

SILAGE: Technology for Conservation of Forages

Ensilage has many advantages over the other methods for conservation of nutrients. Silage is the materials produced by controlled fermentation of nutrients under an anaerobic condition. The process is referred to as ensiling. Ensiling of forage requires precautions for proper preservation of nutrients as lack of understanding of the factors associated with ensiling process may produce silage of poor quality leading to the poor animal performances. The fermentation process is governed by microorganism present in fresh herbage or by additives to maintain anaerobic conditions and discourage clostridial growth with minimum loss of nutrients.

Recommended stage of harvest of forage crops

Forage Crop	Stage of Harvest
Maize	50%flowering to dough stage
Sorghum	50%flowering to dough stage
Oat	Boot to dough stage
Grasses	Early flowering

Additives for effective ensiling of nutrients : Carbohydrate sources such as molasses can be used as additives to increase the fermentation and feeding value of silage. It can be added @ 5-10% depending upon the sugar content of ensiling forage. Urea is the most important source of non-protein nitrogen used to elevate CP content of cereal forage silage low in protein. Addition of urea @ 0.5-1.0% has been found to increase CP content and lactic acid content of silage. Nutritive value, particularly CP content of graminaceous forage silage can be improved by mixing legumes forages such as cowpea, berseem and *Leucaena leucocephala* leaves.

Method:

- Prepare the silo pit.
- Chaff (2-3 cm) the green fodder at appropriate stage.
- If dry matter is less than 25-30, it is advised to wilt the fodder before chaffing.
- Fill the silo pit properly and press it so tha all the air trapped inside is removed.
- Prevent the water seepage in silo pit.
- Cover the silo pit with straw, polythene sheet etc. and press the covering by soil etc. so that cover is not removed.

Feeding: The silage will be ready for feeding after 45-60 days. For storing the 1 tonne of silage, a pit of about 1.5 cubic m will be needed. The silage should have pH of about 4 to 5.5 with pleasant smell.

For detail information please contact to:-

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