

# PRODUCE CLEAN MILK—II

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## Care of Utensils

**D**IRTY milk containers and equipment are one of the most serious sources of milk contamination. Two operations are essential (1) cleaning, (2) sterilising.

Cleaning is the removal of all milk and other residues and sterilising is the destruction of harmful germs by heat or by chemicals, such as chlorine, contained in bleaching powder.

Sterilising without first cleaning the utensil is dangerous and of little value. Cleaning is the more important operation and if this operation is neglected or scamped, sterilisation is waste of time. Cleaning is necessary because milk films form on the surface of utensils, and milk "stones" and yellow slime can accumulate in milking machines, milk churns, and milk separators and other elaborate dairy equipment. Effective cleaning requires the complete removal of all such film, dirt, and milk residues.

## Washing Equipment

The wash room should have an easy-to-wash concrete floor, *i.e.*, the surface should be smooth and unbroken, the corners should be round and it is preferable to have the floor slightly inclined.

It should contain a storage tank for hot water or a boiler, and it should have a washing sink and plenty of stiff brushes and be equipped with a draining and drying rack.

Any of the following cleaning materials may be used :—

1. Caustic Soda ... ..  $\frac{1}{2}$  oz. in 4 gallons of water
2. Washing Soda ... .. 3-4 ozs. in 4 gallons of water
3. Soda Ash... .. 1-2 ozs. in 4 gallons of water

All these materials roughen the hands but the action of caustic soda is the most severe and care should be taken to prevent such contact.

## Method of Cleaning

*Cold Rinse.*—This is the first operation ; if boiling water is used first, the fat melts and leaves a greasy surface. So after utensils have been in use, always wash them out immediately with cold water not with hot.

*Cleansing.*—Scrub the utensils with warm water, containing a cleaning material as above, and using a stiff brush. No rags should be used as these become charged with bacteria.

*Rinsing.*—Lastly rinse the utensils with boiling water to remove all traces of cleansing solution and so prevent corrosion.

## Sterilization

This operation is to get rid of any bacteria that have survived after the cleaning process. This is done by boiling water or steam, preferably the latter.

If boiling water is used, the whole utensil should be immersed for at least two minutes. This practice, however, is not always satisfactory for two reasons :—

1. The temperature of the water may fall.
2. The supply of water may not be adequate.

*Note.*—*The temperature of the water in the wash tank must not be allowed to fall below 180°F.*

Steam is used extensively because it is convenient, more effective and less subject to failure.

After vessels have been sterilized they should be allowed to drain and dry off. When smooth and dry, they should be inverted and stored in a rack or in a dust-free cabinet.

A healthy nation requires that each child shall receive 1 pint of pure fresh cow's milk per day. It will be necessary to build up public confidence that our milk supplies are wholesome and unadulterated and fit for our children before it will be possible for a campaign to produce more milk to succeed. It is no use producing fresh milk if the people prefer tinned milk because they have no confidence in cow's milk and will not buy it. There are large herds of cattle on our coconut estates which are kept primarily to produce manure for the palms. By proper feeding, by careful management and by the removal of unhealthy animals it would be possible for the coconut estate of Ceylon to produce a vast quantity of pure milk providing the cattle keepers are properly trained in dairy hygiene. It will also be necessary to establish milk centres where the pure milk can be kept in cold rooms while awaiting distribution otherwise losses will be incurred.