Animal and Dairy Science Department
Rhodes Center for Animal & Dairy Science

Telephone: (706) 542-2581
Fax: (706) 542-9316

GEORGIA DAIRYFAX

http://www.ces.uga.edu/Agriculture/asdsvm/Dairyscience/dairypage.HTML March/April 2006

Dear Dairy Producers:

The enclosed information was prepared by the University of Georgia Animal and Dairy Science faculty in Dairy Extension, Research & Teaching. We trust this information will be helpful to dairy farmers and dairy related businesses for continued improvement of the Georgia Dairy Industry.

Sincerely,

William M. Graves
Professor & Extension Dairy Scientist
wgraves@uga.edu

County Extension Director or County Agent

/ach

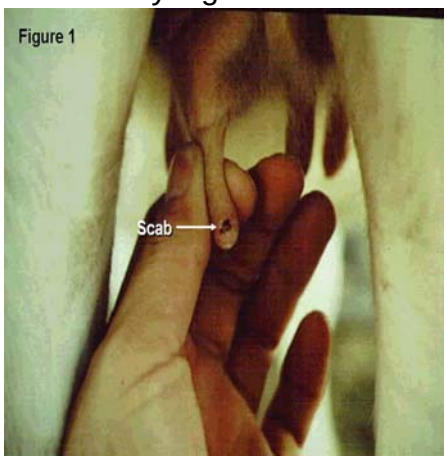
DAIRYFAX NEWSLETTER

It's Fly Season: Time to Protect Your Heifers!

Dr. Steve Nickerson

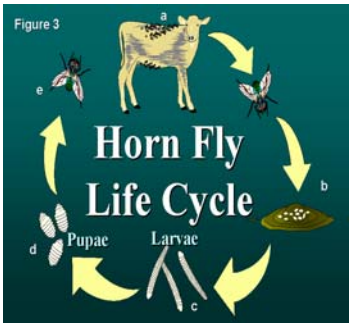
Dairy heifers are now recognized to be at risk for contracting mastitis, which develops early in life, well before their first lactation. Prevalence of these infections appears to vary somewhat by region of the US, with higher percentages observed in the south. The staphylococci, such as *Staph. aureus*, are the predominant bacterial species causing heifer mastitis, and in some herds *staph. aureus* infects more than 50% of the animals. Chronic staph mastitis, if left untreated during pregnancy, reduces the ability of mammary tissues to develop normally, resulting in a 10% decrease in milk production during the first lactation. Also, heifers freshening with staph mastitis can spread this infection to other animals in the milking herd, increasing the herd somatic cell count and decreasing milk quality.

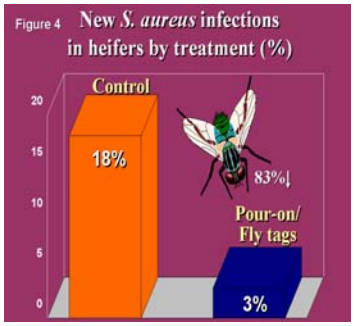
The exact mechanism responsible for how and when these infected become established in heifers is unknown; however, we now know that the horn fly (*Haematobia irritans*), a biting and blood-sucking insect vector, plays an important role. Studies have shown that heifers with scabs and abrasions on the teat skin surface caused by blood-sucking flies (Fig 1) have more cases of mastitis than heifers without these abnormalities. In addition, herds using some form of fly control have fewer cases of heifer mastitis caused by *Staph. aureus* and the environmental streptococci than heifers in herds using no fly control. Peak months for new cases of mastitis also coincide with peak fly populations, especially under hot and humid conditions in which fly concentrations can become very high on the teats of heifers (Fig 2).



It is obvious that one management tool to reduce the prevalence of heifer mastitis is some form of fly control. The horn fly spends its entire adult life on the

hair coat of, for example, the dairy heifer (Fig 3a). It lays its eggs in manure (Fig 3b), which hatch into larvae (Fig 3c). The larvae mature into pupae (Fig 3d), which develop into the adult flies (Fig 3e) that continue the cycle. One way to break this cycle is to feed Methoprene, a type of insect growth regulator, to heifers. This product enters the circulatory system and is consumed by horn flies as they suck blood from the skin of heifers. It works, theoretically, by preventing the pupae from developing into adult flies (Fig. 3d, e). However, this form of fly control has been shown to be ineffective in reducing mastitis caused by flies because high enough concentrations are not ingested by heifers to significantly reduce fly populations.





A much more successful method to reduce mastitis in heifers has been found by combining a pour-on product with insecticidal ear tags. In one study conducted in the spring of the year, 30 Jersey heifers 5 to 15 months of age, received Eprinex pour-on every 2 weeks for 6 weeks follow by the placement of Patriot ear tags in each ear, and 30 similar animals served as untreated controls. The level of mastitis in these 60 heifers was followed for 6 months. Results showed that the prevalence of *Staph. aureus* mastitis in the control heifers was 18%; however, only 3% of those heifers receiving the combination of pour-on and fly tags became infected, for an 83% reduction in mastitis when using this fly control method (Fig 4).

Keep in mind that as the weather warms up, horn fly population are increasing on our cattle here in Georgia. As summer approaches, flies will seek the shade of the under belly and focus on the hairless teats for an easy meal of blood. It is time to take a good look at your dairy heifers, and if you see flies and/or scabs on teats, consider using a fly control program such as the one described above. Remember, your heifers are your future milking herd, and it is important that they calve free of mastitis for maximum milk yield during their first lactation. A good fly control program is one way to ensure that heifers freshen with health udders and low somatic cell counts.

Dairy Business Analysis Project: 2004 Financial Summary

L. Ely, R. Giesy, A. de Vries, B. Broaddus, C. Vann, and A. Bell
University of Georgia and University of Florida

Financial data for the year 2004 were collected from participating dairy farms and screened for completeness and validity. Each dairy farm then received a benchmark report detailing its financial results compared to the average results for the other

participants and the six dairy farms with the highest net farm income per cwt. This benchmark report is discussed with the dairy farms to identify challenges and opportunities for improvement.

The complete publication is a summary of the financial performance of the dairy farms that participated in 2004 and can be found on the DBAP website. It is intended for general use by dairy farmers, the allied industry, and government, and educational professionals. The DBAP website address is http://dairy.ifas.ufl.edu/dbap.

Dairy farms in Florida and Georgia were asked to participate in DBAP. Participants were not a random sample of all dairy farms in the two states. The financial performance results in this publication are therefore not necessarily representative of the results of all dairy farms in Florida and Georgia.

In brief, twenty-two dairy farms were included in the summary results. Of these, 15 were located in Florida and 7 in Georgia. The average herd size of the participating dairies was 1170 cows and 585 heifers with 18,207 lbs. milk sold per cow. The average culling rate was 31%. The average milk price was $18.98. Average total revenues were $20.89 per cwt. milk sold. Total expenses averaged $19.39 per cwt. sold. The largest items were purchased feed, $8.13, and personnel costs, $3.17. Net farm income from operations averaged $1.50 per cwt. sold. Net farm income per cwt. was $1.58. Table 1.1 has the business size and production, table 1.2 has the revenue and expenses, table 1.3 has the financial performance, and table 1.4 has the balance sheet by overall mean and by state. 2004 was a good year for the dairy industry in the Southeast due to good milk prices and lower feed process resulting in excellent milk to feed ratio. Cost control as in other years is the key to financial management.

We are currently collecting the data for 2005. If anyone would like to participate in the project, please contact Lane Ely (706-542-9107 or laneely@uga.edu) to make an appointment.

Table 1.1. DBAP 2004 Summary - Business size and production efficiency by state and overall average, median, and standard deviation.

		Overall		State Averages	
Category	Average	Median	Std[1]	Florida	Georgia
Number of farms	22	22	22	15	7
Business Size:					
Average number of cows	1,170	576	1,125	1,373	735
Average number of heifers	585	399	659	634	480
Milk sold (million lbs)	21.64	11.61	21.17	24.66	15.15
FTE[2] workers	20	11	18	23	14
Acres of pasture + cultivated land	656	372	788	793	361
Production Efficiency:					
Milk sold (lbs / cow / year)	18,207	18,304	3,111	17,273	20,210

Cows / FTE worker	53	56	25	55	49
Milk sold / FTE worker (million lbs)	0.97	1.02	0.45	0.96	0.98
Cull rate	31%	30%	6%	30%	33%

[1] Standard deviation
[2] Full-time equivalent

Table 1.2. DBAP 2004 Summary - Revenues and expenses by state and overall average, median, and standard deviation ($/cwt).

		Overall		State Averages	
Category	Average	Median	Std[1]	Florida	Georgia
Number of farms	22	22	22	15	7
Revenues:					
Milk sold	18.98	18.99	1.01	19.06	18.81
Raised, leased cow sales	0.64	0.53	1.14	0.51	0.92
Heifer sales	0.33	0.24	0.60	0.27	0.45
Gain on purchased livestock					
Sales	0.02	0.00	0.68	(0.11)	0.30
Other revenues	0.93	0.34	1.67	0.92	0.94
Total revenues	20.89	20.80	2.02	20.65	21.41
Expenses:					
Personnel	3.17	2.93	1.32	3.24	3.00
Purchased feed	8.13	7.78	1.66	8.65	7.03
Crops	0.26	0.09	0.34	0.25	0.30
Machinery	1.07	0.99	0.71	1.11	1.00
Livestock	1.87	1.77	0.99	1.88	1.84
Milk marketing	1.13	1.13	0.25	1.05	1.29
Buildings and land	0.80	0.62	0.71	0.62	1.18
Interest	0.51	0.36	0.59	0.54	0.44
Depreciation:					
Livestock	0.74	0.39	0.89	0.69	0.84
Machinery	0.60	0.46	0.52	0.48	0.85
Buildings	0.25	0.11	0.36	0.20	0.35
Other expenses	0.87	0.95	0.43	0.97	0.65
Total expenses	19.39	18.65	2.49	19.68	18.77
Net farm income from operations	1.50	1.52	2.46	0.97	2.64
Gain on sale of capital assets	0.08	0.00	0.26	0.07	0.11
Net farm income	1.58	1.51	2.56	1.04	2.75

[1] Standard deviation

Table 1.3. DBAP 2004 Summary - Financial performance by state and overall average, median, and standard deviation.

	Overall			State Averages	
Category	Average	Median	Std[1]	Florida	Georgia
Number of farms	22	22	22	15	7
Liquidity:					
Current ratio	9.12	0.68	35.61	12.95	0.90
Working capital ($)	114,408	18,034	643,823	78,318	191,744
Solvency:					
Debt to asset ratio	0.35	0.34	0.24	0.33	0.38
Equity to asset ratio	0.65	0.66	0.24	0.67	0.62
Debt to equity ratio[2]	(0.24)	0.50	3.84	0.62	(2.08)
Profitability:					
Rate of return on assets	0.06	0.07	0.08	0.05	0.09
Rate of return on equity	0.05	0.06	0.21	0.07	(0.00)
Operating profit margin ratio	0.06	0.08	0.13	0.04	0.11
Financial efficiency:					
Asset turnover rate	0.82	0.77	0.43	0.78	0.90
Operating expense ratio	0.83	0.81	0.13	0.86	0.76
Depreciation expense ratio	0.08	0.08	0.06	0.07	0.10
Interest expense ratio	0.03	0.02	0.03	0.03	0.02
Net farm income ratio	0.07	0.08	0.11	0.04	0.12
Repayment capacity:					
Cash flow coverage ratio	4.45	0.96	9.95	5.91	1.33
Term debt coverage ratio[3]	0.27	1.73	8.19	(0.63)	2.21
Capital replacement margin[4] ($)	362,546	134,023	627,776	413,523	253,309

[1] Standard deviation
[2] One dairy farm had negative equity.
[3] Term debt and capital lease coverage ratio
[4] Capital replacement and term debt repayment margin

Table 1.4. DBAP 2004 Summary - Balance sheet by state and overall average, median, and standard deviation ($/cow).

Category	Overall Average	Overall Median	Overall Std[1]	State Averages Florida	State Averages Georgia
Number of farms	22	22	22	15	7
Balance sheet (January 1):					
Current assets	317	275	190	332	284
Total assets	6,486	4,811	5,558	5,676	8,224
Current liabilities	470	489	321	449	515
Total liabilities	1,645	1,428	1,210	1,549	1,853
Equity	4,841	2,656	5,893	4,127	6,371
Balance sheet (December 31):					
Current assets	383	295	258	346	462
Total assets	6,700	5,041	5,632	5,972	8,260
Current liabilities	426	414	347	476	317
Total liabilities	1,641	1,432	1,165	1,606	1,715
Equity	5,059	2,745	5,944	4,366	6,545

[1] Standard deviation

Important Considerations When Preparing for Heat Stress

Joe W. West, University of Georgia

Heat stress causes milk yield to drop sharply, primarily due to reduced feed intake. There are a number of steps to minimize the effects of heat stress but remember, there is no magic bullet. A combination of management practices are necessary to moderate the negative effects of hot weather.

Evaluate the effects of heats stress on your farm: During hot weather cooling is usually necessary to help maintain feed intake and to achieve the desired response to dietary modifications.

1. Determine the severity of heat stress in your operation.
2. How long does heat stress exist each year? How hot and humid is it?
3. Does it get cool at night, or does heat stress continue around the clock?
4. What is your average milk loss during summer?
5. What type of shading/cooling already exists on the farm?
6. Is there a maintenance schedule for fans and other equipment?

Modify the cow's environment: To maintain intake and improve the response to the diet it is essential to protect cows from direct sunlight and hot temperatures using shade and cooling. Consider these questions.

6. What type of cooling system is appropriate for your operation?
7. What is the cost of installing cooling, as well as future costs of operation and maintenance?
8. What is the anticipated return to investment?
9. Is there additional management associated with cooling (water disposal, fan maintenance, etc.)?

Consider the cow's nutritional requirements: Rations should be reformulated for all major nutrients to reflect lower intake and special requirements during hot weather.

1. Abundant drinking water is needed because of greater consumption.
2. Ration formulation can improve energy intake by using grains, fats, and high quality forage.
3. Adequate high quality fiber is needed to maintain rumen function and cow health.
4. Acidosis can be a problem during hot weather; don't feed excessive grains and other highly fermentable carbohydrates when searching for more energy for cows.
5. Added fat increases dietary energy content and has other benefits during hot weather.
6. Dietary minerals should be increased (especially potassium, sodium, magnesium).
7. Use dietary buffers to maintain rumen pH.
8. Use high quality forages to improve rumen health.
9. Use additives that are proven effective and that benefit YOUR herd situation.

Know what's going on at the feed bunk: Making sure that cows have ready access to high quality feed at the right time, in a cooled environment will improve intake. Watch for these things.

1. Is sufficient feed present to ensure adequate feed for ALL cows?
2. Is feed fresh, or is hot or spoiled? Is there a musty smell to feed?
3. Is silage coming to the barn already hot, indicating spoilage in the bunker?
4. Are total mixed rations (TMR) consistently and uniformly mixed?
5. Do cows have adequate space at the feed bunk?
6. Cows should be fed during the cooler periods of the day when they feel like eating.

Use every opportunity to improve cow comfort and feed availability. These pointers help to improve intake at a time when cows may not feel like eating.

Antimicrobial Resistance of Mastitis Pathogens

Dr. Donald E. Pritchard
NCSU Extension Dairy Specialist

Mastitis has been a disease of cattle for probably as long as mankind has milked cows. Over the last forty plus years, antibacterial drugs have been used to treat the disease. In more recent times concerns have been raised that the use of antimicrobial has caused resistance in bacteria isolated from treated animals, other animals in the population, and from food derived from animals for human consumption. Dr. Ron Erskine, DVM from Michigan State University, reviewed the scientific literature on the issue of drug resistance among mastitis pathogens, and presented his report at the 2006 NMC Annual Meeting.

His report focused on four key issues relating to drug resistance in mastitis pathogens: 1) is there scientific data that demonstrates an increase in the resistance of mastitis pathogens to antimicrobial; 2) is there any evidence that drug resistance among mastitis pathogens is an immediate concern for human public health; 3) is bacterial resistance impacting therapeutic outcomes for mastitis therapy; and 4) what additional studies or evidence are needed to resolve these issues? A synopsis of Dr. Erskine's comments on these four issues is presented below.

Concerning the first issue regarding an increase in resistance of mastitis pathogens, various researchers have studied this issue recently over a period of 4 to 7 years, and found that under consistent laboratory techniques there was no change in antimicrobial susceptibility patterns. Thus, from these studies and older reports in the literature, the prevalent conclusion is that scientific evidence does not support a widespread emerging resistance among mastitis pathogens to antimicrobial drugs.

Regarding the issue of concern for human health, there are concerns about the contamination of hands of milkers and the consumption of raw milk by a small segment of the population. Most of the reported studies on microbial resistance have focused on specific strains of *Staphylococcus aureus* that have shown a genetic resistance to erythromycin in poultry but not from bovine or milk sources. Dr. Erskine stated that the available scientific evidence suggests that the presence of the resistant *Staph*. *aureus* strains originating from the use of lactating or dry cow therapy is unlikely. This should especially be the case if therapeutic regimes continue to utilize mainstream or labeled drugs. Veterinarians and producers should not administer newer-generation drugs that are not labeled for the treatment of mastitis in cattle.

On the issue of bacterial resistance to drugs impacting the outcome of therapeutic treatment, Dr. Erskine stated that historically the success of therapy has been based on clinical cure to normal milk rather than bacteriologic cure. Unfortunately, it is difficult to compare the success of therapy today with that from many years ago because the standards of cure have changed, and the awareness of how drugs work in the body has been improved. Since the correlation of susceptibility testing to clinical outcome has not been established, and since it is not possible to compare the cure rates presently with historical reports, we can not determine the answer to this issue.

On the last point of needed additional studies and evidence, Dr. Erskine reported that he believes studies are needed 1) that are tightly controlled regarding the conditions and history of the samples, 2) that evaluate the pharmacokinetics of the antimicrobials, and 3) that determine what concentration of drug is needed to kill the bacteria without allowing the selection of resistant bacteria. Comparison of studies from different time periods should not be done.

Dr. Erskine concludes that at this time there is no evidence that antimicrobial resistance by mastitis pathogens is a crisis issue. He suggests that veterinarians and producers should use antibacterial drugs prudently, and should select judiciously which cows to treat in order to achieve reasonable rates of success with minimal risk of contributing to the public health concern of antimicrobial resistance.

What is your dairy's EBITDA?

Albert de Vries, Russ Giesy, Lane Ely

Earnings before interest, taxes, depreciation and amortization (EBIDTA) is a calculation that considers the majority of a dairy farm's revenues and costs. EBIDTA is a valuable measure of net income when comparing dairy farms and is receiving quite a bit of press lately (see for example Dairy Today, February 2006). EBITDA does not included operating interest, taxes, depreciation, and principle and interest payments. The resulting EBITDA is more representative of a dairy farm's profitability without the confounding of a farm's financing abilities. EBITDA per cow or per cwt allows for much more complete comparisons between dairy farms than just milk production or income over feed cost.

EBITDA is now calculated for dairy farms that are enrolled in the Dairy Business Analysis Project (DBAP). Dairy farms in DBAP will also receive a benchmark report that includes their EBITDA compared to those of other dairy farms in the project. Participation in DBAP is free. For more information, contact Dr. Lane Ely (706-542-9107) or laneely@uga.edu.

TOP 20 DHIA HERDS BY TEST DAY MILK PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Lamar Anthony	Sumter	H	2	951	95	81.7*	3.3	2.73	23738	3.4	802	3.0	709
Vista Farm	Jefferson	H	2	80	100	80.2	3.7	2.95	23708	3.2	764	3.0	717
Lamar Anthony	Sumter	H	1	944	92	78.2*	3.3	2.61	23358	3.4	799	3.0	699
Martin Dairy L.L. P.	Hart	H	2	288	93	76.7	3.8	2.90	23553	3.6	848	3.0	699
Louis Yoder	Macon	H	2	125	95	76.0	3.2	2.40	21326	3.3	707	3.1	654
Coastal Plain Exp Station	Tift	H	2	190	95	75.9*	3.9	2.93	21821	3.8	819	3.0	649
Brooksco Dairy	Brooks	H	2	2521	91	74.4*			23984				
J. Everett Williams	Morgan	H	2	633	95	74.0*	3.9	2.90	25759	3.7	942	3.1	790
Ray Ward Dairy	Putnam	H	2	132	97	73.6	3.9	2.87	21844	3.7	803	3.0	646
J B Gay & Son	Jenkins	H	2	272	98	73.5	3.6	2.66	21776				
Lee Whitaker	McDuffie	H	2	385	95	73.2	3.6	2.60	22054	3.6	783	3.1	682
Dave Clark	Morgan	H	2	820	85	72.3*	3.8	2.76	25856	3.2	836	2.9	743
Troy Yoder	Macon	H	1	114	89	72.3	3.6	2.60	20494	3.6	740	3.1	634
Larry Moody	Ware	H	2	887	91	71.4			23641				
Kent Walker	Greene	H	2	118	91	71.0	3.7	2.64	20778	3.7	760	2.9	598
Andy Wheat	Morgan	H	2	147	97	70.5	3.6	2.56	19538	3.5	684	2.9	568
Rodgers Hillcrest Farms Inc.	McDuffie	H	2	378	95	69.9	3.6	2.51	21655	3.5	754	3.0	649
Scott Glover	White	H	2	99	84	69.8	3.9	2.70	22995	3.9	890	3.0	689
Twin Oaks Farm	Jefferson	H	2	84	96	69.4	3.4	2.33	18447	3.7	689	3.2	590
Krulic Dairy Farm Inc.	Screven	H	2	116	89	68.8	4.1	2.82	24506	3.6	877	3.0	742

[1]Minimum herd size of 10 cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*),indicates herd was milked three times per day (3X).Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY FAT PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Berry College Dairy	Floyd	J	1	26	92	58.1	5.6	3.26	19021	4.9	930	3.5	674
Vista Farm	Jefferson	H	2	80	100	80.2	3.7	2.95	23708	3.2	764	3.0	717
Coastal Plain Exp Station	Tift	H	2	190	95	75.9*	3.9	2.93	21821	3.8	819	3.0	649
Martin Dairy L.L.P.	Hart	H	2	288	93	76.7	3.8	2.90	23553	3.6	848	3.0	699
J. Everett Williams	Morgan	H	2	633	95	74.0*	3.9	2.90	25759	3.7	942	3.1	790
Ray Ward Dairy	Putman	H	2	132	97	73.6	3.9	2.87	21844	3.7	803	3.0	646
Krulic Dairy Farm	Screven	H	2	116	89	68.8	4.1	2.82	24506	3.6	877	3.0	742
Dave Clark	Morgan	H	2	820	85	72.3*	3.8	2.76	25856	3.2	836	2.9	743
Lamar Anthony	Sumter	H	2	951	95	81.7*	3.3	2.73	23738	3.4	802	3.0	709
Scott Glover	White	H	2	99	84	69.8	3.9	2.70	22995	3.9	890	3.0	689
J B Gay & Son	Jenkins	H	2	272	98	73.5	3.6	2.66	21776				
Fuller-Dairy-Inc.	Putnam	H	2	196	93	68.6	3.9	2.66	19672				
Kent Walker	Greene	H	2	118	91	71.0	3.7	2.64	20778	2.9	598	3.7	760
Lamar Anthony	Sumter	H	1	944	92	78.2*	3.3	2.61	23358	3.4	799	3.0	696
Lee Whitaker	McDuffie	H	2	385	95	73.2	3.6	2.60	22054	3.6	783	3.1	682
Troy Yoder	Macon	H	1	114	89	72.3	3.6	2.60	20494	3.6	740	3.1	634
Andy Wheat	Morgan	H	2	147	97	70.5	3.6	2.56	19538	3.5	684	2.9	568
David L. Moss	Morgan	H	2	124	92	61.0	4.2	2.55	20678	4.1	857	3.0	619
Rodgers Hillcrest Farms Inc.	McDuffie	H	2	378	95	69.9	3.6	2.51	21655	3.5	754	3.0	649
Roberts Dairy Inc.	Jones	H	2	135	93	61.6	4.1	2.51	18638	3.8	717	3.1	569

[1]Minimum herd size of 10 cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*),indicates herd was milked three times per day (3X).
Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY FAT PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Berry College Dairy	Floyd	J	3	26	92	61.2*	5.7	3.47	18880	5.0	938	3.5	669
Berry College Dairy	Floyd	J	2	26	96	56.1	5.8	3.23	18907	4.9	928	3.5	668
Scott Glover	White	H	3	92	92	75.6	4.0	3.01	23099	3.9	893	3.0	692
Coastal Plain Exp Station	Tift	H	3	189	96	76.1	3.9	2.98	22308	3.8	840	3.0	664
Stanley W. Yoder	Macon	H	3	2	100	72.0	4.1	2.93					
Coastal Plain Exp Station	Tift	J	3	23	96	57.0	5.0	2.86	16716	4.8	796	3.5	578
Kent Walker	Greene	H	2	115	97	71.6	3.9	2.79	20945	3.7	767	2.9	602
Irvin Yoder	Macon	H	3	140	92	82.3	3.4	2.78	23610	3.6	861	3.1	741
J. Everett Williams	Morgan	H	3	638	96	77.1*	3.6	2.77	25647	3.7	944	3.1	786
David L Moss	Morgan	H	3	122	93	62.6	4.4	2.77	20646	4.2	859	3.0	619
Vista Farm	Jefferson	H	3	80	100	78.8	3.5	2.76	23457	3.3	767	3.0	709
Fuller-Dairy-Inc.	Putnam	H	3	203	96	69.8	4.0	2.76	19721				
Kent Walker	Greene	H	3	118	96	75.2	3.7	2.75	21140	3.7	777	2.9	606
Earnest Turk	Putnam	H	3	310	99	68.7	4.0	2.75	21306	3.8	810	3.1	661
Williams Dairy	Taliaferro	H	3	127	95	73.6	3.7	2.73	22791	3.6	821	3.0	691
Dave Clark	Morgan	H	3	824	87	76.0*	3.6	2.72	25567	3.3	840	2.9	736
Troy Yoder	Macon	H	3	121	92	75.5	3.6	2.70	20871	3.6	747	3.1	644
Lamar Anthony	Sumter	H	3	950	95	80.5*	3.3	2.69	24193	3.4	811	3.0	723
Hammock Dairy	Jones	H	3	158	96	71.9	3.7	2.69	18914	3.7	708	3.0	559
Ray Ward Dairy	Putnam	H	3	132	100	76.7	3.4	2.63	21945	3.7	808	3.0	649

[1]Minimum herd size of 10 cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*),indicates herd was milked three times per day (3X).
Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY MILK PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Irvin R Yoder	Macon	H	3	140	92	82.3	3.4	2.78	23610	3.6	861	3.1	741
Lamar Anthony	Sumter	H	3	950	95	80.5*	3.3	2.69	24193	3.4	811	3.0	723
Vista Farm	Jefferson	H	3	80	100	78.8	3.5	2.76	23457	3.3	767	3.0	709
Brooksco Dairy	Brooks	H	3	2533	92	77.4*			24219				
J. Everett Williams	Morgan	H	3	638	96	77.1*	3.6	2.77	25647	3.7	944	3.1	786
Louis Yoder	Macon	H	3	137	99	76.9	3.2	2.45	21787	3.3	717	3.1	667
Ray Ward Dairy	Putnam	H	3	132	100	76.7	3.4	2.63	21945	3.7	808	3.0	649
Coastal Plain Exp Station	Tift	H	3	189	96	76.1	3.9	2.98	22308	3.8	840	3.0	664
Dave Clark	Morgan	H	3	824	87	76.0*	3.6	2.72	25567	3.3	840	3.0	736
Gin Branch Farm	Laurens	H	3	59	92	75.7*	3.2	2.43	20588	3.4	695	3.0	614
Scott Glover	White	H	3	92	92	75.6	4.0	3.01	23099	3.9	893	3.0	692
Troy Yoder	Macon	H	3	121	92	75.5	3.6	2.70	20871	3.6	747	3.1	644
Kent Walker	Greene	H	3	118	96	75.2	3.7	2.75	21140	3.7	777	2.9	606
Twin Oaks Farm	Jefferson	H	3	79	100	73.8	3.0	2.21	18886	3.6	686	3.2	602
Williams Dairy	Morgan	H	3	127	95	73.6	3.7	2.73	22791	3.6	821	3.0	691
Krulic Dairy Farm, Inc.	Screven	H	3	112	91	72.9	3.4	2.50	24428	3.6	878	3.0	739
J B Gay & Son	Jenkins	H	3	269	99	72.6	3.3	2.36	21885				
Andy Wheat	Morgan	H	3	141	98	72.3	3.2	2.29	19605	3.5	687	2.9	570
Larry Moody	Ware	H	3	903	91	72.2			23607				
Marvin Yoder	Macon	H	3	132	91	72.0	3.5	2.54	20302	3.7	745	3.0	621

[1]Minimum herd size of 10 cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*),indicates herd was milked three times per day (3X).
Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC)