

COOPERATIVE EXTENSION SERVICE  
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# KANSAS DAIRY EXTENSION NEWS

Volume 14(5-6)

September-December 1993



***K-State Dairy Day  
Friday, October 29<sup>th</sup>***

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***Quality Milk Awards  
Deadline: October 18<sup>th</sup>***

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***High Quality Alfalfa in  
Short Supply - Now What?***

# HIGH QUALITY ALFALFA IN SHORT SUPPLY - - - NOW WHAT?

by J.R. Dunham

High quality alfalfa is an important ingredient in most dairy rations in Kansas since it is an excellent source of protein and highly digestible fiber. However, the quality of the alfalfa crop of 1993 is lower than normal due to wet conditions during the growing and harvesting periods. These conditions delayed harvesting, and in many situations caused field losses of leaves before the crop could be put into storage as either hay or haylage. Late maturity and leaf loss result in high-fiber, low-protein alfalfa that is less digestible. Thus, the quality of much of the alfalfa crop is lower than normal.

High quality alfalfa is usually considered to have a Relative Feed Value (RFV) greater than 140. A lot of alfalfa will have a RFV of 170 to 180. Since RFV is determined by the Acid Detergent Fiber (ADF) and Neutral Detergent Fiber (NDF) content, much of this year's alfalfa will have a RFV less than 140.

Since forage quality impacts performance, especially of early lactation cows, dairy farmers are encouraged to consider some alternatives to feeding low quality alfalfa.

## Alternatives

**Minimize Hay Feeding.** Since corn silage should be plentiful, herds feeding corn silage should minimize the amount of alfalfa fed. Rations composed of large amounts of corn silage usually require some hay to keep the dry matter content of the ration above 50 percent. A general "rule of thumb" is to feed at least five lb of dry hay with high corn silage rations.

Herds feeding mostly alfalfa hay or haylage should consider feeding minimum amounts of forage and maximum amounts of grain and other by-products.

For normal rumen function, the total ration should contain a minimum of 27 percent NDF or 17 percent ADF. By-products such as whole cotton seeds and

soy hulls could be substituted for alfalfa while maintaining adequate fiber.

Dairy farmers are encouraged to work closely with a nutritionist when formulating rations with minimum fiber. Care should be taken to buffer low fiber rations.

There are restrictions on the amounts of by-products which may be substituted for forages. Due to the high fat content of whole cotton seeds, six lb per hd per day is the maximum recommended. Soy hulls should be restricted to about five lb per hd per day since the fiber length is short.

**Split the Herd.** Where practical, herds could be split into early lactation and later lactation groups for feeding purposes. Since forage quality is more critical for early lactation cows, the high quality alfalfa could be allocated to early lactation cows and the lower quality alfalfa to cows late in lactation.

**Purchase High Quality Alfalfa.** Just because a dairy farmer produces low quality alfalfa does not mean that it has to be fed on that farm. If all of the low quality alfalfa can not be utilized by heifers and cows in late lactation, consider selling it to farmers with other classes of livestock and purchasing high quality hay.

Although high quality alfalfa will be relatively expensive this year, it can be a valuable ingredient for high producing dairy herds. Table 1 shows the value of alfalfa hay for dairy rations as determined by K-State computer programs (Hayprice and Lact-Cow). The price comparisons were made with corn and soybean meal priced at \$4.50/cwt and \$12.00/cwt, respectively. Average quality alfalfa hay was priced at \$85.00/ton.

Table 1 shows a difference of \$35.36/ton between the lowest and highest quality alfalfa. This value is strictly based upon the difference in nutrient content. The high quality hay would be worth even more if the effect of feeding high quality hay on milk production could be calculated.

Table 1. Value of Alfalfa Hay with Varying Analyses.

	ADF %	NDF %	RFV	Protein %	Value
Alfalfa Hay	40	50	107	16.0	\$77.64
Alfalfa Hay	37	47	119	17.5	\$86.48
Alfalfa Hay	34	44	132	19.0	\$95.32
Alfalfa Hay	31	41	147	20.5	\$104.16
Alfalfa Hay	28	38	164	22.0	\$113.00

# THE 1993 ANNUAL KSU DAIRY DAY

Friday, October 29, 1993 - Pottorf Hall - Cico Park, Manhattan  
(From KSU Sports Complex, 1 mi W on Kimball, .4 mi S on Wreath, .2 mi W on Robinson)

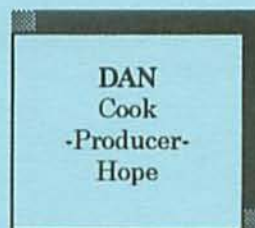
## EIGHTH IN THE SERIES: MANAGING HIGH PRODUCING HERDS

### "Feeding for Production and Reproduction"

- 8:00 am REGISTRATION - *Visit Exhibits\**  
*John Shirley, KSU, Program Chairman*
- 10:00 am WELCOME TO KSU DAIRY DAY  
*Jack Riley, Head, AS&I, KSU*
- 10:15 am LOOKING AHEAD WITH A LOOK BEHIND  
*E.P. (Ed) Call, KSU*
- 10:40 am MANAGING REPRODUCTION IN HIGH PRODUCING COWS  
*J.S. (Jeff) Stevenson, KSU*
- 11:15 am FEEDING THE HIGH PRODUCING COW  
*D.J. (Dave) Schingoethe, South Dakota State University*
- NOON LUNCH, COURTESY OF EXHIBITORS (*TICKET AT REGISTRATION*)

#### **\*\*\*\*\*Visit Exhibits\*\*\*\*\***

- 1:15 pm QUALITY MILK AWARDS  
*J.R. (Dick) Dunham, KSU*
- 1:30 pm PANEL: MANAGING FOR PRODUCTION AND REPRODUCTION  
*J.R. (Dick) Dunham, Moderator*



- 2:15 pm QUESTION/ANSWERS (*Panel*)  
*(Please fill out question (?) cards during the day!!!)*
- 2:30 pm ADJOURN - *Visit Exhibits*
- 3:00 PM TOUR - *Dairy Teaching and Research Center*

**"A special THANKS to the Exhibitors who support Dairy Day"**

# 1993 KANSAS QUALITY MILK AWARDS

## (Deadline - October 18)

### 1993 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 SCC, Bacteria (SPC) and Antibiotic tests for the period of August 1, 1992 through July 31, 1993. Four tests are required during any 6-month period.

#### Awards

The competition will be divided into three divisions according to herd size: Large - 81 or more cows; Medium - 50-80 cows; Small - 49 or fewer cows.

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

### Entry Form

### 1993 Kansas Quality Milk Awards

Month	Year	SCC	Bacteria (SPC)	Antibiotics	Total Cows*
August	1992				
September	1992				
October	1992				
November	1992				
December	1992				
January	1993				
February	1993				
March	1993				
April	1993				
May	1993				
June	1993				
July	1993				

\*Include dry cows in total.

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Send results on this form to:

Dr. John E. Shirley  
 Call Hall, KSU  
 Manhattan, KS 66506-1600  
 Entry Deadline: October 18, 1993

## MONDAY MORNING PROGRAM EFFECTIVE

The University of Pennsylvania School of Veterinary Medicine has demonstrated that the Monday Morning Program (MMP) for synchronizing dairy cows is more cost effective and reproductively advantageous than the traditional program based upon rectal palpation. Cows not responding to three weekly injections of prostaglandin in the MMP were palpated and treated accordingly.

Even though the total cost per cow was greater with the MMP, the reduction in median days open by 13 more than offset the additional drug cost.

*J. Dairy Sci. 75:2713*

## COLIFORM MASTITIS VACCINE

A mutant strain of J5 *E. coli* vaccine has been shown to reduce the incidence and severity of clinical coliform mastitis during lactation. However, the vaccine does not decrease the prevalence of infections at calving.

Abortions, especially during early gestation, can result from the body's release of prostaglandins during the fight against coliform's endotoxins. High level of endotoxins in the blood can also inhibit Luteinizing Hormone (LH) which may cause cystic ovaries.

*ABS Breeders Journal, 1993*

(NOTE: The vaccine is not a substitute for sanitary conditions in the parlor and housing area.)

### THE COVER

E.P. (Ed) Call, K-State Extension Dairyman, received the 1993 Alfa Laval Agri Dairy Extension Award at the annual meeting, American Dairy Science Association (ADSA), College Park, MD on June 15, 1993. Pictured with Call are Paul Bishop (l), Alfa Laval Agri, Inc, Kansas City, MO and Dr. Gary Lane, Danville, KY, Chairperson, ADSA Selection Committee.

## ELECTRONIC BARN SHEET (EBS) UPDATE

DHIA Supervisors and interested producers will have the opportunity to review changes in the EBS Program at three locations:  
November 9 Manhattan Holidome  
November 10 Newton Red Coach  
November 11 Hays Holidome

*Reservations are urged. Call Kansas DHIA (913) 539-1784.*

## BEST MASTITIS TREATMENT?

Oxytocin given for clinical mastitis at each milking may be the best "cure." For sure... intramammary antibiotics have a poor track record in curing mastitis, except in a dry cow treatment program. A part of any curing process is to remove as many organisms and their toxins as possible from the infected area. Injected oxytocin - the milk let-down hormone - has been shown to be effective in obtaining residual milk which is not harvested during routine milking. This extra milk will flush out more mastitis bacteria and toxins and aid in the healing process.

## FREQUENT MILKING, TOO

When acute clinical mastitis strikes and the cow is desperately ill, frequent milking to remove toxins is the best therapy. Here again, after each milking, use oxytocin and re-milk to get as much of the toxic material out of the udder as possible. Such cows also need fluids to counteract dehydration.

Oxytocin is also indicated at dry-off time. After the last milking, inject oxytocin and re-milk. The effectiveness of a dry cow treatment program is dependent upon using an antibiotic that appears to be effective based upon sensitivity testing. A couple of weeks before dry-off, obtain sterile samples for culturing and determine the antibiotic preparation of choice.

*Western Large Herd Management Conference, 1993.*

(NOTE: Oxytocin is a ♂ preparation and must be properly labelled and stored at the dairy.)

## SCHINGOETHE TO DAIRY DAY



David J. Schingoethe, Ph.D., South Dakota State University, Brookings, will be the featured speaker at K-State Dairy Friday, October 29. His topic will be, *"Feeding the high producing dairy cow."* Schingoethe teaches at South Dakota State and

has an active research program in dairy cattle nutrition. His research is oriented to the practical application.

This year's Dairy Day will be especially interesting to dairy producers and allied agribusiness leaders in that J.S. (Jeff) Stevenson, K-State Professor, will be presenting information about managing reproduction in the high producing cow. Jeff is a popular author for *Hoard's Dairyman*.

Quality Milk Awards will be presented after the noon lunch, sponsored by some 25 commercial exhibitors. J.R. (Dick) Dunham, K-State Extension Dairyman, will moderate a panel entitled *"Managing for production and reproduction."* Stevenson and Schingoethe will be joined on the panel by **Don Mueller**, Tampa, and **Dan Cook**, Hope, who will discuss their operations.

## DAIRY BREED MEETINGS

The dairy breed organizations have annual meetings during the fall and winter to conduct business and plan activities. Listed below are dates and places along with a contact person. Plan to attend and participate in your association's affairs.

- October 17     **Kansas Ayrshire Ass'n**, 10:00 a.m., Barnstormer Cafe, Gossel. Keith Burgess (316) 543-6449.
- October 23     **Kansas Jersey Cattle Club**, 11:00 a.m., (Place to be announced), McPherson. Sue Spielman (913) 336-2581.
- November 22   **Interbreed Dairy Council**, 10:00 a.m., Emporia Holiday. Harold Scanlan (913) 263-4358.
- January 8       **Kansas Brown Swiss Ass'n**, 11:00 a.m., Sirloin Stockage, McPherson. Wanita Schrag (316) 327-4169.
- February 5      **Holstein Ass'n of Kansas**, 10:00 a.m., (Place to be announced), Emporia. Shari Strauss (913) 238-8899.



### Cooperative Extension Service

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

September 29, 1993

Dear Producer:

**PLAN ON ATTENDING THIS YEAR'S K-S-U DAIRY DAY, FRIDAY, OCTOBER 29<sup>TH</sup>.** Support for this event goes a long way in helping promote the dairy industry in Kansas. Also, why not enter the *Kansas Milk Quality Awards* program (entry blank enclosed). Short of quality alfalfa? Some solutions inside.

Sincerely yours,

James R. Dunham

Edward P. Call

Extension Specialists, Dairy Science