

## 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.

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Sincerely,

Sha Tao

Assistant Professor



# **Herd it Through the Bovine**

Youth Corner

#### Dr. Jillian Bohlen

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#### **Recent Events**

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## **State 4-H Dairy Judging Contest**

This year's contest on Friday, March 24<sup>th</sup> had some of the best dairy "eyes" in Georgia evaluating really nice classes of dairy animals. Hosting 34 Juniors and 18 Seniors, the 2017 contest was a stiff competition.

Results from the Junior Dairy Judging Contest:

Top five Junior individuals:

- 1. Joshua Carr, Gordon Co., 256\*
- 2. Jacey Morgan, Jasper Co., 256\*
- 3. Charlee Causey, Carroll Co., 253\*
- 4. Holt Sapp, Burke Co., 253\*
- 5. Isabella Waddell, Jasper Co., 247

## Top five Junior team results:

- 1. Carroll Co., 744
- 2. Gordon Co., 741\*
- 3. Burke Co., 741\*
- 4. Jasper Co., 726
- 5. Coweta Co., 705

The first place Junior Team, from Carroll Co., included Charlee Causey, Sydney Musick, Sara Kate McDermitt and Joseph McDermitt.

Results from the Senior State Dairy Judging Contest:

Top five Senior individuals:

- 1. Katie Hanson, Carroll Co., 353
- 2. Brooklyn Carr, Gordon Co., 344
- 3. Caleb Carr, Gordon Co., 337\*
- 4. Audri Crews, Coweta Co., 337\*
- 5. Lillyanna McDermitt, Carroll Co., 335



<sup>\*</sup>Ties broken with reason scores.

<sup>\*</sup>Ties broken with the top three team members reason scores.

<sup>\*</sup>Ties broken with reason scores.

Top three Senior team results:

- 1. Gordon Co., 1006
- 2. Coweta Co., Team A, 992
- 3. Coweta Co., Team B, 870

The first place Senior Team from Gordon County has the opportunity to represent Georgia at the National 4-H Dairy Judging Contest held in Madison, WI this fall. Gordon County Team members are: Brooklyn Carr, Caleb Carr, Luke Ryan and Gracy Sexton.

This contest would not be made possible without all of the exhibitors at the UGA Spring Dairy Show that was held the following day on March 25<sup>th</sup>. This year's show boasted some incredibly high quality Jersey, Holstein, and Brown Swiss animals from 15 different Southeastern farms. A huge thank you from the UGA Animal and Dairy Science Department and Georgia 4-H to all of these exhibitors. The Supreme Champion of the show was the Jersey aged cow "BRJ Excitation Bowtie Mint R-7" exhibited by Hobbs Lutz of Chester, SC.

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# **State 4-H Dairy Quiz Bowl Competition**

Saturday, June 3<sup>rd</sup> was a fun and exciting day of Dairy Quiz Bowl in Athens, GA. An event like no other offered to dairy youth, dairy quiz bowl is a true test of pure dairy knowledge. Also unique, Dairy Quiz Bowl allows young people the opportunity to work as a team and individually while competing in each round. This year's contest brought together 7 Junior Teams and 4 Senior teams for competition. Below are some example questions from this year's contest do you know the answers?

#### Junior Division

- What is the term given to milk left in the udder after a normal milking?
- Where is material deposited if it is administered to the animal IV?
- What is the measurement that determines how well cows turn feed into milk?
- When predipping a cow before milking, how much of the teat should be covered?
- During the day, what are the two peak times of water consumption for the dairy cow?

#### Senior Division

2?

- What would the uppercase letters PP mean on a Holstein pedigree?
- What is the current base year for genetic evaluations of dairy cattle?
- In addition to methane, what is the other main gas formed in the rumen?
- How much additional milk should you expect from cows milked 3 times a day instead of
- According to the PDCA scorecard, what trait in the rear feet and legs receives priority?

How well did you do?

Placing first in the Junior Competition was Oconee Co. Those team members were: Hannon Bulger, Alicia Carnes, Robie Lucas, Lexi Prichard, Kalani Washington.

In the Junior Team Competition, Coweta Co. was second. Team members include: Jennifer Brinton, Madison Dyar, Bella Fisk, Colton Swartz, Michael Whitlock. Tift Co. placed third and



their team members were: Macy Hill, Seth Jones, Dana Wells, Amare Woods.

Placing first in the Senior Competition was Oconee Co. Those team members were: Ayah Abdelwahab, Mennah Abdelwahab, David Han, Neely McCommons, Emily Queen. Oconee Co. will have the opportunity to represent Georgia 4-H at the North American Invitation 4-H Dairy Quiz Bowl Contest in Louisville, KY this coming fall.

Morgan Co. placed second and their team members included: Riley Elwood, Will Woodard, Lucy Young. Coweta Co. placed third and their team was comprised of the following members: Beck Glover, Alexa Hillebrand, Nicole Hillebrand, Elizabeth Mansour.



**Image:** Oconee County Junior and Senior Teams

**Upcoming Events** 

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## **Southeast Dairy Youth Retreat**

The Southeast Dairy Youth Retreat is just a few weeks away! The 2017 Southeast Dairy Youth Retreat will be hosted in Bradenton, FL July  $9^{th} - 13^{th}$ . This annual event is a tremendous opportunity for youth ages 8 to 18. During the retreat, youth participants from seven southeastern states will interact with dairy industry professionals during hands-on learning activities. This year's group of 23 Georgia youth will visit a wide variety of farms in Florida, ranging from a minimal input, grazing dairy milking 5,000 cows to a large agri-tourism herd that produces their own milk and cheese. The group will also make an outing to Adventure Island and get involved with interactive workshops and tours.

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# **Mark your Calendars**

National 4-H Dairy Conference

- October 1<sup>st</sup> 4<sup>th</sup>
- Please be on the lookout for more information at the "Georgia 4-H Dairy Youth Programs" Facebook page and on the "Dairy On" UGA Extension Blog. We will select 2-3 delegates to represent Georgia at this national event. For these delegates, all registration and travel costs will be covered.

Georgia National Fair Junior Commercial Dairy Heifer Show

- Entry deadline is September 1<sup>st</sup>
- Weigh in on October 7<sup>th</sup> and Show Day on October 8<sup>th</sup>
- Dress a Cow Contest on October 7<sup>th</sup> at 4:00 PM Get your outfits ready!

Georgia National Fair Junior and Open Shows

• Showing October 13<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup>

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## How many of your heifers will become cows in your herd?

Lane O. Ely **Professor Emeritus** Animal and Dairy Science Department laneely@uga.edu

For the continuation of one's dairy herd, new cows must enter the herd each year to replace cows that are leaving the herd. To maintain the status quo, the number entering must equal the number leaving. If one is trying to expand the herd, the number entering must be larger than the number leaving the herd. As seen in table 1, the calving interval will have an effect on the number of calvings per year. This data shows the importance of getting cows pregnant and the efficiency of the reproduction program.

**Table 1.** Calvings per year, demales per year and males per year depending on calving interval

COWS = 100				
	Scenario1	Scenario2	Scenario3	Scenario4
Calving Interval (mo)	12	13	14	15
Calvings/yr	100	92	85	80
Calves - F	48	44	41	39
Calves - M	52	48	44	41

The question is how many of these calves will become cows in our herd. I will use the 13 month calving interval for our evaluation. Several studies have looked at survival rates for dairy replacements. In table 2, these have been calculated. In the calculation, any fraction of an animal has been rounded up. For example, the result of 1.33 heifers would be rounded up to 2 heifers for the calculation.

There will be 44 calvings for females in our 100 cow herd with a 13 month calving interval. With a 1.5% stillbirth rate this would be the loss of .66 calves resulting in 43 heifers left. The most critical time for the heifers is from birth to weaning. With a 7.8% death loss during this period, 3.35 calves would be lost resulting in 39 heifers left. The post weaning death loss is less (2.1%) resulting in the loss of .82 heifers and 38 remaining heifers.

The 38 heifers will be our breeding herd. If we have a 60% pregnancy rate and have 5 breedings for the season, this will result in 36 pregnant heifers and 2 heifers that will be culled as open. (Table 2)

From our 100 cow herd, there will be 36 heifers that will calve and enter the herd. With an average herd culling rate of 35%, we are just maintaining the status quo for herd size.

What happens if we can improve our replacement raising performance? With a death loss of 2.8% from birth to weaning and a post weaning death loss of 1.0%, we would have 40 replacement to breed. An increase of 2 replacements. If our pregnancy rate is increased to 75%, we would have 39 replacements entering our herd (Table 3). Under average culling rate of 35%, our herd size could increase slowly.



If our goal is to increase the herd size then lowering the culling rate will accelerate the increase. If we lower the culling rate to 25%, the 25 cows need to be replaced. With our improved replacement raising, we could have a gain of 15 cows and growth could be more rapid.

**Table 2.** Replacement survival from birth to calving with literature values

	J	U	
Item	Value	Number of Heifers	Heifer Balance
Calvings	44	44	44
Stillbirths	1.5%	.66	43
Death before weaning	7.8%	3.35	39
Death post weaning	2.1%	.82	38
Cull open heifers		2	36
Pregnant heifers	60% Pregnancy Rate	36	36

**Table 3.** Replacement survival from birth to calving with improved values

Item	Value	Number of Heifers	Heifer Balance
Calvings	44	44	44
Stillbirths	1.0%	.44	43
Death before weaning	2.8%	1.20	41
Death post weaning	1.0%	.41	40
Cull open heifers		1	39
Pregnant heifers	75% Pregnancy Rate	39	39

With the potential for the values of these events to be different from our average values, the importance of good management must be emphasized in order to maintain the herd or to increase the herd if that is the goal.



#### Wet spring and summer weather conditions are ideal for *Prototheca* mastitis

Stephen C. Nickerson, Professor 706-542-0658/ scn@uga.edu Felicia M. Kautz, Research Associate Department of Animal and Dairy Science, UGA

Although most mastitis is caused by bacteria, a type of colorless algae called *Prototheca*, can also be responsible for intramammary infections, especially chronic ones with high SCC. Unfortunately, there is no cure, and mastitis caused by *Prototheca* can result in significant economic losses to the producer.

Protothecal microorganisms, mainly *Prototheca zopfii*, are widespread in the cows' environment, including housing areas, lots, and pastures. These algae are associated with wet areas containing decaying manure and plant matter, and can also be found in flowing water, standing water, water tanks, flush water tanks, water run-off from silage, well water, milking parlor wash water, manure, teat dip containers, milking machine liners, teat skin, and feed troughs. *Prototheca* are usually present in the environment on dairy farms with and without *Prototheca* mastitis problems, so they are ubiquitous in the cows' surroundings and cannot be eliminated. Stagnant farm ponds are ideal sites for the growth of *Prototheca* so, cows should be excluded from such areas (Figure 1).



**Figure 1**. A stagnant farm pond.

*Prototheca* infections are probably initiated when teats of cows are exposed to high populations of algae in environmental sites during the interval between milkings. Spread of the organisms during milking time is not significant; however, new *Prototheca* infections can occur in situations in which a high percentage of cows are already infected with the algae and milking techniques are poor; thus, it can be contagious.



Prototheca infections are also initiated through faulty treatment procedures. For example, when treating cows with mastitis during lactation or at drying off, protothecal organisms can be introduced during the drug infusion process. Unfortunately, most antibiotics are delivered via the 'full insertion' process in which the syringe cannula is fully inserted 'to the hilt' into the teat canal. This results in stretching of the teat sphincter muscle, dilation of the teat canal, and removal of portions of the keratin plug, leaving an open pathway for microbial invasion. In addition, if the teat orifice is not properly sanitized, microbes present on the teat skin, such as Prototheca, can be carried upward with the cannula, creating a new infection in addition to the one that is being treated.

For example, if the quarter being treated during lactation is infected with *Staph. aureus*, the antibiotic used may be effective in curing that staph; however, by using faulty infusion methods (full insertion of the syringe cannula), a new infection with *Prototheca* may be created in addition to the one being treated because *Prototheca* organisms are not susceptible to any of the antibiotics used in wet cow therapies.

As another example, at drying off, a quarter being treated prophylactically (to prevent new infections) may be initially uninfected; however, by using faulty infusion methods, a new infection with *Prototheca* may be created because these organisms are not susceptible to the antibiotic used, although that antibiotic may be successful in preventing a new *Staph. aureus* infection during the early dry period. So, when administering mastitis tubes, it is important to first thoroughly sanitize the teat orifice, infuse the syringe contents using the 'partial insertion' method as shown in Figure 2, and lastly dip teats to kill any microbes inadvertently placed on the teat end. The partial insertion technique will maintain the normal integrity of teat end tissues and minimize bacterial or protothecal entry into the quarter.



Figure 2. Partial insertion technique.



On a herd level for those animals with *Prototheca* mastitis, the prevalence of infection may range from 4 to 40% of the cows in milk. However, in most herds few, if any, cows are infected with this organism, and outbreaks with greater than 10% of cows infected are rare. Cows in all stages of lactation are susceptible to new protothecal infections including dry cows.

Most cases of *Prototheca* mastitis are clinical and remain as chronic infections, with the milk being grossly abnormal; severe systemic signs such as off feed, depression, or high fever are rare. Subclinical outbreaks have been reported, characterized by normal milk with many quarters or cows having SCC greater than 1,000,000/ml and reduced milk production. As a result, the bulk tank SCC will be elevated above 400,000/ml, especially in small herds.

At the UGA Teaching Dairy, we have experienced 9 cases of *Prototheca* mastitis in our milking herd over the past 5 years, or an average of about 2 cases per year, which is approximately 2% of the cows. Among those 9 cases, only one was clinical; the rest were subclinical infections with SCC averaging 2,572,000/ml (range: 999,000 to 4,761,000/ml). Although a prevalence of 2% of the cows may seem minor, the associated high SCC contributed significantly to the bulk tank SCC, and most of the affected animals were either culled or dried off early.

Because *Prototheca* does not respond to antibiotic therapy, this form of mastitis should be suspected when non-responding clinical cases of mastitis occur. Final diagnosis can be confirmed by culturing of milk, which yields the typical grey lobulated colonies of algae using standard laboratory procedures (See Figure 3). Cows diagnosed with *Prototheca* mastitis should be identified, milked last, and culled at the soonest opportunity to prevent spread to uninfected cows; culling will also lower the bulk tank SCC.



**Figure 3.** *Grey lobulated colonies of algae of milk culture.* 



To prevent this disease, cows should be kept out of obvious wet areas with decaying manure or plant matter, and farm ponds should be fenced off. However, if *Prototheca* mastitis is suspected, early diagnosis, segregation, and culling of infected cows will prevent elevated bulk tank SCC, avoid discarding of poor quality milk, and reduce unnecessary treatment attempts.



## "Picture" improved reproduction: the value of ultrasound

#### Dr. Jillian Bohlen

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Utilization of technology on dairy operations continues to increase. Though the ultrasound should not be considered a "new" technology, it is one that is still novel to many producers. The ultrasound machine has been used in production agriculture for carcass measurements from the late 1950s and early 1960s for reproductive reasons. This tool for use in animal production systems has proven its worth if for nothing else by its shear number of years of utilization without a superior technology identified.

The key to ultrasound is to value its application for its full worth. Ultrasound should be used as a comprehensive reproductive tool that provides accurate evaluation while still maintaining efficiency. Undoubtedly, ultrasound will never replace palpation but offers additional benefits to a management program with the ability to visualize characteristics of the uterus, ovary, and pregnancy. For the dairy producer, there are two key events in which the ultrasound pays dividends. The first of these is in the evaluation of repeat breeders and the second in defining the features of a pregnancy.

An increase in days open for an animal means additional days on a feed bill without producing offspring and potentially creeping into days of where below breakeven on milk is looming. This inherent risk is in addition to the tangible costs that a producer can see with synchronization aids and semen expense. Visualizing characteristics of the uterine environment as well as ovarian characteristics may assist in early identification of reproductive issues as well as lead to earlier and more appropriate remediation efforts.

Reasons for reproductive failure are often found at the uterine or ovarian level. Observations within the uterus are most often linked to fluid accumulation. Characteristics of the uterine wall, the uterine fluid, and ovarian structures, can provide an ultrasound technician with enough information to tell the difference in fluid accumulation that is a result of estrus from fluid that is the result from an infection. Uterine fluid pooling as a result of infection (metritis, endometritis, pyometra) has been identified to lead to issues with follicle development, shortened estrous cycles, and cystic follicles. The ability to identify these issues without any outward clinical symptoms and identify them early could reduce the amount of damage to the uterine environment and increase the probability that the animal will successfully breed in the same season.

Moving out of the uterus, structures on the ovaries help tell a lot about an animal. Looking at the ovaries can identify if an animal is cycling, is suffering from follicular cysts or corpus luteum (CL) abnormalities. Abnormalities of the follicle or CL may impede proper cycling, ovulation or sustainment of pregnancy. When making decisions on how to remedy identified issues, it is always best to consult with an animal health professional. The reality is, these observations and consultations may allow for treatment of a problem breeder.

Once pregnancy is established, the ultrasound allows for earlier visualization of pregnancy. The highest level of accuracy and reliability for pregnancy determination can be achieved when animals are ultrasound on or after 28 days. Identifying a reliable heartbeat is key to any early



diagnosis with ultrasound. Eyes on a heartbeat remove any question that fluid, whether seen or felt, is a result of heat, infection, embryonic/fetal loss, or a viable pregnancy. If early diagnosis is performed (26-32 days), animals should be verified pregnant at 60 days.

In the case of an open animal, the reduced time to pregnancy detection would allow for a shortened period to rebreeding. Additionally, many ultrasound technicians are capable of determining if early or late embryonic loss occurred. This may not seem a valuable tool to many producers – after all, she's still open. However, this piece of additional insight into a repeat breeder will assist in determining if she is having problems getting pregnant or staying pregnant. Identifying which problem exists would likely change the course of management for that particular animal.

If earlier diagnosis is not a key to your operation, there are other pregnancy characteristics that may prove vital to your management. First, ultrasound has a higher identification rate of twins. In addition, most skilled ultrasound technicians can determine fetal age with simple assessment of fetal and uterine characteristics. However, if it's the ultimate accuracy you demand, many ultrasound models now come outfitted with gestation tables that use measurements of anything from crown to rump length or diameter of the eye orbital to determine fetal age. Fetal aging is most valuable to those producers looking to appropriately manage animals serviced naturally, in which date of service may be in question. However, this technique may also have value in the case of AI service date errors.

Whether using natural service, AI, or Embryo Transfer, the ability to identify fetal sex may assist in marketing and culling decisions. This is definitely a piece of knowledge that can only be achieved with ultrasound. Location of the genital tubercle early in gestation can accurately provide this fetal sex information. The genital tubercle generally migrates in cattle around 55 days of gestation to under tail for females and caudal to umbilicus in males. Within another 2-3 weeks, additional reproductive anatomy can be identified and accuracy increased for the novice technician. Determination of fetal sex can generally occur anywhere between 55 and somewhere around 90-110 days of gestation. The challenges to the ultrasound technician change with age of fetus. The earlier assessment, the more challenging it is to differentiate structures and locations whereas the older the fetus gets, the more difficult it becomes to be physically capable of reaching the fetus. Most technicians find their own sweet spot somewhere between 60 and 70 days.

From pre-breeding to breeding to pregnancy, ultrasound can provide great understanding into each animal's unique reproductive traits.

Realizing that producers these days have a lot of irons in the fire at any given time, with knowledge and skill, the ultrasound can be a dairy producer's new best friend. The speed at which ultrasound is performed can alter with the efficiency of the technician and the restraint of the animals. Optimize both of these parameters and the speed of ultrasound can approach that of rectal palpation. Couple that with the ability to "see" what's going on reproductively for an animal and one might just find a new way to improve upon their reproductive program.

"Any sufficiently advanced technology is indistinguishable from magic"

- Arthur C. Clarke

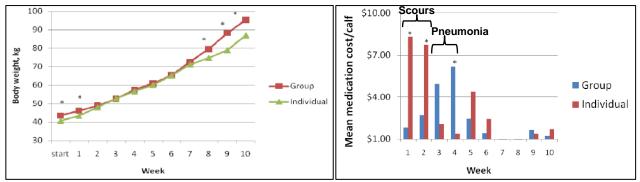


#### Comparison between automatic calf feeder and individual hutches

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Group housing with computerized automatic feeding is gaining in popularity because of the improvement of average daily gain (ADG) by allowing ad libitum milk feeding and mimicking the calf's natural sucking behavior (7-10×/d). And it was accepted that group housed animals have improved social skills which benefit the transition during weaning and minimize related stress. Many studies have been done to examine the optimal group size, pen ventilation, animal number per feeder, animal behavior and weaning procedures. However, the comparison between group housing with automatic feeder and individual hutches is actually limited. In a study conducted in Canada, calves were fed same amount of milk replacer (MR, 6 L/d) but housed either in individual hutches or as a group with an automatic feeder. Both groups of calves have similar animal growth during preweaned period, calves in the group have improved ADG during post-weaning period compared with individually housed calves (Shore and Roy, 2010), which may be attributed to the better social skill and a smoother transition during weaning of group housed calves (Figure 1a). Additionally, group feeding reduces the medication cost during the first two weeks of animal's life by reducing the incidence of scours but increased the cost to treat pneumonia during the 3-4 wk of age, relative to individual housing (Figure 1b). The altered disease incidences may be controlled with improved bedding management and pen ventilation.

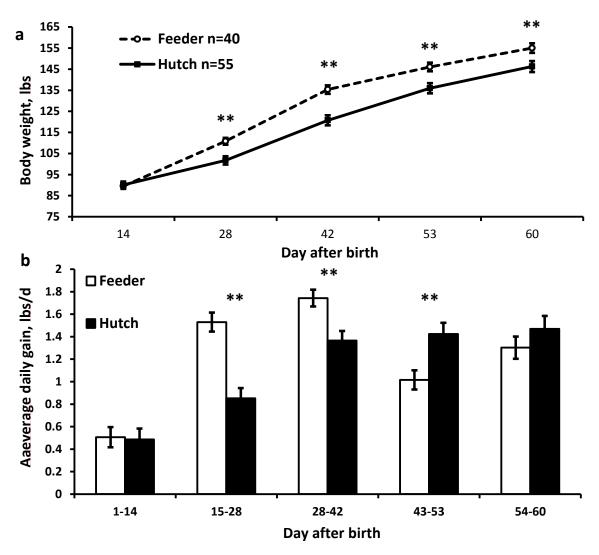


**Figure 1**. Body weight and medication cost of calves housed in a group with automatic feeder and in the individual hutches. Both groups of calves were fed the same amount of MR (6 L/d).

From Oct, 2016 to Feb, 2017, a study was conducted at UGA research dairy in Tifton to compare the performance of calves housed in individual polyethylene hutches with those housed in a group equipped with an automatic feeder. All calves were managed similarly after birth and fed 1.5 lbs/d solid of MR (26% protein and 17% fat) twice daily starting at 2 d after birth. Calves that were assigned to group feeding were moved to a group with an automatic feeder at 3-7 d after birth when the good sucking reflex was identified. The same feeding regimen was maintained for individual housed calves but MR was offered ad libitum in group housed calves. Weaning procedure started at 43 until 52 d when MR intake was reduced 50% by feeding once a



day (0700 h) for individual housed calves, or gradually reduced (10% each day) for group housed calves. Calf starter were provided ad libitum for both groups of calves but daily intake was not recorded. Body weight (**BW**) was recorded at birth, and d 14, 28, 42, 53 and 60 after birth.



**Figure 2.** Body weight and ADG of calves housed in a group fed ad libitum by an automatic feeder and in the individual hutches fed 1.5 lbs solid of MR/d twice daily.

Relative to those in hutches, calves raised in the group had similar BW during the first 2 wk after birth but higher BW thereafter, which is expected due to the ad libitum feeding. Similarly, both groups of calves had similar ADG from birth to 14 d of age, and then group housed calves had higher ADG until the weaning procedure started. However, during the process of weaning (d43-52), the group housed calves had lower ADG relative to individually housed calves, but no difference was observed after weaning. These results were different from the data described above, and the major difference between two studies is the ad libitum feeding for group housed calves. The MR intake data are currently under investigation but is expected to be higher than 1.5 lbs/d of solid, which increases the total energy and nutrient intakes and improve growth before weaning. However, the increased MR intake also reduces the starter intake and delays rumen



development, resulting in lower starter digestibility. Therefore, during the weaning process, group housed calves displayed lower ADG relative individual housed calves. However, after weaning, both groups of calves had similar ADG suggesting that the calf starter intake and rumen development of group housed calves catch up fairly fast.

Increasing MR allowance to preweaning calves has been accepted by more and more producers. Some research has shown that the increased MR feeding rate is related to the enhanced mammary growth of preweaning calves, and higher ADG during preweaning period is associated with higher milk production in heifer's first lactation. However, the contrary data were also reported. To achieve the higher feeding rate, the utilization of automatic feeder may be an option. However, good management and pen ventilation are still required. Group housing with automatic feeder is a change of management rather than a way to reduce labor cost. On the other hand, it seems that individual and group housing both have pros and cons, and both approaches may success based on one's specific situation and goal.



# 1mportant Dates 2017-2018

# **Sunbelt Agriculture Expo**

- October 17-19, 2017
- 290-G Harper Boulevard, Moultrie, GA 31788-2157
- http://sunbeltexpo.com/

# 2018 UGA Spring Dairy Show

• April 7th, 2018



	Т	op GA	DHIA By Tes	t Day Mil	k Production – Mar	ch, 2017				
					Tes	t Day Av	erage		Yearly Av	<u>erage</u>
<u>Herd</u>	County	Br.	Test Date	<sup>1</sup> Cows	% Days in Milk	Milk	% Fat	TD Fat	<u>Milk</u>	Lbs. Fat
RODGERS' HILLCREST FARMS INC.*	McDuffie	Н	3/10/2017	454	87	104.4	3.7	3.34	32187	1117
J.EVERETT WILLIAMS*	Morgan	X	3/6/2017	2023	88	93.4	3.8	3.16	28228	1077
DAVE CLARK*	Morgan	Н	3/27/2017	1167	89	90.8	3.9	3.2	30207	1087
DANNY BELL*	Morgan	Н	3/2/2017	278	91	88.8	3.9	3.16	27330	1065
SOUTHERN SANDS FARM	Butts	Н	3/20/2017	81	86	86	3.5	2.93	22554	790
PHIL HARVEY #2*	Putnam	Н	2/16/2017	1288	88	84.6	3.7	2.84	26078	963
IRVIN R YODER	Macon	Н	3/9/2017	205	90	83.7	3.7	2.75	24574	901
OCMULGEE DAIRY	Houston	Н	2/24/2017	327	86	83.1	3.4	2.53	22087	770
MARTIN DAIRY L. L. P.	Hart	Н	3/23/2017	334	91	83.1	3.8	3.07	24118	908
B&S DAIRY*	Wilcox	Н	2/25/2017	769	88	83.1	3.7	2.85	26113	921
EBERLY FAMILY FARM*	Burke	Н	3/27/2017	891	88	83	3.8	3.01	27458	974
DOUG CHAMBERS	Jones	Н	3/22/2017	412	89	82.3	3.6	2.66	24744	857
TROY YODER	Macon	Н	3/22/2017	285	89	82.1	4.2	2.97	24593	973
A & J DAIRY*	Wilkes	Н	3/6/2017	409	91	82.1			27723	
UNIV OF GA DAIRY FARM	Clarke	Н	2/9/2017	129	86	81.9	3.3	2.38	19911	733
SCOTT GLOVER	White	Н	2/24/2017	238	89	81.5	4	2.83	27151	1014
AMERICAN DAIRYCO- GEORGIA,LLC.*	Mitchell	Н	3/1/2017	3756	90	81.2	3.8	2.78	24273	887
RAY WARD DAIRY	Putnam	Н	3/13/2017	147	88	80.5	4	3.17	22870	859
LARRY MOODY	Ware	Н	2/25/2017	1061	88	80.5	3	2.27	23268	
CECIL DUECK	Jefferson	Н	2/16/2017	83	87	80.3	3.4	2.42	22386	728

<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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).



		Гор GA	DHIA By Te	st Day Fat	Production – March	2017				
					Test	Day Ave	erage		Yearly Av	<u>erage</u>
<u>Herd</u>	County	<u>Br.</u>	Test Date	Cows	% Days in Milk	<u>Milk</u>	% Fat	TD Fat	Milk	Lbs. Fat
RODGERS' HILLCREST FARMS INC.*	McDuffie	Н	3/10/2017	454	87	104.4	3.7	3.34	32187	1117
DAVE CLARK*	Morgan	Н	3/27/2017	1167	89	90.8	3.9	3.2	30207	1087
RAY WARD DAIRY	Putnam	Н	3/13/2017	147	88	80.5	4	3.17	22870	859
DANNY BELL*	Morgan	Н	3/2/2017	278	91	88.8	3.9	3.16	27330	1065
J.EVERETT WILLIAMS*	Morgan	X	3/6/2017	2023	88	93.4	3.8	3.16	28228	1077
MARTIN DAIRY L. L. P.	Hart	Н	3/23/2017	334	91	83.1	3.8	3.07	24118	908
EBERLY FAMILY FARM*	Burke	Н	3/27/2017	891	88	83	3.8	3.01	27458	974
TROY YODER	Macon	Н	3/22/2017	285	89	82.1	4.2	2.97	24593	973
SOUTHERN SANDS FARM	Butts	Н	3/20/2017	81	86	86	3.5	2.93	22554	790
B&S DAIRY*	Wilcox	Н	2/25/2017	769	88	83.1	3.7	2.85	26113	921
PHIL HARVEY #2*	Putnam	Н	2/16/2017	1288	88	84.6	3.7	2.84	26078	963
SCOTT GLOVER	White	Н	2/24/2017	238	89	81.5	4	2.83	27151	1014
EARNEST R TURK	Putnam	Н	3/21/2017	331	94	70	4	2.78	22010	824
AMERICAN DAIRYCO- GEORGIA,LLC.*	Mitchell	Н	3/1/2017	3756	90	81.2	3.8	2.78	24273	887
IRVIN R YODER	Macon	Н	3/9/2017	205	90	83.7	3.7	2.75	24574	901
R & D DAIRY	Laurens	Н	2/15/2017	361	90	71.9	4.1	2.66	25846	962
DOUG CHAMBERS	Jones	Н	3/22/2017	412	89	82.3	3.6	2.66	24744	857
HICKORY HEAD DAIRY*	Brooks	Н	3/4/2017	2273	86	72.3	3.9	2.61	22619	787
COOL SPRINGS DAIRY	Laurens	Н	3/9/2017	186	88	77.3	3.7	2.59	21804	804
COASTAL PLAIN EXP STATION*	Tift	Н	3/16/2017	281	89	78.1	3.5	2.59	24427	940

<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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).



	To	p GA I	OHIA By Test I	Day Milk P	roduction – April 20	017				
					Tes	t Day Av	erage		Yearly Av	erage_
<u>Herd</u>	County	<u>Br.</u>	Test date	<sup>1</sup> Cows	% Days in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
RODGERS' HILLCREST FARMS INC.*	McDuffie	Н	4/12/2017	444	88	102.4	3.6	3.37	32374	1130
J.EVERETT WILLIAMS*	Morgan	X	3/6/2017	2023	88	93.4	3.8	3.16	28228	1077
DAVE CLARK*	Morgan	Н	3/27/2017	1167	89	90.8	3.9	3.2	30207	1087
DOUG CHAMBERS	Jones	Н	4/26/2017	417	89	89.5	3.5	2.76	24892	868
DANNY BELL*	Morgan	Н	3/30/2017	276	91	88.8	3.9	3.19	27629	1074
A & J DAIRY*	Wilkes	Н	4/13/2017	417	92	86.7			27564	
SOUTHERN SANDS FARM	Butts	Н	3/20/2017	81	86	86	3.5	2.93	22554	790
PHIL HARVEY #2*	Putnam	Н	4/20/2017	1273	88	85	3.6	2.75	26077	966
SCOTT GLOVER	White	Н	3/30/2017	240	90	84.8	3.8	2.79	27109	1014
EBERLY FAMILY FARM*	Burke	Н	4/26/2017	890	89	83.2	3.7	2.9	27352	980
TROY YODER	Macon	Н	3/22/2017	285	89	82.1	4.2	2.97	24593	973
AMERICAN DAIRYCO-GEORGIA,LLC.*	Mitchell	Н	3/1/2017	3756	90	81.2	3.8	2.78	24273	887
UNIV OF GA DAIRY FARM	Clarke	Н	4/21/2017	116	86	81.1	3.9	2.85	21034	759
B&S DAIRY*	Wilcox	Н	4/24/2017	765	89	80.8	3.7	2.78	25996	926
IRVIN R YODER	Macon	Н	4/22/2017	236	91	80	3.6	2.73	24685	912
COASTAL PLAIN EXP STATION*	Tift	Н	4/14/2017	287	89	79.1	3.7	2.68	24385	935
LARRY MOODY	Ware	Н	4/27/2017	1057	88	79.1	3	2.15	23373	
OCMULGEE DAIRY	Houston	Н	4/28/2017	320	86	79	3.6	2.51	22395	780
MARTIN DAIRY L. L. P.	Hart	Н	4/17/2017	335	91	77.9	3.7	2.77	24084	910
COOL SPRINGS DAIRY	Laurens	Н	3/9/2017	186	88	77.3	3.7	2.59	21804	804



<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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).

	7	Γορ GA	DHIA By Tes	t Day Fat	Production - April	2017				
					Test	Day Ave	erage		Yearly Av	<u>erage</u>
<u>Herd</u>	County	Br.	Test Date	<sup>1</sup> Cows	% Days in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
RODGERS' HILLCREST FARMS INC.*	McDuffie	Н	4/12/2017	444	88	102.4	3.6	3.37	32374	1130
DAVE CLARK*	Morgan	Н	3/27/2017	1167	89	90.8	3.9	3.2	30207	1087
DANNY BELL*	Morgan	Н	3/30/2017	276	91	88.8	3.9	3.19	27629	1074
J.EVERETT WILLIAMS*	Morgan	X	3/6/2017	2023	88	93.4	3.8	3.16	28228	1077
TROY YODER	Macon	Н	3/22/2017	285	89	82.1	4.2	2.97	24593	973
SOUTHERN SANDS FARM	Butts	Н	3/20/2017	81	86	86	3.5	2.93	22554	790
EBERLY FAMILY FARM*	Burke	Н	4/26/2017	890	89	83.2	3.7	2.9	27352	980
UNIV OF GA DAIRY FARM	Clarke	Н	4/21/2017	116	86	81.1	3.9	2.85	21034	759
SCOTT GLOVER	White	Н	3/30/2017	240	90	84.8	3.8	2.79	27109	1014
B&S DAIRY*	Wilcox	Н	4/24/2017	765	89	80.8	3.7	2.78	25996	926
AMERICAN DAIRYCO-GEORGIA,LLC. *	Mitchell	Н	3/1/2017	3756	90	81.2	3.8	2.78	24273	887
MARTIN DAIRY L. L. P.	Hart	Н	4/17/2017	335	91	77.9	3.7	2.77	24084	910
DOUG CHAMBERS	Jones	Н	4/26/2017	417	89	89.5	3.5	2.76	24892	868
PHIL HARVEY #2*	Putnam	Н	4/20/2017	1273	88	85	3.6	2.75	26077	966
IRVIN R YODER	Macon	Н	4/22/2017	236	91	80	3.6	2.73	24685	912
HICKORY HEAD DAIRY*	Brooks	Н	4/3/2017	2278	87	74.4	4	2.73	22573	793
COASTAL PLAIN EXP STATION*	Tift	Н	4/14/2017	287	89	79.1	3.7	2.68	24385	935
CECIL DUECK	Jefferson	Н	4/1/2017	81	88	76.9	3.5	2.62	22765	740
TWIN OAKS FARM	Jefferson	Н	4/14/2017	93	89	72.6	3.6	2.61	20556	779
R & D DAIRY	Laurens	Н	4/5/2017	345	90	70	4.1	2.6	25085	947



<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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).

	То	p GA 1	OHIA By Test	Day Milk	Production – May 2	017				
					Test	Day Ave	rage		Yearly Av	<u>erage</u>
<u>Herd</u>	County	Br.	Test Date	<sup>1</sup> Cows	% Days in Milk	Milk	% Fat	TD Fat	<u>Milk</u>	Lbs. Fat
RODGERS' HILLCREST FARMS INC.*	McDuffie	Н	5/15/2017	440	88	99.9	3.6	3.16	32304	1133
DAVE CLARK*	Morgan	Н	5/1/2017	1163	89	94	4	3.37	30159	1098
A & J DAIRY*	Wilkes	Н	5/13/2017	397	92	89.7			27618	
DOUG CHAMBERS	Jones	Н	4/26/2017	417	89	89.5	3.5	2.76	24892	868
DANNY BELL*	Morgan	Н	5/4/2017	276	91	88.4	3.8	3.06	27935	1089
J.EVERETT WILLIAMS*	Morgan	X	5/12/2017	2072	88	86.9			28377	
PHIL HARVEY #2*	Putnam	Н	4/20/2017	1273	88	85	3.6	2.75	26077	966
SOUTHERN SANDS FARM	Butts	Н	4/27/2017	81	86	84.9	3.5	2.71	23095	810
B&S DAIRY*	Wilcox	Н	5/25/2017	745	89	83.8	3.5	2.64	25903	927
EBERLY FAMILY FARM*	Burke	Н	4/26/2017	890	89	83.2	3.7	2.9	27352	980
TROY YODER	Macon	Н	4/29/2017	289	89	82.1	4	2.83	24763	985
SCOTT GLOVER	White	Н	5/25/2017	236	90	81.9	3.5	2.56	26941	1004
AMERICAN DAIRYCO-GEORGIA,LLC.*	Mitchell	Н	5/4/2017	3739	90	81.7	3.9	2.85	24468	900
UNIV OF GA DAIRY FARM	Clarke	Н	4/21/2017	116	86	81.1	3.9	2.85	21034	759
IRVIN R YODER	Macon	Н	5/19/2017	254	91	80	3.4	2.65	24886	919
LARRY MOODY	Ware	Н	4/27/2017	1057	88	79.1	3	2.15	23373	
MARTIN DAIRY L. L. P.	Hart	Н	5/17/2017	332	91	78.4	4	2.9	23990	915
COASTAL PLAIN EXP STATION*	Tift	Н	5/16/2017	288	90	77.8	3.7	2.62	24386	940
OCMULGEE DAIRY	Houston	Н	5/24/2017	320	87	76.4	3.4	2.23	22483	784
CECIL DUECK	Jefferson	Н	5/4/2017	81	89	75.9	3.3	2.39	23028	756



<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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).

	Г	op GA	DHIA By Tes	t Day Fat	Production – May 2	2017				
			·	-	Tes	t Day Av	<u>erage</u>		Yearly A	Average
<u>Herd</u>	County	<u>Br.</u>	Test Date	<sup>1</sup> Cows	% Days in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	Н	5/1/2017	1163	89	94	4	3.37	30159	1098
RODGERS' HILLCREST FARMS INC.*	McDuffie	Н	5/15/2017	440	88	99.9	3.6	3.16	32304	1133
DANNY BELL*	Morgan	Н	5/4/2017	276	91	88.4	3.8	3.06	27935	1089
MARTIN DAIRY L. L. P.	Hart	Н	5/17/2017	332	91	78.4	4	2.9	23990	915
EBERLY FAMILY FARM*	Burke	Н	4/26/2017	890	89	83.2	3.7	2.9	27352	980
UNIV OF GA DAIRY FARM	Clarke	Н	4/21/2017	116	86	81.1	3.9	2.85	21034	759
AMERICAN DAIRYCO-GEORGIA,LLC.*	Mitchell	Н	5/4/2017	3739	90	81.7	3.9	2.85	24468	900
TROY YODER	Macon	Н	4/29/2017	289	89	82.1	4	2.83	24763	985
HICKORY HEAD DAIRY*	Brooks	Н	5/6/2017	2310	87	74.9	4.1	2.79	22597	801
DOUG CHAMBERS	Jones	Н	4/26/2017	417	89	89.5	3.5	2.76	24892	868
PHIL HARVEY #2*	Putnam	Н	4/20/2017	1273	88	85	3.6	2.75	26077	966
SOUTHERN SANDS FARM	Butts	Н	4/27/2017	81	86	84.9	3.5	2.71	23095	810
IRVIN R YODER	Macon	Н	5/19/2017	254	91	80	3.4	2.65	24886	919
B&S DAIRY*	Wilcox	Н	5/25/2017	745	89	83.8	3.5	2.64	25903	927
COASTAL PLAIN EXP STATION*	Tift	Н	5/16/2017	288	90	77.8	3.7	2.62	24386	940
SOUTHERN ROSE FARMS	Lee	Н	5/8/2017	107	81	70.9	3.9	2.61	19081	737
R & D DAIRY	Laurens	Н	4/5/2017	345	90	70	4.1	2.6	25085	947
SCOTT GLOVER	White	Н	5/25/2017	236	90	81.9	3.5	2.56	26941	1004
CHARLES STEWART	Greene	X	5/9/2017	110	87	67.7	3.9	2.51	19871	750
EARNEST R TURK	Putnam	Н	4/25/2017	327	94	63.7	4	2.49	21854	828



<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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 GA Lows Herds for SCC -TD Average Score - March 2016													
<u>Herd</u>	County	Test Date	Br.	Cows	Milk-Rolling	SCC-TD- Average Score	SCC-TD- Weight Average	SCC- Average Score	SCC-Wt.					
DAVID ADDIS	Whitfield	3/2/2017	Н	38	17218	1.2	36	1.1	66					
BRENNEMAN FARMS	Macon	3/20/2017	Н	129	18386	1.4	121	1.9	227					
SOUTHERN SANDS FARM	Butts	3/20/2017	Н	81	22554	1.6	73	2.4	203					
ALEX MILLICAN	Walker	3/4/2017	Н	98	18659	1.8	105	2.2	219					
COASTAL PLAIN EXP STATION*	Tift	3/16/2017	Н	281	24427	1.9	126	2.2	196					
DONALD NEWBERRY	Bibb	3/29/2017	Н	129	16341	1.9	143	2.4	201					
J.EVERETT WILLIAMS*	Morgan	3/6/2017	X	2023	28228	1.9	145	1.8	138					
JAMES W MOON	Morgan	3/22/2017	Н	113	18284	1.9	149	1.8	130					
BERRY COLLEGE DAIRY	Floyd	2/27/2017	J	31	17068	2.1	116	1.7	78					
TROY YODER	Macon	3/22/2017	Н	285	24593	2.1	126	2.1	143					
IRVIN R YODER	Macon	3/9/2017	Н	205	24574	2.1	136	2.2	144					
JEFF WOOTEN	Putnam	3/7/2017	Н	289	17448	2.1	162	2.2	199					
DAVE CLARK*	Morgan	3/27/2017	Н	1167	30207	2.1	210	1.9	154					
LOUIS YODER	Macon	2/21/2017	Н	108	19736	2.2	169	2.6	273					
RUFUS YODER JR	Macon	2/27/2017	Н	137	22860	2.2	204	2.4	210					
RONNIE ROBINSON	Spalding	2/3/2017	Н	101	15778	2.3	146	2.1	132					
LARRY MOODY	Ware	2/25/2017	Н	1061	23268	2.3	170	2.5	185					
DANNY BELL*	Morgan	3/2/2017	Н	278	27330	2.3	175	1.9	145					
MARTIN DAIRY L. L. P.	Hart	3/23/2017	Н	334	24118	2.3	181	2.3	194					
PHIL HARVEY #2*	Putnam	2/16/2017	Н	1288	26078	2.3	182	2.2	174					

<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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 GA Lows Herds for SCC -TD Average Score - April 2017													
<u>Herd</u>	County	Test Date	<u>Br.</u>	Cows	Milk-Rolling	SCC-TD- Average Score	SCC-TD- Weight Average	SCC- Average Score	SCC-Wt.					
DAVID ADDIS	Whitfield	4/1/2017	Н	38	16888	1.4	80	1.2	70					
BRENNEMAN FARMS	Macon	3/20/2017	Н	129	18386	1.4	121	1.9	227					
SOUTHERN SANDS FARM	Butts	3/20/2017	Н	81	22554	1.6	73	2.4	203					
BERRY COLLEGE DAIRY	Floyd	4/26/2017	J	31	17028	1.6	78	1.9	88					
COASTAL PLAIN EXP STATION*	Tift	4/14/2017	Н	287	24385	1.7	126	2.2	198					
ALEX MILLICAN	Walker	4/1/2017	Н	103	18762	1.7	150	2.2	217					
SCOTT GLOVER	White	3/30/2017	Н	240	27109	1.8	100	1.7	105					
RONNIE ROBINSON	Spalding	4/7/2017	Н	103	15371	1.8	105	2	117					
MARK E BRENNEMAN	Macon	4/17/2017	Н	144	19712	1.8	190	2.3	225					
IRVIN R YODER	Macon	4/22/2017	Н	236	24685	1.9	114	2.1	138					
JAMES W MOON	Morgan	4/19/2017	Н	114	18540	1.9	126	1.8	130					
DONALD NEWBERRY	Bibb	3/29/2017	Н	129	16341	1.9	143	2.4	201					
J.EVERETT WILLIAMS*	Morgan	3/6/2017	X	2023	28228	1.9	145	1.8	138					
JAN DAVIDSON	Greene	4/13/2017	Н	127	13482	2	164	3.2	370					
TROY YODER	Macon	3/22/2017	Н	285	24593	2.1	126	2.1	143					
DANNY BELL*	Morgan	3/30/2017	Н	276	27629	2.1	168	1.9	147					
RODGERS' HILLCREST FARMS INC.*	McDuffie	4/12/2017	Н	444	32374	2.1	172	2.2	187					
LOUIS YODER	Macon	3/31/2017	Н	105	19465	2.1	178	2.5	259					
DAVE CLARK*	Morgan	3/27/2017	Н	1167	30207	2.1	210	1.9	154					
OVERHOLT FARMS	Macon	4/21/2017	Н	225	18499	2.2	154	2.9	307					

<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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 GA Lows Herds for SCC -TD Average Score - May 2017									
<u>Herd</u>	County	Test Date	Br.	Cows	Milk-Rolling	SCC-TD- Average Score	SCC-TD- Weight Average	SCC- Average Score	SCC-Wt.
BRENNEMAN FARMS	Macon	5/13/2017	Н	128	18704	1	70	1.7	196
DAVID ADDIS	Whitfield	5/2/2017	Н	38	16807	1.5	52	1.2	73
SCOTT GLOVER	White	5/25/2017	Н	236	26941	1.5	99	1.8	115
SOUTHERN SANDS FARM	Butts	4/27/2017	Н	81	23095	1.5	101	2.2	177
DONALD NEWBERRY	Bibb	4/26/2017	Н	127	16355	1.5	134	2.3	194
IRVIN R YODER	Macon	5/19/2017	Н	254	24886	1.6	82	2.1	138
BERRY COLLEGE DAIRY	Floyd	5/23/2017	J	32	16843	1.8	100	1.9	93
JAMES W MOON	Morgan	5/17/2017	Н	119	18753	1.8	100	1.8	126
RONNIE ROBINSON	Spalding	4/7/2017	Н	103	15371	1.8	105	2	117
RODGERS' HILLCREST FARMS INC.*	McDuffie	5/15/2017	Н	440	32304	1.9	149	2.1	178
ALEX MILLICAN	Walker	5/2/2017	Н	100	18866	1.9	207	2.2	217
COASTAL PLAIN EXP STATION*	Tift	5/16/2017	Н	288	24386	2	141	2.2	199
JAN DAVIDSON	Greene	4/13/2017	Н	127	13482	2	164	3.2	370
TROY YODER	Macon	4/29/2017	Н	289	24763	2.1	157	2.1	146
DAVE CLARK*	Morgan	5/1/2017	Н	1163	30159	2.1	246	1.9	165
OVERHOLT FARMS	Macon	4/21/2017	Н	225	18499	2.2	154	2.9	307
WHITEHOUSE FARM	Macon	4/27/2017	Н	228		2.2	184	2.7	222
PHIL HARVEY #2*	Putnam	4/20/2017	Н	1273	26077	2.2	189	2.2	177
B&S DAIRY*	Wilcox	5/25/2017	Н	745	25903	2.2	196	2.5	226
EBERLY FAMILY FARM*	Burke	4/26/2017	Н	890	27352	2.3	193	2.5	259

<sup>&</sup>lt;sup>1</sup>Minimum herd or permanent string size of 20 cows. Yearly average calculated after 365 days on 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).

