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Forage Facts



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Crop Cure[®], a division of Domain, Inc.

www.cropcure.com

Use Preservative to Reduce Forage Losses

Harvesting quality forages is vital to the profitability and production of your dairy herd. Even under good weather conditions, harvesting and storing high quality feeds can be a challenge. By understanding the fermentation process and the use of a preservative like Crop Cure[®], you can improve the quality of your forages. Crop Cure[®] can help you retain valuable nutrients and prevent losses due to molds and yeast.

Fermentation is the process in which forages are broken down and made digestible and palatable as feed. This process begins immediately after harvest and continues until the temperature, pH, and microbial action have stabilized, approximately 21 days. In a proper fermentation, bacteria present in the forage break down plant cell membranes (cellulose and hemicellulose) into simple sugars. These simple sugars are then broken down by other bacteria into acetic, lactic and butyric acids. The best silage quality results when acetic and lactic acid are the primary acids produced. These two acids are the most efficient at fermentation and will drop the pH level the fastest. More nutrients are retained the faster that fermentation takes place. In addition, lactic and acetic acid can both be utilized by cattle.

However, when conditions are not ideal, such as when feed is too dry, poorly packed, or the storage structure allows an increase in the oxygen present, this creates a favorable environment for aerobic bacteria, molds, and yeasts. Fermentation will not occur efficiently, and the pH level will not drop quickly enough. During this time, aerobic bacteria, molds and yeasts will utilize sugars in the forage, causing heating and degradation of available nutrients and using up oxygen. The resulting heat buildup causes a reaction to occur between proteins and carbohydrates which makes both components less digestible. Protein digestibility can be reduced to almost zero with severe heating. Once the oxygen present decreases and the pH drops, lactic acid producing bacteria can then become active. Reducing the time it takes for the pH to drop and oxygen to be eliminated, will increase the sugars available for lactic acid production.

Crop Cure[®] combines with natural elements to start a reaction that increases production of acetic and lactic acids during fermentation. This increased acid production helps to drop the pH and stop the growth of mold spores, so the amount of heating is reduced. This saves valuable nutrients from being destroyed and thereby reducing the value of your feed. Research has shown that use of a preservative can increase the amount of protein available for digestion by up to 10%, and can reduce dry matter losses by as much as 50%. That provides you with more feed and more milk yield per acre. Another advantage is that Crop Cure[®] will help to prevent re-heating and spoilage in the bunk or TMR when the forage is exposed to air at feedout. Crop Cure[®] begins working immediately and can be used on any type of baled or ensiled forage crop. As you make your forage harvest plans this winter, incorporate Crop Cure[®] into your management plan to reduce forage losses and save money and nutrients.

Advantages of Using Crop Cure[®]

- 1. Hay can be baled at a higher moisture content, which reduces the length of time hay lays in the field and lowers the risk of rain damage.**
- 2. Baling at a higher moisture content reduces dry matter and nutrient losses during baling caused by leaf shatter.**
- 3. The potential baling period is lengthened. Hay can be baled during early morning and late evening hours if dew does not raise moisture level above 25-30%.**
- 4. Crop Cure works on haylage, corn silage, and high moisture corn, as well as all other types of ensiled feeds.**
- 5. Reduces the amount of dry matter losses and can increase the amount of nutrients, like protein and carbohydrates, that are available for digestion.**
- 6. Inhibits the growth of mold spores and yeast.**
- 7. Is effective under a wide range of moisture conditions.**
- 8. Does not require special storage, has guaranteed potency, and an unlimited shelf life.**