

The Care of Milk and Cream for Manufacturing Purposes

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OF the many tasks associated with the efficient management of a farm dairy and the production of a raw material of the finest quality for manufacturing purposes none can be considered of greater importance or more likely to influence the attainment of such a standard than the care or attention milk or cream receives while held at the farm dairy awaiting transport to the factory or manufacturing centre.

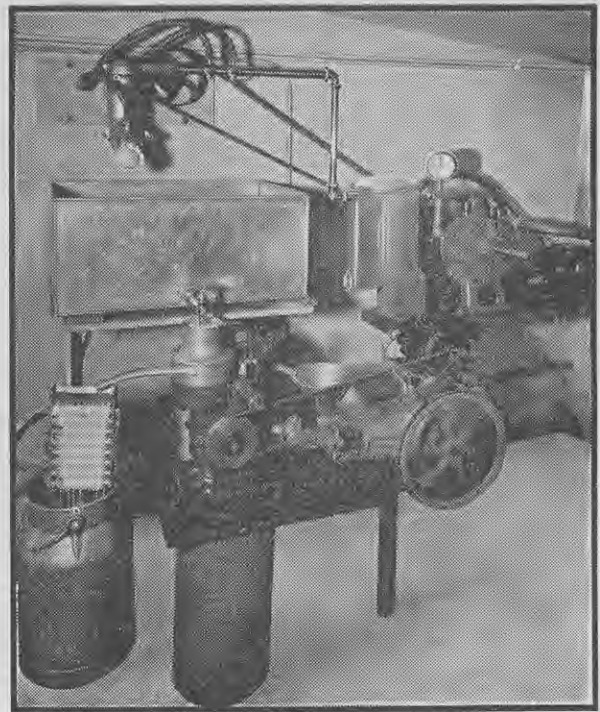
THE work involved in keeping a milking shed and its immediate surroundings in a sanitary condition and maintaining a milking plant and separator equipment in a similar state may be faithfully carried out, resulting in the production of milk or cream of high quality at the time of its release in the farm dairy, but if adequate attention and scrupulous care are not exercised in maintaining that condition, what was originally a high-grade product deteriorates speedily.

Because milk and cream are complex organic substances subject to natural decomposition, even under ideal conditions, it is obvious that the introduction and subsequent development of undesirable bacteria or the absorption of unclean flavours from whatever source must have a detrimental effect on the keeping quality and final grading of the product.

Holding Product under Hygienic Conditions

There must be facilities for holding milk or cream at the farm dairy under the most hygienic conditions. The cream or milk stand or compartment should be well ventilated and only pure air should enter it. A standard of cleanliness which will prevent the possibility of contamination by the absorption of foreign odours from an external source or as a result of unclean conditions under which the milk or cream is held should be maintained.

A milking shed should be planned so that the milk stand or separator room is on the windward end, and the immediate surroundings should be laid out to prevent the traffic of stock in the vicinity of the milk stand or separator room. Such an arrangement, particularly if the area is well grassed, makes contamination from an external source unlikely, and where home separation is done it would be



(Green and Hahn Ltd. photo.)

Up-to-date assembly of releaser, cream separator, skimmed-milk pump, and cream cooler.

quite safe to have a louvered safe or compartment built out from the separator room for the overnight storage of cream. The common practice of holding cream in the separator room is dangerous, chiefly because taints may be absorbed from milk-splashed and sour-smelling concrete, fermented areas of skimmed milk resulting from any leakage in its disposal, or from stored goods and old clothing, all of which have characteristic odours capable of absorption by milk or cream.

Too much care therefore cannot be taken to make sure that where milk or cream is held on the farm unsatisfactory conditions do not arise, and this can be brought about only by a high standard of cleanliness constantly maintained.

Cooling of Milk and Cream

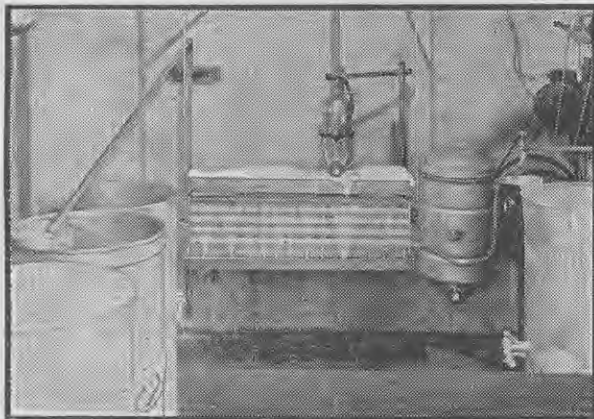
To appreciate fully the value of cooling and its effect in maintaining the quality of milk or cream (and in many cases where feed flavours and other physical taints are encountered in improving the quality) the composition of milk or cream and the effect which a rapid lowering of temperature has on the bacteria content must be considered. Under normal conditions bacteria are the main cause of deterioration in both milk and cream.

Milk and cream, if not subjected to rigid temperature control, provide ideal conditions for the growth of bacteria of many and varied types. This results in rapid decomposition of the organic matter on which the bacteria feed and a corresponding decline in quality. An efficient safeguard is a cooler capable of reducing milk or cream rapidly to a temperature of at least 65 degrees F.; where the cooling water is drawn direct from its source even lower readings can be obtained.

At such temperatures the growth of bacteria is checked, any decline in quality arrested immediately, and the value of efficient cooling clearly demonstrated in the production of milk or cream capable of retaining its original flavour and sweetness.

Clean Containers

No greater or more prolific source of contamination can be found than a can or lid which as a result of persistently hurried and imperfect cleansing has a surface on which the residues of previous consignments are all too apparent.



Milk being cooled and elevated to raised milk stand.