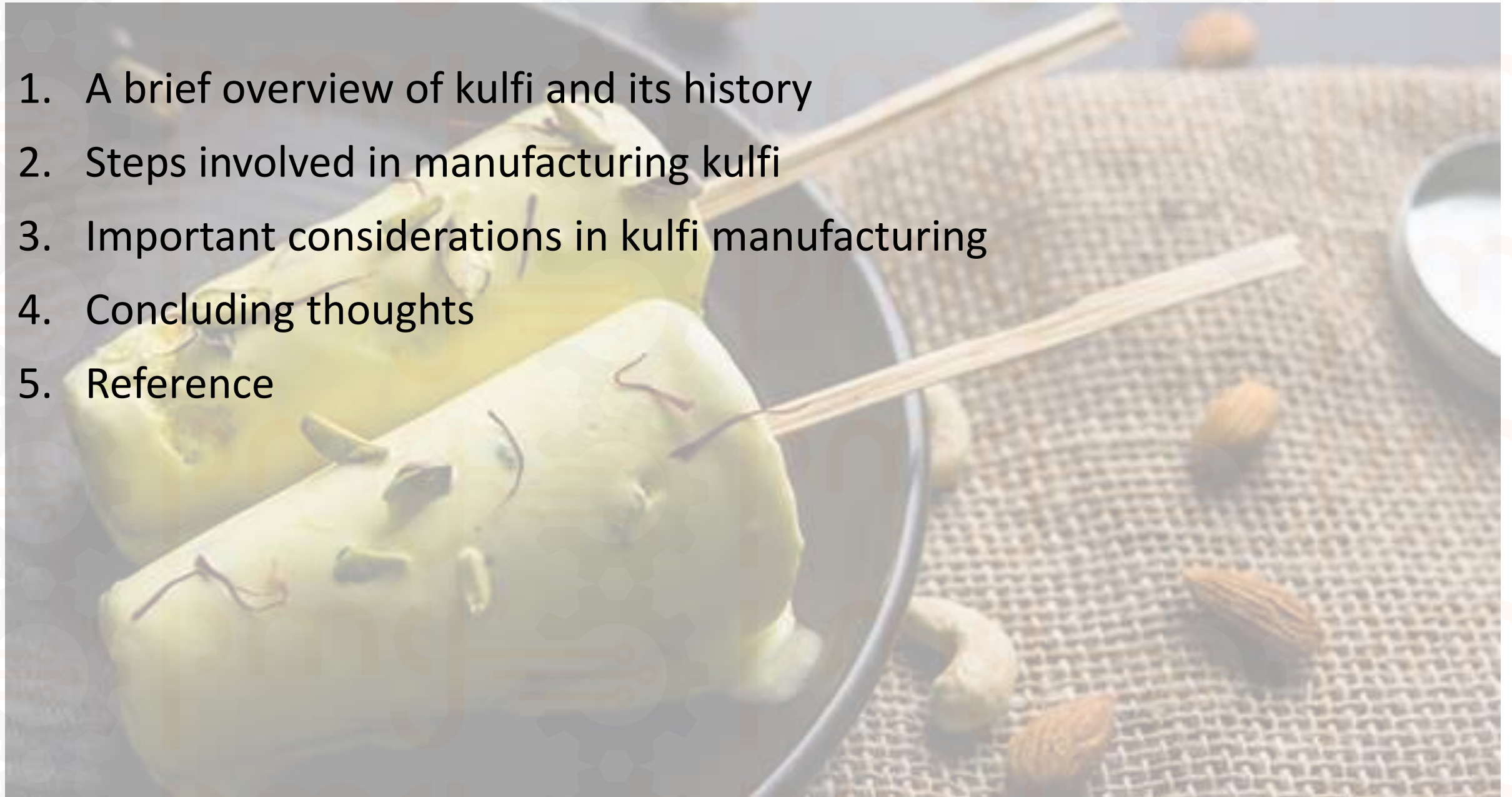




Kulfi manufacturing

Index

1. A brief overview of kulfi and its history
2. Steps involved in manufacturing kulfi
3. Important considerations in kulfi manufacturing
4. Concluding thoughts
5. Reference



1. A brief overview of kulfi and its history

1. Kulfi is a traditional frozen dessert from the Indian subcontinent. It is made from milk that is slowly cooked and reduced, then flavoured with ingredients such as cardamom, saffron, or pistachios.

2. The mixture is then frozen in a mold, often in the shape of a cone, and served as a frozen treat.

3. Kulfi has a long history and is believed to have originated in the 16th century in the Mughal Empire.

4. It is said that the Mughal emperors enjoyed kulfi as a refreshing treat during the hot summer months.

5. In addition to the traditional flavours, there are now many variations of kulfi available, including flavours such as mango, strawberry, and chocolate.

6. Kulfi is often served with falooda, a sweet, cold dessert made with vermicelli noodles, or with a drizzle of caramel or chocolate sauce.



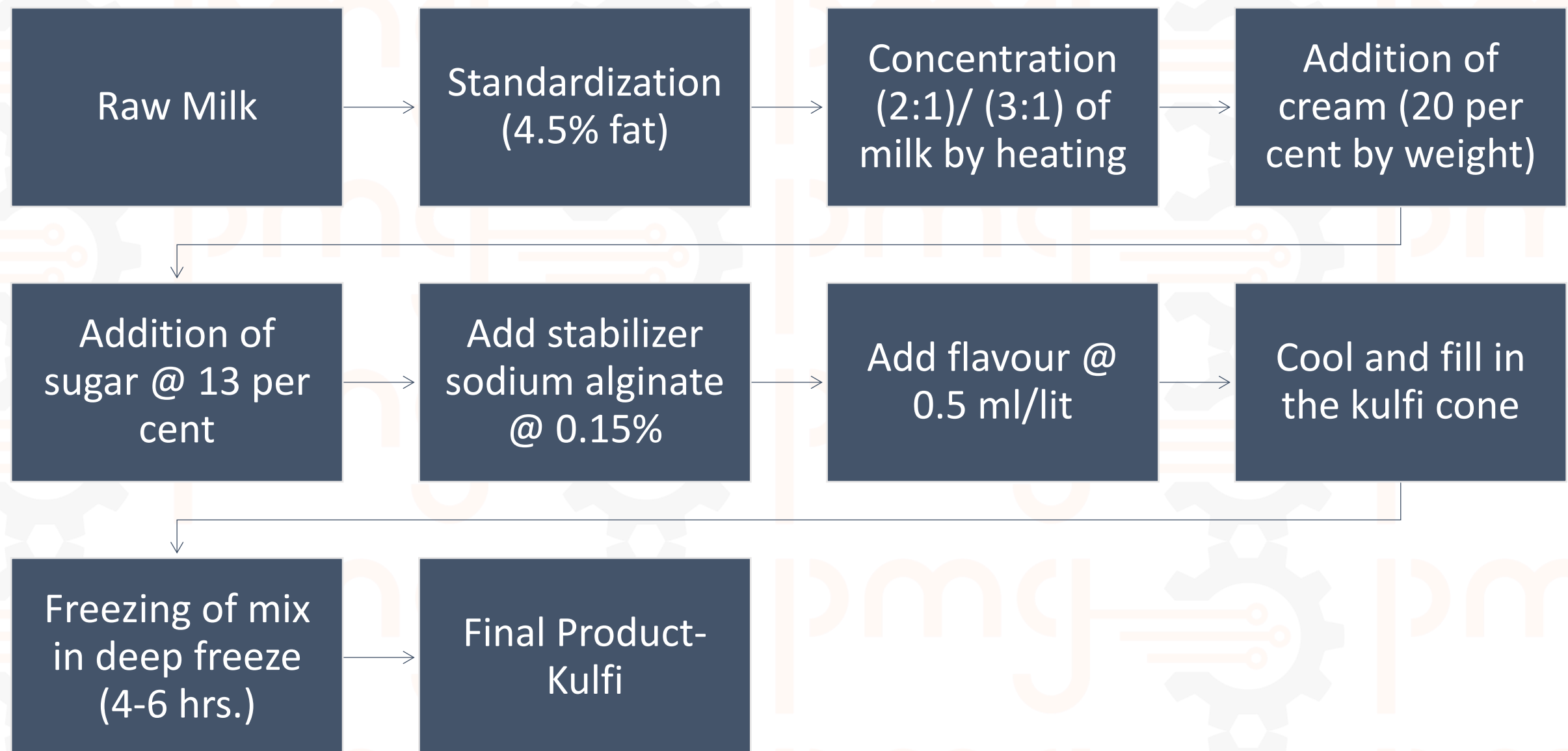
2. Nutritional Components

	Value per kulfi	% Daily Values
Energy	206cal	10%
Protein	6.9g	13%
Carbohydrate	20.4g	7%
Fiber	0g	0%
Fat	9g	14%
Cholesterol	13.3mg	3%

1. Kulfi gives 206 calories. Of which carbohydrates comprise 82 Cal, protein 28 Cal, and the remaining 81 Cal from fat.

2. One kulfi provides about 10% of the total daily calorie requirement of a standard adult diet of 2000 calories.

3. Steps involved in manufacturing kulfi (process)



3.1. Steps involved in manufacturing kulfi (Traditional)

Cow, buffalo, or mixed milk either as such or partially skimmed is concentrated in a large open pan over the fire.

Raw cow milk standardized to 3.5% fat and 8.5% SNF was concentrated in an open pan jacketed steam-heated vessel with constant stirring until the required solids content was attained.

Slow heating is preferred to avoid burnt particles in the final product. It is suggested to concentrate milk to half of its original volume or in a ratio of 2:1.

Concentrated milk is cooled, sugar is added, and the blend is thoroughly stirred. In some cases, a small quantity of khoa or nonfat dried milk is added during the boiling of milk.

When it has cooled down, malai (indigenous cream, crushed nuts, and a flavour (commonly rose or vanilla)) is added.

3.1. Steps involved in manufacturing kulfi (Traditional)

After adding nuts and saffron, the mixture is filled into triangular, conical, or cylindrical moulds of various capacities made of galvanized iron sheets.

The moulds are closed on top by placing a small disc over and the edges are made air-tight with wheat dough. The mix in moulds is frozen in a large earthen vessel, containing a mixture of ice and salt in a ratio of 1:1.

Vigorous agitation is applied from time to time to improve heat transfer and expedite the freezing process. Agitation of cones apparently whips up some air and kulfi develops a minor overrun.

The traditional method of making kulfi in an ice-salt mixture by immersing kulfi cones gave the best sensory quality. If the mix is frozen and extruded from an ice cream freezer, the quality was quite acceptable.

3.2. Steps involved in manufacturing kulfi (Industrial)

In this process, standardized milk is concentrated to about half of the original volume or to PFA(Prevention of Food Adulteration Act) standards.

The mix is frozen in an ice cream freezer with a little overrun (10% or less) and filled into moulds.

Moulds are chilled quickly in a brine tank at -20°C for 15–20 min.

The frozen product is further hardened for 6 h at -20°C .

In some cases, single-serve small earthenware kasora or matka may be used for freezing kulfi.

3.2. Steps involved in manufacturing kulfi (Industrial)

A compact cast-iron freezing unit, consisting of a retort connected to a specially designed condenser, is used for freezing the mix.

Thereafter, the condenser is taken out of the tub and the vessel containing the mix is placed in the annular space in cold water, provided in the condenser and the retort.

Some wet cloth or gunny is put on the vessel containing the mix. The freezing takes about 3 h.

The frozen product is then taken out of the vessel, wrapped with an insulating material such as paper and felt, and sold by chipping out slices with a sharp knife.

3.3. Steps involved in manufacturing kulfi (Industrial Instruments)



4. Important considerations in kulfi manufacturing

Food safety: It is important for the manufacturer to follow proper food safety guidelines when manufacturing kulfi. This includes maintaining a clean and sanitary workspace, using fresh and high-quality ingredients, and storing the kulfi properly to prevent bacterial growth.

Quality control: To ensure that the kulfi meets the desired standards of quality, it is important for the manufacturer to follow a consistent recipe and measure ingredients accurately.

Regulatory requirements: Depending on where the kulfi is being manufactured, there may be certain regulatory requirements that the manufacturer needs to follow. These could include obtaining necessary licenses and permits, following specific food safety guidelines, and labeling the kulfi accurately.

5. Concluding thoughts

1. In summary, kulfi is a traditional Indian dessert made from a mixture of heavy cream, sweetened condensed milk, and various flavourings. It is traditionally made by simmering the mixture over low heat until it thickens, then freezing it in molds until solid.
2. To manufacture kulfi, it is important to follow proper food safety guidelines, maintain consistent quality control, and comply with any relevant regulatory requirements.
3. Marketing and distribution strategies will depend on the target customers and available distribution channels and can include retail sales, online sales, wholesale sales, and direct sales.
4. Overall, kulfi can be a delicious and popular dessert option for those interested in Indian cuisine or a creamy, rich treat.

6. Reference

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