September 1998

Dairy Lines

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DAIRY RESEARCH & EXTENSION NEWS

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

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Upcoming Events

September 18-22
State Fair of Oklahoma Dairy Cattle Show
Youth Dairy Judging Contest
9 a.m.—Sept. 19
Oklahoma City

September 24-27
Tulsa State Fair
Youth Dairy Judging Contest
9 a.m.—Sept. 26
Tulsa

November 18, 19, 20
Adel Dairy Days

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Ear Molds Found In 1998 Kansas Corn Crop

by Doug Jardine, Extension State Leader Plant Pathology

Kansas corn producers should consider testing their 1998 crop for aflatoxin and other mycotoxins.

At least four kinds of ear mold have been diagnosed in corn samples received at the Plant Disease Diagnostic Clinic.

Aspergillus ear rot, the producer of aflatoxin, has been detected, as well as Fusarium, Gibberella and Penicillium ear rot. Of those present, Aspergillus is the major concern at the moment. All dryland corn produced south of U.S. Highway 54 should probably be tested before feeding to dairy cattle.

Aflatoxin is produced by the mold Aspergillus flavus and it alarms people. This olive-green mold grows between kernels, but its presence does not guarantee an aflatoxin infection. A chemical test is necessary to make that call.

A "black light" test is often used to screen grain for Aspergillus flavus. The mold "fluoresces" (glows) under a black light, but less than 50 percent of "fluorescent" grain actually tests positive for aflatoxin.

The FDA safe level for aflatoxin is 20 parts per billion (ppb). The standards indicate that grain testing at 20 to 100 ppb of aflatoxin should not be used for human consumption or as feed for immature animals (including poultry) or dairy animals. It can be used as feed for breeding cattle, swine and mature poultry, however.

Grain testing at 100 to 200 ppb is suitable for finishing swine (over 100 pounds) or beef cattle. Levels between 200 and 300 ppb limits grain use to finishing beef cattle only. Grain with aflatoxin levels higher than 300 ppb cannot be used as feed unless it is cleaned or diluted (blended) with clean grain. Blending is only acceptable with FDA approval and blended grain can only be used as livestock feed.

Producers should screen grain from suspect fields with the black light test. Fields with positive samples should be harvested and dried as quickly as possible to 13 or 14 percent moisture.

Keep aflatoxin-contaminated corn separate from sound corn and use extra care in cleaning bins that may have held contaminated grain.

Fusarium, Gibberella and Penicillium ear rot have also been found in corn samples this year.

Warm, dry weather favors Fusarium development, while cool, wet weather within three weeks of silking favors Gibberella. Fusarium is a powdery, or cottony-pink mold. Gibberella produces a red mold near the ear tip. Livestock fed Gibberella-infected corn will often refuse feed, vomit or show signs of estrogenic syndrome (especially swine). Penicillium is a greenish-blue mold usually found around the tips of damaged ears. While Penicillium can produce toxins, it is not known to cause feeding problems in Kansas, but it can cause dockage due to poor grain quality.

continued on page 2

Heart of America Dairy Herd Improvement Summary (August)

	Quartiles				Your Herd
	1	2	3	4	
Ayrshire					
Rolling Herd Average	16,495	14,431	12,116	10,432	
Peak Milk Yield 1st	66.0	56.0	48.5	39.5	
Peak Milk Yield 2nd	77.0	67.3	52.5	51.0	
Peak Milk Yield 3rd	86.0	75.6	67.5	66.3	
Peak Milk Yield Avg.	76.0	63.6	58.0	62.0	
Income/Feed Cost	917	826	832	420	
SCC Average	307	285	351	286	
Days to 1st Service	77	89	90	107	
Days Open	116	120	137	171	
Projected Calving Interval	13.0	13.1	13.7	14.8	
Brown Swiss					
Rolling Herd Average	20,425	16,159	14,332	13,894	
Peak Milk Yield 1st	66.8	56.5	51.3	50.8	
Peak Milk Yield 2nd	86.4	75.1	61.6	67.3	
Peak Milk Yield 3rd	92.8	80.1	69.5	73.5	
Peak Milk Yield Avg.	82.4	70.6	63.3	63.8	
Income/Feed Cost	1,484	1,274	1,078	879	
SCC Average	308	297	293	324	
Days to 1st Service	83	87	71	47	
Days Open	153	143	185	138	
Projected Calving Interval	14.2	13.9	15.3	13.7	
Holstein					
Rolling Herd Average	22,301	19,467	17,407	14,318	
Peak Milk Yield 1st	78.6	70.0	64.0	55.8	
Peak Milk Yield 2nd	97.4	87.1	78.4	66.5	
Peak Milk Yield 3rd	104.5	93.4	84.6	72.4	
Peak Milk Yield Avg.	92.3	82.9	75.7	66.2	
Income/Feed Cost	1,723	1,463	1,237	959	
SCC Average	329	355	382	460	
Days to 1st Service	89	89	81	72	
Days Open	157	164	166	179	
Projected Calving Interval	14.4	14.6	14.6	15.1	
Jersey					
Rolling Herd Average	16,370	13,804	12,161	9,792	
Peak Milk Yield 1st	55.7	49.0	47.5	40.0	
Peak Milk Yield 2nd	69.1	59.9	55.4	46.7	
Peak Milk Yield 3rd	74.6	63.7	58.6	50.3	
Peak Milk Yield Avg.	67.6	58.0	54.9	46.0	
Income/Feed Cost	1,499	1,136	939	661	
SCC Average	321	284	287	396	
Days to 1st Service	68	82	84	67	
Days Open	124	132	140	169	
Projected Calving Interval	13.3	13.5	13.8	14.8	
Milking Shorthorn					
Rolling Herd Average	14,715	13,623	13,099	11,283	
Peak Milk Yield 1st	55.0	53.0	47.0	51.0	
Peak Milk Yield 2nd	66.0	56.0	55.0	58.5	
Peak Milk Yield 3rd	78.0	74.0	68.0	60.0	
Peak Milk Yield Avg.	67.0	64.0	58.0	56.5	
Income/Feed Cost	1,360	1,257	954	843	
SCC Average	382	309	317	155	
Days to 1st Service	80	81	91	16	
Days Open	107	115	159	198	
Projected Calving Interval	12.7	13.0	14.4	15.7	

Hay Prices—Oklahoma

	Location	*Quality*	*Price ($/ton)*
Alfalfa	Central/Western, OK	Premium	100–120
Alfalfa	Central/Western, OK	Good	80–100
Alfalfa	Panhandle, OK	Premium	100–120
Alfalfa	Panhandle, OK	Good	80–100

Source: Oklahoma Department of Agriculture, *August 27, 1998*

Ear Molds continued from page 1

Producers can reduce mycotoxins after grain harvest with these simple procedures:

1. Harvest when moisture content allows minimum grain damage (24 to 26 percent).
2. Adjust equipment for minimum kernel damage and maximum cleaning.
3. Dry shelled grain to at least 15 percent moisture, 24 to 48 hours after harvest.
4. Dry grain to below 13 percent moisture for long-term storage.
5. Cool the grain after drying to 35 to 40°F.
6. Aerate and test for "hot spots" at one- to four-week intervals during the storage period.

There are some registered products (organic acids) that help reduce mold growth in stored grain. They do not remove existing molds; they only prevent further growth, if properly used. Grain that is treated with an organic acid can only be used as livestock and poultry feed.

Producers in need of ear mold identification can submit samples to the K-State Plant Disease Diagnostic Clinic in Manhattan through their local county research and extension office. The Kansas Department of Agriculture Grain Inspection Lab in Topeka (785-296-3786) or private laboratories can be contacted for information on how to submit samples and the cost of mycotoxin testing.

Thank You to Dick Dunham for 29 Years of Service

James Richard (Dick) Dunham was born November 25, 1937, at Walnut, Kansas. He grew up in the dairy business and entered Kansas State University as a freshman in Dairy Science in 1955. He returned to the family dairy farm in 1959 after completing requirements for a B.S. degree in Dairy Science. He returned to Kansas State University in 1964, received a Master of Science degree in 1967 and a Ph.D. in Animal Nutrition in 1969. He served one year as Dairy Extension Specialist at Iowa State University before returning to Kansas in 1969 where he has served as a Dairy Extension Specialist for 29 years. Dick has been extremely active in his service to the Kansas dairy industry and an integral part of the Dairy Herd Improvement Association team. He has published numerous refereed journal articles, dairy day reports, extension bulletins, popular press articles and developed 11 computer software programs. Five of his software programs are included in the CD-ROM National Dairy Database. His active participation at the state fair, dairy shows, breed association meetings, and other dairy events have endeared him to dairy producers throughout the state. His advice and counsel on nutrition and management problems was constantly in demand. Dick willingly gave of his time; day, night and weekends. His service to Kansas and the Nation, and his dedication to the dairy industry have earned him numerous honors and awards throughout his career.

Dick received the Epsilon Sigma Phi-Alpha Gamma Rho meritorious service award, Kansas Junior Dairy Show award of appreciation, Friend of County Agents award, Kansas Dairy Leader award, Kansas 4-H Clover award, Kansas Dairy Fieldman's award, Gamma Sigma Delta Excellence in Extension award, and was presented with Honorary Lifetime membership in the K-State Dairy Science Club and Kansas Holstein Association.

1998 Dairy Day Program

Dedicated to
Dr. J. R. (Dick) Dunham

November 18
Franklin County Fairgrounds
OTTAWA

November 19
Amish Community Building
WHITESIDE

November 20
Valentino's Restaurant
SENECA

PROGRAM

10:00 a.m.	Registration
10:25 a.m.	Welcome
10:30 a.m.	'How to Program A.I.-Breed Your Dairy Cows'—Jeff Stevenson, Animal Sciences, KSU
11:15 a.m.	'Designing/Sizing of Cooling Systems for Dairy Cows' Joe Harner, Biological/ Agricultural Engineering, KSU
NOON	Lunch—*Sponsored by the Kansas Dairy Association (KDA)*
1:00 p.m.	'What We Learned About Cooling Cows in Kansas'—John Smith, Animal Sciences, KSU
1:45 p.m.	'Milk Urea Nitrogen (MUN): A Management Tool'—John Shirley, Animal Sciences, KSU
2:30 p.m.	Adjourn

In order to plan for food, we need your reservation by November 6. Please clip and return the reservation slip or call one of the following K-State Research and Extension Offices:

David Key
Nemaha County Agent
604 Nemaha, Ste. 201
Seneca, KS 66538
785-336-2184

Greg McCormack
Reno County Agent
2 W. 10th
South Hutchinson, KS 67505
316-662-2371

Darren Hibdon
Franklin County Agent
1418 S. Main, Suite 2
Ottawa, KS 66067
785-229-3520

Clip and send to one of the addresses to the left.

Please reserve (No.) ____ meals for the Area DHIA Meeting.

Name: _____

Dairy Lines

Hay Prices—Kansas*

	Location	*Quality*	*Price ($/ton)*
Alfalfa	Southwestern Kansas	Premium	75–85
Alfalfa	Southwestern Kansas	Good	60–75
Alfalfa	South Central Kansas	Premium	70–95
Alfalfa	South Central Kansas	Good	70–75
Alfalfa	Southeastern Kansas	Premium	85–100
Alfalfa	Southeastern Kansas	Good	75–85
Alfalfa	Northwestern Kansas	Premium	85–90
Alfalfa	Northwestern Kansas	Good	80
Alfalfa	North Central Kansas	Premium	85–95
Alfalfa	North Central Kansas	Good	80–85

Source: USDA Weekly Hay Report, *Week ending September 1, 1998*

*Premium Hay RFV = 170–200
Good Hay RFV = 150–170

Feed Stuffs Prices

	Location	*Price ($/ton)*
SBM 48%	Kansas City	147.20–155.20
Cotton Seed Meal	Kansas City	139–143
Whole Cottonseed	Memphis	145
Blood Meal	Central United States	350–355
Corn Hominy	Kansas City	65–68
Corn Gluten Feed	Kansas City	55–60
Corn Gluten Meal 60%	Kansas City	235–240
Distillers Dried Grain	Central Illinois	80–82
Brewers Dried Grain	St. Louis	NA
Wheat Middlings	Kansas City	38–41

Source: USDA Weekly Feed Stuffs Report, *Week ending August 26, 1998*

Department of Animal Sciences and Industry
139 Call Hall
Manhattan, KS 66506

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).

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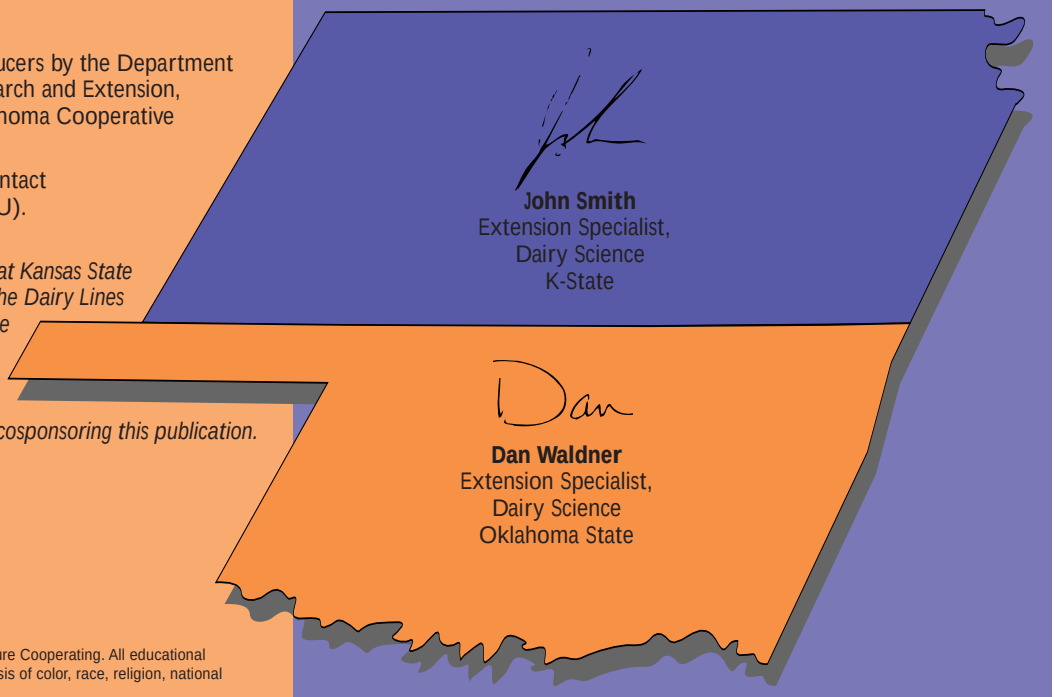

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