

USE OF CEREALS FOR GREENFEED



Cows grazing on millet; the feeding value of this crop is highest when it is 6in. to 9in. high.

rate of 15lb. of seed to the acre in November-December when the soil has become really warm. Land for millet should receive a dressing of from 2 to 4cwt. of superphosphate or serpentine superphosphate per acre.

Preparatory cultivation for millet should be the same as for maize unless the millet is to be a catch crop between seasons. In the latter circumstances cultivation should be as thorough as is possible in the limited time available.

Utilisation

The feeding value of millet is highest when the crop is from 6in. to 9in. high and it falls rapidly later. After the first feeding off the field can be shut up for a second grazing, but this is usually light because the plant is running to seed.

Millet is not a high-yielding crop and though it is useful as a catch crop, usually it should not be sown on light land unless this has been well manured, because it demands fairly high fertility and may be inclined to impoverish light soils, making regrassing difficult.

Sorghum

Because of its low production compared with that of greenfeed maize in New Zealand, sorghum is seldom grown. In a hot, arid climate sorghum will outyield maize, but except, perhaps, on some of the sandy coastal country in the Bay of Plenty and North Auckland, New Zealand conditions favour maize greatly.

When sown for greenfeed sorghum should be drilled in 7in. rows or broad-

cast at the rate of 1 to 2 bushels per acre. Cultivation and manuring should be the same as for greenfeed maize.

Sorghum should be fed off only when it is in full flower. It should not be fed off after it has been frosted, nor should stock be permitted to graze the young second growth from the stubble. This warning is given because there is a danger of poisoning from prussic acid, which develops at certain ill-defined stages of growth. Different writers have stated that the two periods which it is recommended should be avoided are dangerous.

It is safer to cut sorghum and cart it out. If the first cut is made when the crop is 2 to 3ft. high, several cuts may be obtained, but yield and quality will be better where the initial cutting is delayed until the crop has come into head.

Short Fallow

One aspect of greenfeed production which applies to all the crops discussed and which is fundamental to their successful growth is the necessity of providing a short fallow. Where practicable a bare fallow of 6 weeks or so between the initial ploughing and final surface cultivation before sowing is sound practice; seed may strike well where no fallow is allowed, but subsequently crops may turn yellow and growth become unsatisfactory.

Correct Utilisation

Incorrect utilisation of even the highest-yielding greenfeed crop will reduce considerably the value of yield.

All that animals require for healthy maintenance or growth is the presence of a certain amount of various substances in the daily ration. Cows or sheep that are in calf or lamb or are milking require an adequate supply of minerals for bone formation in the growing foetus or for the production of milk. Cereal greenfeeds are low in calcium and phosphate and do not supply the full requirements of the essential minerals. The result is that animals either draw on the mineral supply of their own bodies or the minerals must be supplied by other means. Where animals are being grazed on greenfeed it must not be thought that supplements such as chaff, roots, grass, roughage, grass hay, and cereal straws are supplying all the essentials, as these supplements, too, are mineral deficient. Supplements such as good clover hay, lucerne, hay, or good mixed pasture, however, will help to provide the constituents not present in greenfeed and will enhance greatly the value of greenfeed.

Many nutritionists consider that a large number of troubles in pregnant ewes, and cows are caused by indiscriminate use of greenfeed or other bulky, mineral-deficient feeds during the pregnancy period, and farming experience bears out this contention.

Where ewes or cows are not confined to greenfeed, but are given suitable supplements and adequate spells on a good mixed sward, the carrying capacity of the farm as a whole is increased and stock losses and lambing troubles are reduced.

Notes on maize, sorghum, and millet by E. R. Marryatt, Fields Instructor, Department of Agriculture, Whakatane, have been incorporated in this article.