What precautions should we take when feeding urea treated maize stover?

1. Ensure that water is always available for animals so whenever they feel thirsty they can drink water.
2. Adding about 100-200 grams of jaggery will enhance the benefit from feeding animals with urea treated maize stover.

What are the benefits of feeding urea treated maize stover?

This feeding practice will enable dairy farmers to earn an extra income of Rs. 20-25 per animal per day. Because of less availability of paddy straw and wheat bhusa, their prices are very high, hence replacing them with maize stover for feeding dairy animals will reduce feed costs. Treating maize stover with urea will provide dairy animals with the needed protein, which will also reduce the amount of balanced concentrate feed requirement and thus generate further savings.

NOTE
Animals should be dewormed twice a year and for two types of parasites, i.e., one for worms which we can see and another for worms that we can’t see.

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Background

Farmers traditionally use paddy straw or wheat bhuna to feed their dairy animals. Most of them are using concentrate feed in combination with these crop residues. Maize stover has not been widely adopted as dry fodder, and generally left in the field or burned or used as fuel for cooking after harvesting. Farmers are not using maize stover as animal feed because of its harshness and difficulty in chewing by the animals.

International Livestock Research Institute (ILRI) in collaboration with CSISA partners in Bihar are promoting maize stover as alternate source of dry fodder in major maize producing districts. For this, ILRI organized training programmes to increase awareness about the use of urea treated maize stover in Samastipur, Murshidpur, Vaishali and Begusarai districts. To demonstrate the benefits of this practice, trial/demonstrations were also implemented with 43 farmers. The results from the trials show increased milk yield by 5% and improved milk quality (higher Fat by 3% and SNF by 1%). More importantly, concentrate feed use has declined by 15%, resulting in reduced cost per unit of milk produced.

How to prepare (one quintal) urea treated maize stover?

1. Take 2.5 kg of urea and mix it in 50-60 litres of water.
2. Put 4-5 inch thick layer of chopped maize stover on plastic sheet and put the liquid mixture of urea and water in a sprayer pot and spray it on maize stover equally.
3. Mix the stover properly until all liquid urea mixture is used up and that maize stover are properly soaked.
4. Cover the maize stover properly so no air can pass through it. Use plastic bag or plastic sheet for covering. Before covering please ensure that stover is not overly wet, otherwise keep it under the sun for 2-3 hours until slightly dry then cover it. To check the wetness of stover, put one fist of stover in hand and try to make it into a ball; if it shattered after opening the fist, then the stover is properly soaked and ready for processing.
5. Keep it covered for 21 days and try to keep it under the sun so it is properly warmed to avoid incidence of fungus.

After 21 days, the urea treated stover is ready to use for feeding your animals; any unused urea treated stover can be stored for future use. Animals generally will prefer to eat the treated maize stover when fed to them, but some animals may not take it during the first 1-2 days of feeding because of smell, but the animals will eventually eat the treated stover when fed continuously.