

ICE CREAMS



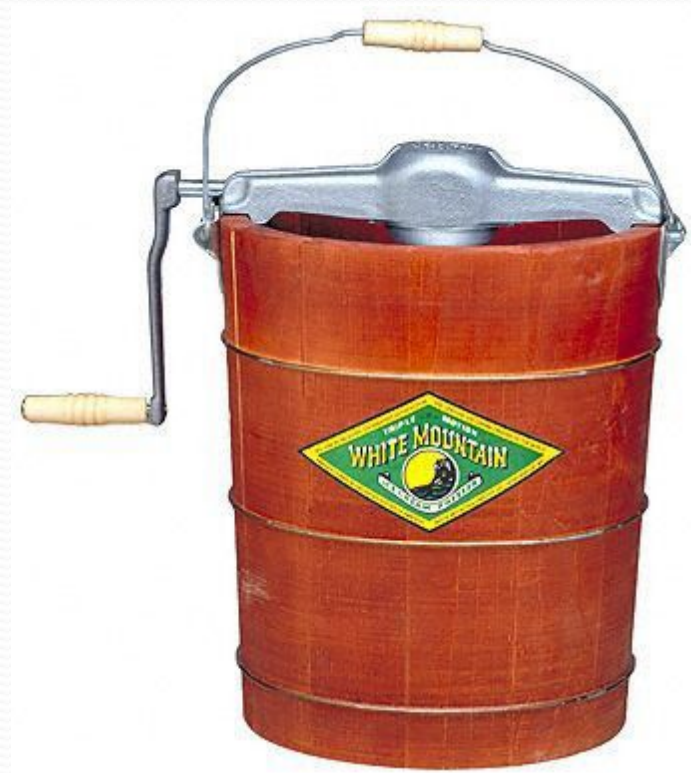
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Ice cream is a frozen dessert made from dairy products, such as milk and cream, combined with flavorings and sweeteners, such as sugar. This mixture is stirred slowly while cooling to prevent large ice crystals from forming, which results in a smoothly textured ice cream. These ingredients, along with air incorporated during the stirring process (technically called overrun), make up ice cream.

Although the term "ice cream" is sometimes used to mean frozen desserts and snacks in general, frozen custard, frozen yogurt, sorbet, gelato, and other similar products are sometimes informally called ice cream.

Making ice cream

- Ingredients
- Mixing
- Freezing
- Hardening

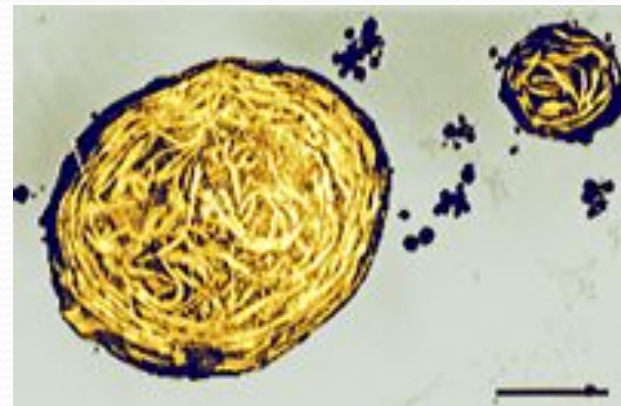
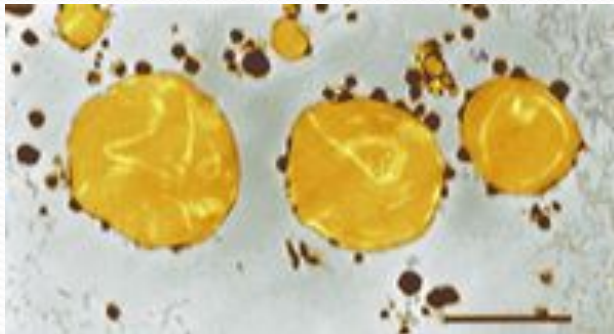


Ingredients

- Sucrose 15%
- Milk fat 15% (legal min. 10%)
- Non-fat milk solids 10% (lactose & casein)
- Corn syrup 5% (fructose & dextrans)
- Stabilisers 0.4% (polysaccharides)
- Emulsifier 0.2% (mono or di-glycerides)
- Water

Making ice-cream

- Mixing of ingredients and homogenisation to give small fat globules.
- Pasteurisation to cook and sterilise the mix
- Cooling, allows crystallisation of fat in globules



Preparation method

- melt chocolate & mix with milk
- mix egg yolks with sugar
- add cream and vanilla to chocolate milk and bring to boil
- allow to cool & then add egg sugar
- mix at low heat for 15 min
- 4°C for 4 hours
- freeze for 30 min
- harden at 30°C 12 h

Freezing

- Uses a scraped barrel freezer
- Simultaneous beating and freezing
- Beating to
 - 💧 destabilize fat emulsion
 - 💧 incorporate air

After Freezing

- about 50% water frozen
- Soft texture =
- Soft serve ice-cream as used for cones
- Particulate addition, eg. nuts, biscuit crumbs, chocolate chips
- Packaging



Hardening

- Continuous blast freezer or batch freezer
- $-40\text{ }^{\circ}\text{C}$
- remaining water frozen
- ice-cream stable if kept below $-25\text{ }^{\circ}\text{C}$