## Forage Focus - GUEST COLUMN - May 2008

## **Reduce Haylage Loss & Ration Cost**

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From the time forage is cut to the time it is fed, quality and quantity is deteriorated. No matter the value of alfalfa, it is important to retain initial quality and quantity. Since management steps have remained unchanged, it is important to explore where money is often left on the table on 1,000 ton of haylage.

**Optimum Maturity.** Alfalfa at pre-bud to bud stage provides more protein, energy and digestibility (NDFd) over flower stage. Increasing protein two points can save 15¢/hd/day in protein supplement; higher NDFd allows producers to add more forage to the ration to gain more milk. Monitor maturity prior to harvest using a PEAQ stick to determine the best time to cut.

**Optimum Moisture.** Achieving haylage moisture of 50-60% guides the fermentation in the right direction; haylage >60% can produce butyric acid creating metabolic disorders and higher ammonia levels. Rations need to be adjusted with supplemental bypass protein adding to the cost. Spread windrows wide for consistent wilting; narrow, tight windrows can hide 10-15 points of moisture. Erring on the dry side has fewer consequences.

**Forage Additives.** Rapidly dropping pH to a stable level helps preserve nutrients and reduces DM losses. No matter the storage method, the goal is the same – to drop pH. Treat with a supported, quality forage additive like BioMax A, designed specifically for haylage. No two additives are alike, so ask for specific research and available support. Just 2% DM recovery is worth \$1,800.

**Pack and Distribute.** Increasing pack density by 3 lb/ft<sup>3</sup> reduces DM losses by 2.5% (Ruppel 1999) – \$2,000 in haylage is better protected. Paying for another pack tractor can easily be covered. Remember, "pushing is not packing" – pack every square layering no more than 6-inches at a time.

**Seal Effectively.** The greatest return is sealing. Current trials have demonstrated that two layers of Black/White plastic provide additional protection for the top two feet. Add plenty of weight, securing the plastic especially near the face; keeping air from getting underneath. Sealing a 50x100' bunker of haylage effectively can save up to \$9,000 in haylage.

**Discard Spoiled Feed.** Even when everything is done perfectly there is always spoilage. Protect ration integrity by discarding the spoilage, or risk herd health, breeding, gain or production. Treating problem forages or increasing rations costs up to 25¢/hd/day.

**Feed Off Rates.** Taking one foot off face evenly allows flexibility for safe ration adjustments. This will keep feed fresh and not let oxygen influence quality. Exposure to air will cause pH to increase and molds and yeasts will start to grow again.

**Bottom Line.** As production costs increase, producers should look for ways to minimize costs. Increased efficiencies are needed to evaluate economic impact of any management step to be eliminated. To optimize the level of alfalfa quality, develop a plan to help reduce losses associated with haylage production, harvesting and storage.