

# Erect a small-scale milking shed

**M**ilk has been described as nature's most complete source of food. The contribution of milk to mankind is recognised globally and continues to meet the daily food requirements of an ever-growing world population.

In South Africa, milk is an equally important source of food, especially for small-scale farmers in rural areas. Most people in these areas own cattle and therefore a small-scale dairy. To ensure that these people constantly have milk of high quality at their disposal, the small-scale dairy should be operated as efficiently and hygienically as possible.

## Location of the milking shed

The choice of the site and the location of the milking shed plays an important role. The milking shed must be situated in a well-drained area without danger of flooding and the position of the main entrance must face away from the prevailing winds (Babson Bros. Dairy Research Service, 1976).

To prevent trees and other high structures from limiting the airflow around and through the milking shed, the shed should be built at least 15 metres from such structures (Ventilation Subcommittee of the

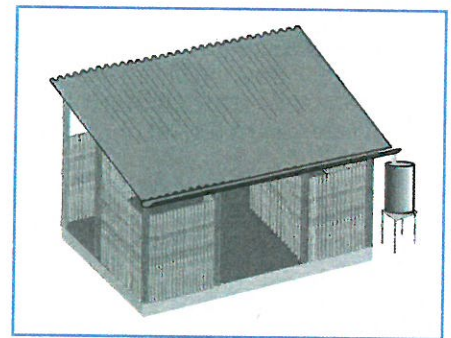
Midwest Plan Service, 1989). The orientation of the milking shed should be such that the major axis lies east-west, with the milk room preferably in the coolest part, namely the south-easterly corner.

High temperatures have an adverse effect on the milk production of dairy cows. Milk yields decrease at temperatures higher than 21°C. If high humidity and high temperatures occur simultaneously, it is even more detrimental for milk production. High humidity decreases evaporation, resulting in the rising of cow temperature (Department of Agriculture and Food Engineering, 1988).

## Correct milking process

The success of a dairy depends largely on how well cows are milked. All other tasks may be done properly, but if the cows are not milked correctly, the dairy will never be a success. Poor milking methods cause low production, mastitis and poor milk quality. A vital part of the milking process is to produce the cleanest possible milk. The udders should be washed thoroughly, and milking equipment must be kept clean at all times to produce clean milk (Knodt, 1954).

If cows are milked by hand, the cows should be prepared well to ensure high-quality milk. Wash the udders and teats with



Layout of a milking shed.

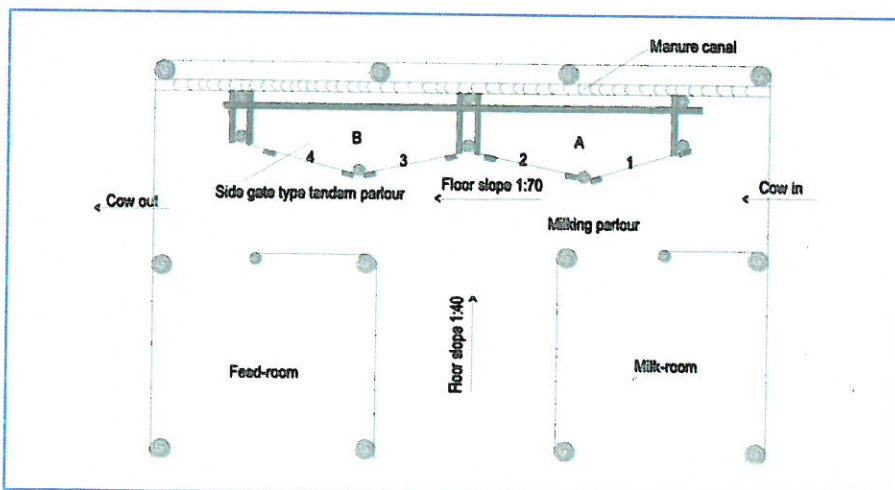
a clean cloth and water. Wring the cloth and dry the udders and teats with it. Then use a small cup and milk a little from each teat into it first.

This milk has a high bacterial content and a low fat content and enables the cow to let her milk out. If the milk in the cup is lumpy, it is a sign of mastitis. Throw away all the milk from the affected teat until the condition has improved, because this milk may have a high bacterial count (Knodt, 1954).

## Milk quickly and properly

After the cow has been thoroughly prepared and her first milk has been tapped, she should be milked carefully and quickly. If the cow is milked slowly, she will let her milk out slowly. The milking process is then incomplete, and the cow may present problems.

Grip the teats firmly at the base and compress each teat alternatively to force the milk out. Do not use the knuckle of your thumb when compressing the teat, by pulling the thumb and forefinger down over the teat, because it may cause serious injury or mastitis. The continuous compressing cycle of the teats will get all the milk from the teats (Knodt, 1954). <sup>SF</sup>



Plan of a milking shed.

A complete manual on the construction of small-scale milking sheds is available from the ARC – Institute for Agricultural Engineering. Email the author at [stoltze@arc.agric.co.za](mailto:stoltze@arc.agric.co.za)