



GEORGIA DAIRYFAX

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

September/October 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



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September 12, 2003

TO: Dairyfax Newsletter Mailing List

Due to budget constraints, the Dairyfax Newsletter will be switching to on-line delivery to reduce printing and mailing costs. The Dairyfax Newsletter can be viewed on-line at <http://www.ces.uga.edu/Agriculture/asdsvm/dairypage.HTML>.

The current edition plus archived editions are at this site.

Please fill out the form below and return no later than September 15, 2003. If you do not return the form by the requested date, your name will be removed from the mailing list.

Sincerely,

Robert L. Stewart
Extension Coordinator

[] I would like to continue receiving a **printed copy** of the Dairyfax Newsletter.

Name _____
Address _____
Address2 _____
City _____ State _____ Zip _____

OR

[] Add my name to the listserv to receive automatic notification of posting of new editions of the Dairyfax Newsletter.

My e-mail address is: _____
(please print)

Please return this form to:
Dairyfax Newsletter
Animal & Dairy Science Dept.
University of Georgia
425 River Road
Athens, GA 30602

Southeast Dairy Herd Management Conference

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. Following the Tuesday afternoon technical session, everyone is invited to stay for dinner sponsored by Merial, Ltd. After dinner, Mr. Rod Goodall will introduce Ingenuity™, a new genetic test that determines the leptin genotype of dairy cattle. For conference information, call 706-542-9108 or 706-542-2581 or e-mail (jimsmith@uga.edu).

Tuesday, November 11, 2003

Mr. Rod Goodall, Merial, Ltd.

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 & 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**

6:00 **Dinner - Sponsored by Merial, Ltd. Introducing the Ingenuity™ Test for Dairy Cattle**

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**

Dates to Remember

GA National Fair
Perry, Georgia

October 5	Commercial Dairy Heifer Show
October 10-11	Open Dairy Show
October 11-12	Junior Dairy Show

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October 14-16	Sunbelt Expo-Spence Field Moultrie, Georgia
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November 11-12	Southeast Dairy Herd Management Conference Macon, Georgia
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Pre-Conference PCDART Workshop

A PCDART Workshop will be held prior to the Southeast Dairy Herd Management Conference at the Holiday Inn, I-75/Arkwright Road (Exit 169), from 9 am until noon on Tuesday, November 11. The workshop is designed primarily for dairy consultants, veterinarians and nutritionists. Anyone including producers is welcome to attend. Personnel from DRMS-Raleigh and Southeast DHIA will discuss and demonstrate new PCDART applications and answer questions. For more information concerning the workshop, contact Dr. Dan Webb, Southeast DHIA by telephone: 352-392-5592 or e-mail (webb@animal.ufl.edu). Reservations are requested but not required. No registration fee is charged. The workshop qualifies for continuing education credit.

Henry Ford and the Dairy Industry

Warren Gilson
Extension Dairy Scientist

Henry Ford formed the Ford Motor Company 100 years ago in 1903. The first vehicles he manufactured were made one at a time. This was a tedious process and did not result in many automobiles being manufactured in a day.

Ten years later, Mr. Ford introduced the assembly line. As the vehicle moved down the line, organized teams added parts to the structure and sent in onto the next team. This continued until the vehicle reached the end of the line and was completed. This revolutionized the manufacturing process and as Paul Harvey says “The rest is history.”

An underlying principle of the assembly line is that each individual or group must perform their function completely and properly for the individuals or groups who follow to accomplish their task. Whenever a part is left off or is improperly installed it affects all who follow and decreases the quality of the vehicle. Sometimes the defect can be corrected; however, this takes additional time. Other defects cannot be corrected and the result is scrap.

The same principle applies to the dairy industry. We begin with a calf and continue through several processes until we sell meat and milk. Throughout the processes, if one or more portions are not done correctly, the resultant outcome is less than desirable.

Two examples come to mind. The first is in calf rearing. Obviously many steps are involved from the birth of the calf until she enters the milking herd. Anything that compromises the health or nutrition of the calf during this time may lengthen the time until the heifer enters the herd or may lower her performance.

The second example is the milking process. Cows that are reluctant to enter the parlor increase the time between turns of the parlor and increase the frustration of the individuals milking. It often results in the milkers leaving the parlor for extended times during which they cannot attend to their primary function. Dirty cows increase the time necessary to prepare the cows for machine attachment, disrupt the routine and may reduce milk let-down because of a variable routine. These cows are also potentially more apt to develop mastitis that further disrupts the milking routine. Cows entering the parlor readily and clean make the milking process proceed much smoother, increasing efficiency and possibly production and quality.

I am sure Henry Ford was not thinking about the dairy industry when he developed the assembly line; however, some of the same principles apply. Evaluate your dairy to see where a good job is being done and where improvements can be made. Then consult with experts and other producers to decide how to make improvements in the processes.

Research Suggests Mastitis Affects Reproductive Efficiency

W. M. Graves
Extension Dairy Scientist

Research from the University of Tennessee indicates that clinical mastitis in early lactation affects reproductive efficiency. A study was conducted with 205 Jersey cows at the Dairy Experiment Station in Lewisburg.

The results indicated that cows that suffer from clinical mastitis before they are pregnant have lower reproductive performance than those with no mastitis or those with clinical mastitis later in lactation. Days to first service were significantly higher for those cows with clinical mastitis (93.6 days versus 71 days). Days to conception and services per conception were also higher.

More research is underway to examine reproductive hormone profiles during mastitis episodes. These studies should help us further understand the relationship between mastitis and reproductive function.

Mastitis remains to be a major issue on most dairies. Lowering the rate of infections will help improve reproductive efficiency and increase milk production.

The University of Georgia Dairy at Athens: An Update

Lane O. Ely
Extension Dairy Scientist

We had hoped to report that the transition of the UGA Dairy to an Instructional Dairy had been approved by the Dean. At this time this has not been done. Plans have been made to move cattle, downsize the herd and adjust the teaching responsibilities for a smaller herd. Hopefully the decisions will be finalized soon.

We have enjoyed a summer with rain and temperatures in the low 90's. The result has been a sorghum crop maturing earlier than normal and we are cutting silage. We planted a brown mid rib variety and had a good growing year.

Several new students are working at the dairy. One of the advantages for the dairy is the opportunity for student employment and internships. Usually there are a dozen students each semester.

Like all dairy farmers, we are looking forward to an increase in milk prices. Also, like all dairy farmers, we wish the price would stay high as it would make balancing the budget much easier.

In the next issue we hope to have information that our transition plan has been approved.

The Challenge of Mastitis in First Lactation Cows

James W. Smith and Warren D. Gilson
Extension Dairy Scientists

Heifers have long been considered to be free from mastitis infection. Recent research however indicates that a significant percentage may be infected. Some herds may even experience infection levels greater than 50 percent.

These animals are the future of your herd so every effort should be made to get them off to a good start. Heifers calving with or developing mastitis during early lactation is the last thing anyone wants.

Fortunately, the DHI somatic cell count program provides a convenient way to monitor the udder health of these animals. Several tools are available which can provide assistance. Somatic cell count scores above 4 indicate a high probability of infection.

The optional SCC Management Report (DHI-340) lists all cows with high somatic cell count scores as well as SCC herd summary information. Additionally, PCDART herds can develop specialized reports. An example report along with specifications is shown in Figure 1. This report lists those first lactation cows that had scores over 3.5 during either of their first two test days. Another possibility is to use a scatter plot as shown in Figure 2. This plot shows the most recent SCC score of first lactation cows up to 100 days in milk. Individual cow page information is retrieved by simply clicking on the desired point.

Regardless of the method, first determine which cows may have potential udder health problems. The next step is to take action.

The first step is to determine possible sources of infection and make corrections to reduce the incidence of infection in the future. Your veterinarian, field service person or extension agent can assist in identifying areas needing improvement. Bacteriological culture of a representative group of the infected cows can be useful in determining sources of infection.

Herds with a high incidence of mastitis in heifers (greater than 25 percent) when they freshen should consider antibiotic therapy during the last few weeks before calving. Research has shown this to be an effective means of reducing mastitis in heifers when they freshen. Consult with your veterinarian for specific recommendations.

Understanding The Information Provided From On Farm Research

John K. Bernard
Dairy Research and Extension

Research is essential for determining if a product or idea really works. Research trials must be properly designed and conducted to evaluate the product fairly so we can have confidence in the results. Typically, we like to have the product or idea tested more than once under different conditions or environments to determine the conditions in which the product or idea works best. Most research trials are conducted under controlled conditions to minimize the influence of other factors that could bias the results of the trial. It is also desirable to conduct trials on farms to evaluate the product under conditions that exist on dairies. This also allows the product or idea to be tested on a large numbers of cows.

When properly designed, on farm research trials provide useful data. It is easy to find good examples of properly conducted on farm studies that have been published; however, data from on farm trials can be used improperly to promote an idea or product that may not work. A good deal of information on timed breeding programs and insemination techniques has been collected from on farm trials. This is possible because individual animals can be treated and then managed under similar conditions; however, testing a feed ingredient is more difficult because we typically feed groups of animals. Although there may be several hundred cows in a group, each group only count as one observation.

For example, I recently I received an advertisement promoting the results of an on farm trial in which feeding a particular product resulted in a tremendous gain in milk yield. The trial was conducted on one farm with several hundred cows. From the information presented, it was not clear if the trial was conducted properly to evaluate the product fairly. First there was no replication of treatments in the study. Since the cows were group fed, each group actually counts as one observation although there were at least 100 cows in each group. Most good on farm trials are replicated either by feeding multiple groups that have been balanced for days in milk and lactation number within the same farm or across several farms and include a control.

Producers should not base their decision to purchase a product or try an idea based on just one on farm trial unless they are in position to conduct a trial in their own operation. To be fair, a control group of cows should be included in the trial and all groups of cows should be balanced for days in milk and initial milk yield. If the product is related to nutrition, rations should be properly balanced. Adequate time must be provided to allow the product or idea time to work which varies depending on how it is suppose to work.

The next time you are asked to make a decision on a product or idea based on data from an on farm trial, check to see if it was conducted on multiple farms or with multiple groups or if there is additional information from controlled studies. Most established companies have data to back up their claims and use on farm trials to provide additional information under certain conditions or to increase numbers. If the sales person can not provide solid data, you may want to delay the purchase until data is available or conduct your own trial.