

# Hygiene in Hand-milking Sheds Supplying Factories

**I**N the many technical links in the process of butter and cheese manufacture hygiene in the milking shed—both personal and mechanical—is highly important, and it is one factor in the initial stages of dairy-produce manufacture which is controlled solely by farmers. In this article D. I. Bowman, Farm Dairy Instructor, Department of Agriculture, Waimate, discusses aspects of hygiene in sheds where cows are milked by hand for factory supply.

**T**HE hygiene of a milking shed begins in the shed surroundings, so the site must be one which will remain efficient and sanitary no matter what subsequent farm activity or building takes place. Requirements for a dairy site, listed in their order of importance, are:—

A situation at least 50yds. from piggeries, 30ft. from fowlhouses, and 2 chains from a public roadway.

An open space free from dust, cesspools, manure heaps, and drainage from other farm buildings.

A good fall for drainage.

Clean atmosphere and enough sunlight to reduce to a minimum the growth of moulds and fungus.

A good water supply and reasonable proximity to the electric-power supply.

The farm plan should be studied to find a site fulfilling those conditions, and it is advisable to seek the aid of a Farm Dairy Instructor. On small farms a site which incorporates all the desirable factors without much waste of land may not be found easily, but efficient sanitation must be established and maintained throughout the life of the shed.

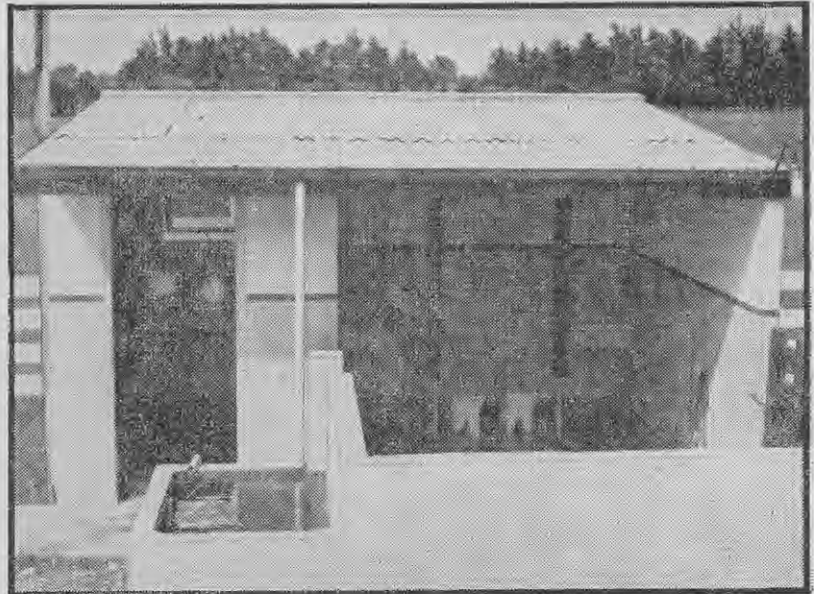
Well-laid-out, sanitary dairy premises require the minimum of work to keep the shed and equipment in order during the milking season. Printed plans and advice are obtainable from Farm Dairy Instructors of the Department of Agriculture.

## Maintenance of Surroundings

If a milking shed is built at least the minimum specified distances from piggeries and fowlhouses, the likelihood of contamination from these sources is reduced to a minimum provided ordinary care is taken.

Dust, manure heaps, and cesspools will not exist while a shed is new and the surroundings are in good order, but neglect and indiscriminate wandering of stock about the premises will soon provide a source of contamination. Mud caused by animals being herded becomes in summer contaminating dust which blows into the shed through its ventilation. This dust will contaminate the milk and strike one of the first blows at the quality of the produce.

Access by stock to the cowshed should be controlled by fenced concrete races to and from the night and



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A small hand-milking dairy of the back-out type.

day pastures, and this factor should be considered when the shed site is chosen. The perfect arrangement of stock direction provides a grassed surrounding at all times, obviating dust in summer and odorous cesspools in winter. The concrete races should be designed to suit the conditions on the farm. They afford very efficient sanitary control, and to seek advice from the Dairy Division on this subject is well worth while.

If a good, sound dairy shed has been built in the centre of much farmyard activity, and therefore is open to numerous sources of contamination, it may be possible to rectify the position by replanning some of the farmyard arrangements. Renovation and alteration often are not as expensive as they may have appeared. The first objective would be to establish as large a grass area as possible around the shed. Piggeries and fowlhouses which are too close must be shifted, all manure heaps and odorous objects removed, drainage reorganised if necessary, and provision made for control of access by stock. Shed ventilation may need to be modernised, drainage examined, and broken concrete refaced. Woodwork should be examined for evidence of borer, as borer dust may fall into the milk. The existing shed may be found ideal for another farm building the erection of which is contemplated, and in such circumstances selecting a new site for a new shed may be more economic.

**Air-borne infection of dairy produce on farms caused by unhygienic shed sites is a serious problem and one that farmers must be prepared to eliminate.**

## Dangers of Dust

A shed with dusty interior and surroundings is not safe even on the

calmest of days. Some farmers say: "We milk here only on wet days and use the grass paddock during fine weather". Wet days often are windy, and the dust danger is always present. Dust cannot be kept from settling in the milk and open buckets in such a shed, and such conditions cause a vast amount of irreparable damage to New Zealand dairy produce. Warm milk is an excellent medium for growing bacteria, and germs from cowshed dust are highly undesirable.

A dusty shed cannot be kept clean. For example, between milkings all the dairy equipment will become coated with fine dust deposited from the air, so each successive milking deposits its share of contamination in the cream can. Apart from that, where there is dust there is odour, and grade quality is affected by absorption of foreign odours.

## Preparation of Cows for Milking

While the cow is roaming the paddocks between milkings much dust and bacteria-laden material is deposited on its body, so the flanks and legs near the udder must be cleaned as much as possible. Some types of household scrubbing brush are excellent to clean this area down, only moderate pressure being used on the udder. The udder should then be washed with clean, warm water and dried with a clean cloth. No open milk buckets should be left in the vicinity during the brushing and washing treatment, as they are sure to collect some of the dust and splashes. Apart from its virtue of cleanliness, gentle brushing and warm-water washing of the udder aids the letting down of milk. The tail of the cow should be prevented from waving about and, if necessary, the animal comfortably leg-roped.