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KANSAS STATE UNIVERSITY

U. S. DEPARTMENT OF AGRICULTURE

COOPERATIVE EXTENSION SERVICE



KANSAS DAIRY EXTENSION NEWS

VOLUME 12(5)



SEPTEMBER-OCTOBER 1991

Inside this issue.....

1991
KSU DAIRY DAY
Friday, October 25th

**"PERSONNEL
MANAGEMENT
ON DAIRIES"**

SCC AFFECTS PRODUCTION

MISCELLANEOUS HERD INFORMATION					
LACT.	Number	Average SCC		SCC Above 400,000	
		Raw	Linear	Number	%
1	22	55	1.6		
2	12	99	2.3	1	8
3+	22	161	3.2	2	9
Total	56	111	2.4	3	5

DHIA
202B

The negative impact of high somatic cell count (SCC) on daily milk production is well understood. As SCC doubles (100-200, 200-400, etc) daily milk flow decreases by 1.5 lb. While the decrease production is subtle and difficult to measure on the individual dairy, SCC premiums are real and all producers are aware of the benefits to cash flow.

The relationship of SCC to rolling herd average was analyzed in 493 Kansas Holstein herds in April 1991. In addition to herd average SCC, the effect of lactation number was evaluated.

RHA (LB)	Herd	AVG. S.C.C.		
		L-1	L-2	L-3*
		-----,(000)-----		
8,449	966,	845,	901,	1,066,
11,243	612,	283,	463,	879,
13,270	446,	248,	419,	559,
15,188	513,	334,	460,	663,
17,022	383,	245,	315,	522,
19,001	342,	240,	255,	483,
20,756	296,	185,	254,	421,
22,696	262,	174,	255,	326,
17,453	392,	254,	325,	531,

While genetics and many management practices affect milk production, higher producing herds have lower SCC averages which allow the cows to more nearly express their genetic ability under the management level provided. The data show that higher producing herds not only have lower herd SCC averages but that there is less increase in SCC from first lactation cows (L-1) to older cows (L-3*).

Factors that effect SCC include:

1. Milking technique
2. Dry cow treatment program
3. Housing and lot conditions
4. Milking machine
5. Springer lot conditions

SUMMIT MILK YIELD (SMY)

MISCELLANEOUS HERD INFORMATION			
LACT.	Number	Avg. Summit	
		LBS	Milk
1	22	63.2	
2	12	87.7	
3+	22	95.2	
Total	56	80.2	

HERD SUMMARY
DHIA 202B

Want almost 300 lb more milk per cow next year? Simply raise Summit Milk Yield (SMY) one (1) pound! SMY is calculated by averaging the two highest milk weights from the first three test weights after calving. SMY estimates peak yield during the lactation and is highly correlated with rolling herd average (RHA). Five hundred and fifty-one (551) Kansas Holstein herds were summarized in 1991 to compare SMY by lactation number with RHA with the following results:

RHA (LB)	SUMMIT MILK YIELD (LB)			
	L-1	L-2	L-3*	ALL
11,243	43.6	49.4	56.6	51.3
13,270	43.9	56.8	61.7	56.0
15,188	51.4	65.0	70.7	62.9
17,022	57.4	73.0	78.9	70.3
19,001	62.7	80.3	87.1	76.7
20,756	66.7	87.1	93.6	81.8
22,696	71.8	94.2	101.9	90.0
17,453	58.1	74.3	80.5	71.3

For all RHA groups, one lb increase in SMY = 296 lb increase in RHA. Lactation 2 cows had an average increase of 28 percent (16.2 lb) over the average production of L-1 cows. Lactation 3 cows produced 6.2 lb more SMY (8.3%).

Five factors have the most effect on SMY:

1. Genetics
2. Lead feeding
3. Full feeding after calving
4. Balanced rations
5. Good milking techniques

NOTE: July 1, 1993. Legal limit for SCC will be not more than 750,000.

1991 KSU DAIRY DAY - OCTOBER 25



KANSAS MASTITIS COUNCIL

The Kansas Mastitis Council (KMC) was organized in 1970 "to promote educational activities and research in mastitis control."

KMC sponsors the Quality Milk Awards, Basic Milker's School and programs at the annual meeting. Since 1986, the annual meeting has been a part of KSU Dairy Day. The 1991 Dairy Day focuses on Labor Management and is sponsored in part by KMC.

KMC annual dues are \$3 for individuals and \$25 for companies. Your dues are used to sponsor the Council's activities. You are encouraged to join the KMC and play an important role in shaping the future of the Kansas Dairy Industry and the marketing of high quality milk.

Yes, I'd like to join the Mastitis Council. Enclosed is:

\$3 _____ \$25 _____
(self) (company)

Complete name and address:

Return to: John E. Shirley, Dept. of AS&I, Call Hall, KSU, Manhattan 66506-1600

THE 1991 ANNUAL KSU DAIRY DAY

SIXTH IN THE SERIES -
MANAGING HIGH PRODUCING HERDS:

PERSONNEL MANAGEMENT ON DAIRIES

Pottorf Hall - CICO Park (Riley County Fairgrounds)
From KSU SPORTS COMPLEX:

1 MI W ON KIMBALL, 4 MI S ON WREATH,
2 MI W ON ROBINSON

FRIDAY, OCTOBER 25, 1991

8:00 a.m. *REGISTRATION - VISIT EXHIBITS**

10:00 a.m. *WELCOME*
Dr. Jack Riley, Head, ASI, KSU

10:05 a.m. *TODAY'S CHALLENGES*
John Shirley, KSU

10:15 a.m. *MINI RESEARCH UPDATES*
Heifer Rearing - J.L. Morrill, KSU
Reproduction - J.S. Stevenson, KSU
Nutrition - J.E. Shirley, KSU

10:45 a.m. *PHILOSOPHY OF PERSONNEL MGMT.*
Jim Armbruster, Univ. Wisconsin-Madison

11:45 a.m. *DAIRY DAY HONOREE:*
Harry C.M. Burger

NOON LUNCH, Courtesy of Exhibitors

1:15 p.m. *KANSAS QUALITY MILK AWARDS*
J.R. Dunham, KSU

1:30 p.m. *PANEL:*
Dee James, KSU
LaVerne Myers, Abilene
Steve Strickler, Iola

2:00 p.m. *QUESTIONS/ANSWERS*

2:30 p.m. *ADJOURN - VISIT EXHIBITS**

3:00 p.m. *TOUR - NEW RESEARCH BARN
DAIRY TEACHING RESEARCH CENTER*

*A special "thanks" to the exhibitors who support KSU Dairy Day

1991 KANSAS QUALITY MILK AWARDS (Deadline - October 14)



1991 Kansas Quality Milk Awards Program

Sponsored by:

*Cooperative Extension Service, KSU
Kansas Mastitis Council, Inc.
West Agro, Inc.*

The Kansas Mastitis Council, in cooperation with West Agro, Inc., is sponsoring an awards program to recognize Kansas producers.

Requirements

Contestants must fill out the entry form, showing the WMT or ESCC, Bacteria (SPC) and Antibiotic tests for the period of August 1, 1990 through July 31, 1991. Four tests are required during any 6-month period.

Awards

The competition will be split into two divisions according to herd size: Large herd division - 60 or more cows and Small herd division - 59 or fewer cows. The following awards will be made:

- Lowest yearly average WMT or ESCC and bacteria count in both divisions will receive a plaque.
- Second lowest yearly average WMT or ESCC and bacteria count in both divisions will receive a plaque.
- Third lowest yearly average WMT or ESCC and bacteria count in both divisions will receive a plaque.
- **CERTIFICATES OF MERIT** will be presented to all entrants with an average WMT under 10 mm or ESCC under 300,000 and bacteria counts averaging 10,000 or less.

Entry Form

1991 Kansas Quality Milk Awards

WMT or ESCC	Bacteria (SPC)	Antibiotics	Total Cows*

*Include dry cows in total.

August	1990
September	1990
October	1990
November	1990
December	1990
January	1991
February	1991
March	1991
April	1991
May	1991
June	1991
July	1991

Name _____

Address _____

Phone () _____

Send results on this form to:

Dr. John E. Shirley
Call Hall, KSU
Manhattan, KS 66506-1600
Entry Deadline: October 14, 1991

CALVING TIME CRITICAL

Thirty percent of all the new mastitis cases in a dairy herd occur within a week before and two weeks after calving. Also, thirty percent of all fresh cows will have some problem during the first month after calving. Follow this checklist to keep fresh cow problems to a minimum:

1. Provide a clean area for calving. Keep springers away from ponds, creeks and mud holes.
2. 2-3 weeks before calving:
 - a. Increase grain intake so cow is getting 1% of body weight by calving.
 - b. If silage-haylage is part of the milking ration, introduce small quantities 2-3 weeks before calving to adjust the rumen.
 - c. Suspect mastitis before calving? Start milking and initiate treatment. Also pre-milk cows (heifers) with excessive edema. When you start to pre-milk, milk out at every milking using good milking management procedures.
 - d. Near calving, wash teats and udder and teat dip.
3. Check frequently after labor starts. Suspect trouble? Exam using sanitary procedure.
4. Calving problem? What can you handle? More important than when to help is WHEN TO GET HELP.
5. After calving, offer clean, fresh water in a bucket. Cows will often drink more than 5 gallons.
6. Dip calf's navel - use Tincture of Iodine (not teat dip!).
7. The more (up to 2 quarts) and the quicker the calf gets colostrum, the greater the level of immunity. Consider milking out 2 quarts and nipple feeding. Then you'll know how much the calf gets.

What's In Print...

KSU Dairy Herd Analyzer	DyS 91-2
KSU Dairy Software Programs	DyS 91-4
KSU Dairy Day Report	October 25
Dairy Records - The MRS Program	DyS 90-3
Managed Milking	DyS 91-1

MILKING FRESH COWS

Cows are creatures of habit (good and bad)... and the way fresh cows are milked may determine a slow or fast milk-out the rest of the lactation.

Thirty (30) seconds of teat massage stimulates let-down (Oxytocin). The teats should be sanitized during massage (pre-dipping works well) and dried thoroughly. So far, about a minute (60 sec) has passed. Next...

ATTACH TEAT CUPS

Take full advantage of the let-down process since its effect begins to diminish (hold-up!) after five minutes or so.

And milk out completely at each milking. Partial milk out increases chances of mastitis if organisms are present and also decreases the amount of milk synthesized for the next milking.

PRE-MILKING DAIRY COWS

Pre-milking (milking before calving) is advised when:

1. Mastitis is apparent or
2. Edema is severe

Whatever the reason for pre-milking, once it's started - don't stop. The first milking may produce a tea cup full from a heifer. Some cows will exceed 40 lb by calving. If indicated, pre-milking is started 1-2 weeks before due date. Follow good milking techniques. Pre-milking has no effect on calving date and may even reduce incidence of milk fever in older cows.

REMEMBER: If she's pre-milked, there'll be no colostrum at calving. All dairies should have frozen colostrum (2 qt/calf) available, and it should be the first colostrum taken from an older cow. When thawing, **do not use microwave** - it may destroy antibodies.

What's Happening?

KSU Dairy Day	October 25
High Plains Dairy Day, Collyer	November 14
East Plains Dairy Day, Hays	November 15
1992 Basic Milklers School	January 7-8

TREATING UTERINE INFECTIONS

Dairy producers enrolled in a Preventive Herd Health Program (PHHP) know that a small percentage of the cows need medical treatment for uterine infections (or poor involution) a month or so after calving. Now, a promising treatment procedure is the use of one of the prostaglandins (PGF), intramuscular (i.m.). Many of the cows with this disorder have a corpus luteum (C.L.) or "yellow body" on one of the ovaries. PGF destroys the C.L. and initiates estrus.

The resulting heat period produces increased blood flow to the uterus with a corresponding flushing action. Also, the uterine musculature is sensitized and contractions tend to void the uterine lumen of any muco-purulent material.

PGF are Rx products dispensed only by prescription. Two of the three commercial products are labelled for lactating dairy cows without milk withholding. Not only have PGF been shown to be effective in remedying uterine problems a month or so after calving, they eliminate the use of ELUD antibiotics which do not carry a specific milk withdrawal recommendation.

EBS - UPDATE - EB 910915

The 1991 EBS Version is now being used and there have been several additions and refinements. EBS workshops for supervisors, county agents and producers were held in September at Manhattan, Hays and Newton. Ask your supervisor about the changes in EBS-MORE reports and User-Defined Reports (UDR).

TIMELY AI HINTS

The universal method of thawing straws is: 95°F WATER BATH - 40 sec. and inseminate cow as soon as possible. Dry straw completely after thaw and clip with CITO cutter or stainless steel shears (DO NOT USE RUSTY SHEARS).

"Double-rodging" is a technique of using a disposable sheath over the insemination catheter (French gun). Such use is mandatory whenever vaginal infection is present and is a good idea anytime to minimize carrying contamination into the cervix-uterus.

The AI technique is more than just getting one's arm dirty. It is a highly skilled procedure requiring attention to details.

All other things considered, semen placement in AI is the most critical. The entire inseminate should be placed exactly in the uterine body allowing at least five (5) sec for deposition.

THE COVER

"Come see us." The cows are ready to show off the new K-State Dairy Research Unit. A tour of the facility -- 72-tie stalls -- will be conducted after the Dairy Day program, Friday, October 25.



Cooperative Extension Service

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

Dear Producer:

Plan to attend the 1991 Annual KSU Dairy Day, Friday, October 25. "Personnel Management" is the theme. There will be a tour of the new 72-cow tie-stall research facility and a "trade show" with 30 exhibitors who will provide a complimentary lunch.

Sincerely,

Edward P. Call
Extension Specialist
Dairy Science

James R. Dunham
Extension Specialist
Dairy Science