



Urea In Animal Feed: A Source of Protein

Dr. Deepak Kumar Chaurasia

Assistant Professor Department of Veterinary Gynaecology and Obstetrics,
IVSAH, SOA-DU, Bhubaneswar, Odisha - 751030, India

*Corresponding Author: deepvet1@gmail.com
DOI - <https://doi.org/10.5281/zenodo.13911081>

Received: September 09, 2024

Published: September 30, 2024

© All rights are reserved by Deepak Kr. Chaurasia

Introduction:

About 70 per cent of the cost of raising livestock is spent on animal feed. A good animal feed and green fodder are required for the health and production of animals, but green fodder is not available throughout the year but an adequate amount of protein can be provided in the diet of animals. Therefore, along with dry fodder the animals should also be given protein sources which are mainly obtained from chuni, bran, khaliya and urea sources. Urea is a non protein nitrogen compound. Urea provides the extra nitrogen required for the use of dry matter. Nitrogen must be present to maintain adequate amounts of ammonia in the rumen. Urea contains about 46 percent nitrogen. One kilogram of urea contains 7-8 kilograms of nitrogen. Converts urea into protein through the production of ammonia and carbon dioxide in cattle and other ruminants, Urea enhances the nutrition, taste and digestibility of husk.

Methods of Feeding Urea to Animals:

1. Feeding urea with grains - In this method, 1 kg of urea is fed with 100 kg of grains. Before feeding the animals, the grains and urea should be soaked and fed. The maximum amount of urea can be fed to the animals up to 2 percent of the grain.

2. Making a solution of urea and jaggery - in this method 150 to 250 grams of urea and 250 grams of jaggery both are mixed well in water and fodder is treated. This solution is useful for 10 kg of fodder.

3. Treatment of fodder by urea -In this method, 4 kilograms of urea is treated 100 kilograms of fodder by making a solution in 50 litres of water and after spraying the urea solution well on the fodder, making a surface of 100 kilograms of fodder on top of it, spraying the solution of 4 kilograms of urea again on top of it, then covering the heap of treated fodder with a plastic sheet, this treated fodder becomes useful for the animals in 20-25 days. Before feeding this treated fodder, the fodder should be spread in the open air so that the smell of urea is removed.

4.Urea - molasses liquid mixture - In this method 2.5 parts urea, 25 parts water, 1 part salt, 2 parts mineral salts, 92 parts molasses are mixed and a solution is prepared which is used to treat the fodder. The feed treated by this method is given to the animals according to 1 kg per 100 kg body weight.

5. To make urea - molasses mineral salts block - block all the mixture of 40 percent molasses, 12 percent urea, 5 percent salt, 6 percent mineral salts, 4 percent calcium oxide is mixed gradually. Then it is poured into a mold made of wood or metal, mixed with plastic and given the form of a brick. These bricks are ready in 24 hours which are used to feed the animals.

Amount Of Urea to Different Animals: -

- The amount of urea to sheep and goats should be given one percent of dry fodder.
- Cow and buffalo should be given 1 / 3 of the total protein in the form of urea.
- If the milch cow is giving less than 20 liters of milk then urea is given to it 2 percent of the total grain.
- If the milch cow is giving more than 20 liters of milk then it should not be fed urea because there is no synthesis of urea.
- Heifer, bull and low yielding animals should be fed 1.5 to 20 percent of urea grain.

Precautions While Feeding Urea: -

- Urea should be mixed well and fed.
- Urea should always be fed to adult animals, not to small animals.
- Never feed more than the recommended amount of urea.
- Calves less than six months should not be fed urea.
- Sick animals should also not be fed urea.
- Always make the solution of urea at the time of use. It should not be prepared before because the solution of urea prepared before has toxic properties which are harmful for the animals.
- Pregnant animals should not be fed urea.
- Urea-fed animals should be provided with adequate quantity of water in time as urea increases water use efficiency.