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2. Milk standardization



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## I. Milk and Cream Processing

- 1. Raw chilled milk stored in RMST below 4°C.
- 2. QC check to confirm compositional values for Fat and SNF % for raw milk.

## 3. During Standardisation:

- As per the planned batch/requirement standardization is carried out by adding and mixing of calculated quantity of WMP/SMP & Cream/ melted White butter to raw milk followed by homogenisation.
- Homogenisation is carried out at 60 65 °C in lined with the Pasteurisation process
- 4. QC checks to confirm compositional values for Fat and SNF % for prepared milk.

## 5. During Separation:

- Raw Milk from milk pasteurizer after pre heating to 45-50°C will enter the cream separator.
- Cream separated from cream separator heads to cream pasteurizer balance tank. Here cream is pasteurised at 85-90°C for 15 seconds and cooled to 5-10°C.
- Online QC checks for pasteurized cream is carried out if found unsatisfactory to be reprocessed
- Skimmed milk from Cream separator enters into milk pasteurizer.
- 6. Milk pasteurization carried out at 72-74°C for 15 seconds and chilled below 4°C.
- 7. Online QC checks for pasteurization are carried out if found unsatisfactory milk will be reprocessed.
- 8. Storage of pasteurised milk in storage tanks (PMST) at  $\leq 4^{\circ}$ C.
- 9. Pasteurised cream is stored in cream tanks for aging. (Cream tanks to be provided with chill water circulation if stored more than aging time.

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This prevents rise of temperature and thereby preventing the increased acidity in the cream)

## II. Milk Packaging

- Pasteurised milk from PMST is transferred to float control balance tank of the Form Fill Seal machine. (Note: ensure that in the storage tank milk is well mixed with the aid of agitator)
- The milk is packed in sachets from the packaging material which were previously examined and coded. The crates were washed and kept ready.
  (Note: Milk pouch film role should be placed on the SS rack and care to be taken there is no contact with ink material)
- 3. Transfer the milk sachets to washed crates. Sort out the leakage & underweight pouch to cutting section.
- 4. The pouch with defects needs to be cut opened and reprocessed. Cut is made at the pouch end and milk is collected in SS container passed through nylon filter cloth. Transfer the milk to the raw milk handling section for reprocessing. Before dumping into dump tank or RMST get it checked by Quality Control division.
- 5. The milk crates are transferred to cold room where the optimum temperature is maintained to sustain the milk sachet temperature  $\leq 5$  °C until dispatch.
- 6. During dispatch the crates are shifted to Ante room.
- 7. Vehicle inspection is carried out and the temperature of milk sachets is checked before dispatch and recorded. Batch sample to be collected for further analysis.