

Urea-molasses-mineral block supplementation for ruminants

This technology is applicable in areas where ruminants are basically fed fibrous crop residues or poor-quality basal rations which contain limited amounts of nutrients. It is used to supplement low-quality roughage such as rice straw.

The technology

As a feed supplement, it provides animals with essential nutrients such as protein, energy, and minerals usually deficient in most forages and crop residues. Urea-molasses-mineral block (UMMB) is prepared in a solid, hard, compact form, but it is water soluble. It is given to ruminants as a lick.

The block can be prepared using several formulations depending on the supply and price of the needed ingredients. The main ingredients and their proportion in the formulation are indicated in Table 1.

The amount of UMMB to be given depends on the type of animal and its weight. A block of 5

kg may last for 7~10 days when given to a cow or water buffalo weighing 350-400 kg.

For the technology to be adopted, UMMB or the ingredients and materials for UMMB preparation must be available. If the block is not commercially available or if the farmer chooses to make the blocks himself, he will need facilities such as holding tanks for the molasses, a vat or some other large container for mixing, a spade, and a mold such as a steel box, a wooden frame, or simply a plastic bag.

Precaution

A block of this kind cannot be used as a supplement for animals younger than 6 months, or by animals which have not eaten anything for the whole day. Consumption of too much UMMB must be prevented. Animals must always be provided with clean drinking water. The block must be protected from rainwater so that it does not soften.

Table 1. Ingredients of UNMB block

Ingredients	Parts/100 kg Mixture
Molasses	36.0
Rice bran	38.0
Urea	10.0
Cement	8.0
Salt	1.9
Dicalcium phosphate	2.0
Trace minerals	0.1
Water	4.0
Total	100.0

Cooperating agency for this topic: