

as fully appreciated as it is by the dairy cow. Roughage such as leaves and shrubs and good-quality hay is an essential item of their diet. Goats relish an immense variety of foods. They will strip the foliage off broom and gorse and eventually destroy it. Provided they are fenced in on the area, they will also clean up blackberry. They are, however, fastidious and decline to eat food that has been soiled. Hay must be fed from a rack and hedge clippings and similar material should be tied in bundles where the goat can reach them. Variation of diet is essential, as goats tend to have marked likes and dislikes which vary with individuals. Household scraps, particularly bread, vegetables, and fruit peelings, are useful additional foodstuffs often greatly appreciated.

It must not be concluded from the above remarks that the type of feed the goat obtains when browsing is sufficient for milk production.

Hand feeding with good-quality roughage such as lucerne hay and also concentrates is essential if the doe is to produce to her capacity. Good quality is very necessary in the supplementary feeds to make up for the lack of quality in those readily taken when browsing.

The daily feeding programme will depend to some extent on the weather. It is generally not advisable to allow the goats to graze wet pastures, as this tends to increase worm infestation. Concentrates are fed after the morning milking followed by as much hay as the does will eat. If conditions are suitable, they are then put out to graze or browse and a further ration of hay may be given at midday. The herd is brought in again for the evening milking and for housing at night, concentrates and hay being fed again after the evening milking.

Pasture: Good pasture is an excellent feed for goats, but hay and some concentrates should always be fed with it. Palatability can best be maintained if pasture is rotationally grazed in small units, and the electric fence is useful in this respect. Three wires are needed on an electric fence for goats. (Ordinary fences should preferably have 8 wires, and sloping wooden strainers should not be used, as goats are nimble and can use them as means of egress.) This type of management will also help reduce worm infestation.

Roughages: Does in milk should be given all the roughage, that is, hay or chaff, that they will eat. The best roughage is lucerne or clover hay or lucerne chaff. If this is not available, oat chaff can be used. The average consumption of hay or chaff per day is about 3lb. to 4lb. This would be reduced to 2lb. if about 3lb. of silage, root crops, or leafy vegetables are available. Swedes, mangolds, and sugar beet are nearly always appreciated; carrots sometimes, but turnips seldom. Potatoes should preferably be cooked. If silage is fed, a little should be fed at first, and the amount gradually increased. Care should be taken not to introduce it too freely, as dietetic disturbance will result.

Concentrates: Roughage must be supplemented with concentrates such as crushed oats, maize, or barley or bran, pollard, oatmeal, or linseed meal.



[Green and Hahn] Goats' feet should not be allowed to become overgrown. Regular trimming will keep them in good condition.

The amount of concentrates fed will depend mainly on the milk production and the type and quantity of other feed available. Each doe should be studied if the best results are to be obtained. Where no grazing is available concentrate mixtures should be fed at the rate of 1lb. per day for every quart of milk produced. When the does are on pasture 1lb. to 2lb. of concentrates daily, depending on milk yield, would be an average ration, with hay available in whatever quantity they will eat. The feeding of concentrates is well worth the extra cost, as it will considerably increase the milk yield and also the quality of the milk.

The type of concentrates necessary will vary with the type of roughage available. With lucerne hay or lucerne chaff a mixture with comparatively low protein content may be used, but where oat chaff is fed a comparatively high protein mixture is needed. Of the grains, oats are best, but maize is also good. A combination of grains may be used, such as 2 parts of crushed oats to 1 part of crushed maize, and bran and pollard may be mixed.

Examples of suitable concentrate mixtures (given in parts by weight) for feeding with lucerne hay or chaff are:—

1. Crushed grain (oats, maize, or barley), 1; bran or pollard, 3.
2. Crushed grain (as above), 5; linseed meal, 1.
3. Crushed grain (as above), 5; linseed meal, 1; bran or pollard, 2.

Examples of suitable mixtures (given in parts by weight) for feeding with oat hay or oat chaff are:—

1. Crushed grain (oats, maize, or barley), 2; linseed meal, 2.
2. Crushed grain (as above), 1; bran, 1; linseed meal, 1.

Concentrates should always be fed from clean troughs or dishes. They are usually fed dry, but mashes are welcomed if goats are used to them. Molasses is a useful adjunct to feeding, and a mash may be made with watered molasses, allowing about a tablespoon of molasses for each goat.

Water: A plentiful supply of clean water is essential at all times. Milking goats on dry rations will drink a considerable amount, especially in warm weather. Shortage of water will lead to a drop in the milk production.

Mineral lick: A lick of 2 parts of bone flour and 1 part of coarse salt in boxes protected from the weather should be available. Such a lick is especially necessary where no grazing is provided.

Tethering: Tethering of goats is not recommended, but it may be necessary where only one or two are kept and fences are not suitable. Goats need exercise and fresh feed and do better if running free. Where tethering is adopted the rope should be as long as possible, about 20ft., with a swivel where it is attached to the collar to prevent twisting. Fix the rope over the stake with a loop so that it can revolve freely. A better method is to attach the rope by a sliding ring to a wire running between two posts.

Rearing of kids: Kids may be reared on the doe or hand fed. Kids that are allowed to suckle their dams not only make good growth but require very little attention compared with those raised by hand. Where hand rearing is adopted kids may be left with the doe for the first 2 or 3 days, and this is recommended. Alternatively they are not permitted to suckle their mother and the colostrum is milked from the doe and fed to the kids through an ordinary infant's bottle. The doe should not be milked right out for the first 2 or 3 days.