Rearing Dairy Calves

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IN judging the efficiency of any method of calf rearing two factors must be taken into account. Its influence on calf wastage due to deaths, particularly during the first year, and its effect on subsequent production, breeding efficiency, and general health of the heifer or mature cow. The economic aspects of calf rearing are of course important, but they must be considered in conjunction with the above factors. The ideal is to rear the calf at the minimum cost consistent with its healthy growth and development to productive life. Failure to reach this minimum is not the only or even the main cause of poorly reared calves. Lack of appreciation of the points of good calf husbandry may lead to results far below those which could be expected from the amount being spent on milk or other calf feeds.

THE potential maximum production of the cow is determined by the qualities inherited by the calf. The actual production is influenced by the way the calf is reared. Experiments have shown a difference of at least 20lb. in the butterfat production of well-grown and poorly grown heifers, and this difference can persist to quite a marked degree in subsequent lactations.

Wastage due to death of calves between the ages of 1 week and 1 year is about 6 per cent. Much of this is due to calf scours, which is often nutritional in origin. The digestive system of the calf in common with that of other young animals is easily upset and failure to appreciate this is the cause of much of the trouble experienced in rearing calves. The young calf's stomach is comparatively small and is designed to deal with only small quantities of milk taken at frequent intervals. To make the desired progress, compared with a calf reared on the cow, the bucket-fed calf would have to take in two feeds daily more than its stomach would be capable of handling.

Cow's milk is formed into a relatively dense curd by the rennet in the stomach of the calf. It is gradually digested, but if any curd remains in the stomach at the next feed of milk, it forms a core for the formation of a larger, denser curd. Eventually the calf suffers from severe indigestion and scours.

Over-feeding must therefore be avoided, especially in the first few weeks. There is no doubt that it is frequently the primary cause of calf scours.

First Week Important

Whether the newly born calf is allowed to remain with its mother for some time or is removed after a few hours is not of vital importance, provided it is left long enough to obtain a good drink of the mother's milk. The longer the calf is allowed to remain with the cow the greater the disturbance when it is taken away. Perhaps the best practice is to remove the calf within 12 hours. The young calf must be taught to drink from the bucket and the simplest way of doing this is to leave it without milk for from 12 to 24 hours and then allow it to suck the fingers, which have been immersed in a little milk. Not more than a quart of milk should be fed at the first feed.

The mother's milk or colostrum, as milk from a newly calved cow is called, should be fed for at least the first few days. The colostrum is laxative and provides the calf with vitamin A and the antibodies against certain bacteria which cause diseases of the calf. The vitamin A content of colostrum is from 10 to 100 times that of ordinary milk and has a bearing on the protective mechanism against infectious disease. If for any reason the colostrum is not available, a dose of ½oz. (1 tablespoon) of castor oil and ½oz. of cod liver oil should be given. Doses of cod liver oil should be continued for 3 or 4 days.

Amount to Feed Daily

A fundamental principle is that calves must be treated as individuals and fed according to their size and strength. An amount of milk that may be tolerated well by one calf may cause nutritional scours in another.

The rate at which calves drink also varies so much that the trough system of feeding, which is still too widely used, can never be satisfactory.

About 10 per cent. of the calf's body-weight is the right amount to feed daily, but this rate should not be reached until toward the end of the first week. Average birth weights of calves of the commoner breeds are Jerseys 55lb., Guernseys 65lb., Ayrshires 70lb., Shorthorns 75lb., and Friesians 85lb. One pint of milk weighs 1¼lb. A 70lb. calf should receive not more than 5 to 6 pints of milk daily

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