

BIHAR ANIMAL SCIENCES UNIVERSITY

Bihar Veterinary College, Patna

Department of Animal Nutrition

**Topic: Preparation of Urea Molasses
Mineral Block**

Course No. 603

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Urea Molasses Mineral Block

UMMB stands for Urea Molasses Mineral Block

- ✓ UMMB is a method for slow releasing urea , which checks the proper amount of urea given per day .

Composition of Urea Molasses Mineral Block

Ingredients	Example I (%)	Example II (%)
Molasses	45	40
Urea	15	5
Mineral mixture	15	3
Salt	8	2
Calcite powder	4	-
Bentonite	3	-
Cottonseed meal	10	-
Deoiled mahua seed cake	-	10
Wheat bran	-	20
Crushed maize	-	20

Urea-Molasses-Wheat bran Compact Feed Block



INGREDIENTS

- **I. Energy sources: MOLASSES**
- **II. Nitrogen Sources**
 1. Non-Protein Nitrogenous Source : **urea**
 2. Vegetable or True Protein: **Any de-oiled seed cake like Soyabean meal, mustard oil cake etc.**
- **III. Mineral Sources:**
 - 1. Common Salt
 - 2. Mineral Mixture
- **IV. Structural Components: Wheat Bran/Rice Polish**
- **V. Binder: Dolomite/ Calcite/Guar meal**



PRODUCTION PROCESS

1. Mixing of Ingredients
2. Pressing of Ingredient Mixture
3. Drying the Pressed Material
4. Packing

1. Mixing of Ingredients

- 1. Weight 1.0 kg granular, fertilizer grade urea in glass or steel container and heat it with 500 ml (half litre) water, till it dissolves. Avoid over heating. While hot**
- 2. Pour this solution (I) into a plastic tub containing 10.400 kg molasses, and mix with steel spoon.**
- 3. Prepare mixture of 1.0 kg common salt, 1.0 kg vitamin-mineral mixture, and 1.0 kg dolomitic lime or calcite.**
- 4. Pour all-mineral mixture into urea-molasses solution and go on mixing till homogenous suspension of urea-molasses-mineral is obtained.**

5. Take 7.400 kg wheat bran in a large sized plastic tub and add to it 0.500 kg de-oiled soybean meal or any oil-seed cake.

Mix well.

6. To this mixture, pour suspension of urea-molasses mineral ingredients (III), and mix all these contents till there is coating of (III), over the wheat bran-soya meal mixture.

7. At last, slowly, sprinkle 240 grams of dolomite or guar gum dust over the above mixture (IV) and mix thoroughly all the ingredients.

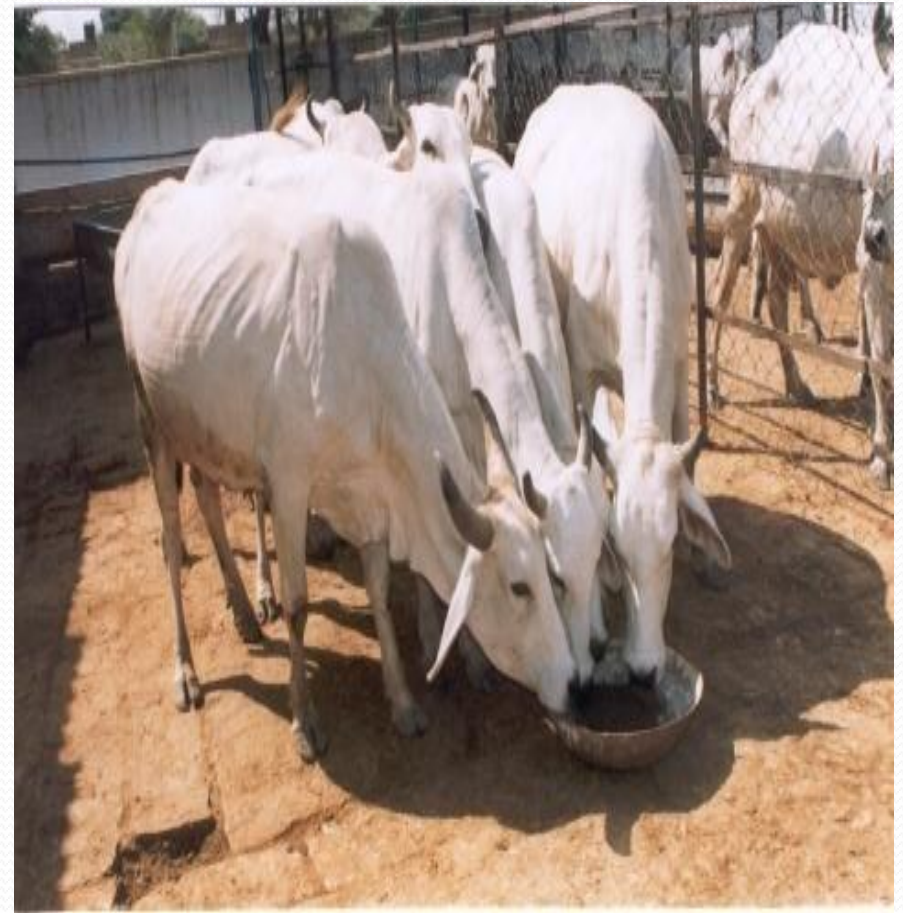
2. Pressing of Ingredient Mixture

Processing & Mixing of ingredients

Weigh desired quantity of above mixture.

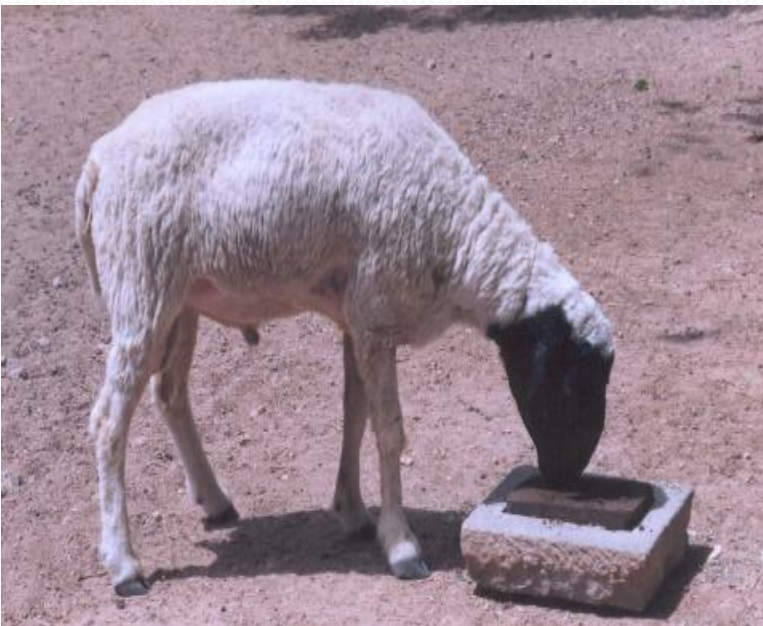
**Transfer weighed mixture into the iron mould,
and press the material with screw type hand
press machine**

Feeding of Urea-Molasses mineral blacks



Heifers & a Milch Cow Licking Feed Block

Licking the Urea-Molasses mineral Block





Buffalo Feeding on

**Wheat Bran- Molasses
Multi-nutrient Feed Block**



Effects

- ❖ **2-kg block in a buffalo last for 5-days.**
- ❖ **Increased Feed intake**
- ❖ **Corrected pica**
- ❖ **Increased daily milk yield by 23%.**



Questions?