic vegetables and herbs, and spices and/or flavours, ..."*

The addition of 'and/or flavours' is consistent with the Codex Standard of Fermented Milks (Codex Stan 243-2003).

IDF seeks clarification on the nature of fortifying agents as mentioned in 3.2.5 and if they are ingredients they should be identified in this section.

In order to be aligned with other Codex milk product Standards, IDF suggest that in 3.2.6 the wording 'Dairy ingredients or dairy products' are replaced by 'products obtained from milk' so the sentence would read as follows: "Dairy ingredients or dairy products Products obtained from milk such as milk proteins, milk powders, milk fat (butter fat or cream), buttermilk and different types of whey and whey products"

Additionally, Codex Standards applying to the mentioned milk products should be referenced in a footnote. For Milk powders this would be the Standard for Milk Powders and Cream Powder (CODEX STAN 207-1999), milk fat this would be the Standard for Milkfat Products (CODEX STAN products 280-1973) and Cream as is defined in Section 2.1 of the Standard for Cream and Prepared Creams (CODEX STAN 288-1976).

### **3.3 Composition**

IDF would like reiterate some of our previous made comments on minimum protein content and pH. Additionally, we would like to note an omission of percentage in the requirements for ethanol.

IDF should like point out that Codex Standards for milk products specify compositional requirements expressed on "% m/m" basis and would recommend that this Standard follows this normal expression.

**Minimum Protein Content:**

In Standard 243-2003, the minimum protein content of fermented milks is specified as 2.7%. For the composite products already contained in Codex Stan 243-2003 (Flavoured Fermented Milks and Drinks based on Fermented Milks) there is no min. protein content stipulated. Rather it should be stipulated that at least in the case of a product as described in the first description of the product in Section 2, the minimum protein content of the fermented milk that is used should be met and a minimum content of yoghurt or alternative culture yoghurt or fermented milk should also be specified.

However, the minimum 0.8% protein given in the draft would be below the required level if the minimum level of the fermented milk of 40% was used; a minimum of 1.08% protein would be required. It is difficult to envisage how a product with the proposed level of protein (min. 0.8%) would meet the requirements of a Drink based on Fermented Milk as defined in Section 2.4 of Standard 243-2003.

**Inclusion of pH and Titratable Acidity**

Both pH (max 4.5) and titratable acidity expressed as lactic acid (% m/m) (min 0.3) are specified. IDF would suggest that, while they are related to a certain extent, nonetheless they are intrinsically different concepts in food chemistry, due for example to the buffering capacity of foods including but not limited to dairy products. IDF should like to have further discussion on the merits of including both in this draft regional standard. IDF should also like to mention that in Codex Standard 243-2003 titratable acidity expressed as lactic acid (% m/m) is the parameter used. We should like to propose that if one parameter is to be selected for inclusion, this should be the one most frequently used in practice in Doogh manufacture and for control purposes.

**Fat content**

IDF proposes that the minimum fat content requirements be expressed as a percentage of the Total Milk Solids (% m/m) and not as % of MSNF. Additionally, we would suggest to remove the wording 'salt not included' as added salt is never considered as milk solids in milk products.

**Sum of microorganisms and labelled microorganisms**

IDF notes that the draft standard specifies a minimum of 106 /cfu/g for the sum of microorganisms and a minimum of 107/cfu/g for the labelled microorganisms, whereas the Codex Standard for Fermented Milks specifies 107 /cfu/g and 106/cfu/g respectively for the corresponding criteria. IDF would welcome clarification on this difference.

IDF would request consideration as to whether minimum and/or maximum criteria should be set for yeasts which are added for carbonation purposes, while being consistent with the maximum levels of ethanol production as specified in the compositional table. If moulds are added for specific technological purposes the above comments would also apply.

**4. FOOD ADDITIVES**

IDF notes that the eWG has followed our previous comments as regards classifying food additives. However we would recommend that, as a general principal since less food additives classes and food additives are technological justified in plain (unflavoured) dairy products opposed to flavoured dairy products, the standard follows the general outline of the relevant table in the Standard for Fermented Milks (Codex Stan 243-2003). The headings could be as follows:-

Additive class	Non-heated treated Doogh		Heated treated Doogh	
	Plain	Flavoured	Plain	Flavoured

Then the relevant additive functional classes, justified, under each of the sub-headings above, could be completed, as in the corresponding table in Standard for Fermented Milks.

Further, IDF seeks clarification on the wording of note (b) to the table: "Use only when chemical (non-fermenting) acidification is incorporated to fermenting acidification"

As regards the specific food additives listed in the subsequent table, IDF notes that lactic acid has been identified as the only acidity regulator in the specific table for additives. If the intent is that lactic acid is the only acidity regulator acceptable in Doogh then acidity regulators should be deleted from the paragraph above the table and the new sentence should read as follows: "Acidity regulators, Emulsifiers, packaging gases and preservatives listed in Table 3 of the General Standard for Food Additives (CODEX STAN 192-1995) are acceptable for use in Doogh categories as specified in the table above."

This proposal is because lactic acid together with other acids that act as acidity regulators are included in the Table 3 of the GSFA.

We have also noted that the maximum level of lactic acid in the table refers to tartaric acid and not to lactic acid.

With regards to nisin the proposed maximum level of 500mg/kg should be 12mg/kg; the level of 500mg/kg represents the levels of nisin preparation (e.g. Nisaplin) that would be added (such preparations normally contain 2.5% pure nisin).

## 6. HYGIENE

IDF reiterates our comments made above on the use of moulds in Doogh, as the maximum level has been specified for moulds in a table under 6.2. but the footnote, which state that the levels don't apply to "fermenting carbonated doogh or where the presence of yeasts are claimed on the label", there is no similar provision on any role for moulds if used as starter or carbonation, as may be implied for Section 3.2.2.

## 7. PACKAGING AND STORAGE

IDF notes that this section is not included in Standard 243-2003 or indeed any of the other milk product standards. Furthermore, its provisions are already encompassed under Section 6 (HYGIENE) and as regards the second paragraph, also by the provisions of the Section 4.7.2 of the GSLPF. IDF has no major objections to its inclusion. However, if the section is to be included, further consideration should be given to provision 7.2 on the inclusion of a sentence that combines the word 'shall' with 'preferably', with reference to refrigeration. Use of the word "shall" implies an essential provision.

## 8. LABELLING

In order to be consistent with the Codex Standard for Fermented Milks (Codex Stan 243-2003) IDF would suggest that the current sentence of 8.1.3. would be replaced by: The designation of Flavoured Doogh shall include the name of the principal flavouring ingredient(s)/substance(s) or flavour(s) added.

8.1.4 IDF is supportive of the concept of probiotics and indeed would support the development of a Codex definition or description of term probiotics. We would like to note that a definition of the term is contained in the FAO/WHO Guidelines for the Evaluation of Probiotics in Food - Report of a Joint FAO/WHO Working Group on Drafting Guidelines for the Evaluation of Probiotics in Foods (FAO/WHO, 2002) (ref. <ftp://ftp.fao.org/es/esn/food/wgreport2.pdf>).

Nonetheless in the absence of a Codex definition at this time, IDF questions the wisdom of the inclusion of the term "probiotics" in the proposed draft regional standard, as this could cause problems in the understanding and use of the standard in intraregional and international trade."

## YLFA

### General comment

The Yoghurts and Live Fermented Milks association, YLFA International, thanks the eWG led by Iran for the work done in preparing this proposed draft standard for Doogh.

YLFA welcomes the opportunity to comment on the latest draft as outlined in CL 2017/08-NE.

In all essentials, this regional standard should be in line with the requirements of the Codex Standard for Fermented Milks (Codex Stan 243-2003).

The development of this regional standard should not lead to re-open discussion on particular aspects of the fermented milks standard as they already have been subject to debate and decision at International level.

### Specific comments

#### 1. SCOPE

No comments.

#### 2. DESCRIPTION

Doogh is a 'drink based on fermented milk' as defined in Section 2.4 of the Standard for Fermented Milks (CODEX STAN 243-2003), obtained by mixing yogurt as defined in Sections 2.1 and 3.3 of the same standard, with potable water and regularly edible salt or mixing milk with potable water and regularly edible salt prior to heat treatment and fermentation, and its characteristics comply with the provisions of this standard. When Doogh is produced by mixing milk with potable water, edible salt may be added before or after fermentation.

YLFA comments:

According to YLFA, the proposed draft involves two different methods of production, the traditional method of manufacture and the alternative manufacture procedure.

A clear distinction between the two processes should be made:

1. According to the first manufacturing process, Doogh is a 'drink based on fermented milk' as defined in Section 2.4 of the Standard for Fermented Milks (CODEX STAN 243-2003), obtained by mixing yogurt as defined in Sections 2.1 and 3.3 of the same standard, with potable water and regularly edible salt, as described in Section 2.4 of the Standard 243-2003 related to Drinks based on Fermented Milks (DBFMs).

However, the "Minimum Protein Content" as foreseen in article 3.3 (composition), doesn't comply with the requirements of the definition of DBFM under STAN 243-2003 (see our comments under "composition").

Therefore, according to YLFA, if Doogh is produced according to this first traditional manufacturing method and complies with all the conditions necessary to fall under the DBFM category, including the percentage of fermented milks and the protein content, there is – in our view – no need to adopt a separate, specific standard.

2. We understand that Doogh may also be manufactured by fermentation of milk which has been diluted with water and edible salt prior to heat-treatment and fermentation. This process is quite different to the "DBFM" one. The product produced under the second alternative method may be a composite product as defined in Section 2.3 of the General Standard for the Use of Dairy Terms (CODEX STAN 206-1999). However, it would not meet the definition of the composite milk products as included in Codex Standard 243-2003 (i.e. flavoured fermented milks or drinks based on fermented milks) as it would not involve the fermentation of milk.

As a conclusion, we believe that Doogh is a distinct category of high quality traditional product with specific characteristics. It could be defined as a specific composite milk product, to be distinguished from flavoured fermented Milk or Drink Based on Fermented Milk.

#### **Starter cultures (2):**

The typical starter microorganisms used in production of Doogh are traditional yogurt bacteria: *Streptococcus thermophilus* and *Lactobacillus delbrueckii ssp. bulgaricus*.

However, other harmless and suitable microorganisms than these specific starter cultures (starter/nonstarter, claimed/unclaimed) could be used.

These starter microorganisms shall be viable, active and abundant in the product to the date of minimum durability. If the product is heat treated after fermentation, the requirement for viable microorganisms does not apply.

Heat treatment after fermentation does not apply for 'probiotic' Doogh (Doogh containing probiotic microorganisms).

#### **YLFA comments:**

YLFA supports the concept of probiotics and would very much welcome the development of a Codex standard on probiotics based on the work of FAO.

However, if the term 'probiotic' is used in this standard, we suggest to clarify its definition and conditions of use in Doogh. This because, not only the term is not yet defined at Codex level, but used in this context without any specification, it may be subject to erroneous interpretation.

In particular, we believe that, a minima, products sold under the name of "Probiotic Doogh" should comply with the local regulation.

#### **3. PERMITTED INGREDIENTS (3.2.2 and 3.2.5):**

Other harmless and suitable microorganisms (bacteria, yeast or mould) as starter - or non-starter microorganisms, including probiotics; for the functions of acidification, aroma production, fermenting carbonation, texture improvement, health promotion, and improving other functional aspects of product;

#### **YLFA comments:**

YLFA suggests to clarify the purpose of the use of yeast and mould as starter culture in Doogh as mentioned in 3.2.2.

The same with probiotics, as already explained and with nutraceutical ingredients such as dietary fibres, prebiotics and fortifying agents (3.2.5)

**4. COMPOSITION (3.3):**

Milk protein(a) (%w/w)	Min: 0.8
Sum of microorganisms constituting the starter culture defined in Section 2 (cfu/g, total count)(b)	Min: 10 <sup>6</sup>
Labelled microorganisms(c) (cfu/g, each strain)	Min: 10 <sup>7</sup>

**YLFA comments:**

Minimum Protein Content:-

In Standard 243-2003, the minimum protein content of fermented milks is specified as 2.7%.

If Doogh is defined as DBFM (art. 2.4 STAN 243-2003), the minimum 0.8% protein proposed in the draft would not meet the requirements of a Drink based on Fermented Milk as defined in Section 2.4 of Standard 243-2003.

For DBFMs, if the minimum level of the fermented milk of 40% is used, the required level of protein must be a minimum of 1.08%.

**5. NAME OF THE FOOD**

8.1.1 The name of the food shall be 'Doogh'.

8.1.2 The descriptions of 'Carbonated/Uncarbonated' and/or 'Heat treated/Un-heat treated' shall be used in conjunction with the word 'Doogh'. For carbonated Doogh, the terms 'Fermenting' or 'Injecting' shall be applied before the word 'Carbonated' in product designation to represent the source of carbonation.

**YLFA comments:**

If Doogh is heat-treated, the conditions of article 3.3 (requirements cfu microorganisms) are not met. In the case of treatment, the product has to be sold under another denomination. This would be consistent with article 7.1.2 of Codex Stan 243-2003.

Depending on the process used, we suggest to either use the denomination 'heat-treated fermented milk' or 'milk product heat-treated after fermentation'.

8.1.4 When probiotic microorganisms are incorporated in Doogh, the word 'Probiotic' may be applied somewhere on the label.

**YLFA comments:**

The link made between heat treatment and probiotic may be interpreted as if the term "probiotic" was a synonym of "live" (as in "probiotic yogurt" used in some countries). We believe that this is a misuse of the term "probiotic" and that it may be misleading for the consumer. If outlining the live character of the product is the intent of the eWG, it would be preferable to use the term "live" in place of the term "probiotic".

However, if – as suggested under 8.1.2 – Doogh is intended as a live product only, resort to the term probiotic as synonym of "live" wouldn't be necessary.