

COOPERATIVE EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE
KANSAS STATE UNIVERSITY
MANHATTAN, KANSAS 66506
OFFICIAL BUSINESS
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KANSAS DAIRY EXTENSION NEWS

VOLUME 15(1)

JANUARY-MARCH, 1994



Inside this issue...

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.

Dairy Herd Analyzer Available



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.

A package deal...

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

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.

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.

WHAT'S IN PRINT

K-State Dairy Day Report	ROP 694
Managed Milking	DyS 91-1
KSU Dairy Computer Programs	DyS 91-4
Managing High Somatic Cells	DyS 93-2
Preventive Herd Health Program	DyS 93-1
Gettin' Cows Pregnant, Faster	DyS 92-3

24th Annual



BASIC MILKER'S SCHOOL JANUARY 11 & 12, 1994



Applications due by: **JANUARY 7, 1994**
School will be limited to first 30 registrants

Tuesday, January 11

9:00 a.m. Call Hall - Rm 140
9:30 a.m. Call Hall
10:30 a.m. Call Hall
10:45 a.m. Call Hall
11:30 a.m. Call Hall
Noon (on your own)
1:00 p.m. Dairy Center

2:00 p.m.
3:15 p.m. Call Hall
3:30 p.m. Call Hall
6:00 p.m.

- Course Orientation and Introduction
- Anatomy of the Mammary System and Milk Letdown
- Milk Break
- Milking Procedures - Hygiene
- Mastitis -- Definition and Incidence; Causes; Detection; Screening
- LUNCH
- Group A - Milk Letdown -- Stimulation and Inhibition
- Group B - Screening Tests for Milk Quality - SCC
- Groups reverse
- Milk Break
- Introduction to Milking Equipment
- Dinner

Wednesday, January 12

8:00 a.m. Call Hall - Rm 140
9:00 a.m. Dairy Center

10:30 a.m.
Noon (on your own)
1:00 p.m. Call Hall - Rm 140
2:00 p.m. Call Hall
3:15 p.m. Call Hall

- Milking Systems Evaluation
- Group A - System Evaluation
- Group B - Milking Observation - Time Study
- Groups reverse
- LUNCH
- Review Milking Observation and Sanitation
- Mastitis Treatment and Control Programs
- Summary and Presentation of Certificates

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

Name _____

Address _____

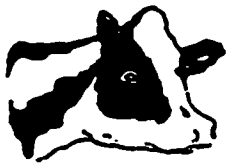
Phone () _____ Occupation _____

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



Milk & Dairy Beef
Quality
Assurance Program

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.

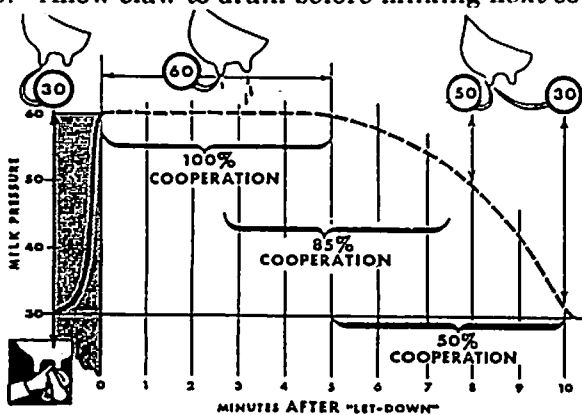


Figure 1. Teat massage and the release of oxytocin cause intramammary pressure to increase rapidly. However, the let-down effect diminishes after several minutes.

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 Morrival

MEDIUM HERD DIVISION

(46 Certificates):

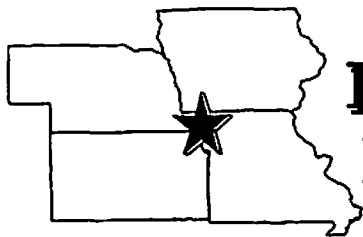
1. Tim Iwig
2. Circleview Dairy
3. Roman Yoder

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.



Four State Dairy Day

"Feet and Legs"

featuring

Dr. L.C. Allenstein

Univ. of Wisconsin-Madison

Thursday, January 6, 1994

10am-3pm, St. Joe Stockyards

*Free Lunch?

Call 1-800-728-0282 by 12-31-93

(\$3.00 at the door)

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



**HAVE A SAFE
AND HAPPY
HOLIDAY SEASON...**



Cooperative Extension Service

Extension Animal Sciences and Industry
Call Hall
Manhattan, Kansas 66506-1600
913-532-5654
FAX: 913-532-5681

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

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.

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.

KSU, County Extension Councils and U.S. Department of Agriculture Cooperating. All educational programs and materials available without discrimination on the basis of race, color, national origin, sex, age, or handicap.