KSU
KANSAS STATE UNIVERSITY

KANSAS DAIRY EXTENSION NEWS

VOLUME 15(1)

JANUARY-MARCH, 1994

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BASIC MILKERS SCHOOL

KANSAS STATE UNIVERSITY
JANUARY 11 AND 12

Please Pre-Register
**HAROLD ROBERTS RETIRES**

Harold A. Roberts, K-State Dairy Technologist, retires December 31, 1993. Joining the University faculty in 1963, Harold has taught several courses each year in milk processing and plant management. He is an expert on off flavors in dairy products and has been a very successful dairy products judging team coach. He has judged many dairy product contests nationally and is a familiar face around district FFA contests as well as the annual event at K-State.

Roberts has worked with many dairy processors and dairy farmers in resolving quality control problems. He is known by many as "master ice cream maker" for the delightful ice creams for which he was responsible in his capacity as superintendent of the Kansas State University Dairy Processing Plant.

Well done, Harold! You'll be missed.

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**WHAT'S COLD SHOCK?**

In A.I., once semen is thawed rapidly at 95°F for 40 sec, care should be taken to protect the unit from cold shock. The common practice is to place the catheter inside your clothing and use body heat to avoid cold shock.

In the hustle-and-bustle of daily activities we often forget that semen contains sperm cells - biologically living organisms which are extremely sensitive to environmental changes, both temperature and unsanitary conditions. Semen is thawed rapidly (95°F, 40 sec) to minimize sperm loss going from the frozen to the liquid state. Chilling the sperm cells after rapid thaw kills additional cells which might reduce the number of cells below the minimum number for optimal conception.

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**RESOLVING HIGH SCC PROBLEMS**

Resolving high SCC problems can be very perplexing. In many cases, the place to start is to evaluate the first lactation (L-1) heifers, especially the SCC the first month after calving. First calf heifers would be expected to be the lowest group of cows in the herd since they have not been subjected to many of the stresses of older cows.

In the production testing program, DHIA 230 - SCC Detail, provides the analysis of cows in the herd by lactation number. In most cases, SCC increases with more lactations (L-1, L-2, L-3). This is true in low and high SCC herds. In low SCC herds, L-1 may be 100,000 or lower. In problem herds, the L-1 may well be 500,000 or greater which indicates some stress on the first calf heifers, often before calving such as, access to a farm pond or mud holes.

DHIA 230 also shows the %>400. This figure helps to determine if the problem is wide-spread among cows in that lactation or just an individual or a few with a high count.

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**WHAT'S IN PRINT**

- K-State Dairy Day Report
- Managed Milking
- KSU Dairy Computer Programs
- Managing High Somatic Cells
- Preventive Herd Health Program
- Gettin' Cows Pregnant, Faster

Included in the Dairy Herd Analyzer package will be:

1. Herd Evaluation Graphs
2. Dairy Herd Analyzer
3. Computer Listed Recommendations
4. Breed Comparison Score Card

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The K-State Dairy Herd Analyzer (DHA) has been incorporated into the Dairy Records Processing Center (DRPC) and will be available on a quarterly basis starting in January, 1994. DHIA-238 will be a cost option ($5.00) and may be ordered through your supervisor or by calling 1-800-344-3772.

DHA provides an economic analysis of the four management areas: Nutrition, Reproduction, Milk Quality, Genetics. It establishes goals for your herd and then uses data from the herd summary, DHIA 202. The data provide guidelines as to management areas that need attention and an estimate of the increase in cash flow if the goals are met. The most important aspect of DHA is that it provides a means to measure the economic effect when changes are made on the dairy.
Tuesday, January 11
9:00 a.m. Call Hall - Rm 140
  - Course Orientation and Introduction
9:30 a.m. Call Hall
  - Anatomy of the Mammary System and Milk Letdown
10:30 a.m. Call Hall
  - Milk Break
10:45 a.m. Call Hall
  - Milking Procedures - Hygiene
11:30 a.m. Call Hall
  - Mastitis - Definition and Incidence; Causes; Detection; Screening
Noon (on your own)
  - Lunch
1:00 p.m. Dairy Center
  - Group A - Milk Letdown - Stimulation and Inhibition
  - Group B - Screening Tests for Milk Quality - SCC
2:00 p.m.
  - Groups reverse
3:15 p.m. Call Hall
  - Milk Break
3:30 p.m. Call Hall
  - Introduction to Milking Equipment
6:00 p.m.

Wednesday, January 12
8:00 a.m. Call Hall - Rm 140
  - Milking Systems Evaluation
9:00 a.m. Dairy Center
  - Group A - System Evaluation
  - Group B - Milking Observation - Time Study
10:30 a.m.
  - Groups reverse
Noon (on your own)
  - LUNCH
1:00 p.m. Call Hall - Rm 140
  - Review Milking Observation and Sanitation
2:00 p.m. Call Hall
  - Mastitis Treatment and Control Programs
3:15 p.m. Call Hall
  - Summary and Presentation of Certificates

REGISTRATION
(Registration deadline - January 7, 1994)
(Note: KSU is closed from Dec. 24 thru Jan. 2)

Name

Address

Phone ( ) Occupation

Herd Size Employer

Registration Fee - $20.00 (includes supplies and evening meal, January 11)

Make checks payable to: LMIC - 2101

Return application to: J.R. Dunham
Call Hall, Kansas State University
Manhattan, KS 66506-1600
(913)532-5654
FAX:(913)532-5681
THE 10-POINT PROGRAM

1. Practice Healthy Herd Management
2. Establish a Valid Veterinarian / Client / Patient Relationship
3. Use Only FDA - Approved Drugs
4. All Drugs will be Properly Labelled
5. Proper Drug Storage
6. Administer Drugs Properly and Identify All Treated Animals
7. Maintain Records on Treated Animals
8. Use Drug Residue Screening Tests
9. Implement Employee / Family Awareness of Proper Drug Use
10. Complete the Quality Assurance Checklist Annually
**LET DOWN vs HOLD UP!**

For many years, dairy producers have recognized the value of "let-down" as a means of harvesting milk. Vigorous massage of the teats and base of the udder stimulates a release of oxytocin (pituitary gland). Within one (1) minute after the start of massage, oxytocin has affected the contraction of muscle cells around the alveoli and milk is forced into the collecting ducts and teats (let-down).

Less well understood is "hold-up." This effect can be seen when cows are mistreated or something abnormal occurs to upset them. But more commonly, the "hold-up" effect results when milking is delayed several minutes. Why? The half-life of oxytocin is about two minutes which means that one-half the hormone is destroyed in two minutes. In four minutes 75% is destroyed and so on. As oxytocin is destroyed, the muscle cells relax and milk is drawn back into the alveoli and unavailable - the result being hold-up.

The basis of "let-down -- hold-up" is illustrated in Figure 1. The on-farm KSU Milking Management Clinics have also demonstrated the principle by delaying milking for five minutes after prep. Delayed milking also reduces milk flow per minute which extends the time spent in the parlor. The detrimental effect(s) of "hold-up" can be avoided by the following procedure:

1. Remove two streams
2. Pre-dip (or spray) -- 30 seconds massage
3. Dry -- single service towel
4. Attach claw
5. Minimize liner slips
6. Remove claw after milk-out
7. Teat dip
8. Rinse teat cups and bowl
9. Allow claw to drain before milking next cow.

**DAIRY DAY ATTRACTS 238**
**-Report Available-**

An excellent program was enjoyed by 238 producers and allied industry people at the 1993 K-State Dairy Day. Dave Schingoethe, South Dakota State University, presented a thorough review of FEEDING THE HIGH PRODUCING COW including the management of bST. Jeff Stevenson, Professor of Physiology at K-State, outlined the components of a PROGRESSIVE REPRODUCTIVE MANAGEMENT PROGRAM. Copies of these papers and other material presented at Dairy Day are available through your county agent's office or by contacting Extension Dairy Science, KSU, Manhattan 66506-1600 (913-532-5654).

**QUALITY AWARDS TO 158**

There were 158 certificates presented in the Kansas Milk Quality Awards Program at Dairy Day. The plaque winners in each herd division are:

**LARGE HERD DIVISION**
(54 Certificates):
1. Lehman Bros.
2. Curries, Inc.
3. Harold Morrical

**MEDIUM HERD DIVISION**
(46 Certificates):
1. Tim Iwig
2. Circleview Dairy
3. Roman Yoder

**SMALL HERD DIVISION**
(58 Certificates):
1. Lavern L. Figge
2. Don & Aldiene Meyer
3. Joy & John Ferdinand

**CLIP UDDERS.** Clipping the hair from the udder lowers the incidence of new cases of mastitis by an estimated 50 percent. Producers are urged to clip udders on all fresh cows before entering the milking string.
Dairy Meetings

January 6  
Four State Dairy Day, St. Joseph Stockyards.

January 8  
Kansas Brown Swiss Ass'n., 11:00 a.m., Sirloin Stockade, McPherson. Wanita Schrag (316) 327-4169.

January 28-29  
Holstein Ass'n of Kansas, Holiday Inn, Emporia, Shari Strauss (913) 238-8899.

January-February  
Local DHIA annual meetings. Contact County Agent or Supervisor for date and time.

March 12  
Kansas DHIA Annual Meeting, 11:00 a.m., Holiday Inn, Manhattan. David W. Sukup (913) 539-1784.

Other Topics: Mastitis Therapies  
Forage Quality  
NAFTA  
Genetics (F&L)

Have a Safe and Happy Holiday Season...

DEAR DAIRY PRODUCER:

The 24th Annual Basic Milkers School at K-State is scheduled for January 11 and 12. Reservations are needed by January 7. Plan to attend your local DHIA annual meeting to discuss a possible merger. The Dairy Herd Analyzer package is available in January as a cost option.

Sincerely,  
Edward P. Call  
James R. Dunham  
Extension Specialists, Dairy Science

THE COVER

Winter weather did not deter the enthusiasm of the participants at the 1993 K-State Basic Milkers School. The 1994 edition will be held on the campus, January 11 and 12.