

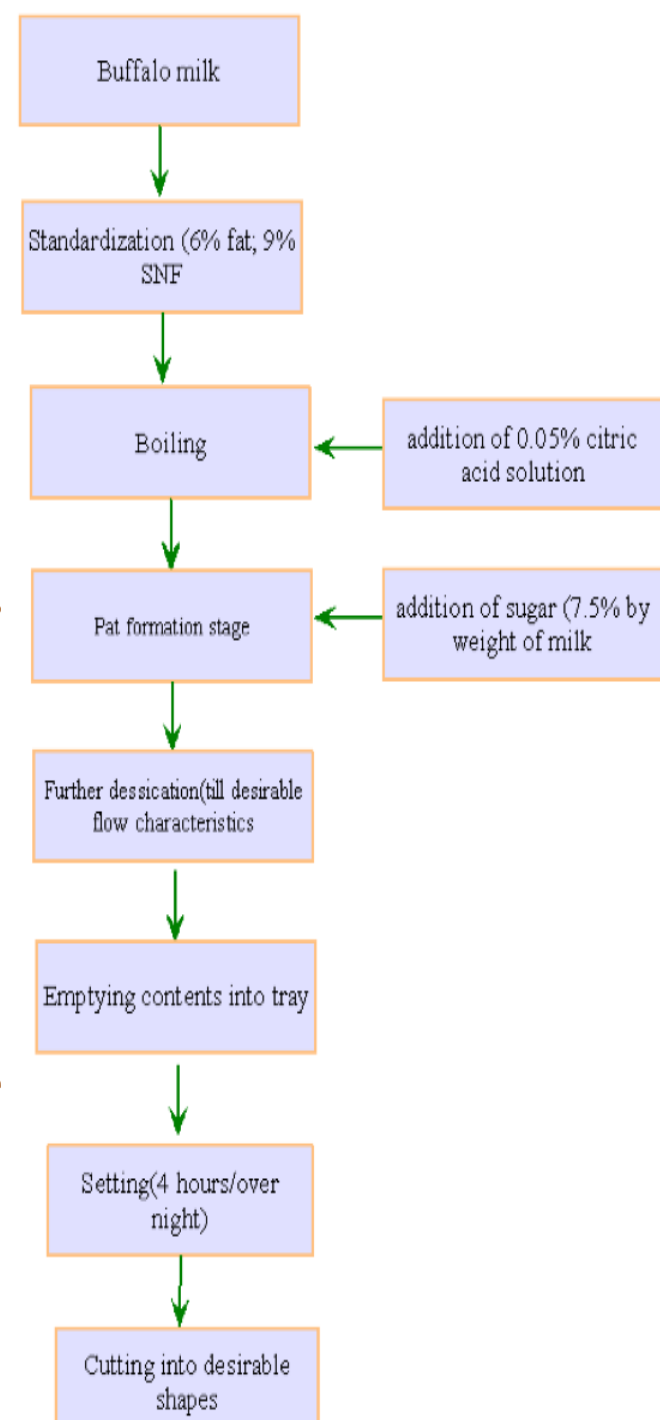


**Kalakand: Product  
description,  
Compositional profile and  
Manufacturing practice**

- ❖ Kalakand is a milk sweet basically prepared from danedar variety of khoa.
- ❖ Characterized by large sized hard grains with less cohesive body.
- ❖ Chemical composition of kalakand is more or less similar to burfi, but differences in sensory and rheological properties.
- ❖ Contrary to burfi, kalakand has more distinct cooked flavour and brown colour.
- ❖ Greasier with grainy texture, grains are hard and large size.
- ❖ Good quality kalakand is normally prepared in one step from buffalo milk.
- ❖ Can also be prepared from khoa. Firmly set product is cut to required shape and size.

# Preparation of kalakand from milk:

- Buffalo milk is preferred.
- Slightly sour milk (upto 0.18% lactic acid) can be used for its preparation.
- Buffalo milk standardized to 6% fat and 9% SNF is taken in a pan and boiled.
- At appearance of first boiling, 0.05% citric acid dissolved in small quantity of water is added to milk. No need to add citric acid in case of slightly acidic milk.
- Milk is boiled with continuous stirring and scraping.
- At pat formation stage, sugar @ 30% on expected yield of *khoa* or alternatively 7.5% on basis of milk is added and stirring is continued.
- When desirable textural and body characteristics are achieved, mixture is removed from fire and poured in tray, smeared with a thin layer of ghee for setting.
- Cut into desirable shapes.





# Preparation of kalakand from khoa:

- Danedar khoa is taken in a pan and heated.
- To this sugar @ 30% is added and heating is continued with stirring.
- When desirable flow characteristics are observed, kalakand is poured into tray and set for minimum 4 hr.



## Factors Affecting Sensory Quality:

- **Fat:** Cohesiveness of kalakand is optimum in samples made with 6% fat milk. If the fat content of milk is lower than 6%, it yields less acceptable product.
- **Sugar:** Good quality kalakand can be obtained by using sugar at 7.5% level. Higher level yields inferior colour. Sugar content of 11% on basis of milk results in cooked flavour, excessive sweetness and browning in final product.
- **Strength and type of coagulant:** Citric acid at 0.02-0.05% levels is commonly used to induce good granule formation. Use of 0.02% citric acid results in kalakand possessing optimum chewiness, gumminess and hardness values.
- **Yield of Kalakand:** 275 gm of kalakand can be obtained from 1 kg buffalo milk. Cow milk gives comparatively lower yield being 225 gm for every kg of milk.

## Packaging and Shelf-life of kalakand:

- Shelf life is 3-5 days at room temperature (30° C) and 15-20 days at refrigeration temperature (8-10° C).
- Due to high water activity, kalakand is highly susceptible to microbial and enzymatic spoilage.
- Attempts: Prolong shelf life of kalakand up to 21 days by wrapping it in parchment paper and storing under refrigeration temperature (8-9° C).
- Kalakand packaged under vacuum in metalized polyester and LDPE pouches and stored in cartons remains acceptable for 50 days and 21 days at 6-10° C and 30° C, respectively.

