


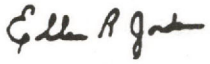



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Chris G. Woelfel Michael A. Tomaszewski College Station (409) 845-4937	Al G. Lane Stephenville (817) 968-4147	Ellen R. Jordan Dallas (214) 231-5362	E. M. Sudweeks Overton (903) 834-6191	

All Heifers are Created Equal -- Fact or Fiction!

Chris G. Woelfel, Dairy Specialist

How many times have you heard the statement, "I can buy better heifers than I can raise", or "I don't see any difference between A.I. sired heifers and heifers I can buy through a dealer or auction barn with no information." This may be true but---it's not because all heifers are of equal genetic merit when it comes to production. This has been illustrated a number of times in popular publications where the difference between the average A.I. sire and natural service sire is approximately 150 PTA\$, which translates into an added \$150 per year income from A.I. sired heifers. Using top A.I. sires with PTA\$ over 200 will add another 25-30 per cent in added income.

A Texas study illustrates the point extremely well with a striking difference in added income from A.I. versus commercial heifers (Table 1). This study was conducted on the Holtex herd in Lancaster, Texas, following the dispersal sale in 1980, with results reported in 1983. Home raised, purchased registered and purchased commercial heifers were fed a total mixed ration under the same housing, feeding and management system. The home-raised heifers were all

bred at Holtex Farm. The purchased registered were purchased after the dispersal sale from throughout the east and midwest, and the non-registered or commercial heifers were well-grown heifers with no pedigree information.

As shown in Table 1, the home raised heifers outproduced the purchased registered by 1,656 pounds and the commercial heifers by 4,026 pounds. If milk is \$13 per hundredweight, this reflects an added income of \$523 per heifer. It is important to note the home-raised heifers represented some of the top genetics in the country at that time and that the difference was real. If genetic progress is taken into consideration over the past ten years, you can add at least 1,000 to 1,500 pounds to the average production reported in this study.

There is no question that the average genetic makeup of commercial heifers has improved over the past ten to 20 years. However, the fact remains that genetics do contribute substantially to the level of milk production. All heifers are not created equal and certainly heifers from top A.I. sires are superior! Is the difference real? "You bet cha'."

Table 1. Homebred Versus Purchased Replacements¹

	Home-Raised	Purchased Animals (R.)	Purchased Animals (Non R.)
Age (calving)	26.1 M (50) ²	28.1 M. (29)	31.3 M. (20)
305 d. ME	18,759 lbs	17,103 lbs	14,733 lbs
Difference		1,656 lbs	2,370 lbs
Persistency	99.6%	100.7%	95.6%

¹White, T. H., Jr., C. G. Woelfel, and R. A. Baron, 1983.

²Number/group.

Don't Forget the Dry Cows

Ellen R. Jordan

Extension Dairy Specialist

What happens to the dry cows on your farm? Are they put in a back pasture and left to fend for themselves? Or do you treat their care as an investment in your future?

Many times, dry cows don't receive enough attention. Since they aren't contributing to current cash flow and profit, they may be given poorer quality feed or their rations may not be formulated specifically to meet their needs.

Body Condition Score

Proper management of the dry cow begins at the end of the cow's previous lactation. For years, you have been looking at cows and saying they are too thin or too heavy. In recent years, we have begun to quantify condition using a body condition score of 1 to 5. A condition score change of one unit is approximately 120 pounds of bodyweight. During late lactation, cows should have a condition score of 3 to 3.5. During the dry period a cow's condition score should be 3.25 to 3.75.

Overconditioned dry cows are 2.5 times more likely to develop cystic ovarian disease, 7.0 times more prone to foot problems after calving, and 2.8 times more likely to develop a reproductive problem during the next lactation compared to herdmates in good condition. In addition, cows which lose body condition during the dry period are at a greater risk for dystocia and for culling in the subsequent lactation.

Dry Cow Treat

Another important management tool is dry cow treatment. Dry cow treat all quarters of all cows after the final milking of the lactation. Use a product that is specifically designed for dry cows. Do not use products designed for lactating cows.

The advantages of dry cow treating include:

- 1) The cure rate is higher than during lactation.
- 2) No discarded milk.
- 3) Minimize risk of antibiotic contamination of the milk supply.
- 4) More persistent antibiotic formulations can be used, improving the chance of success.
- 5) Damaged tissue has time to be repaired before freshening.
- 6) Decreased incidence of clinical mastitis at freshening.
- 7) Prevention of new infections during the dry period.

Grouping

Separate dry cows into a minimum of two groups - a far off and a close up group. The far off group consists of cows from dry off to two to three weeks before calving. Include all cows within two to three weeks of calving in the close up group.

The far off group may be further divided into a group that needs to gain weight and a second group that needs to maintain their weight. **Do Not** put cows on a diet to lose weight.

Feeding

Feed cows in the far off group rations that contribute to development of the rumen musculature. This includes some long stem forages that are high in fiber. Providing plenty of fiber during the dry period can minimize postpartum digestive problems such as displaced abomasum.

Reduced dry matter intake usually occurs during the last two to three weeks prepartum. Thus, increase the nutrient density of the ration to maintain the desired quantities of protein, energy, minerals and vitamins. Avoid drastic changes in the postpartum ration by introducing feeds of low palatability (certain fats and animal proteins, for example) into the ration during the late dry period. Also feed at least most of the post-calving feeds during the late dry period. This does not mean you should feed the lactating ration to the close up cows without modification. Check with your nutritionist to see which feeds might be detrimental to dry cow health and avoid using them for the dry cow ration.

Dietary Cation-Anion

Recently we have been hearing about the positive effects of feeding rations with a negative dietary cation-anion difference (DCAD) to dry cows. Cations are positively charged ions and anions are negatively charged anions. Feeding negative DCAD rations has been reported to help control the incidence of subclinical hypocalcemia, clinical milk fever and droopy cow syndrome (defined as cows not cleaning in a timely manner and not eating and milking as well as they should in early lactation).

Dr. David Beede, University of Florida, spoke to the Texas Nutrition Council recently regarding DCAD. He reported that even well-managed herds, with cows in proper body condition and relatively low incidences of clinical milk fevers and ketosis produced an additional 500 to 1000 lbs of milk in the following lactation when anionic salts were fed. He also reported an improvement in fertility as measured by pregnancy rate at 200 days postpartum and days open.

Feeding DCAD rations during the dry period is not for all herds. If you want to use a dry cow ration that has been balanced using the DCAD concept follow ALL the following guidelines:

- 1) Work with a competent nutritionist.
- 2) Analyze all feeds for the following minerals - Na, K, S, and Cl, in addition to the standard analysis.
- 3) Select forages low in K (This may necessitate buying or raising forages specifically for the dry cows.).
- 4) Monitor all feed intakes (This makes the use of pasture systems for the close up group difficult to use.).
- 5) Monitor palatability problems after the addition of the anionic salts as they are low in palatability.

- 6) Use a total mixed ration for best results.
- 7) Continue balancing for other nutrients.
- 8) Keep total non-protein nitrogen at less than 0.25 per cent of total crude protein and keep degradable intake protein below 70 per cent.
- 9) Typically feed DCAD rations for 3 to 4 weeks prepartum.
- 10) Be aware that DCAD is not 100 per cent effective.
- 11) Proceed with caution.

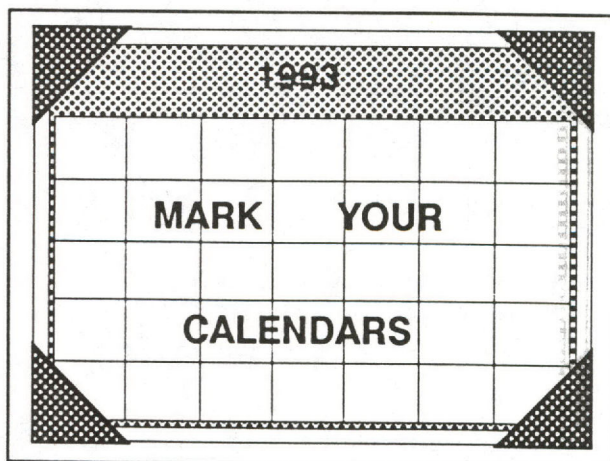
Failure to follow these guidelines, particularly in regards to farm specific ration formulation and intake monitoring, can do more harm than good. Proceed only under the guidance of a nutritionist.

Summary

Dry cow management is critical to the long term success of your operation. Develop a plan to monitor body condition, dry cow treat all quarters of all cows, group cows, feed to develop rumen musculature, introduce lactation ration ingredients to close up dry cows, and consider the use of DCAD in formulating the dry cow ration if you can follow the guidelines.

COMING EVENTS

<u>Date</u>	<u>City/Location</u>
May 13	Southwest Dairy Field Day, Pickton (See map)
May 13	Texas Nutrition Council Meeting, Sulphur Springs
June 1-3	Texas State Holstein Show, Ft. Worth
June 8-9	Texas Association of Milk, Food and Environmental Sanitarians, Austin
June 6	Dairy Day at Old City Park, Dallas
June 9-10	State 4-H Round Up and State Dairy Judging Contest, College Station



DAIRY FIELD DAY TO TACKLE ENVIRONMENTAL CONCERNS

Cost efficient, environmentally-safe methods of fertilizing pasture and hay with dairy cow wastes will be the central theme of the Southwest Dairy Field Day at Pickton, Texas, May 13.

Waste management won't be the only topic, though. Texas Agricultural Extension personnel have planned tours of free-stall housing, intensive grazing operations, and replacement heifer management. A tour of the Southwest Dairy Museum at Sulphur Springs and body-scoring demonstrations are also on the program.

Waste management has become an increasingly vital concern to dairymen throughout Texas and other states. Driven by federal guidelines on water quality, the Texas Water Commission (TWC) scrutinizes dairies with 250 cows and more. The TWC polices runoff incidents and specifies how and where effluent may be applied. The current regulatory climate affects all dairymen, either directly or indirectly.

"The Water Commission says you can't put it out unless you have a crop that will take it up. The smaller operators are not being scrutinized yet, but in theory, they should be doing the same things as the bigger producers. Extension's role is to help producers abide by the regulations," said Max Sudweeks, Texas Agricultural Extension Dairy Specialist based at Overton.

The May 13 tour will start at 9:00 a.m. on the Kempenaar Dairy, located five miles northwest of Pickton. The Jack Kempenaar family own and operate

a 600-cow dairy with an exemplary waste-handling system. Dairy wastes from the lots and milking parlor are first flushed into large concrete basins where solids can settle out. Liquids drain from the solid-waste settling basins into lagoons. The Kempenaars use the liquid lagoon waste to irrigate a variety of crops, including coastal bermudagrass, ryegrass, rye, wheat and sorghum.

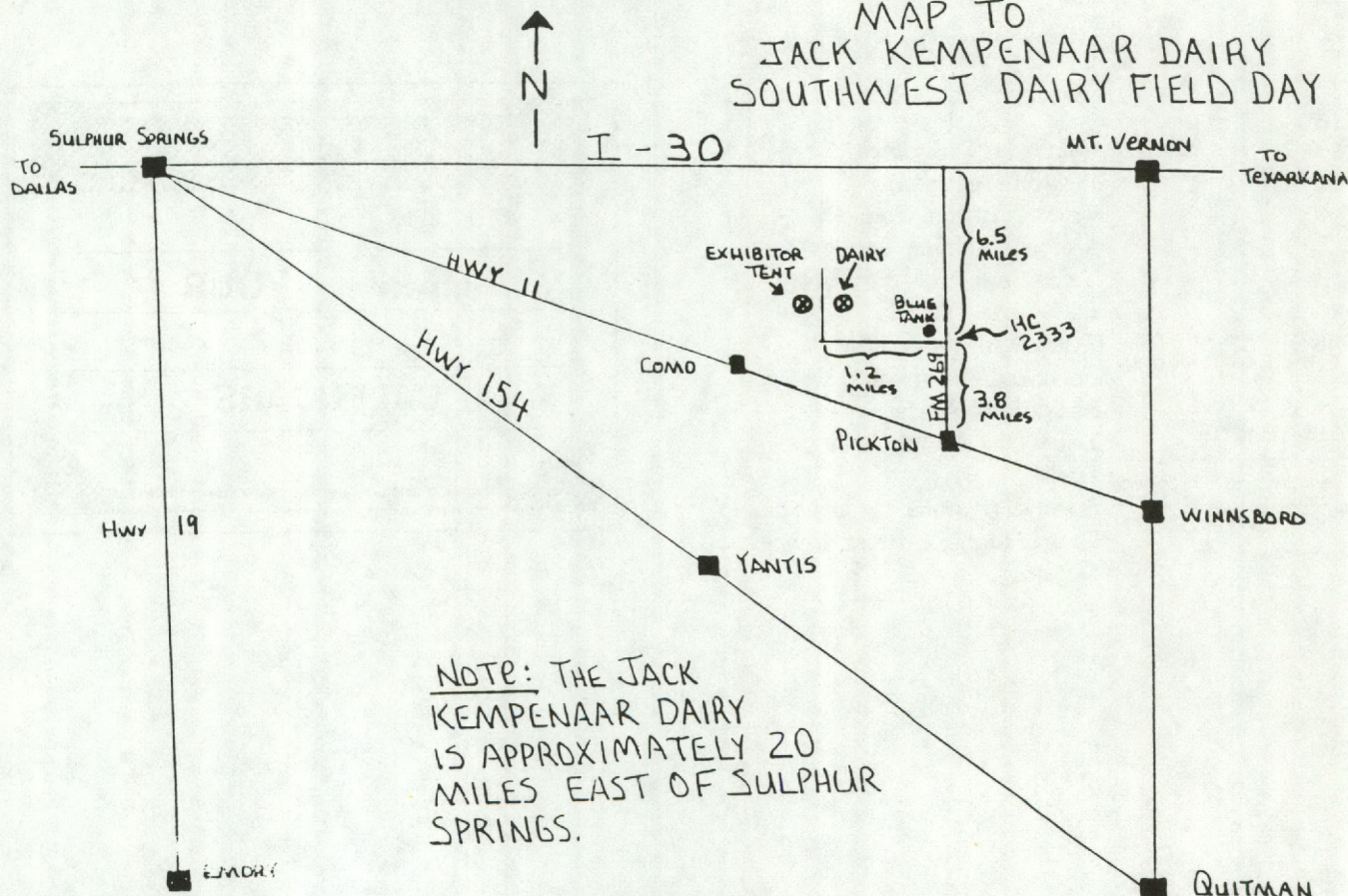
The tour will feature a free lunch, courtesy of commercial exhibitors. Dr. Joe Johnson, University of Georgia dairy expert, will speak on recycling dairy wastes.

The mid-afternoon program will feature mini-tours of four neighboring dairy farms.

- Clifford and Randy Davis have fine-tuned an intensified grazing scheme for dairy cows.
- Steve and Pam Roth intensively graze their herd, rotating warm-season and cool-season pastures.
- Dairyman J. G. Walker uses recycled dairy waste to produce silage.
- W. D. and Steve Wafford use discarded automobile tires as bedding in a self-built free-stall barn.

Admission to the field day is free. For a free brochure, featuring a schedule and map to the Kempenaar Dairy, write to Sudweeks at the Texas A&M Research and Extension Center, P. O. Box 220, Overton, Texas 75684. Or Call Sudweeks at (903) 595-3411.

MAP TO JACK KEMPENAAR DAIRY SOUTHWEST DAIRY FIELD DAY



TEXAS SUMMARY FOR JANUARY 1993

Information Summarized	1/31/92	12/31/92	1/31/93
DHI-DHIR Herds (cows)	507	509	507
DHI-DHIR Cows	104,869	108,325	109,011
Avg. Milk/Cow/Day	47.5	47.3	49.4
Avg. Percent Fat	3.7	3.7	3.7
Avg. Fat/Cow/Day	1.77	1.77	1.85
Avg. Feed Cost/Cwt. Milk	5.66	5.62	5.67
Private Herds	114	103	103
Private Cows	27,310	26,924	26,233
DHI-DHIR Herds (goats)	24	19	18
DHI-DHIR Goats	375	395	396
Total Herds Enrolled	645	631	628
Total Animals Enrolled	132,554	135,644	135,640

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. 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	No. Cows	Milk (lbs)	Protein (lbs)
■ 2X/Day Milking			
Leo A Hoff	193	69.0	2.27
Moer-Milk Dairy	242	64.0	2.22
Stanley J Haedge	189	65.6	2.20
Kupper Bro Dairy	162	67.5	2.18
Jeff Conrady Dairy	175	69.9	2.15
M & M Dairy	142	65.1	2.13
Jimmy Don & Larry Pack	387	62.4	2.12
Jimmie & Lynda Bowen	53	70.5	2.11
■ 3X/Day Milking			
Bill Stansell	125	77.0	2.35
Robert Willis	267	66.4	2.30
Winn Dairy	194	71.4	2.29
Robert Steinberger Sr	416	69.0	2.28
Roy Roy Dairy Inc	179	70.5	2.27
David Steinberger	378	66.4	2.15
Tony T Bos & Family	2657	68.0	2.07
Billy R Miller H-all	254	67.0	2.06

Ranking by Milk

Herd Owner	No. Cows	Milk (lbs)	Fat (%)	Protein (%)
■ 2X/Day Milking				
Jimmie & Lynda Bowen	53	70.5	3.8	3.0
Jeff Conrady Dairy	175	69.9	4.0	3.1
Leo A Hoff	193	69.0	3.7	3.3
T M H Dairy	265	68.7	.0	.0
Kupper Bro Dairy	162	67.5	3.4	3.2
Bobby Downe	74	67.5	3.4	3.0
Steve Myers	46	66.9	3.8	3.2
Thomas S Green	190	66.8	3.5	3.0
■ 3X/Day Milking				
Bill Stansell	125	77.0	3.9	3.1
Winn Dairy	194	71.4	3.1	3.2
Roy Roy Dairy Inc	179	70.5	3.7	3.2
Clyde Birkenfeld	34	69.6	3.1	2.9
Robert Steinberger Sr	416	69.0	4.0	3.3
Tony T Bos & Family	2657	68.0	3.5	3.1
Billy R Miller H-all	254	67.0	3.0	3.1
David Steinberger	378	66.4	3.9	3.3

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 January from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	% Fat	ME Milk	ME Fat
Owen & Janet Sieperda	42CPV9945	H	06-01-88	5.3	26,272	1390
Hoffman Holsteins	74WD17327	H	01-00-89	3.9	32,502	1237
Hoffman Holsteins	74WD17096	H	08-00-89	4.1	30,876	1232
Ernie Precher	74TLT4373	H	06-22-87	4.2	28,408	1204
Kenneth Lambert	14191788	H	08-02-88	3.8	32,054	1203
Louis Hinders	74WDC3461	H	10-16-88	3.9	30,622	1192
Kenneth Lambert	12911734	H	06-17-86	4.0	29,226	1182
James Veitenheimer Dairy	14130717	H	04-12-89	4.5	24,578	1172
Leo Hoff, Jr	136954046	H	03-01-89	3.9	30,035	1166
Art Mulligan	74VMJ1995	H	10-01-88	3.7	31,233	1156

TEXAS SUMMARY FOR FEBRUARY 1993

Information Summarized	2/29/92	1/31/92	2/28/93
DHI-DHIR Herds (cows)	511	507	509
DHI-DHIR Cows	104,606	109,011	109,755
Avg. Milk/Cow/Day	49.4	49.4	50.8
Avg. Percent Fat	3.6	3.7	3.7
Avg. Fat/Cow/Day	1.82	1.85	1.89
Avg. Feed Cost/Cwt. Milk	5.49	5.67	5.67
Private Herds	108	103	106
Private Cows	25,842	26,233	26,611
DHI-DHIR Herds (goats)	19	18	14
DHI-DHIR Goats	352	396	346
Total Herds Enrolled	638	628	629
Total Animals Enrolled	130,800	135,640	136,712

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. 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	No. Cows	Milk (lbs)	Protein (lbs)
■ 2X/Day Milking			
Moer-Milk Dairy	241	68.6	2.33
Jones Dairy	124	68.4	2.27
Kupper Bro Dairy	160	68.6	2.20
Jeff Conrady Dairy	169	70.4	2.16
Louis Hinders	218	65.3	2.16
Cyril Schroeder Dairy	138	65.0	2.16
Ray Hoffman Jr Dairy	234	66.4	2.15
John E Denton H-all	270	66.5	2.14
■ 3X/Day Milking			
Star Dairy	230	77.4	2.49
Roy Roy Dairy Inc	183	74.7	2.45
Kasbergen Dairy H-all	477	75.6	2.42
Bill Stansell	129	72.0	2.28
Lloyd Wolf, Jr	120	67.2	2.23
Robert Steinberger Sr	415	67.0	2.16
Meine Huisman	307	64.3	2.16
Tony T Bos & Family	2676	68.9	2.11

Ranking by Milk

Herd Owner	No. Cows	Milk (lbs)	Fat (%)	Protein (%)
■ 2X/Day Milking				
T M H Dairy	251	71.9	.0	.0
Jeff Conrady Dairy	169	70.4	4.1	3.1
Kupper Bro Dairy	160	68.6	4.0	3.2
Moer-Milk Dairy	241	68.6	3.7	3.4
Jones Dairy	124	68.4	4.0	3.3
Jimmie & Lynda Bowen	52	68.1	3.8	3.1
Kurt Averhoff	163	67.3	3.7	3.1
Bobby Downe	73	67.0	3.7	3.1
■ 3X/Day Milking				
Star Dairy	230	77.4	3.5	3.2
Kasbergen Dairy H-all	477	75.6	4.1	3.2
Roy Roy Dairy Inc	183	74.7	3.7	3.3
Bill Stansell	129	72.0	3.3	3.2
Tony T Bos & Family	2676	68.9	3.3	3.1
Billy R Miller H-all	237	68.4	3.1	3.0
Cobb Dairy	535	67.9	3.9	3.1
Alfred G Lane	97	67.4	.0	.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 February from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	% Fat	ME Milk	ME Fat
Leo A Hoff	13253734	H	09-02-87	4.1	32,333	1337
Kenneth Lambert	14191788	H	08-02-88	3.8	32,097	1204
High Hill Dairy	14135439	H	04-05-90	4.5	27,264	1202
Kenneth Lambert	12911734	H	06-17-86	4.0	29,231	1183
Leo A Hoff	13993063	H	03-22-90	3.7	32,375	1182
Hoffman Holsteins	74VKD7450	H	10-26-82	5.2	23,390	1169
Jerry Vieth	74WDB3776	H	08-30-88	4.2	27,248	1135
Roy Roy Dairy Inc	13219032	H	11-15-87	4.2	268468	1130
Leo Hoff, Jr	13543916	H	08-05-88	3.8	29,458	1112
Rio Grande Dairy	41WOA3540	H	01-25-88	3.8	29,110	1108

TEXAS SUMMARY FOR MARCH 1993

Information Summarized	3/31/92	2/28/93	3/31/93
DHI-DHIR Herds (cows)	509	509	505
DHI-DHIR Cows	103,634	109,755	108,027
Avg. Milk/Cow/Day	51.0	50.8	52.4
Avg. Percent Fat	3.6	3.7	3.6
Avg. Fat/Cow/Day	1.84	1.89	1.93
Avg. Feed Cost/Cwt. Milk	5.41	5.67	5.46
Private Herds	107	106	110
Private Cows	26,977	26,611	28,181
DHI-DHIR Herds (goats)	20	14	15
DHI-DHIR Goats	410	346	364
Total Herds Enrolled	636	629	630
Total Animals Enrolled	131,021	136,712	136,572

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. 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	No. Cows	Milk (lbs)	Protein (lbs)
■ 2X/Day Milking			
Jeff Conrady Dairy	171	74.9	2.35
Davidson Dairy Inc	173	68.9	2.25
Ray Hoffman Jr Dairy	219	70.0	2.24
David G Smokler	208	67.9	2.24
Hoffman Holsteins	263	68.2	2.22
Stanley J Haedge	194	68.8	2.17
Green Valley Dairy	315	66.8	2.15
James Veitenheimer Dairy	175	65.9	2.15
■ 3X/Day Milking			
Winn Dairy	184	77.7	2.46
Kasbergen Dairy H-all	491	72.2	2.34
Roy Roy Dairy Inc	185	74.9	2.31
Circle N Dairy	413	69.5	2.30
Lloyd Wolf, Jr	122	70.4	2.28
Bill Stansell	137	72.0	2.27
High Hill Dairy	453	69.5	2.21
Billy R Miller H-all	242	68.2	2.18

Ranking by Milk

Herd Owner	No. Cows	Milk (lbs)	Fat (%)	Protein (%)
■ 2X/Day Milking				
Jeff Conrady Dairy	171	74.9	3.9	3.2
Ray Hoffman Jr Dairy	219	70.0	4.0	3.2
Kainer Dairy	143	69.9	3.3	3.0
Davidson Dairy Inc	173	68.9	3.4	3.3
Stanley J Haedge	194	68.8	3.6	3.2
Hoffman Holsteins	263	68.2	3.8	3.3
Frank Wolf	91	67.9	3.9	2.8
David G Smokler	208	67.9	3.7	3.3
■ 3X/Day Milking				
Winn Dairy	184	77.7	2.9	3.2
Roy Roy Dairy Inc	185	74.9	3.8	3.1
Kasbergen Dairy H-all	491	72.2	3.7	3.3
Bill Stansell	137	72.0	3.3	3.2
Lloyd Wolf Jr	122	70.4	3.8	3.3
Circle N Dairy	413	69.5	3.9	3.3
High Hill Dairy	453	69.5	3.9	3.2
Tony T Bos & Family	2653	69.4	3.4	2.9

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 March from the Processing Center at Raleigh, North Carolina.

Herd Owner	Cow Identity	Breed	Date of Birth	% Fat	ME Milk	ME Fat
Hoffman Holsteins	74WDH1948	H	11-24-90	3.9	32,091	1258
Hoffman Holsteins	74WDI7293	H	05-00-90	4.2	30,595	1251
Owen & Janet Sieperda	12929610	H	01-12-87	4.9	25,243	1243
Louis Hinders	74WDC3875	H	08-22-88	3.7	31,946	1169
Arthur & Bryan Hemmi	74TVF0055	H	02-28-89	4.9	23,272	1140
Jimmy Don & Larry Pack Dairy	74WDF9672	H	10-00-89	4.6	25,329	1136
Tony T Bos & Family	41VGH9929	H	01-01-89	4.3	26,834	1135
Jeff Conrady Dairy	74WDI7313	H	02-00-90	4.2	26,962	1118
Hoffman Holsteins	74WDE4442	H	05-00-89	3.9	29,660	1107
Russell & Linda Carpenter	74RCD0178	H	04-14-90	3.8	29,740	1101

