

DAIRY PRODUCTS

Milk is a food that is intended for feeding young mammals, so it is also a rich source of all nutrients. Mammals lose the ability to digest milk after weaning. The only mammal that has overcome this intolerance is the human being who, thanks to this ability, started processing milk into a number of tasty dairy products.

BASIC TREATMENT OF MILK

DEAERATION

The air is removed from the milk, thus preventing oxidation of the fat and removing the volatile odour substances.

SKIMMING

The fat is separated from the milk. The results are cream with a high fat content and milk with a low fat content.

PASTEURISATION

Heat treatment of milk, thanks to which the germs are destroyed. At the same time, the durability of the milk is extended.

- Long-term pasteurisation 63-65°C/30 min
- Economical pasteurisation 71-74°C/15-20 s
- High level pasteurisation 85-95°C/approx. 2 s

EGALISATION

Standardisation of fat in the milk is achieved by mixing whole milk or cream with skimmed milk.

HOMOGENISATION

The size of the fat balls in the milk are reduced, and their dissolving in the milk thus prevents their settling. The milk has a lighter colour and a fuller taste.



CLASSIFICATION OF MILK ACCORDING TO FAT CONTENT

Cream for whipping (whipped cream) – 30-40% fat

Sweet cream – 10-18% fat

Whole milk – 3.5% fat and above

Semi-skimmed milk – 1.5-1.8% fat

Skimmed milk – up to 0.5% fat

CLASSIFICATION OF MILK ACCORDING TO DURABILITY

FRESH MILK

- Treatment: pasteurisation
- Storage: 4–6°C
- Shelf life: 10–20 days

STERILISED MILK

Treatment:

- Heated in the packaging to 115–120°C/30 min
- Heated outside the packaging to 135–150°C/
several seconds
- Storage: room temperature
- Shelf life: 4–5 months

MILK WITH EXTENDED DURABILITY

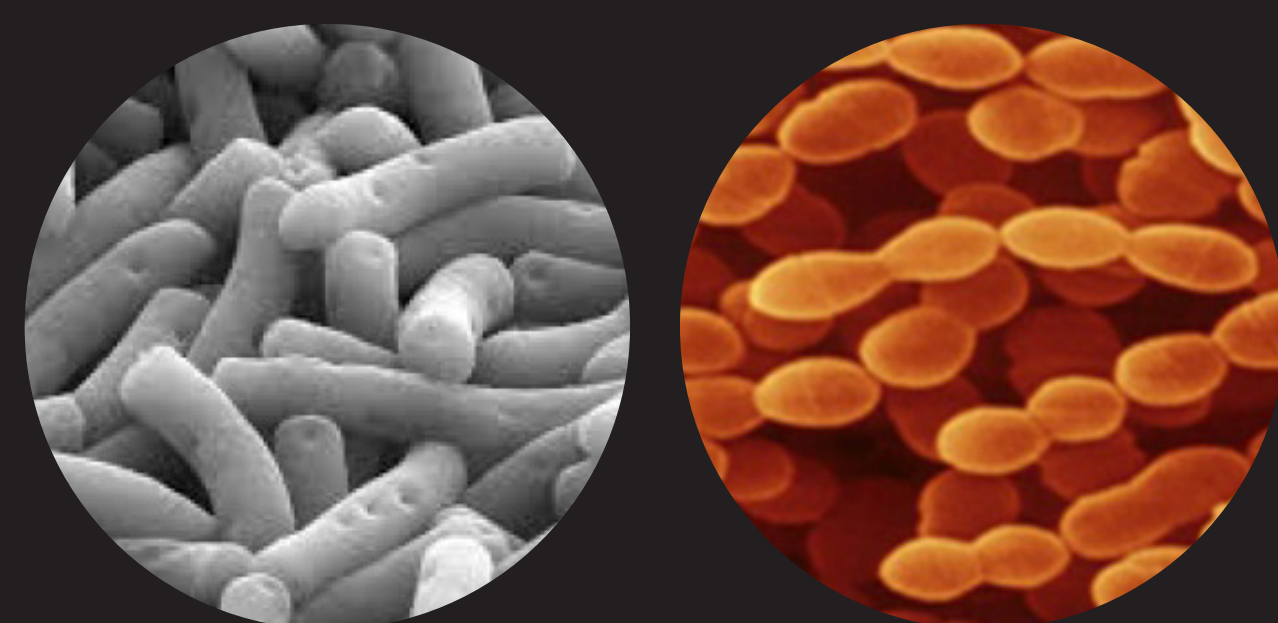
- Treatment: heated to 85–127°C
- Storage: 4–6°C
- Shelf life: 20–40 days

FERMENTED MILK PRODUCTS

Made from milk that is fermented using probiotic organisms, which have positive effects on human health. They support bowel health, strengthen the immunity system and help achieve a psychic balance.

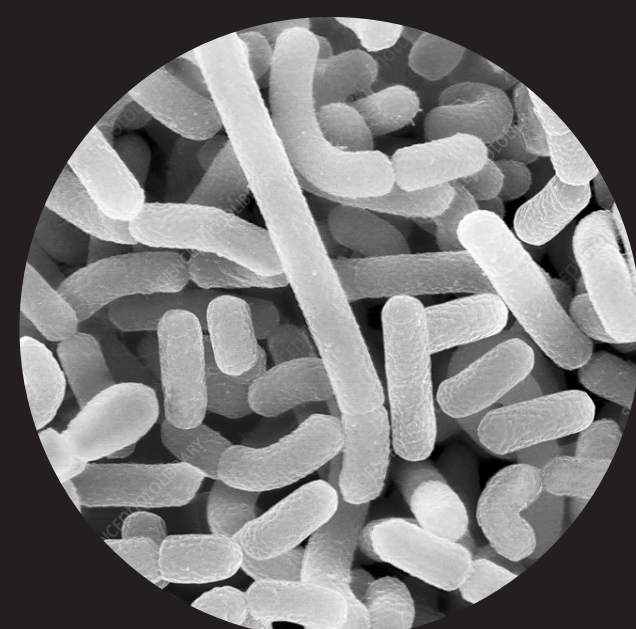
SOUR MILK PRODUCTS WITH THERMOPHILIC CULTURES

Yoghurt culture: *Lactobacillus delbrueckii* subsp. *bulgaricus*; *Streptococcus salivarius* subsp. *thermophilus*



Product: yoghurt and yoghurt milk

Acidophilic culture: *Lactobacillus acidophilus*



Produkt: acidofilní mléko, tvarohy

Bifidogenic (probiotic) culture:

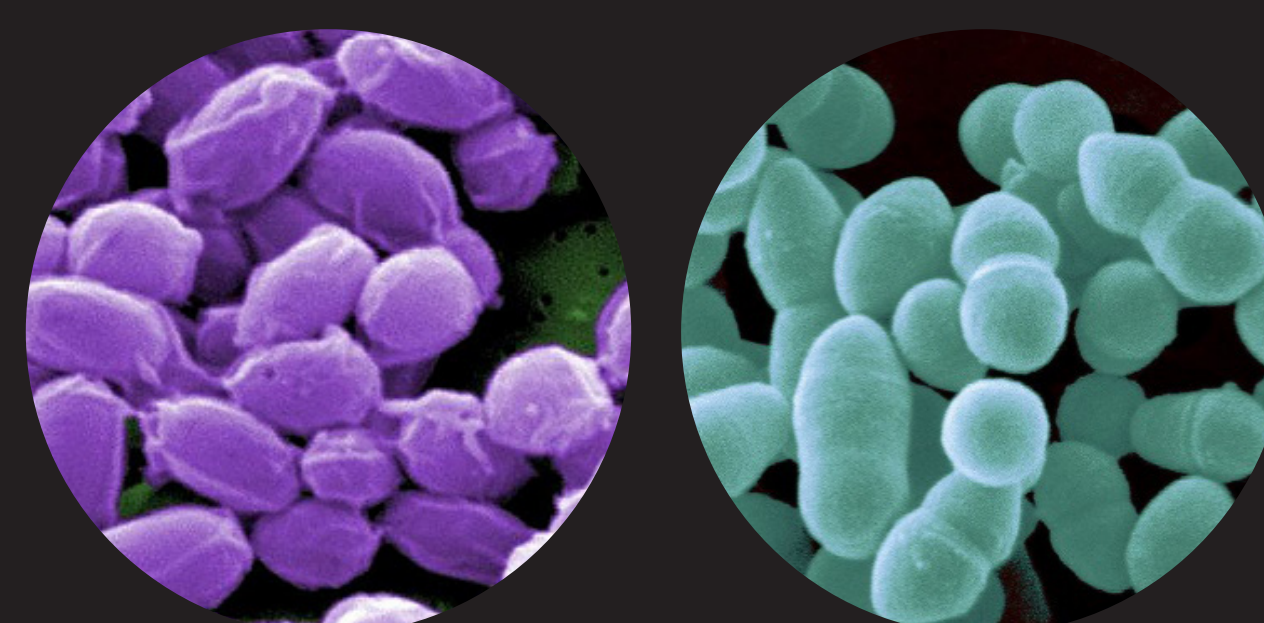
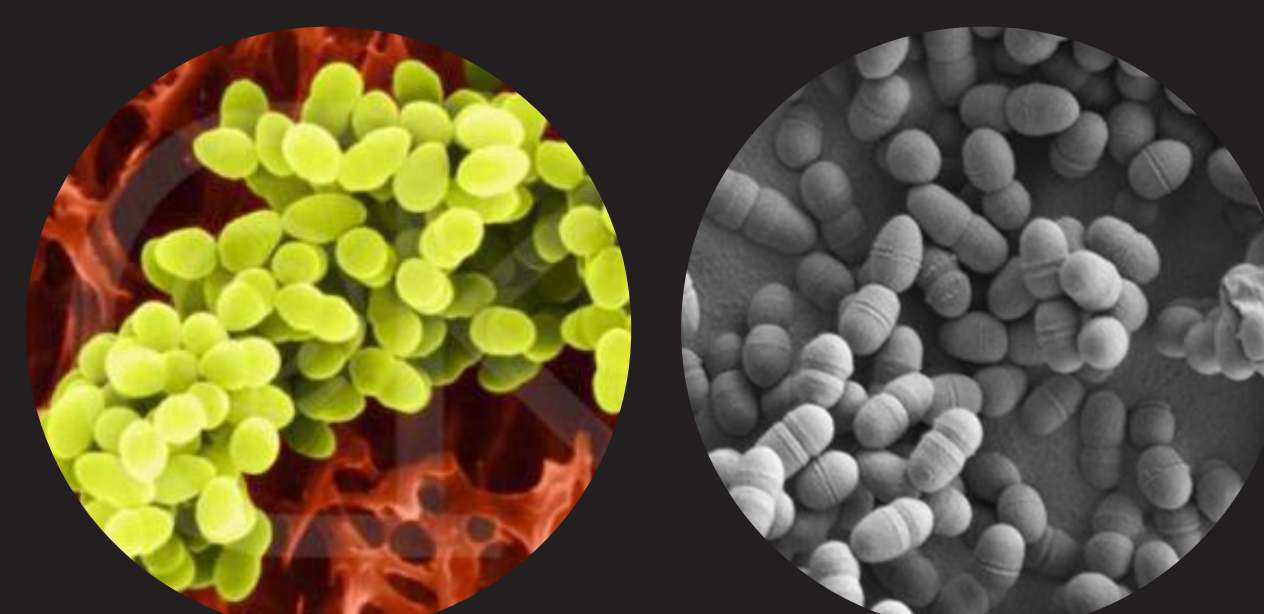
Bifidobacterium bifidum; *Bifidobacterium longum*;
Bifidobacterium breve



Product: yoghurts with bifido culture

SOUR MILK PRODUCTS WITH MESSOPHILIC CULTURES

Cream cultures: *Lactococcus lactis* subsp. *lactis*;
Lactococcus lactis subsp. *cremoris*; *Lactococcus lactis* subsp. *lactis* biovar. *Diacetylactis*;
Leuconostoc mesenteroides subsp. *cremoris*;
Leuconostoc lactis



Product: sour milk, buttermilk,
sour cream

SOUR MILK PRODUCTS WITH A MIXTURE OF MILK BACTERIA AND FERMENTS

Fermented milk culture (symbiosis of ferment and bacteria collected in fermented milk grains): *Candida kefir*; *Kluyveromyces lactis*;
Kluyveromyces marxianus; *Sacharomyces cerevisiae*; *Lactobacillus acidophilus*, *L. casei* subsp. *casei*...



Product: kefir, sour milk, koumiss (made from mare milk), shubat (made from camel milk)