The coming year promises to be exciting! Milk prices are near record highs, but unfortunately so are feed prices. With corn prices nearly $8/bushel, the successful dairy manager must squeeze every bit of energy, protein and carbohydrates from the forages on the farm to maintain margins on income over feed costs. Your feed management plan should focus on knowledge of inventories, feed nutrient content and controlling shrink.

Successful feed program management demands knowledge of inventories of forages and feed grains as well as their quality. Determine as closely as possible the amount of all silages and hay crops on hand and project utilization through the next harvest period. The silocap program, an Excel spreadsheet developed by VT faculty and available at www.vtdairy.dasc.vt.edu, can help estimate forage inventories in various silos. The program also has the ability to consider storage losses in determining how much is available to feed. Project utilization of each forage by considering how much is fed daily and project needs until the next harvest. Remember to consider the following in projections:

- **Herd expansion.** What about those extra heifers freshening over the next year? Twenty five extra heifers consuming 60 lb. of silage per day will mean an extra 1500 lb. of silage daily and 275 tons more silage required annually.
- **Forage quality.** Some producers have planted acreage to BMR varieties of corn silage. Rations with BMR varieties will contain more silage due to its higher digestibility. This means less corn to purchase, but it increases silage consumption by as much as 10%.
- **Higher production.** As cow’s milk more they eat more. If herd average has increased this past year, expect greater demand for forages.

Recognize deficiencies in forage supply early and purchase feed before it becomes more expensive in the spring. Don’t totally rely on what was needed in the previous year.

**Determine forage and feed nutrient content routinely.** Ohio State studies suggest corn silage should be tested at least monthly. Routine testing of commodity feeds during our 5 year phosphorus field study demonstrated that every load of commodity feeds arriving on the farm should be tested. This enables timely adjustment of rations and in some cases, deficiency payments can be expected from suppliers if feeds don’t meet guaranteed nutrient specifications for DM%, CP% or other nutrients.

**What’s your shrink?** How much harvested forage or purchased grains and commodities are wasted? A trailer load of corn grain costs in excess of $8,000. Reducing shrink from 10 to 5% is worth over $400. Focus on the following in reducing shrink:

- **Dry storage,**
- **Insect and animal damage,**
- **Spillage during loading of mixer wagons,**
- **Overloading mixer wagon.**

Average daily feed cost for a cow producing 70 lb. of milk is close to $8.00 which represents a daily cost approaching $1500 for the typical lactating herd in Virginia. Incentives are especially attractive
for managers to optimize nutrient balance through timely ration formulation and knowledge of nutrient content and quality of all feeds. Further improvements can be expected through reductions in losses during storage and feeding.

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FEED IN GROUPS TO REDUCE LEAD FACTOR

Feeding more groups can be used to feed closer to the cow’s nutrient requirements and reduce the lead factor for ration formulation. Back in 1984 Mike McGilliard and I published an article in the Our Industry Today section of the Journal of Dairy Science. We looked at the use of lead factors for formulating rations for TMR feeding. The lead factor was used to increase the nutrient demand by feeding to a higher level of milk production than the average. Basically, we found that for an ungrouped herd we needed a lead factor of 1.32. Therefore if we averaged 60 pounds of milk, we would actually balance a ration for 79 pounds (60 x 1.32). More recently this practice has come into question because it overfeeds a majority of the cows and leads to issues with environmental quality due to excretion of excess nutrients. Nutritionists are now saying we need to reduce the lead factor—which means feeding closer to the average requirement. Since the lead factor was calculated to be one standard deviation above the mean it would support the requirement for the 83rd percentile cow in the herd. So instead of reducing the lead factor it is possible to feed two groups of equal numbers and reduce the lead factor to 1.17 for high production group and 1.23 for the low production group. Further reduction can occur if feeding three equal groups with a lead factor of 1.14 for high, 1.1 for middle, and 1.21 for low production groups. As our herds have gotten bigger it is now easier to feed more groups and thus reduce the lead factor needed. This not only makes sense environmentally, but economically now that high feed prices are the norm.

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For more information on Dairy Extension or to learn about current programs, visit us at V T Dairy — Home of the Dairy Extension Program at: www.vtdairy.dasc.vt.edu.