

From the Ministry of Agriculture and Rural Affairs

Turkish Food Codex
Communiqué on Fermented Milk
(Communiqué No: 2001/21)

Objective

Article 1 — The objective of this Communiqué is to determine the specifications of fermented milks in order to provide production, preparation, processing, preservation, storing, transportation and marketing under proper technical and hygienic conditions.

Scope

Article 2 — This Communiqué covers fermented milk, concentrated fermented milk, milk based fermented products and heat treated fermented milk.

Legal basis

Article 3 — This Communiqué has been prepared in accordance with Turkish Food Codex Regulation published in the Official Gazette, dated 16/11/1997, reiterated no.23172

Definitions

Article 4 — In this Communiqué;

Fermented Milk means the product formed by the fermentation of milk by means of specific microorganisms, in order to decrease in pH value and of coagulation, keeping specific microorganisms active as long as they do not undergo heat treatment.

a- **Yoghurt** means the coagulated product formed by lactic acid fermentation of *Lactobacillus delbrueckii subsp. bulgaricus* and *Streptococcus thermophilus* bacteria,

b- **Low acidic yoghurt** means the coagulated product formed by the fermentation of *Lactobacillus* and *Streptococcus thermophilus* bacteria other than *Lactobacillus delbrueckii subsp. bulgaricus*,

c- **Milk with acidophilus** means the product in potable consistency, fermented by means of *Lactobacillus acidophilus* bacteria,

d- **Koumiss** means the product in potable consistency, obtained by the fermentation of mare milk by *Lactobacillus delbrueckii subsp. bulgaricus* and *Kluyveromyces marxianus* microorganisms,

e- **Buttermilk** means the fermented product, prepared in potable consistency, by adding water into yoghurt; or by adding yoghurt culture into the milk, which solid content has been adjusted,

f- **Kephir** means the product, in potable consistency, obtained by fermentation of milk by Kephir grains containing lactic acid bacteria, acetic acid bacteria and *Torula* yeast,

Concentrated fermented milk means such fermented products as Silivri type yoghurt, bag yoghurt, filtered yoghurt, winter yoghurt and kurut, protein content of which are increased to 5,6 % before or after fermentation.

Milk based fermented products mean the fermented milk products containing milk and milk products at least by 70 %, into which foods such as carbon hydrates, cocoa, coffee, fruit and vegetables and juices, pulps or concentrates of these, cereals and cereal products, chocolate, honey and/or flavourings can be added, provided that the milk compounds in the content are not altered.

Traditional products mean the Turkish type creamy yoghurt, filtered yoghurt, bag yoghurt, sac yoghurt, Silivri yoghurt, winter yoghurt, pesüent, tulum yoghurt, kurut and buttermilk.

Product Specifications

Article 5 — The specifications of the products covered in this Communiqué are as follows:

a- Milk utilized in the production of fermented milk should comply with the provisions specified in " Turkish Food Codex Communiqué No 2000/6 on Raw Milk and Heat Treated Drinking Milk" published in the Official Gazette, dated 14 February 2000, numbered 23965.

b- In the production of koumiss, Cows' milk may also be utilized.

c- The products covered in this Communiqué should have particular taste, odour and texture.

d- Starter cultures, other than the specific microorganisms that are used in fermented milk for technological requirements and described in the definitions, may also be used to give different taste and aroma flavour to product.

e- No pathogen microorganism should exist in any of the products covered in this Communiqué.

f- Microbiological criteria pertaining to yoghurt, filtered yoghurt and buttermilk has been given in ANNEX-1.

g- The milk fat ratio should be at least 3.8 % in whole fat yoghurt, at least 3 % in fat yoghurt, at least 1.5 % in semi-fat yoghurt, at most 1.5 in low-fat yohurt, at most 0.15 % in fat free yoghurt.

h- The milk fat ratio should be at least 1.5 % in whole fat butter milk, at least 0.8 % in semi-fat butter milk, at most 0.15 % in fat free butter milk.

i- Fermentation process in buttermilk can only be halted by applying heat treatment.

- i- Minimum fruit content in fruit yoghurt should be at least 6 %.
- j- Other specifications pertaining to the products covered in this Communiqué are given in ANNEX – 2.

Additives

Article 6 — Values of the additives used in the products covered in this Communiqué must comply with the provisions in the “Food Additives” section of Turkish Food Codex Regulation.

Contaminants

Article 7 — Amounts of contaminants in the products covered in this Communiqué must comply with the "Contaminants" section of Turkish Food Codex Regulation.

Pesticide Residues

Article 8 — The pesticide residue limits in the products covered in this Communiqué must comply with the Principles of Application for Pesticide Residue Limits specified in the “Pesticide Residues” section of Turkish Food Codex Regulation.

Tolerance Levels for Veterinary Drugs

Article 9 – The residue levels for veterinary drugs in the products covered in this Communiqué shall comply with the “Tolerance Levels for Veterinary Drugs and Values for Legal Purification Periods” specified in the “Tolerance Levels for Veterinary Drugs” section of Turkish Food Codex Regulation.

Hygiene

Article 10 — Fermented milk products shall be produced according to the general provisions in the “Hygiene” section of “Turkish Food Codex Regulation”. Furthermore, the drinkable products covered in this Communiqué shall be automatically bottled, filled into the containers and closed in a leak-proof manner. Containers other than the glass-made ones reusable after cleaning and disinfecting should not be used in repackaging of potable products covered in this Communiqué.

Specifications of establishments

Article 11 – Establishments producing the products covered in this Communiqué shall comply with the specifications specified in the “Specifications of Establishments” section of Turkish Food Codex Regulation.

Packaging, Labeling and Marking

Article 12 — Fermented milk products shall be packed, labeled and marked according to the general provisions specified in the “Packing and Labelling-Marking” section of Turkish Food Codex Regulation. In addition to these provisions;

- When yoghurt is made of homogenized milk , this should be indicated on the label.
- In yoghurt and buttermilk, product name and fat content as percentage shall be indicated on the label in accordance with subparagraphs “g” and “h” of Article 5 of this Communiqué.
- Buttermilk fermentation process of which is halted by heat treatment shall be presented for consumption under the name of “Fermentation Halted Buttermilk”.

Transportation and Storage

Article 13 — The transportation and storage of the products covered in this Communiqué must comply with the general provisions specified in “Transportation and Storage of Foods” section of Turkish Food Codex Regulation. In addition to these provisions, these products shall be transported, stored and preserved at 4-6 °C until reaching the consumer.

Sampling and Methods of Analysis

Article 14 — Sampling must be made according to the provisions specified in “Sampling and Methods of Analysis” section of Turkish Food Codex Regulation for the products covered in this Communiqué and samples must be analyzed according to the internationally accepted methods.

Registration and Inspection

Article 15 — The establishments producing, storing, packing and selling the products covered in this Communiqué are obliged to obey the provisions of this Communiqué during registration, authorization, importation, control and inspection. The establishments that do not obey these provisions are subject to legal procedure according to the Decree Law No 560, dated 24/6/1995, on Production, Consumption and Inspection of Foodstuffs.

Inspection

Article 16 — Implementation of the provisions of this Communiqué is inspected by the Ministry of Agriculture and Rural Affairs and the Ministry of Health according to the provisions of the Decree Law No 560, dated 24/6/1995.

Repealed Legislation

Article 17 — By this Communiqué, Yoghurt Standard No TS 1330 published in the Official Gazette dated 10/1/ 1989 and numbered 18631 has been repealed.

Provisional Article 1 — Presently active establishments producing and selling the products covered in this Communiqué are obliged to obey the provisions of this Communiqué within 1 year following its publication.

Enforcement

Article 18 — This Communiqué enters into force in the date of publication.

Execution

Article 19 — The provisions of this Communiqué are executed by the Minister of Agriculture and Rural Affairs and the Minister of Health.

ANNEX – 1

Microbiological Values Pertaining to Yoghurt, Filtered Yoghurt, Bag Yoghurt and Buttermilk

	N	c	m	M
Coliform *	5	2	9	95
<i>E.coli</i> *	5	0	< 3	-
Yeast (kob / ml)	5	2	1.0×10^1	1.0×10^2
Mould (kob / ml)	5	2	1.0×10^1	1.0×10^2

* In accordance with the Most Probable Number Table (/g)

N : Number of samples to be analyzed.

c : Maximum number of sample to bear “M” value.

m : Maximum value to exist in (n-c) samples.

M : Maximum value to exist in “c” samples.

ANNEX – 2
PRODUCT SPECIFICATIONS

	Fermented Milk (Minimum)	Milk with Yoghurt and Acidophilus (Minimum)	Fermented Milk, Yoghurt and Acidophilus milk including additional culture (Minimum)	Buttermilk (Minimum)	Kephir (Minimum)	Koumiss (Minimum)
Milk Protein* (%by weight)	2.8	4 ** 2.8	4 ** 2.8	2.8	2.8	--
Titration acidity (%by weight as lactic acid)	0.6	0.6	0.6	0.6	0.6	0.7
Ethanol (%by volume / weight)	--	--	--	--	-	0.5
Total Specific Microorganism (kob / g)	10^7	10^7	10^7	10^6	10^7	10^7
Total additional	--	--	10^6	--	--	--

microorganism indicated on the label (kob/g)						
Yeasts (kob / g)	--	--	--	--	10^4	10^4
Fat free dry matter (%by weight)	--	12 **	--	6	--	--

* Milk Protein : Total nitrogen content determined by Kjeldahl method x 6.38

** Only in yoghurt