COOPERATIVE EXTENSION SERVICE
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KSU KANSAS STATE UNIVERSITY

KANSAS DAIRY EXTENSION NEWS

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- July 17, Hillsboro -

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PREG-CHECK MIS-NAMED

Examining cows (and heifers) for pregnancy is a highly recommended routine on dairy farms. But, what's the real benefit? It's cows OPEN. If a cow is pregnant, she's supposed to be. The real economic hardship comes when the cow is OPEN. The most important diagnosis at preg-check time concerns the OPEN cow -- why is she OPEN? And more importantly, can she be synchronized if you elect to re-breed.

What percent of cows are OPEN at preg-check? Detailed records at the K-State dairy herd since 1983 show that 2,963 cows and heifers were presented for examination with 2,016 or 68% being confirmed pregnant. The prostaglandins (PGF) are of great benefit in handling the 32% OPEN. It is a rarity when a pathological condition is found upon rectal examination that explains why the cow is OPEN.

OPEN cows may be treated at preg-check time if a palpable corpus luteum (CL) is present. Or they may be assigned to the Monday Morning Program. The main decision is one of economics -- can I justify the time and expense to re-breed the OPEN cow?

ARKANSAS SAMPLES TO KANSAS

Arkansas DHIA has entered into contract with Kansas to provide laboratory services starting June 1, 1991. With more than 15,000 cows enrolled, the Arkansas samples will increase the efficiency of the Kansas laboratory while improving the turn-around time for reports to Arkansas producers. Arkansas DHIA will continue to administer the program in that state.

CHECK HERD COMPARISON - DHIA-235

The annual herd summary (DHIA 235) was mailed in April and provides the opportunity to evaluate progress for several management factors. The summary also allows for a comparison with other herds in Mid-States and with the top 25 percent of the herds by breed. While hindsight is 20-20, yearly comparison with breed average herds and the top 25 percent provides a "what if" situation and an incentive to make management changes to improve efficiency and profitability. It is only by comparison that strengths and weaknesses may be evaluated and goals established.

PTA REPLACES EATA

The replacement female inventory and evaluation summary -- DHIA-226 -- distributed in March serves as a reminder that cow (dam) evaluation now uses the Predicted Transmitting Ability (PTA) value instead of Estimated Average Transmitting Ability (EATA). Until the USDA Animal Model was initiated in 1990, EATA considered more pedigree information than the old system referred to as the "cow index." PTA now incorporates all available pedigree information and is more reliable than previous systems.

Replacement animals are the herd of tomorrow and should represent superior genetics if the best sires are used each year. Genetic progress comes mostly from the sire's side since all herds save some heifer calves from cows that are below the genetic base of the herd and breed. Through AI, the top 1 percent of the sires (80+ percentile) are available to every producer.

The best estimate of a replacement's breeding value (Pedigree Breeding Value -- PBV) is simply to add the PTA of the sire and the PTA of the dam.

The main value of PBV is comparative in that PBV serves as a means of ranking heifers for producing ability. PBV is a valuable tool when you consider heifers to sell or when purchasing heifer replacements.

What's Happening.....

July 6	Brown Swiss Picnic, Clifford and Sue Nisly, Hutchinson
July 8-9	Tri-state DHIA Supervisors Conference, Manhattan
July 13	Guernsey Summer Picnic, Nancy Hjetland, Topeka
July 17	Holstein Summer Field Day, Lloyd Funk, Hillsboro
July 27	Jersey Summer Picnic, Daryl Lewis, Piedmont
August 16-17	Junior Dairy Show, Salina
October 25	KSU Dairy Day, Manhattan

TRI-STATE SUPERVISORS... *A FIRST*

Arkansas, Oklahoma and Kansas DHIA's agreed to hold a joint supervisors training conference that was held at Manhattan on July 8-9. This cooperative effort provides more resource people and gives supervisors a greater opportunity to interact and share ideas and concerns.

STARTING FRESH COWS ON FEED

J.R. Dunham

The goal of a feeding program should be one which will maximize dry matter intake for early fresh cows. Summit Milk Yield (SMY), lactation yield, and profitability are all closely related and are affected more by feed intake than any other factor.

Fresh cows will respond to extra feed by producing about two more lbs of milk for each additional lb of dry matter consumed. By increasing SMY one lb the total lactation will increase by at least 300 lbs. Therefore, fresh cows should be fed for maximum dry matter consumption in order to optimize production.

The simplest way to start fresh cows on feed is to challenge them from the day of calving with additional grain. The appetite of fresh cows is not real good after calving, but it does gradually increase for the first few weeks of lactation. By taking advantage of the change in appetite, fresh cows can be challenged with additional grain so that they actually put themselves on feed. If grain feeding is restricted for several days following calving, or until the edema has left the udder, the appetite may be good enough to cause overeating when additional grain is fed. Either situation will lower SMY.

Figure 1 illustrates research results from K-State in which fresh cows were offered more grain by computer feeder than they were expected to consume. At day of calving the cows consumed 38 lbs of dry matter and by 33 days in milk consumption had gradually increased to over 46 lbs of dry matter (grain and forage combined). The difference shown between the amounts fed and consumed was grain. Therefore, the cows were consuming all of the grain they wanted and were putting themselves on feed. It is also noted that milk production followed a similar pattern to dry matter consumption. By 33 days in milk the cows were averaging about 75 lbs milk.

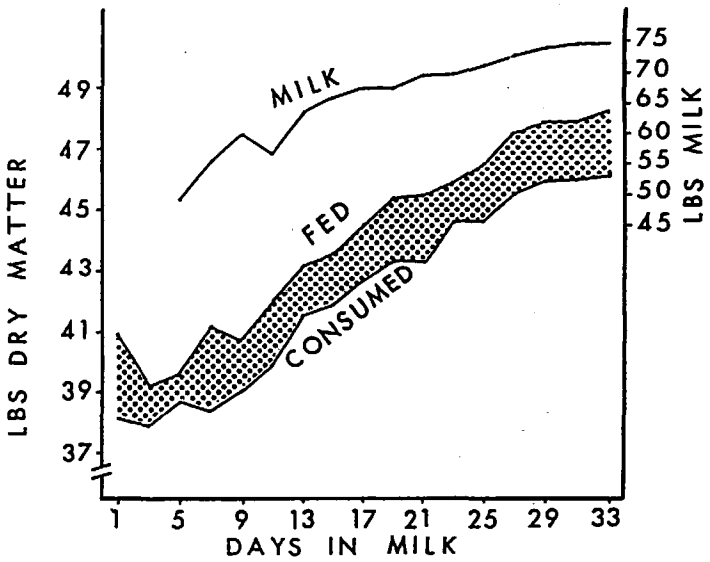


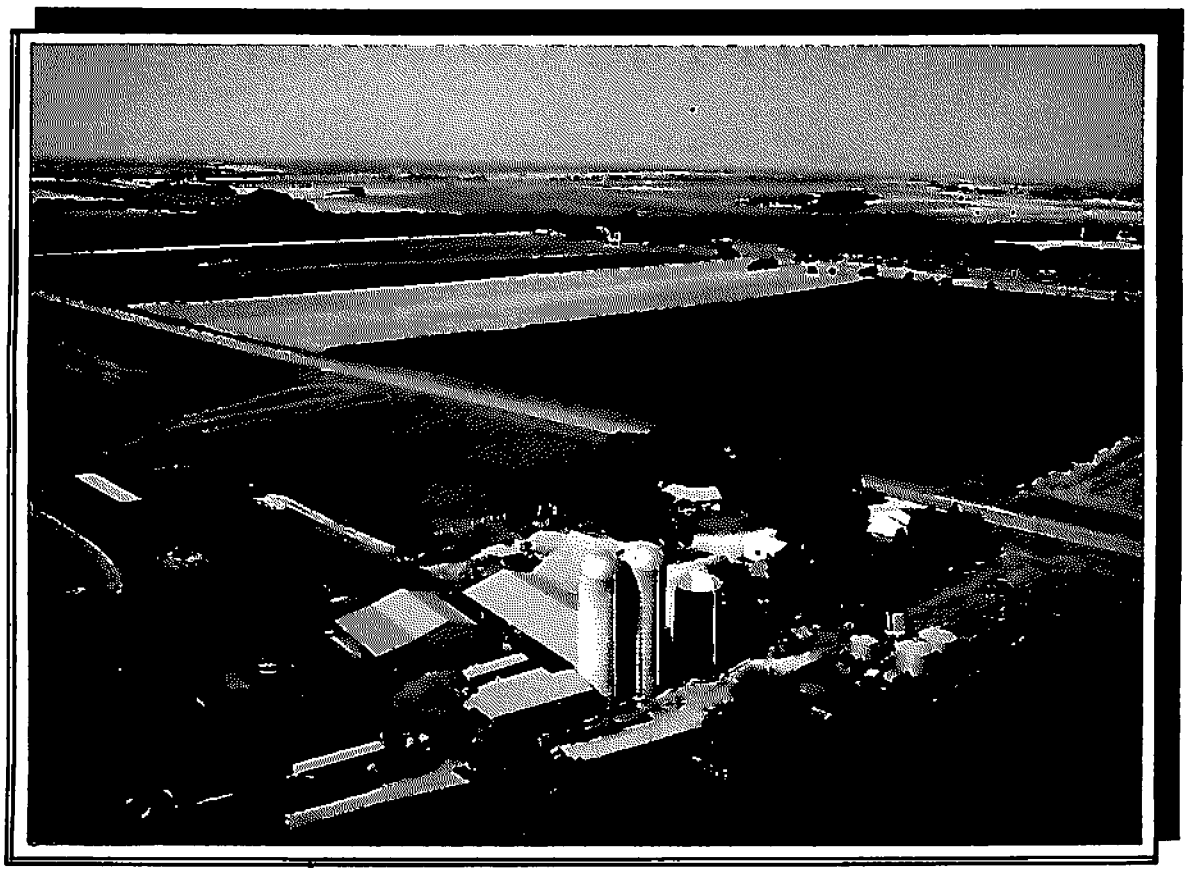
Figure 1. Dry matter consumption during early lactation.

If dry matter consumption is to be maximized by grain feeding, care must be taken to adequately buffer the ration. Buffers prevent acidosis and keep cows on feed. Sodium bicarbonate or an equivalent amount of buffer should be included at the rate of 1.5% of the grain mix. Recently summarized research has shown that more dry matter will be consumed in adequately buffered rations and about $2.30 is returned for each dollar invested in buffer.

Most feeding systems, including total mixed rations, computer feeders, or magnet feeders, are capable of letting cows put themselves on feed --- all we have to do is give them the opportunity.

"KANSAS SUMMER DAIRY FIELD DAY"

Wednesday, 17 July 1991



Green Trim Holstein Farm

Lloyd Funk Family
Hillsboro, Kansas

LOCATION: US 50 -- 10 mi N on Hillsboro Road
US 56 -- 3½ mi S on Ash Street

9:30 AM	REGISTRATION - REFRESH - JUDGING CLASS "Visit Commercial Exhibit Tent"
10:30 AM	INTRODUCTIONS "Lloyd Funk's Farming Philosophy" Entertainment: "Brothers and Sisters"
NOON	COMPLIMENTARY LUNCH
1:00 PM	"BREEDING FOR PROTEIN - THE FUTURE" Dr. Dennis Funk, University of Wisconsin - Madison
2:00 PM	TOURS (TMR; Calf Raising; Computer Records)
3:00 PM	FREE DRAWING - PRIZES

WHAT IS QUALITY HAY WORTH?

J. R. Dunham

There is no substitute for quality when it comes to selecting forages for dairy cows. Hay growers realize that quality is important and dairy producers demand quality when buying hay. Yet, neither party has a good method of determining what quality is worth when buying or selling hay.

Dairy producers require high quality hay in order to keep the nutrient density in the ration high, and they should be willing to pay for quality. Hay producers should expect to be paid for a quality product since more management and risk are involved in producing quality hay.

The value of hay is dependent upon the value of the energy and protein it is supplying. However, the value of energy and protein supplied by alfalfa hay is usually higher than the current hay market. Therefore, the dairy producer is not willing to pay that much, nor can the hay producer expect that price.

The most logical premium for quality should be the value of the additonal energy and protein supplied above an average quality hay. Most localities have established the going price for average quality hay. The value of the additional nutrients can be determined by the price of corn and soybean meal. Also, adjustments need to be made for the moisture.

A Lotus 1-2-3 worksheet is available from Extension Dairy Science at Kansas State University that will calculate the value of quality hay compared to average quality hay. The information needed to make these calculations are: 1) average hay price, 2) the price of corn and soybean meal, and 3) the analysis of the hay for dry matter, acid detergent fiber, and protein.

The following table illustrates the value of hay with varying analyses when average quality hay is $75.00/ton, corn is $4.00/cwt., and soybean meal is $10.00/cwt. Average quality hay contains 90% dry matter, 35% acid detergent fiber, and 17% protein.

Table 1. Value of alfalfa hay with varying analyses compared to average quality hay priced at $75.00/ton.

Dry Matter (%)	ADF (%)	Protein (%)	Value/ton
85	34	19	$78.89
90	34	19	83.53
90	32	20	88.49
90	30	22	97.02

YOU GET 28 PERCENT

Even if you gave milk away, the retail price would still be 72¢ on the dollar! A recent note in Hoard's Dairyman shows the following breakdown for a dollar spent for cheese in the grocery store:

Producer	28¢
Cheese Maker	3¢
Distributor/Retailer	69¢

What's In Print...

Managed Milking	DyS 91-1
Handlin' Repro-blems	DyS 90-5
Dairy Herd Analyzer	DyS 91-2
KSU Dairy Software Program	05-91
Management Record Systems (MRS)	DyS 90-5

LASER PRINTING ARRIVES

DHIA 200 and DHIA 202 reports are now being processed by laser printing. Laser printing allows format changes without concern for preprinted form inventory. DHIA 202 (A-B) consists of two 8½ x 11 sheets containing the same information as the previous report. DHIA 200 report has the following options:

1. DHIA 200 A - Action Needed (8½ x 11)
2. DHIA 200 A - Due Date (8½ x 11)
3. DHIA 200 B - Action + Due Date (8½ x 14)

In addition, the following options are available on either format:

1. Grain Fed - Needed
2. Somatic Cell Count

All forms will be three-hole punched. DHIA 200A will fit a standard size notebook. Notebooks for DHIA 200B may be purchased from supervisors.

THE COVER

Calf hutches at Green Trim. Crushed rock makes an ideal base for calf hutches which are moved after each calf is weaned. Check this idea at the Summer Field Day, July 17.

RELATIVE FEED VALUE COMPARES FORAGES

J. R. Dunham

Relative Feed Value (RFV) is a reasonably new method of evaluating forage quality which has practical application for dairy producers or for any livestock forage program when quality is important. The RFV of a forage provides the information needed to compare similar forages for two important qualities --- how well it will be consume and how well it will be digested.

Two components of forages affect digestibility and intake--- Acid Detergent Fiber (ADF) and Neutral Detergent Fiber (NDF). Most feed testing labs are analyzing for these two fiber components. ADF is an estimate of the cellulose and lignin components and is closely related to digestiblity. NDF is an evaluation of the total fiber content and includes hemicellulose in additon to the cellulose and lignin content. The NDF content is related to intake because it evaluates the bulkiness of a forage.

The RFV of a forage has no units but is a value which can be used to compare similar kinds of forages for potential intake of nutrients. The RFV of high quality alfalfa will be higher than other high quality forages since the ratio of NDF to ADF is lowest in alfalfa. Therefore, RFV should be used to compare forages within the same species. The RFV of excellent quality corn silage will not be as high as excellent quality alfalfa, but that does not mean that corn silage is not an excellent forage for dairy cows because corn silage is an excellent source of energy. Table 1 shows the RFV of various forages.

The best use of RFV is for selecting forages to be used in rations which require high nutrient density, such as, high producing dairy cows. Alfalfa with a RFV less than 140 should not be considered good enough for early lactation cows. However, alfalfa with a RFV of 125 to 140 could be fed to dairy cows in late lactation. Lower RFV hay would be adequate for growing heifers.

Table 1. Relative Feed Value of various forages.

	----------%----------		
Forage	ADF	NDF	RFV
Alfalfa, pre-bud	28	38	164
Alfalfa, bud	30	40	152
Alfalfa, early bloom	32	43	138
Alfalfa, grassy	39	54	101
Brome, late vegetative	35	63	91
Brome, late bloom	49	81	58
Corn Silage, well eared	28	48	133
Corn Silage, few ears	30	53	115
Fescue, late vegetative	36	64	88
Fescue, late bloom	41	76	70
Sorghum silage	32	52	114
Sorghum-sudan, immature	40	65	83
Sorghum-sudan, headed	42	68	77
Wheat, boot	34	56	104
Wheat, bloom	38	62	89

A Lotus 1-2-3 worksheet for calculating RFV from ADF and NDF is available from Extension Dairy Science, Kansas State University.

KSU KANSAS STATE UNIVERSITY

Cooperative Extension Service

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

Dear Dairy Producer:

It's become a real KANSAS tradition -- *SUMMER DAIRY FIELD DAY*, **July 17, Hillsboro, Lloyd Funk Family Dairy.** Plan to attend and enjoy the fellowship.

Sincerely,

Edward P. Call
Extension Specialist
Dairy Science

James R. Dunham
Extension Specialist
Dairy Science