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Balanced Dairying

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PRODUCTION

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GnRH Injection at Breeding Research Trial

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Texas Agricultural Extension Service
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All cows are problem breeders in the summer in Southern climates. Injection of GnRH 10 to 12 hours prior to insemination resulted (Ullah, et al., 1995) in an increase in mean progesterone concentration during the ensuing luteal phase. This may enhance pregnancy maintenance and may improve the chance of cows becoming pregnant at subsequent insemination.

MATERIALS AND METHODS

Three commercial dairy herds located in Erath County, Texas were selected to participate in a summer breeding trial based on their use of artificial insemination and record keeping systems. At the time of the trial, none of the herds were using bovine somatotropin as part of their summer management program. All three herds had loafing area shades, and some cows had shades and cooling over the feed bunks.

Estrous detection and general reproductive management practices were not altered from the standard practice in the herds. Tail head chalking was used as part of the estrous detection program in each herd. Each morning, cows were locked up and checked for signs of estrus. Each herd had regularly-scheduled veterinary

service with pregnancy exams for palpation. Cows were inseminated based upon observation. At the time of insemination, cows were injected randomly with either 2 ml of saline or GnRH (100 mcg of Cystorelin[®] provided by Rhone Merieux, Inc., Overland Park, KS). Each syringe was pre-loaded and numbered prior to being delivered to the farm, to maintain a blind test. Daily high and low temperature data were collected at the Texas A&M University Research and Extension Center at Stephenville.

Cows were bred from July 15, 1995 to Oct. 1, 1995. The following data was collected from each herd following a regularly-scheduled pregnancy exam at least 40 days from the last breeding: herd, cow identification, parity, days in milk at service, treatment, pregnancy status, date of freshening, days open, days to first breeding, service sire identification, and service number. Data were analyzed using SAS.

RESULTS

A total of 745 usable services were recorded during the trial. The only significant effect on pregnancy rate was herd.

Educational programs conducted by the Texas Agricultural Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin

Description	Herd			Overall I
	A	B	C	
No. of Cows Treated with GnRH	134	46	187	367
No. of Cows Treated with Saline	129	50	199	378
% GnRH Treated Cows Pregnant	6.72	6.52	9.09	7.9
% Saline Treated Cows Pregnant	6.20	8.00	12.56	9.7

Although maximum temperature was not significant, herds A and B completed treatments of all cows in the latter half of July and August, while herd C continued treating cows through October 1, 1995. The maximum temperature did not exceed 90°F one day in July and three days in August, while in September, 18 days registered below 90°F and the maximum temperature on eight days was less than 80°F. The summer of 1995 was extremely stressful on cows as evidenced by the overall mean of only 8.8 % pregnant.

CONCLUSION

In this study, giving GnRH at insemination did not improve the conception rate of dairy cows under conditions of summer heat stress. Treatments were given at the time of insemination rather than at time of detection, and insemination occurring 10 to 12 hours after treatment as reported by Ullah et. al, 1996. For a new management technique to be adopted in large herds, the practice must be cost effective and add minimal labor simultaneously. An additional trial, following the original protocol of Ullah et. al, should be conducted to determine if the increase in reported progesterone concentration will improve conception rate during periods of summer heat stress.

ACKNOWLEDGMENT

Special thanks to the three herds in Erath Co. that participated in this project and to Rhone Merieux, Overland Park, KS for providing the Cystorelin^R.

DIPYRONE ALERT

Dipyrone is not approved for use in any animals. Dairy farmers, veterinarians and consultants should be aware that the use of dipyrone is illegal drug use. Drug manufacturers/distributors had until September 1996 to remove this drug from distribution/sales channels. If dipyrone is observed on a dairy farm during a rating or check rating inspection after March 1, 1997, it would be in violation of Item 16r(i) of the Pasteurized Milk Ordinance.

BOVINE TUBERCULOSIS

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Texas Agricultural Extension Service and College of Veterinary Medicine

Cattle tuberculosis (TB) is caused by a bacterium, *Mycobacterium bovis*. This bacterium infects all warm-blooded animals, including humans. However, bovine TB is rarely diagnosed in humans. Human TB is caused by a different species of *Mycobacterium*.

The most common means of transmission between cattle is aerosol inhalation. Transmission may also occur by ingestion of fecal-contaminated water or feed, or as a result of calves nursing infected dams.

The disease is characterized by the progressive development of tubercles in any internal organ of the infected animal. The tubercles (granulomas) or tumor-like masses form as the body's defense mechanisms tries to localize, or wall off, bacterial invasion into the tissues. As the disease worsens, cattle often begin coughing and develop a nasal discharge. They progressively lose weight with symptoms of varying degrees of emaciation and weakness. TB in livestock is not considered curable. Infected cattle are destroyed.

The Bovine Tuberculosis Eradication Program has been ongoing in the United States since 1917. Two methods are used to detect bovine TB. One is skin (caudal fold) testing of cattle for TB to meet the requirements for interstate movement and herd accreditation. The other is through slaughter surveillance. Cattle slaughtered at federally-inspected slaughter plants are examined for tubercles. Carcasses with TB lesions detected by meat inspectors are condemned and destroyed. When infected herds are found infected by either method, exposed cattle are quarantined to determine the presence or absence of TB. An infected herd is quarantined, until all infected cattle are removed to slaughter, and the herd is negative after a series of tests.

The program reduced the national prevalence of disease in cattle from 5% in 1917 to .015% in 1990. Unfortunately the number of quarantined cattle herds in the U.S. infected with *M. bovis* has increased since 1990, with most of those infected herds in the dairy sector. For more than a decade, bovine TB has been diagnosed more frequently in cattle, farmed deer and elk, bison, and llamas throughout the U.S. This re-emergence in Texas poses economic problems for both dairy and beef industries.

Cattle producers and their veterinarians should develop and implement total health programs to foster optimal health and welfare that enhances productivity and economic efficiency of cattle. The result ensures abundant, safe, and wholesome food to the consumer. Health management includes preventive measures against infectious diseases. As bovine TB is included with other diseases of cattle, the preventive measures against diseases are applicable to control of TB. Total health management minimizes the potential for introduction of infectious diseases, including bovine TB.

These practices include: (1) annual herd tests; (2) replacement animal tests; and (3) tests of emaciated cattle. The TB test performed by the veterinarian is the caudal fold skin test. Any positive results must be reported to USDA's, Animal and Plant Health Inspection Service.

*Watch the Texas Register
for a proposed rule to allow
ammoniating aflatoxin contaminated
cottonseed so it can be used for dairy
cattle.*

FABULOUS FIVE FRESHMEN AT TEXAS A&M UNIVERSITY

A few years ago, the University of Michigan recruited and started five freshmen on their basketball team who made it all the way to the final four. That group will be remembered as the best freshmen class in college basketball.

Well, Texas A&M boasts its own fabulous five freshmen in dairy science this fall. All five have become *starters* in the Dairy Science Club and/or operation of the Texas A&M Dairy Cattle Center.

Luke Woelber, from El Paso, following in his dad's footsteps, is majoring in Dairy Science and is an integral part of the dairy cattle center's weekend student worker group. Luke feeds at the dairy Friday through Sunday. "Feeding the cows is an important job that can't be trusted to just anybody," said Glenn Holub, undergraduate advisor. That's why it is so special that a freshman is entrusted to the job. Luke's parents must miss him on the farm back home.

Nora Stegall, of Bridgeport, also is active on campus and in the dairy science club. Nora has secured a job in a laboratory in the Kleberg building for the fall semester. Nora always seems to have a smile on her face and comes by the dairy science offices to *check in* every now and then.

Jessica Yancey, of Garland, has been super active in the dairy science club. Jessica is also taking the Dairy Science 204 class that spent a whole Sunday helping picture cattle at the dairy center recently. Jessica brings a very mature approach to her involvement in the club having shown cattle for most of her years in 4-H and FFA.

The last two freshmen were nabbed from out of state. Stacey Pieters, of New York, took a trip to Texas A&M last spring with her dad. After a tour from Dr. Hesby and Glenn Holub, she decided to attend Texas A&M and major in Dairy Science. Active in the dairy science club, she also attended the Saddle and Sirloin's Little Southwestern last spring with her dad and that *hands-on experience* is what made her decide on Texas A&M. Stacey tested out of most of her Freshmen level classes at Texas A&M upon her arrival, much to the envy of her peers.

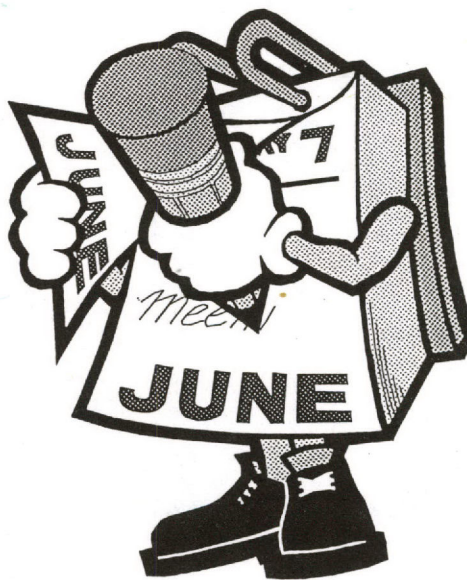
The last student was a real steal from Oregon. Amanda Arata was Oregon's State Star Farmer in FFA, and grew up on a dairy farm showing all kinds of livestock. Amanda made her first trip to A&M with her Mom on a day when the temperature was 103 degrees with 65 percent humidity. We're not sure if that was the attraction to our campus, but Dr. Joe Townsend helped us land her in Dairy Science. Amanda also is involved in the operations of the Texas A&M dairy cattle center as a reliable milker and calf rearer. Amanda's first trip home to Oregon was during Christmas.

The most pleasing aspect of these five students is that they are averaging a GPA of 2.78 with more than 15 hours each while still maintaining their busy schedules of work and club functions. Can we hope for another good group of freshman in 1997? If you know a high school student who is interested in dairy science, have them contact Glenn Holub, Assistant Lecturer, Animal Science Department at Texas A&M University, Dairy Section, 032 Kleberg Center, College Station, Texas 77843-2471.



CALENDAR OF EVENTS

- Feb. 6** **Texas Animal Nutrition Council**
Stephenville, TX
Contact: Ellen R. Jordan, 972-952-9212
- Feb. 7** **Dairy Technical Review: Reproductive Management**
Commerce, TX
Contact: Ellen R. Jordan, 972-952-9212
- Feb. 16-19** **National Mastitis Council Meeting**
Albuquerque, NM
Phone: 608-224-0622
- Mar. 13-15** **Western Dairy Management Conference**
Las Vegas, NV
Contact: John Smith, 913-532-2370
- Mar. 20** **Dairy Technical Review: Reproductive Management**
Decatur, TX
Contact: Ellen Jordan, 972-952-9212
- Apr. 10-12** **First National Professional Heifer Grower's Meeting**
Atlanta, GA
Contact: Janet York, 206-840-4575
- May 1-2** **Mid-South Ruminant Nutrition Conference**
Irving, TX
Contact: Ellen Jordan, 972-952-9210
- May 8** **Southwest Dairy Field Day**
Winnesboro, TX
Contact: E. Max Sudweeks,
903-834-6191



Mark your calendars

TEXAS SUMMARY FOR AUGUST 1996

Information Summarized	8/31/95	7/31/96	8/31/96
DHI-DHIR Herds (cows)	447	380	364
DHI-DHIR Cows	118,074	111,693	107,357
Avg. Milk/Cow/Day	42.4	45.3	43.9
Avg. Percent Fat	3.5	3.5	3.5
Avg. Fat/Cow/Day	1.49	1.59	1.53
Avg. Feed Cost/Cwt. Milk	6.39	7.33	7.31
Private Herds	93	81	85
Private Cows	26,746	24,568	25,224
DHI-DHIR Herds (goats)	58	68	66
DHI-DHIR Goats	976	1105	1039
Total Herds Enrolled	598	529	515
Total Animals Enrolled	145,796	137,366	133,620

High DHI Herds.....Michael A. Tomaszewski

These rankings are furnished by the DRPC at Raleigh for a given period of time. If a herd was tested late one month, it may cause that herd's average not to appear on that month's listing. The average would then be compared to other herd averages in the next month. Herds are ranked by test day averages for all cows. Only official herd averages are used. String averages are not used if they are not official. We have no control over how the herds appear on this list since it is a computer listing.

Ranking by Protein

Herd Owner	Milk (lbs)	Protein (lbs)
2X/Day Milking		
Stanley J Haedge	61.5	2.04
Steve Zotz	58.3	1.95
Ralph Albracht	58.2	1.86
Fine-Meadow Farm	57.9	1.85
Hinders Dairy Inc	59.2	1.82
Clifford Pennartz	57.7	1.80
Owen & Janet Sieperda	55.3	1.80
Charles H Vieth	58.7	1.79
3X/Day Milking		
Ernie Prescher	71.8	2.20
Clyde Birkenfeld	72.7	2.18
High-Hill Dairy LLC	61.4	2.02
Dan & Janet Martin Dairy	59.5	2.01
H U Degroot	57.8	1.93
Smith Dairy	59.9	1.90
Ray Johnston	60.3	1.89
Larry K Martindale	58.9	1.86

Ranking by Milk

Herd Owner	Milk (lbs)	Fat (%)	Protein (%)
2X/Day Milking			
Stanley J Haedge	61.5	3.2	3.3
Hinders Dairy Inc	59.2	3.6	3.1
Charles H Vieth	58.7	3.4	3.1
Steve Zotz	58.3	3.9	3.4
Bobby Sicking	58.2	3.6	3.1
Ralph Albracht	58.2	3.4	3.2
Fine-Meadow Farm	57.9	3.5	3.2
Clifford Pennartz	57.7	3.4	3.1
3X/Day Milking			
Clyde Birkenfeld	72.7	3.3	3.0
Ernie Prescher	71.8	3.4	3.1
High-Hill Dairy LLC	61.4	3.7	3.3
Ray Johnston	50.3	3.5	3.1
Smith Dairy	59.9	3.4	3.2
Dan & Janet Martin Dairy	59.5	3.6	3.4
Rio Grande Dairy	59.1	3.3	3.0
Larry K Martindale	58.9	3.7	3.2

Top Ten 305-Day Lactation Records

Following are the ten highest DHI mature equivalent, 305-day lactation records for butterfat production reported to the Extension Dairy Science office during August from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	% Fat	ME Milk	ME Fat
James Veitenheimer Dairy	13594774	H	11-28-88	4.5	31,944	1404
Ernie Prescher	74TX25006	H	07-08-89	4.4	32,629	1402
Moer-Milk Dairy	14174542	H	04-07-90	4.9	27,584	1328
Ted Conrady Dairy	74TLT4867	H	09-16-87	4.3	30,732	1327
Ted Conrady Dairy	14744771	H	01-23-92	4.2	31,977	1323
Kenneth Lambert	14506204	H	08-25-91	4.1	32,714	1315
John E Denton	14734806	H	01-22-92	3.3	41,068	1312
James Veitenheimer Dairy	14940678	H	12-07-91	4.4	29,969	1282
James Veitenheimer Dairy	15319635	H	10-07-93	3.8	34,198	1279
Ray Johnston	74SPX3654	H	09-05-93	4.3	30,074	1265

TEXAS SUMMARY FOR SEPTEMBER 1996

Information Summarized	9/30/95	8/31/96	9/30/96
DHI-DHIR Herds (cows)	442	364	367
DHI-DHIR Cows	117,832	107,357	108,109
Avg. Milk/Cow/Day	42.6	43.9	43.7
Avg. Percent Fat	3.5	3.5	3.5
Avg. Fat/Cow/Day	1.50	1.53	1.54
Avg. Feed Cost/Cwt. Milk	6.36	7.31	7.30
Private Herds	89	85	82
Private Cows	25,814	25,224	23,986
DHI-DHIR Herds (goats)	54	66	64
DHI-DHIR Goats	833	1039	778
Total Herds Enrolled	585	515	513
Total Animals Enrolled	144,479	133,620	132,873

High DHI Herds.....Michael A. Tomaszewski

These rankings are furnished by the DRPC at Raleigh for a given period of time. If a herd was tested late one month, it may cause that herd's average not to appear on that month's listing. The average would then be compared to other herd averages in the next month. Herds are ranked by test day averages for all cows. Only official herd averages are used. String averages are not used if they are not official. We have no control over how the herds appear on this list since it is a computer listing.

Ranking by Protein

Herd Owner	Milk (lbs)	Protein (lbs)
■ 2X/Day Milking		
Ted Conrady Dairy	61.6	2.08
Hinders Dairy Inc	64.7	2.07
Ralph Albracht	58.1	1.92
Bobby J Traweek	60.2	1.91
Leo Hoff, Jr	57.7	1.88
Jeff Conrady Dairy	56.3	1.86
Green Valley Dairy	57.9	1.85
Keith Tiechman	57.3	1.85
■ 3X/Day Milking		
Ernie Prescher	70.9	2.24
High-Hill Dairy LLC	62.1	2.12
Indian Ridge	64.7	2.01
Ray Johnston	60.9	1.90
Dan & Janet Martin Dairy	56.8	1.89
H U Degroot	56.0	1.87
Steve Vander Meer	58.0	1.86
Desperado Dairy	55.4	1.85

Ranking by Milk

Herd Owner	Milk (lbs)	Fat (%)	Protein (%)
■ 2X/Day Milking			
Hinders Dairy Inc	64.7	3.6	3.2
Ted Conrady Dairy	61.6	3.6	3.4
Bobby J Traweek	60.2	3.6	3.2
Clifford Pennartz	58.2	3.6	3.2
Ralph Albracht	58.1	3.6	3.3
Green Valley Dairy	57.9	3.5	3.2
Leo Hoff, Jr	57.7	3.4	3.3
Keith Tiechman	57.3	3.4	3.2
■ 3X/Day Milking			
Ernie Prescher	70.9	3.7	3.2
Indian Ridge	64.7	3.3	3.1
High-Hill Dairy LLC	62.1	3.5	3.4
Ray Johnston	60.9	3.5	3.1
Rio Grande Dairy	60.5	3.3	3.0
Brian Boehning	60.2	0	0
Desert View Dairy	59.6	3.2	3.1
Tony T Bos & Family	58.0	3.7	3.0

Top Ten 305-Day Lactation Records

Following are the ten highest DHI mature equivalent, 305-day lactation records for butterfat production reported to the Extension Dairy Science office during September from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	% Fat	ME Milk	ME Fat
Green Valley Dairy	14351121	H	03-12-91	4.5	30,609	1357
Moer-Milk Dairy	74WDD7671	H	11-04-88	4.1	32,261	1299
Frank Wolf	74WDL7651	H	09-03-92	4.1	32,417	1286
Moer-Milk Dairy	74WDO7501	H	09-00-93	4.1	32,104	1280
Bobby J Traweek	14346774	H	04-05-90	4.0	32,369	1257
Hinders Dairy Inc	74WDH0120	H	11-17-90	4.4	28,712	1228
Dan & Janet Martin Dairy	35THG1075	H	11-10-93	3.9	32,190	1225
Leo Hoff, Jr	14480227	H	06-22-91	4.1	30,232	1222
Leo Hoff, Jr	14954406	H	01-01-93	4.3	29,882	1222
Moer-Milk Dairy	74WDN6884	H	02-00-92	4.3	29,039	1206

TEXAS SUMMARY FOR OCTOBER 1996

Information Summarized	10/31/95	9/30/96	10/31/96
DHI-DHIR Herds (cows)	4	367	373
DHI-DHIR Cows	117,8	108,109	108,659
Avg. Milk/Cow/Day	42.	43.7	46.0
Avg. Percent Fat	3.	3.5	3.5
Avg. Fat/Cow/Day	1.	1.54	1.63
Avg. Feed Cost/Cwt. Milk		7.30	6.98
Private Herds	8	82	75
Private Cows	25,8	23,986	23,255
DHI-DHIR Herds (goats)	5	64	61
DHI-DHIR Goats	83	778	735
Total Herds Enrolled	58	513	509
Total Animals Enrolled	144,47	132,873	132,649

High DHI Herds.....Michael A. Tomaszewski

These rankings are furnished by the DRPC at Raleigh for a given period of time. If a herd was tested late one month, it may cause that herd's average not to appear on that month's listing. The average would then be compared to other herd averages in the next month. Herds are ranked by test day averages for all cows. Only official herd averages are used. String averages are not used if they are not official. We have no control over how the herds appear on this list since it is a computer listing.

Ranking by Protein

Herd Owner	Milk (lbs)	Protein (lbs)
2X/Day Milking		
Keith Tiechman	73.8	2.44
Hinders Dairy Inc	67.9	2.36
Bobby J Traweek	66.0	2.17
C & G Veitenheimer Dairy	59.8	2.08
Mike Schreiber	63.1	2.05
Ted Conrady Dairy	62.9	2.05
Teichman Bros.	62.1	2.04
Stanley J Haedge	58.2	2.01
3X/Day Milking		
H. U. Degroot	66.8	2.27
High-Hill Dairy LLC	67.5	2.22
Ernie Prescher	68.0	2.08
Ray Johnston	65.3	2.07
Desperado Dairy	60.6	2.05
Robert Steinberger Sr	61.5	2.03
Steve Vander Meer	64.7	2.01
Brian Meurer	61.1	2.00

Ranking by Milk

Herd Owner	Milk (lbs)	Fat (%)	Protein (%)
2X/Day Milking			
Keith Tiechman	73.8	3.3	3.8
Hinders Dairy Inc	67.9	4.2	3.5
Bobby J Traweek	66.0	3.3	3.3
Mike Schreiber	63.1	3.2	3.3
Ted Conrady	62.9	3.5	3.3
Teichman Bros.	62.1	4.1	3.3
Mark Luig	61.6	3.5	3.1
Charles H Vieth	60.4	3.7	3.2
3X/Day Milking			
Ernie Prescher	68.0	3.4	3.1
High-Hill Dairy LLC	67.5	3.6	3.3
H. U. Degroot	66.8	3.7	3.4
Ray Johnston	65.3	3.5	3.2
Steve Vander Meer	64.7	3.5	3.1
Tony T Bos & Family	64.1	3.3	3.0
Desert View Dairy	63.7	3.3	3.1
Rio Grande Dairy	62.1	3.4	3.0

Top Ten 305-Day Lactation Records

Following are the ten highest DHI mature equivalent, 305-day lactation records for butterfat production reported to the Extension Dairy Science office during October from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	% Fat	ME Milk	ME Fat
Ralph Albracht	74WDH0002	H	03-16-91	5.0	31,549	1536
Dale Wolf Dairy	74SEY8406	H	09-13-91	3.8	35,985	1337
Ray Johnston	74RJD2491	H	03-11-92	5.3	26,581	1267
Ralph Albracht	74WDH8544	H	06-18-90	3.9	32,541	1247
James Veitenheimer Dairy	14973710	H	10-03-91	4.3	29,801	1240
Larry K Martindale	14979870	H	02-28-92	4.0	31,904	1227
Ray Johnston	74SED7980	H	09-10-91	4.2	29,547	1209
Hinders Dairy Inc	74WDC3986	H	03-19-89	4.1	29,326	1204
Dan & Janet Martin Dairy	35TEA7565	H	12-10-93	5.0	24,548	1201
Moer-Milk Dairy	13999305	H	06-07-90	4.2	28,756	1199