



GEORGIA DAIRYFAX

<http://www.ces.uga.edu/Agriculture/asdsvm/Dairyscience/dairypage.HTML>

July/August 2003

Dear Dairymen:

The enclosed information was prepared by the University of Georgia Animal and Dairy Science faculty responsible for Extension Programs in Dairy Science. We trust this information will be helpful to dairy farmers and dairy related businesses for continued improvement of the Georgia Dairy Industry.

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Sincerely,

James W. Smith
Extension Dairy Scientist

County Extension Director or County Agent

/jlo

The Trojan Horse

Warren Gilson
Extension Dairy Scientist

We've all probably read about and studied war between the Greeks and the Trojans known as the Trojan War at some time during our years in school. If you are like me, you don't remember much of the story but you do remember the Trojan horse and the role it played in the destruction of the Trojans.

The Greeks and Trojans were involved in a protracted war with each other. After many years, the Greeks built a wooden horse which they left outside the gates to the city of Troy as a "gift" and retreated. The Trojans assumed that it was a gift to one of their gods and would protect their city. Because they had seen the Greeks retreat they assumed the Greeks had abandoned the war and gone home. They then brought the horse into the city. Little did they realize that the horse was hollow with several Greeks inside. After dark, the Greeks came out of the horse, opened the gates to the city and killed all of the Trojans.

I'm sure you don't often think about this story in your everyday life but I think it has a message which we can apply to the dairy industry. How often have you brought animals into the herd and placed them immediately with the other animals without a careful examination? If you are like most people, the answer is quite a few times. Many times no major problem develops, but we also hear the horror stories of herds that suffered significant losses due to disease outbreaks. Some of these disease outbreaks have been significant enough to cause the herd to disperse.

One of the first steps should be to know the source of the animals. Determine that the herd is a healthy herd which practices good preventative health practices. You should also check the somatic cell count for the herd to determine the relative incidence of mastitis.

The Trojans knew that the Greeks were ruthless warriors and brought the horse into their city in spite of the facts. I'm sure you would agree that this would not be the most likely group from which to expect a gift.

Animals should be closely examined by yourself and a veterinarian before entering the herd. This includes a physical examination and also an examination for subclinical infections.

The Trojans failed this test as well. They brought the horse into their city without looking closely at its construction. Had they examined it, they probably would have found it to be harboring a number of Greeks.

Finally, animals should be isolated for a period of time before they are integrated into the entire herd. The exact length of time should be established with the aid of your veterinarian and may vary depending upon the diseases of most concern.

Again, the Trojans failed in this step. They should have left the horse outside of their city's walls for several days instead of immediately bringing it through the gates. Had they left it outside the gates for several days, the Greeks would either have gotten out or they would have died. Regardless, the Trojans would have protected themselves against the Greeks.

Following these guidelines will not protect you completely from bringing a disease on to your farm but they can increase your odds. Evaluate your current program and take steps today to establish a more effective program. You cannot eliminate all diseases but you can develop procedures to protect your herd from outside diseases. Contact your veterinarian for specific guidelines for your herd. It could mean the difference between success and mere survival.

Should You Increase The Cutting Height When Harvesting Corn Silage?

John K. Bernard
Dairy Nutrition and Management

Corn silage is the primary forage used by dairy producers in the Southeastern US. Management decisions related to harvesting and storage impact the feeding value greatly. One topic that received some attention recently is increasing the cutting height at which corn is harvested as a means of improving corn silage quality. In theory, this would reduce fiber concentrations and increase fiber digestibility and energy content of the silage which should support high milk yield. Wisconsin researchers reported that increasing the cutting height from 5 to 18 inches decreased dry matter yield by 15%, but the increased nutrient content should support greater milk yield based on the projections of the Milk2000 model developed to evaluate forage varieties. More recently, University of Delaware researchers reported the results of a trial in which they compared silage produced from leafy hybrids harvested at either 5 or 18 inches. These researchers observed similar improvements in the quality of the silage, but actual milk yield was similar for cows fed diets containing silage harvested at either 5 or 18 inches.

We have also examined this issue at the Tifton Dairy Research Center. Two corn varieties were harvested at 2/3 milk line at a cutting height of either 4 or 12 inches. The corn silage harvested at 12 inches had lower concentrations of NDF and was more digestible based on *in vitro* DM digestibility content compared to the corn silage harvested at 4 inches. Dry matter yield was reduced by 10.7% when the cutting height was increased from 4 to 12 inches. This would equate to 2.14 ton per acre reduction in yield for a field that would normally average 20 ton of silage at 35% DM when cut at 4 inches. The corn silage was fed to lactating cows in a 7 week study. Dry matter intake, milk yield and milk composition was not affected by cutting height of corn at harvest.

These results do not support increasing the cutting height for harvesting corn silage as a means of improving milk yield under normal situations. The decreased corn silage yield would increase the cost per ton of silage harvested by 10 to 15%. If corn silage provided 40% of the dietary dry matter in the diet, an increase of at least 1.0 lb of milk per day would have been required to break even at a cost of \$35 per ton corn silage (normal cut) considering a 10% reduction in corn silage yield and a milk price of \$10.00 per 100 lb.

Are there times when the cutting height should be increased? It is well known that increasing the cutting height reduces nitrate concentrations in the resulting silage when nitrate toxicity is a possibility. Since the lower portion of the corn stalk has higher concentrations of nitrate, increasing the cutting height reduces silage nitrate concentrations. Another possible situation in which increasing the cutting height may be desirable is when grass or legume hay or silage provides a high proportion of the diet and a low fiber, high energy supplement would be beneficial. This strategy would need to focus on maximizing forage in the diet. In this situation the cutting height may need to be even higher than those discussed above to achieve the desired nutrient content needed. This approach requires additional acreage which may not be an option for many producers; however, this approach would increase the utilization of nutrients from animal waste which is another factor to be considered.

Increasing the cutting height does not appear to be a viable means of increasing milk yield. There are greater potential gains that can be made through kernel processing, increasing packing density, covering the silage, and managing the silage face. These not only can improve milk yield, but reduce the amount of secondary fermentation and waste silage.

Why Not Herd Bulls?

W. M. Graves
Extension Dairy Scientist

Daughters of proven A.I. bulls produce more milk than those sired by non-A.I. bulls. Israeli scientists reported that cows that were pregnant survived 420 days longer than herdmates that were open. It is important that we get animals pregnant, maximize the genetic potential available through A.I. and remember the disadvantages of herd bulls.

Herd bulls are:

1. Dangerous! People have been hurt and killed by herd bulls across the Southeast.
2. Genetically inferior! Using a bull out of one of your best milkers or a neighbor's top cow has no guarantee. When a bull's daughters begin to milk and you recognize their production is inferior to their herdmates, it is too late. Start with a bull that is proven to produce more milk.
3. Carriers of disease! Herd bulls can transmit many diseases including brucellosis, vibriosis, IBR and trichomoniasis. Bulls in A.I. studs are routinely monitored to be disease-free.
4. Possibly subfertile! Herd bulls not only are subfertile during hot weather, but it takes up to six weeks after the weather cools off for them to recover and produce viable sperm.
5. Not always easy calving! With A.I. bulls, producers can select those bulls that are known to sire calves that cause fewer difficult births with heifers. There is no way to know until it is too late with herd bulls.

Remember your objectives:

1. Settle the cow or heifer. Get the semen in the right animal at the right time in the right place.
2. Obtain calves for replacements from best bulls genetically available.
3. Use fertile, disease-free semen available through A.I. bulls.
4. Accomplish the above at reasonable cost.

Southeast Dairy Herd Management Conference

Georgia Farm Bureau Building

1620 Bass Road

Macon, Georgia

The 2003 conference is divided into two sessions. The technical session provides the opportunity to hear an in-depth discussion of topics of special interest to agri-business representatives and veterinarians. The producer session consists of current topics of importance to dairy producers and managers. Anyone is welcome and encouraged to attend either or both sessions. Advanced registration is not required.

Tuesday, November 11, 2003

————— Technical Session —————

11:30 **Conference Registration**

Afternoon

1:00 **Welcome**

1:15 **Role of Technology in an Evolving Dairy Industry**
Dr. Nelson Philpot - Philpot and Associates International

1:45 **Keeping Cows Cool with Tunnel Ventilation**
Dr. Angelica Chapa - Mississippi State University

2:15 **Economics of When to Replace Culled Cows**
Dr. Albert de Vries - University of Florida

2:45 **Refreshment Break**

3:15 **Cooperation between Producers and Consultants**
Dr. Paul Chandler - Chandler and Associates

3:45 **Fiber for Dairy Cows**
Dr. Randy Shaver - University of Wisconsin

4:30 **The Power of Producer Discussion Groups**
Mr. David Grusenmeyer - Cornell University

5:00 **American Agriculture, Feeding the World**
Dr. James Jarrett - American Association of Bovine Practitioners

5:30 **Questions**

5:45-
7:30 **Reception**

Wednesday, November 12, 2003

————— Producer Session —————

Morning

8:00 **Conference Registration**

9:00 **Welcome**

9:15 **What Can We Learn from New Zealand Dairy Producers**
Dr. Lane Ely - University of Georgia

9:45 **Managing Human Resources - Developing and Using Standard Operating Procedures**
Mr. David Grusenmeyer

10:30 Refreshment Break

11:00 **Managing the Feed Bunk**
Dr. Randy Shaver

11:45 Questions

Noon **Lunch (On Your Own)**

Afternoon

1:15 **Sources of Different Mastitis Organisms and Their Control**
Dr. Nelson Philpot

2:00 **Influence of Milk Price on Feeding Strategies**
Dr. Paul Chandler

2:45 **Questions**

3:00 **Adjourn**