

CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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REGIONAL STANDARD FOR DOUGH

(Near East)¹

CXS 332R-2018

Adopted in 2018.

¹ Members of the Codex Alimentarius Commission in the region of Near East are indicated on the Codex website at <https://www.fao.org/fao-who-codexalimentarius>.

1. SCOPE

This Standard applies to doogh for direct consumption or for further processing, in conformity with the definitions in Section 2 of this Standard. This Standard should be read in conjunction with the *Standard for Fermented Milks* (CXS 243-2003).

2. DESCRIPTION

Doogh is a “drink based on fermented milk” as defined in Section 2.4 of the *Standard for Fermented Milks*, obtained by mixing yoghurt, as defined in Sections 2.1 and 3.3 of the same Standard, with potable water and optionally food grade salt or by mixing milk with potable water and sodium chloride prior to heat treatment and fermentation to give an end product with similar physical, chemical and organoleptic characteristics as the product defined under the provisions of this Standard. When doogh is produced by mixing milk with potable water, edible salt may be added before or after fermentation.

The milk used for production of doogh may have been manufactured from products obtained from milk as specified in Section 2.1 of the *Standard for Fermented Milks*, with or without the compositional modification as limited by the provision in Section 3.3 in this standard.

In the production of doogh, non-dairy ingredients, other than potable water, as well as various dairy ingredients/dairy products are used according to Sections 3 and 4.

The typical starter microorganisms used in production of doogh are traditional yogurt bacteria: *Streptococcus thermophilus* and *Lactobacillus delbrueckii* subsp. *bulgaricus*. Microorganisms other than those constituting the specific starter cultures may be added. 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).

Doogh without added flavourings/flavour is called “plain doogh”. Doogh with flavours in the form of essences or extracts (such as menthol, ziziphora or wild thyme, pennyroyal and cucumber) or with different natural flavourings such as aromatic herbs, spices and condiments is known as “flavoured doogh”. “Carbonated/Uncarbonated” and “Heat treated/Un-heat treated” dooghs represent those that contain/do not contain carbon dioxide and those with heat treatment/without heat treatment after fermentation, respectively. Doogh may be produced and displayed as powder (dried doogh) for special applications and demands.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1. Raw materials

- Yoghurt (for mixing yoghurt with potable water) or milk (for mixing milk with potable water). Yoghurt should conform to the *Standard for Fermented Milks*.
- Potable water for dilution of yoghurt or milk, and/or for the use in reconstitution or recombination (if milk is prepared by reconstitution or recombination).

3.2. Permitted ingredients

- Starter culture of harmless microorganisms including typical doogh starters, as described in Section 2 of this Standard.
- Other harmless and suitable microorganisms (bacteria, yeast) 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 the product.
- Sodium chloride, in accordance with the *Standard for Food Grade Salt* (CXS 150-1985).
- Natural flavouring ingredients such as fine particles of aromatic vegetables and herbs, and spices, as specified in Section 2.3 of the *Standard for Fermented Milks*.
- Nutraceutical ingredients such as dietary fibres.
- Dairy ingredients or dairy products obtained from milk such as milk proteins, milk powders (as specified in the *Standard for Milk Powders and Cream Powder* (CXS 207-1999)), milk fat (butter fat or cream), (as specified in the *Standard for Milkfat Products* (CXS 280-1973) and in Section 2.1 of the *Standard for Cream and Prepared Creams* (CXS 288-1976)) buttermilk and whey products.

Partial or full replacement of milk fat or milk protein with other sources of non-dairy fat or non-dairy protein shall not be allowed.

3.3. Composition

pH	Max: 4.5
Titrateable acidity, expressed as % lactic acid (%m/m)	Min: 0.3
Milk solid non-fat (MSNF)	Min 3.0
Milk protein ^(a) (%m/m)	Min: 1.08%
Sodium chloride (%m/m)	-
Sum of microorganisms constituting the starter culture defined in Section 2 (cfu/g, total count) ^(b)	Min: 10 ⁷
Labelled microorganisms ^(c) (cfu/g, each strain)	Min: 10 ⁷

(a) Protein content is 6.38 multiplied by the total Kjeldahl nitrogen determined".

(b) This requirement does not apply to products "heat treated after fermentation".

(c) Applies when claimed microorganisms (as specified in Section 2 of this Standard) are added to the product. Probiotics are the most important.

The microbiological criteria in the product are valid up to the "date of minimum durability" under the storage conditions specified in the labelling.

4. FOOD ADDITIVES²

5. CONTAMINANTS

The milk used in the manufacture of the products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995).

The milk used in the manufacture of the products covered by this Standard shall comply with the maximum residue limits for pesticides and veterinary drugs established by the Codex Alimentarius Commission.

6. HYGIENE

It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CXC 1-1969), the *Code of Hygienic Practice for Milk and Milk Products* (CXC 57-2004) and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice. The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CXG 21-1997).

7. PACKAGING AND STORAGE

The product shall be packed in containers that preserve the hygienic quality and the other qualities of the food. Doogh (after fermentation) shall be stored under appropriate conditions e.g. refrigerated.

8. LABELLING

In addition to the provisions of the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985) and the *General Standard for the Use of Dairy Terms* (CXS 206-1999), the following specific provisions apply:

8.1 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.

8.1.3 The designation of "Flavoured Doogh" shall be used as the name of product if any flavouring substance is added.

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

² For further consideration by the Regional Coordinating Committee for the Near East and subsequent endorsement by the Codex Committee on Food Additives.

8.1.5 For doogh powder, the name “Doogh Powder” or “Dried Doogh” shall be inserted on the label.

8.2 Declaration of fat content

If the consumer would be misled by the omission, the milk fat content shall be declared in a manner acceptable in the country of sale to the final consumer, either as (i) a percentage of mass or volume, or (ii) in grams per serving as qualified in the label, provided that the number of servings is stated. Any labelling should be in accordance to the *Guidelines for Use of Nutrition and Health Claims* (CXG 23-1997).

8.3 Labelling of non-retail containers

Information required in Section 8 of this Standard and Sections 4.1 to 4.8 of the General Standard for the Labelling of Pre-packaged Foods, and, if necessary, storage instructions, shall be given either 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, distributor or importer, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling for fermented milks as contained in the *Recommended Methods of Analysis and Sampling* (CXS 234-1999) relevant to the provisions in this standard, shall be used.