

Animal and Dairy Science Department
Rhodes Center for Animal & Dairy Science
Dear Dairy Producers:

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



GEORGIA DAIRYFAX

<http://www.ces.uga.edu/Agriculture/asdsvm/Dairyscience/dairypage.HTML>

January/February 2006

The enclosed information was prepared by the University of Georgia Animal and Dairy Science faculty & graduate students 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.

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Sincerely,



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

County Extension Director or County Agent

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DAIRYFAX NEWSLETTER

ADS Welcomes Tommy Bass

Animal and Dairy Science has added a new face to our Extension Department. Tommy Bass joined our department this year. Tommy specializes in Environmental Management. He will be splitting his time between Animal Science and Driftmore Engineering. If you would like to contact Tommy at ADS his number is 706-542-6627 or Engineering at 706-542-2735 or tmbass@engr.uga.edu. All of us at Animal and Dairy Science welcome Tommy aboard and appreciate his help.

How's Your Pit Crew Doing? By Warren Gilson

Anyone who is even remotely familiar with automobile racing knows that the pit crew is an important part of the racing team. No matter how good the driver, successes or failures in the pit area can have a significant impact on the outcome of the race. The crew is constantly making adjustments and operates as a team to accomplish all of the necessary tasks as efficiently as possible. Seconds or fractions of seconds count and may be the difference between winning or finishing second or worse.

The pit crew on a dairy is very different from the one in an automobile race; however, they are no less important. They too must work together as a team to accomplish their goal. Inefficiencies result in lower production per hour and per person and lower profits.

There are numerous ways of measuring the efficiency of a parlor. A common method is turns per hour. This is a measure of the number of cows which are milked within an hour's time and determines to a great extent the number of cows that can be milked within a day's time. It also has a large impact on the total amount of milk since the amount of milk produced has a low correlation with the time needed to harvest it.

Many of the highly efficient dairy producers with modern, efficient parlors aim for five turns per hour. This translates into 12 minutes between groups. Some producers have even achieved faster through-put. This is commendable and represents a very efficient operation if high levels of milk production and milk quality are maintained.

Many producers are not able to achieve this goal however, because of constraints placed on them by facilities. A more achievable goal for these producers is four turns per hour which translates into 15 minutes per group. Obviously, this is less efficient but more achievable with many of the older parlors. Unfortunately, many producers are not even achieving this level of efficiency.

Have you looked at your through-put lately? How many turns do you achieve per hour. If it is less than four turns per hour, significant changes need to be implemented. Examine your milking procedures to see where things bog down. Have someone else observe your milking procedures if necessary.

Are cows slow in entering or exiting the parlor? Are the cows dirty when they enter the parlor? How quickly are machines attached after the cows enter the parlor? How long is the time between prepping the cows and attaching the machines? How long do the machines remain attached? Are cows being machine stripped following milking?

All these questions and many others need to be answered. Once the milking procedures have been evaluation, determine how the situation can be improved. There is the old adage that "Time is money". It is no truer than in the milking parlor. Excess time spent milking the cows, is time that could be done accomplishing other tasks. I'm not advocating that the milking routine should not be compromised, but simply evaluated to see if it can be more efficient.

Practice Good AI Techniques **By W.M Graves**

It is well known that daughters from artificial insemination (A.I.) sires produce more milk than those bred by natural service. Incorrect A.I. techniques can lower the overall success rate of your breeding program. At one time, most producers have learned correct techniques in semen handling and insemination procedures, but unfortunately, many have developed some bad habits. Reviewing proper procedures should help eliminate many of these mistakes!

Keep your semen tanks in a secure, clean and dry place away from corrosive chemicals. Your tank's location should allow for easy moving for filling with liquid nitrogen. Tanks should be stored in a visible place, and the nitrogen level should be checked regularly. Only store about a six month supply of semen. Make sure your investment is insured and secure. Always check the semen inventory list prior to removing semen from a tank to make sure each time that the correct canister is used. Semen should not be lifted above the frost line in the neck of the nitrogen tank. Dangerous temperatures exist in the upper half of the neck. Exposure will lower subsequent fertility.

Store insemination equipment in a clean, stainless steel box. This box should be closed when not in use. Also, all equipment should be clean when returned to the box. Always maintain sterility of the plastic sheaths used to cover the straw gun. Remember this is not a tool box. Put the drill somewhere else.

Restrain and identify the cow to be bred before thawing the semen. Be sure that the cow being bred is in heat. Use the am/pm rule or breed at a designated time after ovsynch hormone treatment.

When preparing the AI gun remove the plastic straw of semen from the goblet quickly with tweezers and not fingertips. This helps to keep the straws in the goblet below the frost line

and avoids warming the straw too quickly. It is generally recommended that only one straw be thawed at a time. If more than one straw is thawed, they should be agitated to prevent the possibility of freezing together during thawing. If synchronizing animals you can thaw up to 3 straws together if you are using them within 15 minutes. This works best if the inseminator has help loading and thawing semen.

Shake the straw after it is removed from the tank to eliminate any drops of nitrogen at the end of the cotton plug. This will eliminate the plug bursting off when it is put in the water bath. If you have a large group of animals to inseminate, it will help to have one person thawing and another breeding animals.

A one pint, wide mouth thermos and a dial thermometer work well for thawing straws. Semen should be thawed in 95°F water for 45 seconds. Electronic thaw devices are handy, especially DC versions that can be used in trucks. Maintain accuracy by regularly checking temperatures and calibrating your thermometer. After the straw is thawed, dry it off with a clean towel and always check the printed information on the outside of a straw to verify the bull's identity. Record the bull next to the cow's number. Maintain an accurate semen inventory. This can be easily done on PCDart.

Use semen within 15 minutes of thawing. Time should be watched carefully, especially when thawing multiple straws. In cold weather warm the gun by rubbing it with your hands. Dry the straw with a clean paper towel and place the end with the cotton plug in the gun. Cut the sealed end at a 90 degree angle about 1/4 inch from the lab seal. If the straw is not cut squarely, the plastic sheath does not seal tightly against the straw. Some semen will then back flow between the sheath and the straw, rather than going inside the cow. A 1/2cc straw contains about 10 drops of diluted semen; therefore, each drop lost is 10 percent of the total contents and sperm numbers. Place a sterile plastic sheath over the gun and seal it. Wrap the end in a paper towel to prevent exposure to the sun and to maintain sanitation. Then place the end of the gun in your shirt or pants pocket to maintain temperature on the way to the cow. During hot weather, do not place the insemination gun in direct sunlight or on hot surfaces.

After the gun is readied, clean the region of the vulva to prevent contamination of the inner reproductive tract. If you are not completely sure the animal is in heat, pick up the cervix and uterus and see if you get a clear mucous from the vulva. This is a good sign she is in heat!

Insert the gun in the cow upward at a 30 degree angle. This avoids entering the bladder. Remember that inseminating the cow does not require much force or pressure. Do not poke around with the gun. Try to move the cervix around and bring it to the gun. Take your time, relax and concentrate on your technique. If the cervix is over the rim of the pelvis, pull it back towards you where it is easier to insert the gun. If you are getting caught in the folds of the vagina, try stretching the cervix away from you to free your gun and allow a clearer entry into the cervix.

Semen should be deposited in the body of the uterus. This area is less than one inch long and is about the size of a dime. It is located immediately in front of the cervix. A common mistake is to deposit the semen several inches into the right uterine horn.

Feel the end of the gun with your finger when you are just outside the cervix. Be sure

the gun is passing through the cervix and that you are not just stretching the vagina. When the tip of the insemination gun passes through the front ring of the cervix, it is in the uterine body. Check the location by placing the index finger in front of the cervix. You should just be able to feel the tip of the gun.

After you feel the tip of the gun, lift your index finger and slowly deposit the semen over a 5 second period. Be sure that your fingers are not misdirecting the flow of semen or blocking a uterine horn. Reposition the gun each time the animal moves. Count by thousands to five.

If the cervical mucus of a cow previously bred feels thick and sticky, the cow may be pregnant. On repeat services, it is best to deposit the semen just past the half-way point of the cervix. Be careful.

If you find blood on your glove, be gentle. Concentrate on placement. Practice proper sanitation procedures. Don't give up on the hard ones, they too will work.

Practice good insemination techniques. Consider retraining. It may help improve your herd's fertility. Your cows can't make up for your mistakes in improper semen handling and placement. And with fertility, paying attention to details will improve the overall results. Breeding in a healthy tract with proper technique at the right time with fertile semen will increase pregnancies in your herd.

Dates To Remember:

April 14, 2006	Spring Dairy Show- Athens
April 15, 2006	State 4-H & FFA Dairy Judging Contest- Athens
June 8-9, 2006	Animal Science In Action- Athens
July 10-14, 2006	Southeast Dairy Youth Retreat- Jonesville, NC



ANIMAL SCIENCE IN ACTION JUNE 8-9, 2006

...A SUMMER INTRODUCTION TO THE ANIMAL AND DAIRY
SCIENCE DEPT., ANIMAL SCIENCE MAJORS, INCLUDING PRE-VET

You are invited to participate on June 8-9, 2006 in our introductory program for high school students at UGA. Animal Science in Action is a 2 day program designed for rising high school juniors and seniors with an interest in a Bachelor of Science degree and career in the animal science field. The University of Georgia Animal and Dairy Science Department encompasses science and hands-on learning opportunities with beef and dairy cattle, horses, swine, and sheep. A degree in animal science can lead to a great variety of careers including sales in feed and pharmaceuticals, Extension and other instructional roles, meats industry options, or many of the supportive roles in the livestock industry. Animal and Dairy Science degrees also can be tailored to satisfy pre-requisites for Veterinary or Graduate School.

High school students come to UGA to engage in a series of labs and experiences that gives them a “feel” for the Animal and Dairy Science program. Groups visit each of the main teaching farms for hands-on activities with the animals and other UGA sites. Students stay in a UGA dormitory to experience dorm life. Current Animal Science students lead various activities and interact with the students to share the opportunities available at UGA in Animal Science. The program starts mid-morning on Thursday and ends mid afternoon of the next day. Parents are invited to attend, especially the opening and closing sessions that involve important admissions and scholarship information.

Application deadline is May 15, 2006. The event costs \$60.00/student. High school students should provide PSAT or SAT scores and be a rising junior or senior. We encourage you to get your application in today!

For more information contact Dr. Bill Graves (706-542-9106), Dr. Josie Coverdale (706-543-0398) or Dr. Ronnie Silcox (706-542-9102).

ANIMAL SCIENCE IN ACTION

June 8-9, 2006

Application Due May 15, 2006

Name: _____ High School Graduation Year: _____

Address: _____ High School Grade Point Average: _____

_____ PSAT or SAT Score (Circle One) _____

Social Security Number: _____ Telephone Number: _____

County: _____ T-Shirt Size (free!) M L X XL XXL
Check One: Male: _____ Female: _____

Youth Livestock Activities: _____

High School and Other Activities: _____

Honors and Awards: _____

Career Interest: _____

Main Species Interest Beef _____ Swine _____ Sheep _____
(Check all that apply) Dairy _____ Horse _____

Please return this form to: Dr. William Graves

UGA Animal & Dairy Science Department

Animal Science in Action

Animal and Dairy Science Complex

Athens, GA 30602-2771

Telephone: (706) 542-9106 Fax: (706) 542-9316

Cost: \$60.00. Make check payable to "Georgia 4-H Foundation".

(Office Use Only) Date this application was received _____

TOP 20 DHIA HERDS BY TEST DAY MILK PRODUCTION

Herd	County	Br.	Mo.	Cows	Test Day Average				Yearly Average					
					% Days in Milk	Milk	Fat		Milk	Fat			Protein	
							%	Lbs.		%	Lbs.	%	Lbs.	
Irvin Yoder	Macon	H	11	118	84	67.4	3.6	2.42	22652	3.6	826	3.1	707	
Krulic Dairy Farm, Inc.	Screven	H	11	111	92	66.3	3.4	2.23	24827	3.6	887	3.1	758	
Ray Ward Dairy	Hall	H	11	133	88	65.4	3.9	2.58	21583	3.7	797	3.0	638	
Brooksco Dairy	Brooks	H	11	2515	88	62.9*			23453					
Dave Clark	Morgan	H	11	869	79	62.3*	3.3	2.03	26195	3.2	837	2.9	752	
Larry Moody	Ware	H	11	868	83	61.7			23872					
J. Everett Williams	Morgan	H	11	611	87	61.6*	3.5	2.16	26077	3.7	964	3.1	804	
Cecil Dueck	Jefferson	H	11	87	90	60.2	3.6	2.16	23740	3.6	851	3.0	714	
Coastal Plain Exp Station	Tift	H	11	196	90	59.2	3.7	2.17	20456	3.7	763	3.0	613	
Tim Groff	Burke	H	11	70	87	58.9	3.2	1.90	20409	3.2	659	3.0	616	
David L. Moss	Morgan	H	11	123	86	58.5	4.3	2.52	20394	4.2	856	3.0	611	
Earnest R Turk	Putnam	H	11	334	86	58.3	4.1	2.40	21788	3.9	849	3.1	671	
Wright & Whitty & Davis Dairy	Appling	H	11	1126	88	58.2*			21952					
RA Mcelmurray & Son	Richmond	H	11	136	91	57.6	3.9	2.26	19944	3.2	643	3.0	608	
Rodgers' Hillcrest farms, Inc.	McDuffie	H	11	392	83	57.5	3.4	1.97	22559	3.3	738	3.0	672	
Scott Glover	White	H	11	108	81	56.3	3.9	2.19	22918	3.9	893	3.0	683	
Russell Johnston	Morgan	H	11	97	89	55.9	3.7	2.07	20581	3.8	780	3.1	644	
Lee Whitaker	McDuffie	H	11	371	80	55.5	3.8	2.12	21795	3.5	765	3.1	671	
Rufus Yoder Jr.	Macon	H	11	118	87	54.9	3.5	1.90	21509	3.3	719	3.1	660	
Floyd Yoder	Macon	H	11	78	86	54.4	3.6	1.94	20919	3.4	701	3.1	639	

¹Minimum 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 compiled from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY FAT PRODUCTION

Herd	County	Br.	Mo.	Cows	Test Day Average				Yearly Average				
					% Days in Milk	Milk	Fat		Milk	Fat		Protein	
							%	Lbs.		%	Lbs.	%	Lbs.
Ray Ward Dairy	Hall	H	11	133	88	65.4	3.9	2.58	21583	3.7	797	3.0	638
David L. Moss	Morgan	H	11	123	86	58.5	4.3	2.52	20394	4.2	856	3.0	611
Irvin R Yoder	Macon	H	11	118	84	67.4	3.6	2.42	22652	3.6	826	3.1	707
Earnest R Turk	Putnam	H	11	334	86	58.3	4.1	2.40	21788	3.9	849	3.1	671
Coastal Plain Exp Station	Tift	J	11	22	100	52.1	4.4	2.31	16117	4.7	756	3.4	555
RA Mcelmurray & Son	Richmond	H	11	136	91	57.6	3.9	2.26	19944	3.2	643	3.0	608
Krulic Dairy Farm, Inc.	Screven	H	11	111	92	66.3	3.4	2.23	24827	3.6	887	3.1	758
Scott Glover	White	H	11	108	81	56.3	3.9	2.19	22918	3.9	893	3.0	683
Coastal Plain Exp Station	Tift	H	11	196	90	59.2	3.7	2.17	20456	3.7	763	3.0	613
J. Everett Williams	Morgan	H	11	611	87	61.6*	3.5	2.16	26077	3.7	964	3.1	804
Cecil Dueck	Jefferson	H	11	87	90	60.2	3.6	2.16	23740	3.6	851	3.0	714
Sparkman Dairy	Colquitt	H	11	503	89	47.4	4.5	2.14	14891	4.9	728	3.6	534
Lee Whitaker	McDuffie	H	11	371	80	55.5	3.8	2.12	21795	3.5	765	3.1	671
Russell Johnston	Morgan	H	11	97	89	55.9	3.7	2.07	20581	3.8	780	3.7	644
W. T. Meriwether	Morgan	H	11	118	81	50.8	4.0	2.05	19186	3.8	738	3.1	596
Ralph Kotal	Hart	H	11	69	91	52.4	3.9	2.04	19807	3.6	707	2.9	576
Dave Clark	Morgan	H	11	869	79	62.3*	3.3	2.03	26195	3.2	837	2.9	752
Charles Copelan	Greene	H	11	87	91	54.3	3.7	1.99	17530	3.8	666	2.9	517
Rodgers' Hillcrest Farms Inc.	McDuffie	H	11	392	83	57.5	3.4	1.97	22559	3.3	738	3.0	672
Horst Crest Farms	Burke	H	11	139	88	52.3	3.8	1.97	17386	3.7	651	3.1	531

¹Minimum 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).

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TOP 20 DHIA HERDS BY TEST DAY MILK PRODUCTION

Herd	County	Br.	Mo.	Cows	Test Day Average				Yearly Average				
					% Days in Milk	Milk	Fat		Milk	Fat		Protein	
							%	Lbs.		%	Lbs.	%	Lbs.
Vista Farm	Jefferson	H	12	82	100	76.4	4.1	3.16	23608	3.2	752	3.0	712
Brooksco Dairy	Brooks	H	12	2548	89	69.5*			23569				
Dave Clark	Morgan	H	12	841	83	67.0*	3.7	2.50	26217	3.2	838	2.9	752
J. Everett Williams	Morgan	H	12	618	89	66.9*	3.6	2.40	25928	3.7	953	3.1	798
Lamar Anthony	Sumter	H	11	882	85	66.6*	3.6	2.41	22519	3.5	782	3.0	668
Coastal Plain Exp Station	Tift	H	12	186	87	66.5	3.7	2.43	20751	3.7	772	3.0	620
Scott Glover	White	H	12	98	88	66.4	3.8	2.55	22738	3.9	883	3.0	679
Ray Ward Dairy	Putnam	H	12	133	90	65.9	3.9	2.60	21620	3.7	798	3.0	639
Krulic Dairy Farm, Inc.	Screven	H	12	109	88	65.6	3.9	2.58	24703	3.6	880	3.0	752
Irvin R Yoder	Macon	H	12	123	83	65.0	3.8	2.45	22841	3.6	833	3.1	714
Tim Groff	Burke	H	12	81	93	65.0	3.4	2.18	20493	3.2	658	3.0	618
Cecil Dueck	Jefferson	H	12	87	87	63.3	3.8	2.39	23589	3.6	846	3.0	714
Troy Yoder	Macon	H	12	110	83	62.4	3.7	2.30	20147	3.6	730	3.1	624
Kent Walker	Greene	H	12	116	82	62.2	3.4	2.12	20693	3.7	770	2.9	595
Myrtle Creek Farm	Macon	H	12	42	90	62.1	2.5	1.56	20272	2.5	511	2.9	598
Rodgers' Hillcrest Farms Inc.	McDuffie	H	12	397	86	60.7	3.8	2.28	22211	3.3	740	3.0	664
David L Moss	Morgan	H	12	119	86	60.2	4.0	2.39	20544	4.2	859	3.0	616
Ray Lovett	Pierce	H	12	369	87	59.9*	3.2	2.15	22302	3.2	717	3.0	661
RA Mcelmurray & Son	Richmond	H	12	141	90	59.6	3.6	2.15	20136	3.3	660	3.1	616
J B Gay & Son	Jenkins	H	11	268	90	58.9	3.7	2.20	21401				

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TOP 20 DHIA HERDS BY TEST DAY FAT PRODUCTION

Herd	County	Br.	Mo.	Cows	Test Day Average				Yearly Average				
					% Days in Milk	Milk	Fat		Milk	Fat		Protein	
							%	Lbs.		%	Lbs.	%	Lbs.
Vista Farm	Jefferson	H	12	82	100	76.4	4.1	3.16	23608	3.2	752	3.0	712
Ray Ward Dairy	Putnam	H	12	133	90	56.9	3.9	2.60	21620	3.7	798	3.0	639
Krulic Dairy Farm, Inc.	Screven	H	12	109	88	65.6	3.9	2.58	24703	3.6	880	3.0	752
Sparkman Dairy	Colquitt	J	12	526	90	48.8	5.3	2.58	14998	4.9	735	3.6	538
Scott Glover	White	H	12	98	88	66.4	3.8	2.55	22738	3.9	883	3.0	679
Dave Clark	Morgan	H	12	841	83	67.0*	3.7	2.50	26217	3.2	838	2.9	752
Irvin Yoder	Macon	H	12	123	83	65.0	3.8	2.45	22841	3.6	833	3.1	714
Coastal Plain Exp. Station	Tift	H	12	186	87	66.5	3.7	2.43	20751	3.7	772	3.0	620
Berry College Dairy	Floyd	J	12	29	93	51.1	4.8	2.43	19312	4.9	947	3.5	685
Lamar Anthony	Sumter	H	11	882	85	66.6*	3.6	2.41	22519	3.5	782	3.0	668
J. Everett Williams	Morgan	H	12	618	89	66.9*	3.6	2.40	25928	3.7	953	3.1	798
Cecil Dueck	Jefferson	H	12	87	87	63.3	3.8	2.39	23589	3.6	846	3.0	714
David L. Moss	Morgan	H	12	119	86	60.2	4.0	2.39	20544	4.2	859	3.0	616
Coastal Plain Exp Station	Tift	J	12	22	82	46.6	5.0	2.35	16337	4.7	766	3.4	563
Troy Yoder	Macon	H	12	110	83	62.4	3.7	2.30	20147	3.6	730	3.1	624
Lawayne Weaver	Macon	H	12	140	87	56.9	4.0	2.30	20679	3.7	759	3.1	645
W. T. Meriwether	Morgan	H	12	115	88	56.9	4.0	2.29	19390	3.8	745	3.1	604
Rodgers' Hillcrest Farms Inc.	McDuffie	H	12	397	86	60.7	3.8	2.28	22211	3.3	740	3.0	664
Earnest R Turk	Putnam	H	12	329	86	58.5	3.9	2.26	21761	3.9	844	3.1	672
Floyd Yoder	Macon	H	12	77	86	57.7	3.9	2.25	26047	3.6	935	2.9	763

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