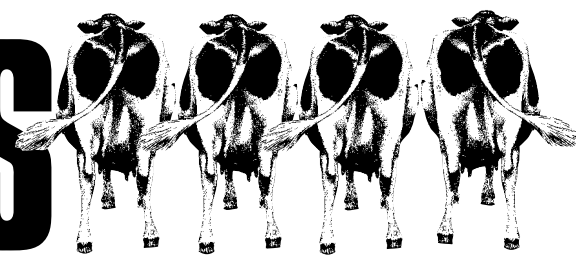


May 1997

Dairy Lines



Volume 3, Number 2

DAIRY EXTENSION SERVICE NEWS

http://www.oznet.ksu.edu/dp_ansi/dairylin.htm

Co-Editors

James R. Dunham

Extension Specialist, Dairy Science

John F. Smith

Extension Specialist, Dairy Science

Dan Waldner

Extension Specialist, Dairy Science

Contributors

Karen Schmidt

Associate Professor, Dairy Products

John Shirley

Associate Professor, Dairy Science

Jeff Stevenson

Professor, Dairy Science

Dave Sukup

Manager, Heart of America DHI

Upcoming Events

Kansas & Oklahoma

June 24

Brown Swiss/Jersey Field Day

Perkins, OK

June 25

Guernsey Field Day

Ripley, OK

June 27

Milking Shorthorn Field Day

Davenport, OK

(see page 2 for more dates)

A joint newsletter by



Research and Extension



Printing sponsored by



Hot Weather and Feed Intake

by J. R. Dunham

Every summer high temperatures have a negative impact on feed intake and milk production. Two pounds of milk production is lost for every pound dry matter intake is depressed. The effects of high temperatures can not be completely eliminated, but feeding adjustments can be made to reduce the effects of high summer temperatures.

Water is the least expensive and one of the most important ingredients in dairy feeding programs. Dry matter intake and water consumption are closely correlated. Water consumption will increase about 50 percent when temperatures are in the 90s compared to the 70s. Therefore, additional watering space will be a benefit on hot days. Adding water tanks in shaded areas close to the cows and feed will improve water consumption and dry matter intake. Cows should never have to wait in line or walk long distances for a drink of water.

Adjusting moisture of a TMR can improve dry matter intake. TMRs usually contain 35 to 40 percent moisture. Adding water to increase the moisture content to 45 to 50 percent should improve dry matter intake. Adding water makes the TMR cooler and more palatable, especially when ensiled forages are a component of the ration.

Also, cows can consume the higher moisture TMR faster, but 50 percent moisture is the maximum recommended.

Feeding early and late during the day and as many times as convenient will encourage dry matter intake. Appetites are better during the cool of the day, and feeding more meals provides fresher feeds.

High quality forages should be selected for summer feeding programs. High quality forages produce less heat during digestion and metabolism. Hence, cows will suffer less from heat stress and will consume more feed. High quality forages provide a more concentrated source of nutrients so cows do not have to consume as much feed.

Concentrate energy to minimize the total amount of dry matter needed to meet energy requirements. Adding a pound of fat will reduce the requirement for grain by about 2.25 pounds. Also, replacing milo with corn will require less total pounds of dry matter. However, make sure the ration is balanced after any formulation change.

We can never expect cows to eat as well when temperatures soar, but we can minimize the effects by managing the feeding program.

Heart of America Dairy Herd Improvement Summary (April)

Summer is on its way!

by John Smith and Dan Waldner

	Quartiles				Your Herd
	1	2	3	4	
Brown Swiss					
Rolling Herd Average	20,729	16,230	14,734	13,721	
Peak Milk Yield 1st	69	56	55	50	
Peak Milk Yield 2nd	88	69	72	62	
Peak Milk Yield 3rd	91	81	76	69	
Peak Milk Yield Avg.	83	71	68	59	
Income/Feed Cost	1,507	1,460	988	735	
SCC Average	349	338	572	226	
Days to 1st Service	70	64	110	75	
Days Open	143	143	176	133	
Projected Calving Interval	14	14	15	14	

Guernsey					
Rolling Herd Average	15,633	14,141	12,996	11,338	
Peak Milk Yield 1st	59	51	47	44	
Peak Milk Yield 2nd	67	59	61	58	
Peak Milk Yield 3rd	72	72	62	56	
Peak Milk Yield Avg.	65	59	55	54	
Income/Feed Cost	1,258	1,031	823	833	
SCC Average	267	296	416	516	
Days to 1st Service	79	93	49	29	
Days Open	155	176	156	194	
Projected Calving Interval	14	15	14	16	

Holstein					
Rolling Herd Average	21,927	19,032	16,988	13,632	
Peak Milk Yield 1st	77	68	62	52	
Peak Milk Yield 2nd	95	85	76	64	
Peak Milk Yield 3rd	102	91	83	69	
Peak Milk Yield Avg.	91	81	75	64	
Income/Feed Cost	1,722	1,458	1,226	909	
SCC Average	339	376	432	515	
Days to 1st Service	86	88	86	87	
Days Open	147	150	165	178	
Projected Calving Interval	14	14	15	15	

Jersey					
Rolling Herd Average	15,582	13,446	11,737	9,237	
Peak Milk Yield 1st	54	48	39	35	
Peak Milk Yield 2nd	66	58	53	43	
Peak Milk Yield 3rd	72	59	58	45	
Peak Milk Yield Avg.	64	55	52	42	
Income/Feed Cost	1,560	1,105	1,060	511	
SCC Average	333	278	322	457	
Days to 1st Service	93	68	102	63	
Days Open	132	129	148	143	
Projected Calving Interval	14	13	14	14	

Upcoming Events, *continued from page 1*

July 1 Holstein Field Day Stillwater, OK	July 12 Jersey Field Day—Nichols Dairy Westphalia, KS
July 2 Grady County Dairy Judging Clinic Chickasha, OK	July 18 Holstein Field Day—Andy Acres Farm White City, KS
July 8 Ayrshire Field Day/Mayes Co. Judging Clinic Pryor, OK	August 7 & 8 Northeast Kansas Dairy Expansion Conference Seneca, KS

Dairy Cattle experience stress when the temperature humidity index (THI) is above 72. As you're reading this newsletter your dairy cows have more than likely already experienced several days in which the THI has been above 72. A day in which the temperature is 80°F and the humidity is 30 percent will have a THI of 72. There are a number of things that can be done to alleviate some of the effects of heat stress. Some of those methods are discussed below.

Water Availability

Making cool and clean water easily available to lactating dairy cows is the first priority. Water should be made available when cows leave the milking parlor, at every crossover in freestall housing, and a minimum of two locations in drylot housing. In a pasture situation, water should be provided in multiple locations to reduce walking distance to water. Evaluate the capacity of your water system to determine if it will meet peak demand on your dairy.

Walking Distance

When a dairy cow is walking she is working. Look at strategies to reduce walking distance to the milking parlor, feed, water and shade. Try to house cows as close to feed, water, shade and milking parlor as possible. Reducing walking distance will reduce the workload of the cow and allow her to use more energy to dissipate heat and produce milk.

Shade

Research trials completed in Arizona and Florida indicate that providing shade during heat stress will increase milk production by 4 to 5 pounds per cow per day. Shade should be provided in housing areas and over the holding pen.

Milking Center

Often, dairy cows are under the most heat stress in the holding pen. Heat stress in the holding pen can be reduced by minimizing the amount of time cows spend in this area. The sides should be open during the summer to increase ventilation.

Once these basic strategies to reduce heat stress are implemented, producers can look at other techniques to cool cows on the dairy. Good luck keeping your cows cool and comfortable this summer.

Surviving in the Dairy Business Today and Tomorrow Dairy Finance Seminar

Presented by
Paul Quam M.B.A., Bank and Business Consultant
Jefferson, Iowa

*Farmland Industries and K-State Research and Extension are proudly
sponsoring this financial seminar for area dairy producers*

Topics to be discussed:

*Establishing optimal business or farm size; Forming partnerships to create larger dairy units;
Understanding debt per cow; Treating your dairy as a business; Establishing break-even points
General financial health*

Tuesday, June 3, 1997
Building #21, Douglas County Fairgrounds
10:00 a.m.–3:00 p.m.

Lunch will be provided—A minimal charge of \$10 per head is requested to partially cover our expense.

Please make reservations through

Sarah Leonard, Farmland @ 913-863-2815 or Gary Keeler, K-State Research & Extension @ 913-843-7058

Hay Prices*—Kansas

	Location	Quality	Price (\$/ton)
Alfalfa	Southwestern Kansas	Premium	120–126
Alfalfa	Southwestern Kansas	Good	110–120
Alfalfa	South Central Kansas	Premium	100–120
Alfalfa	South Central Kansas	Good	90–100
Alfalfa	Southeastern Kansas	Premium	110–120
Alfalfa	Southeastern Kansas	Good	95–110
Alfalfa	Northwestern Kansas	Premium	100–110
Alfalfa	Northwestern Kansas	Good	80–90
Alfalfa	North Central Kansas	Premium	100–120
Alfalfa	North Central Kansas	Good	90–100

Source: USDA Weekly Hay Report, Week ending May 6, 1997

*Premium Hay RFV = 170–200

Good Hay RFV = 150–170

Hay Prices—Oklahoma

	Location	Quality	Price (\$/ton)
Alfalfa	Central/Western, OK	Premium	120–150
Alfalfa	Central/Western, OK	Good	100–130
Alfalfa	Panhandle, OK	Premium	110–140
Alfalfa	Panhandle, OK	Good	80–95

Source: Oklahoma Department of Ag, April 23, 1997

Feed Stuffs Prices

	Location	Price (\$/ton)
SBM 48%	Kansas City	290.70–293.70
Cotton Seed Meal	Kansas City	208–212
Whole Cottonseed	Memphis	145–150
Meat and Bone Meal	Central United States	270–275
Blood Meal	Central United States	625
Corn Hominy	Kansas City	90–96
Corn Gluten Feed	Kansas City	105
Corn Gluten Meal 60%	Kansas City	340–350
Distillers Dried Grain	Central Illinois	115–128
Brewers Dried Grain	St. Louis	120
Wheat Middlings	Kansas City	78–82

Source: USDA Weekly Feed Stuffs Report,

Week ending April 30, 1997

Department of Animal Sciences & Industry
125 Call Hall
Manhattan, Kansas 66506-1600

Nonprofit Organization
U.S. POSTAGE
PAID
Permit #525
Manhattan, Kan. 66502

Dairy Lines is jointly published for dairy producers by the Department of Animal Sciences and Industry, K-State Research and Extension, and the Department of Animal Science, Oklahoma Cooperative Extension Service.

For more information or questions, please contact 913-532-5654 (K-State) or 405-744-6058 (Oklahoma State).

Dick Dunham
Extension Specialist,
Dairy Science
K-State

John Smith
Extension Specialist,
Dairy Science
K-State

Dan Waldner
Extension Specialist
Dairy Science
Oklahoma State

The Department of Animal Sciences and Industry at Kansas State University greatly appreciates the sponsor(s) of the Dairy Lines Newsletter. These sponsorships in no way imply the Department's endorsement of the products and services offered by the sponsors. The Department welcomes inquiries from other individuals, associations and firms that may be interested in cosponsoring this publication.

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

Dairy Lines

DAIRY EXTENSION SERVICE NEWS
K-State Research and Extension
and Oklahoma State University

