

Dairy Lines



Volume 3, Number 6

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

July 1

Holstein Field Day

Stillwater, OK

July 2

Grady County Dairy

Judging Clinic

Chickasha, OK

July 8

Ayrshire Field Day/Mayes Co.

Judging Clinic

Pryer, OK



Printing sponsored by



Relative Value of Alternative Feeds

by Dan N. Waldner

OSU Extension Dairy Specialist

Feed costs constitute 40 to 60 percent of the total cost of producing milk. Consequently, as profit margins decrease, producers often focus on the feeding program to improve profitability.

Corn and soybean meal are the standards for energy and protein, respectively, against which other feeds are usually compared. When corn and soybean meal prices are high, partial replacement with alternative feeds and/or by-products are often attractive.

Criteria for selecting a feedstuff to be included in a ration include: (1) nutrient composition, (2) price—relative to other ingredients supplying the same nutrients, (3) palatability and (4) availability. In addition, the producer must consider the

nutritional attributes of the feed.

An example is whole cottonseed. When dealing with low fiber diets, a producer may be willing to pay more for whole cottonseed, than solely as a substitute for corn and soybean meal, due to its ability to promote cud-chewing.

The most accurate comparison for various feeds available to a producer is based on laboratory analysis and use of a computer ration formulation program to calculate opportunity prices for feeds. However, producers often want rapid decisions on the feeding value of alternative feeds when formulating rations. Common questions include, "How much should I pay for this feed?" and "When is this feed a good buy?"

Feed-evaluation factors for selected feedstuffs used in dairy cow rations.

Feedstuff	DM (%)	CP (%)	NE _L Mcal/lb	Feed Factors		Value, as fed (\$/cwt)
				Corn	SBM	
Cottonseed, meal	91	45	.79	-0.018	.926	12.58
Cottonseed, whole	88	23	.98	0.781	0.313	8.74
Blood meal	91	93	.68	-1.010	2.078	22.71
Corn hominy	90	14	.98	1.000	0.035	6.18
Corn gluten feed	90	23	.87	0.657	0.331	8.28
Corn gluten meal, 60%	90	67	.94	-0.343	1.411	17.38
Distillers dried grain	90	25	.93	0.563	0.483	9.83
Brewers dried grain	92	27	.68	0.293	0.497	8.78
Soyhulls	90	12	.8	0.829	0.080	5.82
Wheat middlings	90	18	.71	0.549	0.249	6.54

Value estimated using corn = \$5.70/cwt and SBM = \$13.70/cwt.

NRAES-63, Dairy Reference Manual, 3rd Ed. 1995.

Heart of America Dairy Herd Improvement Summary (May)

Relative Value of Alternative Feeds continued from page 1

	Quartiles				Your Herd
	1	2	3	4	
Ayrshire					
Rolling Herd Average	16,419	15,000	13,737	11,765	
Peak Milk Yield 1st	60.0	58.0	49.0	45.7	
Peak Milk Yield 2nd	74.5	72.5	68.5	60.7	
Peak Milk Yield 3rd	92.0	75.5	68.5	62.3	
Peak Milk Yield Avg.	73.5	70.0	59.5	57.7	
Income/Feed Cost	987	904	795	764	
SCC Average	267	307	423	506	
Days to 1st Service	75	73	76	82	
Days Open	134	115	116	157	
Projected Calving Interval	13.6	13.0	13.0	14.4	
Brown Swiss					
Rolling Herd Average	20,729	16,229	14,734	13,721	
Peak Milk Yield 1st	69.3	55.7	55.0	50.0	
Peak Milk Yield 2nd	88.0	69.3	72.3	62.0	
Peak Milk Yield 3rd	91.3	81.0	76.3	69.0	
Peak Milk Yield Avg.	83.0	71.0	67.7	58.7	
Income/Feed Cost	1,507	1,460	988	734	
SCC Average	349	338	572	226	
Days to 1st Service	70	64	110	75	
Days Open	143	143	176	133	
Projected Calving Interval	13.9	13.9	15.0	13.6	
Holstein					
Rolling Herd Average	21,927	19,032	16,987	13,632	
Peak Milk Yield 1st	77.3	67.5	61.9	52.4	
Peak Milk Yield 2nd	95.3	84.8	76.5	64.2	
Peak Milk Yield 3rd	102.3	91.0	83.1	69.4	
Peak Milk Yield Avg.	91.2	81.4	74.7	63.8	
Income/Feed Cost	1,722	1,457	1,226	909	
SCC Average	339	375	432	514	
Days to 1st Service	86	88	86	87	
Days Open	147	150	165	178	
Projected Calving Interval	14.0	14.1	14.7	15.1	
Jersey					
Rolling Herd Average	15,582	13,445	11,737	9,237	
Peak Milk Yield 1st	53.9	47.6	39.4	35.4	
Peak Milk Yield 2nd	65.6	58.1	53.1	42.9	
Peak Milk Yield 3rd	71.9	59.1	58.1	45.4	
Peak Milk Yield Avg.	64.0	55.0	51.6	42.4	
Income/Feed Cost	1,560	1,105	1,059	511	
SCC Average	332	278	322	456	
Days to 1st Service	93	68	102	63	
Days Open	133	129	147	143	
Projected Calving Interval	13.6	13.5	14.1	13.9	

To determine the comparative value of an ingredient, use the feed factors listed in the table on page 1 opposite the feed ingredient of interest. Multiply the "corn factor" by the current hundredweight price of corn, multiply the "soybean meal factor" by the current hundredweight price of 44 percent soybean meal; then add the two answers. Compare the computed value with the actual price of the ingredient. If the computed value of the ingredient is greater than the actual price, the ingredient being considered is a better buy (by the amount of the difference) than the same nutrients from a combination of corn and soybean meal. If the computed value is less than the price of the ingredient, it is not a good buy. For greater precision, include shipping, storage and preparation costs as well as shrink when making price comparisons.

Remember, development of the most economical feeding program involves more than looking for the least expensive protein and energy supplement. One must consider the nutrient composition of the various feeds available, how they might complement each other and limitations on their use in order to make proper ration adjustments and increase profits.

Hay Prices*—Kansas

	Location	Quality	Price (\$/ton)
Alfalfa	Southwestern Kansas	Premium	100-110
Alfalfa	Southwestern Kansas	Good	—
Alfalfa	South Central Kansas	Premium	100-110
Alfalfa	South Central Kansas	Good	90
Alfalfa	Southeastern Kansas	Premium	100-110
Alfalfa	Southeastern Kansas	Good	90-100
Alfalfa	Northwestern Kansas	Premium	100-110
Alfalfa	Northwestern Kansas	Good	80-90
Alfalfa	North Central Kansas	Premium	100-110
Alfalfa	North Central Kansas	Good	90-100

Source: USDA Weekly Hay Report, Week ending May 28, 1997

*Premium Hay RFV = 170-200

Good Hay RFV = 150-170

Hay Prices—Oklahoma

	Location	Quality	Price (\$/ton)
Alfalfa	Central/Western, OK	Premium	100-110
Alfalfa	Central/Western, OK	Premium	130-150
Alfalfa	Panhandle, OK	Good	85-90
Alfalfa	Panhandle, OK	Good	105-113

Source: Oklahoma Department of Ag, June, 1997

Upcoming Events, continued from page 1

July 31–August 2
Sooner State Dairy Show
Stillwater, OK

July 12
Jersey Field Day—Nichols Dairy
Westphalia, KS

July 18
Holstein Field Day
Andy Acres Farm
White City, KS

August 7 & 8
Northeast Kansas Dairy
Expansion Conference
Seneca, KS

Commercial Agriculture Dairy Tour July 15-18, 1997

Presented by
University Extension
University of Missouri, Columbia, Missouri

This tour will include an opportunity for dairy producers to explore methods of how they can position the family dairy operation for the next generation. Many of the farms we will be visiting have recently undergone change in facilities and business structure to

adapt to the changing dairy industry. Tour participants will also have the opportunity to exchange ideas with fellow dairy producers to gain a greater appreciation for the dairy industry.

For questions, please call:
573-882-7848

Feed Stuffs Prices

	Location	Price (\$/ton)
SBM 48%	Kansas City	299-304
Cotton Seed Meal	Kansas City	209-211.50
Whole Cottonseed	Memphis	165
Meat and Bone Meal	Central United States	279-285
Blood Meal	Central United States	320
Corn Hominy	Kansas City	93-96
Corn Gluten Feed	Kansas City	90
Corn Gluten Meal 60%	Kansas City	355-360
Distillers Dried Grain	Central Illinois	110-130
Brewers Dried Grain	St. Louis	120
Wheat Middlings	Kansas City	81-84

Source: USDA Weekly Feed Stuffs Report,
Week ending May 28, 1997



Everyone Invited to Field Days Kansas Jersey Field Day July 12, 1997

Nichols Dairy, Westphalia, KS

Directions: Twelve miles west of Garnett on 7th Street Road, then south $\frac{1}{8}$ mile or from US75 take Wolf Creek exit 4 miles to Garnett sign and continue on 12 miles then $\frac{1}{8}$ mile south.

Program:

- 10:00 a.m. Registration
- 10:30 a.m. Jersey type demonstration and youth and adult judging contest
- Noon Lunch—compliments of sponsors
- 1:00 p.m. Judging contest results and program

Kansas Holstein Field Day July 18, 1997

Andyacres Holstein Farm, White City, KS

Directions: One mile north and $\frac{1}{2}$ mile east of White City

Program:

- 9:00 a.m. Registration
- 10:00 a.m. Retail Dairy Sales
- Noon Lunch—compliments of sponsors
- 1:00 p.m. Tour facilities
- Continue program

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 (OSU).

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.



Dick Dunham
Extension Specialist,
Dairy Science
K-State



John Smith
Extension Specialist,
Dairy Science
K-State



Dan Waldner
Extension Specialist,
Dairy Science
Oklahoma State

Dairy Lines 

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