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Importance of UMMB (Urea Molasses Mineral Block) Feeding on Animals

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Urea Molasses Multinutrient Block (UMMB) is a simple and inexpensive way to provide a variety of nutrients to predators. Giving UMMB can improve the digestion of low-fat diets so it can generally improve animal performance such as milk production, weight, BCS and fertility status. Urea molasses mineral block is prepared by mixing urea, molasses, a mixture of minerals and other ingredients in appropriate proportions. It is a readily available source of energy, protein and minerals for the dairy animal. Adding animal to UMMB will provide a sufficient amount of these nutrients and slow intake of urea leads to effective production of microbial proteins and improved digestion.

The NDDB has established a 'cold process' for producing UMMB grasses (three kilograms of blocks) and the technology is provided to dairy cooperatives, NGOs and other agencies. UMMB is very useful for dairy producers in areas that lack green fodder. Adding animal to UMMB will provide a sufficient amount of these nutrients and slow intake of urea leads to effective production of microbial proteins and improved digestion. Urea-molasses mineral block (UMMB) compounds can improve the use of low-quality roughage by satisfying the need for rumen microorganisms, creating a better environment for the fermentation of fibrous material and increasing the production of small amounts of protein and fatty acids.

A mixture of liquid molasses and urea, which provides fertile nitrogen and is a good source of minerals, has been used for many years by Australian and South African farmers. Mineral imports that are commonly imported are very expensive and their cost / benefit ratio is often questionable. Blocks can be made from a variety of components depending on their availability, location, nutrition, price, existing facilities for their use and their impact on the quality of the blocks. They can also install certain components.

Molasses provides a fertile substrate with various minerals and trace elements (but low phosphorus levels). Because of its delicious taste and aroma, it makes the block very attractive and delicious to animals. Brix level of molasses should be as high as possible, and preferably above 85, to ensure durability.

Urea, which provides fermented nitrogen, is a very important block chain compound. Urea may increase cattle feed intake by about 40 percent and their digestion by 8 units (or 20 percent). Urea intake should be moderate to avoid toxic problems but it is sufficient to maintain ammonia levels in the rumen lasting more than 200 mg N / l to increase germination and high levels of tissue degradation. Blocks are an excellent way to control capture and allow for continuous access.

Fig: urea molasses mineral block

Wheat or rice bran has a lot of purpose in blocks. It provides essential nutrients including fats, proteins and phosphorus, acts as a moisture absorber for molasses and provides block formation. I may be replaced by other fibrous substances such as dry bagasse or finely ground groundnuts but loss of nutritional value occurs.Minerals can be added where appropriate. Normal salt is often added because this is often deficient in food and less expensive. Calcium is provided by molasses as well as a gelling agent, calcium oxide or cement. Although phosphorus is deficient, there is no evidence that its supplementation is beneficial when the animals are in a poor state of care when grazing on the remaining mature pastures or eating low-grade fodder. Mineral requirements are reduced at storage or survival levels. Deficiency is usually a problem only when production is increased, especially if a bypass protein supplement is provided and in these cases phosphorus should be added to that supplement.

A gelling agent or binder is needed to strengthen the blocks. Although the gelling machine is unknown, various products have been successfully tested: magnesium oxide, bentonite, calcium oxide, calcium hydroxide and cement. The use of cement has raised questions, from various dietitians and consultants, about the possible negative effects on animals. In fact, research on the use of cement or its product, cement dust in the oven, as a mineral supplement did not show such adverse effects at 1 to 3 percent of the total dry food intake. (However, the USDA has limited the use of cement dust as it may cause heavy metal deposits in animal tissues). A variety of chemicals or drugs to control parasites or to control rumen inflammation (eg anti-protozoal, ionophores) that can be added to blocks of molasses can be an excellent carrier of these products. Recent work has shown that the addition of a small amount of unsalted calcium to the rumen of many fatty acids may increase the efficiency of the use of fibrous residues.

The Benefits of Supplying UMMB are:

- Safe and uniform micronutrient delivery vehicle
- NPN safe delivery vehicle
- Increase NPN usage
- A vehicle that will deliver molasses or rumen carbohydrates to rumen germs
- Reduce solid food dust
- Reduce dietary planning
- Increase whole foods and improved sound

Urea-molasses-mineral block (UMMB) is a feed for animal husbandry that promotes the growth of rumen throughout the day with a steady source of fermented nitrogen. The addition of UMMB significantly increases food intake, milk yield, and growth rate and, therefore, is an inexpensive way to increase the use of locally available feed resources to increase productivity. UMMB provides the right amount of nitrogen, energy, and minerals through licking, which is essential for the proper growth of bacteria. Microbial proteins can add up to 30-40% of the animal's protein requirement. The addition of UMMB to the diet is very beneficial, especially if food based on plant-based residues, such as ruminants, can produce less protein than non-protein nitrogen.

Molasses is known for sugar and sugar usually adds 60-65% of solids to sugarcane. Increasing the level of carbohydrate fermentation can lead to the successful absorption of depleted rumen protein and improved availability of digested proteins in dairy animals. Urea is a non-protein nitrogen compound; the nitrogen component of urea is used as a protein-producing structure by rumen microbes. Most urea contains about 46% nitrogen and protein contains 16% nitrogen. Thus, when urea is converted to protein, the amount of raw protein equivalent to urea is about 281%. Urea does not contain any other useful nutrients such as energy, minerals, or vitamins. Ruminant, through the rumen microbial agency converts urea into proteins with ammonia and carbon dioxide found in the degradation of soluble carbohydrates. Excess ammonia extracted from urea is transported to the liver, where it is then converted to urea to release harmful toxins and excreted in the urine.

Construction of UMMB

UMMB is made up of a variety of ingredients, each with its own ingredients. Typically, it contains Molasses, Urea, a mixture of minerals, salt, Calcite Powder, Bentonite, cottonseed meal, crushed mahua seed cake, Wheat bran, and crushed corn. The composition of the Urea Molasses Mineral Block is given below. The composition may vary depending on the availability of feed ingredients.

References

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