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GEORGIA DAIRYFAX

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.

INSIDE THIS ISSUE: January February March, 2020

Sincerely,

Sha Tao

Sha Tao, Assistant Professor

UGA extension

Dr. Joe W. West retired from Tifton campus

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After 34 years of services in research, Extension and administration, Dr. Joe W. West retired from University of Georgia as the Assistant Dean of the Tifton campus. Dr. West joined the faculty of Department of Animal and Dairy Sciences of UGA in 1986, and developed an extraordinary career in research and extension in heat stress physiology, management and nutrition of dairy cattle. He is an outstanding professional, mentor, and colleague. His intelligence, broad knowledge and deep understanding of ruminant nutrition and heat stress in dairy cattle have not only influenced students, peers and researchers, but also impacted the decision making of many dairy producers.

During his career, he has touched many facets in physiology, nutrition and management of heat stress in dairy cattle. He has published over 60 peer-reviewed research articles, 74 abstracts and numerous proceedings, bulletins and reports. However, the strong influence of his research on dairy industry cannot only be quantitatively measured. His work has been widely recognized by scientists from both industry and academia, and adopted into practice nationally and internationally. Academically, his research and publication in dairy cattle heat stress has been considered as one of important references for other's future study. Practically, his research in nutritional and management strategies during heat stress has been widely utilized worldwide and considered as guidelines to cope with the negative impacts of heat stress on dairy cattle.

Dr. West's research, vision and knowledge in dairy cattle heat stress have been recognized and respected by following scientists. He was one of the first researchers to delineate the correlation between cow body temperature, dry matter intake, milk yield and the ambient temperature at present or previous days, which improved our understanding how cows respond to heat stress. Many of his publications have been considered as the classic references of studying heat stress in dairy cattle. For example, his review paper "Effects of Heat-Stress on Production in Dairy Cattle" published in 2003 at the Journal of Dairy Science (Volume 86, pages 2131-2144) has been cited over 1500 times. Dr. West is one of the pioneers to utilize recombinant bovine somatotropin (**rbST**) in lactating dairy cows under heat stress condition. He successfully demonstrated the positive effects of rbST on milk yield of heat-stressed lactating dairy cows but also discovered that the cow administrated rbST was more susceptible to heat stress and the effectiveness of rbST on lactation response was diminished as the degree of heat stress increases. These findings provide important guidelines for effective utilization of rbST in heat-stressed lactating dairy cows. In addition to the physiological responses of cows to heat stress, Dr. West's research was also heavily focused on the nutritional management of heat-stressed lactating cows. He is a leading authority on the modulation of dietary cation-anion balance (**DCAD**) to improve cow performance during heat stress. He was the first to use potassium carbonate as a buffer for lactating cows. As a result of this, and other supporting research, potassium carbonated was marketed by a major manufacturer of dairy nutrient products. He had made many contributions to our knowledge of using DCAD under heat stress conditions.

It is a common practice to increase the dietary content of concentrate while reducing fiber content to boost the energy intake of the cows under heat stress. However, it also increases the risk to develop rumen dysfunction and undesired nutrient digestibility. In Dr. West's research, he

demonstrated that relative to the cooled environment, it is more important to maintain the appropriate dietary fiber level for better cow performance under heat stress condition. This finding is of importance in nutrition management of heat-stressed lactating dairy cows and listed as one of most important guidelines of diet formulation under heat stress condition. In addition to forage, Dr. West investigated many by-products feeds and nutritional additives to utilize in the lactating dairy cow diets, especially during the hot humid environments. He demonstrated that the large amount of wet brewers grains can be successfully included in lactating cow diets without impairment of feed intake and milk yield but increased income over feed cost. Further, he studied the different supplements, such as yeast culture, probiotics, glycerol, and fatty acids on the cow's performance aiming to enhance the production efficiency and animal health of the dairy herds under summer times. These studies provided important feeding guideline of heat-stressed dairy cows for producers in the Southeast and entire country.

In addition to the research of heat stress in dairy cattle, Dr. West is one of the first to promote the utilization of Tifton 85 bermudagrass in the lactating cow rations. His research demonstrated that the warm season perennial Tifton 85 bermudagrass can partly replace corn silage without affecting lactational performance of the cows better enabling double and triple cropping systems used in the southeast. He, along with colleagues at UGA and USDA, found that Tifton 85 had lower concentrations of ferulic acid compared with other cultivars which explains the improved digestibility observed with this cultivar. This discovery is now used to help identify potential cultivars that may have greater digestibility.

In Tifton, Dr. West is well recognized for his great contribution to the Tifton campus as an administrator. However, here, I want to emphasize his contribution as a dairy scientist to the scientific community and the dairy industry in GA and worldwide. We appreciate his hardworking and contribution to the dairy industry, celebrate his retirement and wish he and his family enjoy the life after the retirement.

Dairy Dawg and Youth updates

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Dairy Dawgs on the Moove

Nine delegates representing the University of Georgia Dairy Science Club visited Clemson University February 27th – 29th to attend the 2020 Southern Regional American Dairy Science Association Student Affiliate Meetings (ADSA-SAD). Networking, competitions, and tours made for two very busy days! On Friday, club members competed in all three presentation contests as well as Quiz Bowl. Simultaneously, judges were also evaluating the club's scrapbook and website. Below are the presentations by UGA students.

Manipulating the circadian rhythms through controlled light-dark phases in the pre-partum period on cow performance in the next lactation was presented by Alyssa Rauton in the production category

Evaluating the impact of novel products to the dairy market on fluid milk utilization was presented by Audri Crews in the foods category.

Evaluating the use of pulse oximetry, lactate levels, and lung ultrasounds in predicting respiratory illness in dairy calves was presented by Kenne Hillis in the undergraduate research category.

On Saturday, the group was up bright and early to visit Clemson University's dairy farm where they recently implemented robotic milkers. From there, the group traveled over to Satterwhite Farms, an operation that is one of the largest in the state milking Holsteins on a rotary with a robotic post dip application system. The day and event concluded with an awards banquet where UGA came out pretty well! Below is a list of awards received:

1st Place Club Scrapbook

2nd Place Quiz Bowl Team

2nd Place Dairy Foods Presentation to Audri Crews

2nd Place Undergraduate Research Presentation to Kenne Hillis

2nd Place Annual Report

Alyssa Rauton was also elected as First Vice President to the Southern Region.

Congratulations Dairy Dawgs and please visit their website (https://ugadsc.wixsite.com/ugadsc) and/or facebook page (https://www.facebook.com/ugadairyscienceclub/) for pictures and additional updates.

Upcoming Youth Events

There are numerous exciting youth events coming up so do not miss out! Please be on the lookout for additional information through your local extension offices as well as the Georgia Dairy Youth Facebook page (https://www.facebook.com/GA4Hdairyyouthprograms/).

State 4-H Dairy Judging Contest

April 3rd in Athens, GA

Registrations due by noon on March 25th

State 4-H Dairy Quiz Bowl Contest

June 5th in Athens, GA

More information on registration to come

Southeast Dairy Youth Retreat

Dates are not announced but tentatively scheduled for July in Clemson, SC

All youth interested in agriculture and/or the dairy industry are strongly encouraged to attend this tremendous networking and educational opportunity. More information to come as details are released from South Carolina.

National 4-H Dairy Conference

September 27th – 30th in Madison, WI

Held in conjunction with World Dairy Expo

This event is for youth with a sincere interest in the dairy industry as indicated by participation in dairy youth events. Annually a delegation of 3-4 youth is selected based on application materials that demonstrate activities in 4-H, the dairy industry, and leadership. Please watch for these applications to come out sometime in late June to early July. Selected delegates receive an expense paid trip to participate in the conference.

2020 Commercial dairy heifer project

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Since its inception, the Commercial Dairy Heifer Project has represented a unique opportunity for youth in the state of Georgia to get a taste of the dairy industry. The 2020 show season boasted not only tremendous participation from youth across the state but represented a program that was full of high quality young people with outstanding project heifers.

2020 UGA Dairy Science Club Commercial Dairy Heifer Show

Weighing in on Friday, February 7th, were 156 heifers with 130 young people at the halter. Show numbers were down a touch this year with another show scheduled on the same day and some less than ideal weather travel conditions. This tremendous group of heifers weighed in on the light end at 259 pounds and on the heavy end at 776 pounds. With weigh in complete, the barn was a bustle with final show day preparations to include washing, clipping, and topline standing!

Many youth, 22 to be exact, also cut out time to make their way to the ring for a practice, judging contest. Many thanks to Brooke Helton, a busy vet school student and dairy enthusiast for helping to put this together along with Dr. Graves, professor emeritus at UGA.

Top Five Judging Contest:

	Contestant
1st	Eliza Jane Glover
2nd	Jennifer Brinton
3rd	Luke Huff
4th	Catelyn Johnson
5th	Sarah Ullom

Following the judging contest, the barn was welcomed to the arena to enjoy good food, learning, and a time to visit with one another. Sponsored by the Georgia Dairy Youth Foundation, the exhibitor's dinner this year highlighted brisket from UGA Meat Science. Instead of talks this year, the UGA Dairy Science Club decided on an educational program and many thanks are owed to Mr. Kirk Butcher for instructing exhibitors on the artwork of toplines. What a tremendous opportunity this turned out to be!

Photo: *Mr. Kirk Butcher demonstrating the inner workings of creating a great topline.*

Bright and early the next morning, Saturday February 8th, Showmanship began in the two rings. This year was made even more special as it started snowing not long after classes began! Who can beat a show day that's also a snow day! Serving as judge in the ring with 4th – 8th grades was Mary Creek. Mary Creek of Palmyra Farm and Cheese, is no stranger to the show ring across the country and ours here in Georgia. She and her son, Michael Creek, with Trans Ova Genetics always do an oustaning job of working with the youth in this state. Michael served as judge for the second ring in the Showmanship classes featuring youth in grades 9th – 12th.

First Place Showmanship Winners:

Grade	Showmanship Winner	County
4th & 5th	Audrey Williams	Morgan Co. 4-H
6th	Luke Huff	Oglethorpe Middle FFA
7th	Jack Keener	Gilmer FFA
8th	Holt Sapp	Burke Co. 4-H
9th	Kiley Padgett	Hall Co. 4-H
10th	Octavia Bushey	Gilmer FFA
11th	Trent Maddox	Jasper FFA
12th	Mary Keener	Gilmer FFA

The Junior Showmanship Champion (grades 4th-8th) was Luke Huff while the Senior Showmanship Champion (grades 9th-12th) was Mary Keener.

Photo: *Luke Huff, Junior Showmanship Champion, with Judge Mary Creek*

Photo: *Mary Keener, Senior Showmanship Champion, with Judge Michael Creek*

The show rolled right into weight classes with the conclusion of showmanship. Judges switched sides and Michael Creek judged the lightweight classes (259-467 pounds) while Mary Creek judged the heavyweight classes (475-776 pounds).

First Place Weight Class Winners:

Class	Weight	Heifer #	Showman	County
1	281	9071	Morgan Griggs	Gilmer FFA
2	287	9140	Isabella Williams	Whitfield FFA
3	322	9122	Catlyn Johnson	Morgan Co. 4-H
4	336	9041	Audrey Williams	Morgan Co. 4-H
5	367	7784	Gabrielle Darlington	Houston FFA
6	392	8817	Angelica Smith	Houston FFA
7	406	8606	Caeden Swartz	Coweta Co. 4-H
8	428	9127	Alyssa Wright	Winder-Barrow FFA
9	439	8940	Sara Morgan Sapp	Burke Co. 4-H
10	460	8821	Ashley Quedo-Martinez	Houston FFA
11	475	8820	Caleb Williams	Houston FFA
12	508	9069	Octavia Bushey	Gilmer FFA
13	512	9255	Trent Maddox	Jasper FFA
14	544	8658	Trent Maddox	Jasper FFA
15	564	7783	Hannah Newberry	Rutland High FFA
16	590	7785	Haley Munguia	Houston FFA
17	618	8819	Andrew Stulley	Houston FFA
18	642	8659	Trent Maddox	Jasper FFA
19	676	9259	Emma Newberry	Oconee FFA
20	722	8831	Alyssa Sullivan	Houston FFA

In the lightweight ring, Grand Champion was awarded to heifer 8817 exhibited by Angelica Smith while the Reserve Grand Champion was heifer 8899 exhibited by Luke Huff who was second place to Angelica in class 6.

Photo: *Angelica Smith with Lightweight Grand Champion heifer and Judge Michael Creek.*

Photo: *Trent Maddox with Heavyweight Grand Champion heifer and Judge Mary Creek.*

In the heavyweight ring, heifer 8658 exhibited by Trent Maddox was named Grand Champion while heifer 7785 exhibited by Haley Munguia was name Reserve Grand Champion.

The UGA Dairy Science Club would like to thank all of our financial supporters that contributed to another great year and made this possible for all of these young people. Platinum sponsors of the show ($500) were Southern Swiss Dairy, LLC, Premier Select Sires, and Georgia Dairy Youth Foundation. Gold sponsors ($250) this year included Oglethorpe Feed and Farm Supply, Jordan Air, Inc., Hall County Soil and Water, Dairy Alliance, Godfrey's Feed, Doug Smith Contracting, and Striplings General Store. THANK YOU as this show would not be possible for all of these young people without you! For more photos of the show, visit the UGA Dairy Science Club Facebook page.

2020 State Commercial Dairy Heifer Show

(Results listed below are preceding final residue testing outcomes thus should be considered preliminary)

Heifers for the State Commercial Dairy Heifer Show in Perry, GA weighed in on February 19th with 228 total, which is remarkably the same number as 2019, crossing the scales and 196 young people proudly bringing them there. Showmanship was a daylong event that began bright and early on February 20th. Serving as judge for both showmanship on the 20th and weight classes on the 21st was Craig Padgett of Kentucky. Craig is a lifelong contributor to the dairy community serving in realms from fitter to hoof trimmer. Additionally, he is a well-respected judge serving in such capacity at the state and national level.

First Place Showmanship Winners:

Grade	Showmanship Winner	County
4th	Sara Morgan Sapp	Burke 4-H
5th	Audrey Williams	Morgan 4-H
6th	Luke Huff	Oglethorpe FFA
7th	Olivia Vanderwalt	Lee FFA
8th	Laurel Christopher	White FFA
9th	Ashlyn Reddick	Burke FFA
10th	Octavia Bushey	Gilmer FFA
11th	Alyssa Ashurst	Gilmer FFA
12th	Mackenzie Jones	Putnam FFA

Taking the top placing 4-H members in 9th-12th grades, the judge named the Master 4-H Showman as Maggie Harper of Morgan 4-H (7th grade). Following this the judge then evaluated the top placing FFA member from 6th-12th grades to name Alyssa Ashurst of Gilmer FFA (11th grade) as Supreme FFA Showman.

Weight Classes were up the next day with heifers weighing 250-812 pounds.

Division Placings:

Division 1 (250-399 pounds)

Class	Weight	Heifer Number	Showman	County
Champion	367	9070	Alyssa Ashurst	Gilmer FFA
Reserve	387	8571	Jessi Lynn Strickland	Burke FFA

Division 2 (401-485 pounds)

Class	Weight	Heifer Number	Showman	County
Champion	419	9141	Brintlie Flowers	Whitfield 4-H
Reserve	485	9202	Maggie Carson	Jones FFA

Division 3 (487-602 pounds)

Class	Weight	Heifer Number	Showman	County
Champion	518	8585	Michael Bushey	Clear Creek FFA
Reserve	600	8089	Jack Keener	Clear Creek FFA

Division 4 (604-812 pounds)

Class	Weight	Heifer Number	Showman	County
Champion	680	9259	Emma Newberry	Oconee FFA
Reserve	668	9151	Fisher Hopkins	Rutland Middle FFA

The Overall Top Five for the Show:

	Weight	Heifer Number	Showman	County
Champion	518	8585	Michael Bushey	Clear Creek FFA
Reserve	680	9259	Emma Newberry	Oconee FFA
3rd	367	9070	Alyssa Ashurst	Gilmer FFA
4th	600	8089	Jack Keener	Clear Creek FFA
5th	668	9151	Fisher Hopkins	Rutland Middle FFA

The Overall Top Five County Groups:

	County
Champion	Gilmer FFA
Reserve	Burke 4-H/FFA
3rd	Burke 4-H/FFA
4th	Rutland High FFA
5th	White FFA

Congratulations to everyone that completed another great year as part of the Commercial Dairy Heifer Project!

Genomic tools to detect visceral fat deposition in Holstein dairy cows

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As we know, the pregnant dairy cow undergoes a series of complex metabolic and physiological changes as parturition approaches. Consequently, periparturient disorders may occur affecting the future performance of dairy cows. Dry matter intake starts to decrease a few weeks before parturition with the lowest level occurring at calving, while simultaneously nutrient demands increase due to the exponential growth of the fetus, mammary gland development, and the initiation of lactation. Accordingly, the cow typically experiences a state of negative energy balance and a characteristic mobilization of fat from adipose tissue stored in different areas of the body. Extreme lipid mobilization leads to an increased release from adipose tissue and uptake of non-esterified fatty acids (NEFA) by the liver with a pathologic accumulation of hepatic triglycerides. In addition to energy source, adipose tissue also has immune, endocrine, regenerative, mechanical and thermal functions. The fuel and nonfuel functions of adipose tissue depots varies with depot size and body-fat distribution.

Fat is deposited under the skin (subcutaneous tissue) and around vital organs, where it may play immunologically defensive and mechanically protective roles. Once activated the adipose tissue may be inflamed, shifting from storing to releasing fatty acids, potentially driven in part through local proinflammatory compounds release, called cytokines. Regional differences in the precursors of fat-storing cells (pre-adipocytes), replication, differentiation, abundance, and gene expression may contribute to regional variation in fat-tissue function. Indeed, variation in gene expression between different fat depots has been demonstrated in dairy cattle.

Based upon on findings in humans and lab animals, it is noteworthy that genetic studies (genome-wide association research) have suggested that body fat distribution is associated with variation in genes involved in pattern formation during embryonic development, pre-adipocyte signaling and fat-cells development. These associations with genetic variants may also occur in dairy cattle. Indeed, a New Zealand study found that Holstein lines (New Zealand vs US cows) had different fatty acid profiles in their adipose tissues and milk, which may differentially affect the metabolic status of the adipose depots. Other studies have demonstrated that fat-metabolism related enzymes activity (so called lipases, desaturases) differ between abdominal and subcutaneous fat, supporting the hypothesis of a preferential mobilization of abdominal fat in dairy cows, especially when they develop left displacement of the abomasum. This may imply that some of the genes responsible for variation in abdominal fat accumulation are also related to variation in the risk of development of this digestive condition in Holstein cattle. Indeed, some bovine practitioners have observed that it is becoming very common to find cows with displacement of the abomasum and excessive abdominal fat, but with a normal body condition score (BCS) during the surgical correction of this digestive disorder. Therefore, identifying risk factors, such as genetic variants predisposing cows to this type of periparturient diseases, would be beneficial to the dairy industry. This might enable the identification of genetic markers that are predictive of variation in abdominal or visceral fat deposition, which in turn could permit the establishment of proper management and selection strategies to prevent and control fat tissue related disorders.

Consequently, in order to contribute more information related to fat depots in dairy cattle we conducted a study with the objective to assess the extent of genetic variation responsible for differences in the degree of visceral or abdominal fat deposition in US Holstein cows with normal subcutaneous fat deposition.

This study entitled *"Genome-wide study to detect SNPs associated with visceral and subcutaneous fat deposition in Holstein dairy cows"* was published in the scientific journal ANIMAL in 2019, Volume 13, number 3, pages 487-494. doi: 10.1017/S1751731118001519.

The study included adult Holstein cows sampled from a slaughterhouse (Green Bay, WI, USA) during September 2016. Only animals with a body condition score between 2.75 and 3.25 were considered. The extent of abdominal fat (omental fat) at the level of the insertion of the lesser omentum over the pylorus area or abomasum of the cow (true stomach) was assessed. A group of 100 Holstein cows with an omental fold < 5 mm in thickness and minimum fat deposition throughout the entire omentum, and a second group of 100 cows with an omental fold ≥ 20 mm in thickness and with a marked fat deposition observed throughout the entire omentum were sampled. A small piece of muscle from the neck was collected from each cow into a sterile container for DNA extraction. Samples were submitted to a commercial laboratory for interrogation of genome-wide genomic variation using the Illumina Bovine HD Beadchip. A genome-wide association analysis was performed to test potential associations between fat deposition and genomic variation. Eleven part of the genome were found to be significantly associated with visceral fat deposition. Regions were located in the chromosome 12 and 19 of the bovine specie. We conclude that excessive omental/visceral fat in Holstein cows with similar body condition scores appears to be at least moderately heritable; consequently, selection to reduce excessive omental fat is potentially possible, but would require the generation of predicted transmitting abilities (PTA) from larger and random samples of Holstein cattle.

The implication of this study is that excessive abdominal fat in Holstein cows appears to be moderately heritable; consequently, the generation of selection indexes may help to reduce the prevalence of excessive abdominal fat, which may allow the prevention of metabolic diseases related to adipose tissue in dairy cattle, such as fatty liver, ketosis, and displacement of the abomasum.

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Reducing ash contamination of winter annual forages

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Spring is almost here and winter annuals will be ready to harvest very soon. One problem that seems to be getting worse is contamination of winter annuals with dirt resulting in higher ash concentrations. All plants contain minerals which is reported as ash. Typical concentrations are in the range of 8 to 10%, but it is not uncommon to see samples with ash concentration twice that high. This is most often due to how equipment is operated resulting in soil contaminating the forage. Excess ash interferes with proper fermentation as soil will contain minerals that act as a buffer, is a source of contaminants such as clostridia bacteria, increase rumen fill from inert soil settling to the bottom of the rumen, and the soil contamination increases equipment wear. The ash contamination does not provided energy or other useful nutrients. Below are some practices that will reduce ash contamination and improve wilting and fermentation.

1. Do not cut forage until it has dried. Dirt will be less likely to stick.
2. Cut the forage at 6 inches rather than close to the ground. This reduces the amount of dirt picked up by the mower and deposited on the forage. Having a higher stubble also allows more air to circulate under the forage swath speeding up wilting time. There is a slight reduction in forage yield by raising the cutting height, but the forage harvested should be higher quality and you also minimize wilting time which could make the difference give how rainy it has been so far this year.
3. Use flat knives on the disc mower rather than angled knives which create more suction.
4. A wide swath facilitates drying under normal circumstances, but if the ground is wet it may be desirable to leave some open space between swaths so the ground can dry before the forage is tedded.
5. When tedding, make sure the tines of the tedder are above the ground and do not scratch the dirt. This minimizes kicking up dirt that will get mixed into the forage.
6. A drum or power rake is the best for minimizing contamination whereas a wheel rake results in the highest contamination. As discussed for the tedder, make sure the rake is set so it is not scratching the ground and adding dirt to the forage.

These steps will reduce ash contamination and improve forage quality. Remember that forage should be wilted ideally to 45-50% DM to reduce the potential for poor fermentation and production of protein intermediates that reduce palatability and milk yield.

Can you make selective dry cow therapy work?

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Blanket dry cow therapy (BDCT) is a cornerstone of the original 5-Point Mastitis Plan and remains an important piece of the updated 10-Point Mastitis Plan. However, with consumer attitudes driving many decisions in the market, including an aversion to antibiotics, this practice will be even more scrutinized. Thus, selective dry cow therapy (SDCT) has seen increasing interest and utilization in Europe and now here in the US. Moreover, implementing SDCT can save producers money, but only if implemented and managed correctly.

The risk for mastitis as a cow enters the dry period is high (Figure 1) likely resulting in increased somatic cell counts (SCC) at calving and potentially long-lasting mammary damage without proper management. As a result BDCT was implemented with the 5-Point Mastitis Plan Implementation resulted in drop in new infections during the dry period and reduced SCC at calving. Use of a teat sealant in conjunction with intramammary antibiotics at the time of dry off further reduced dry period infections providing protection from bacteria as the teat dilated in advance of calving.

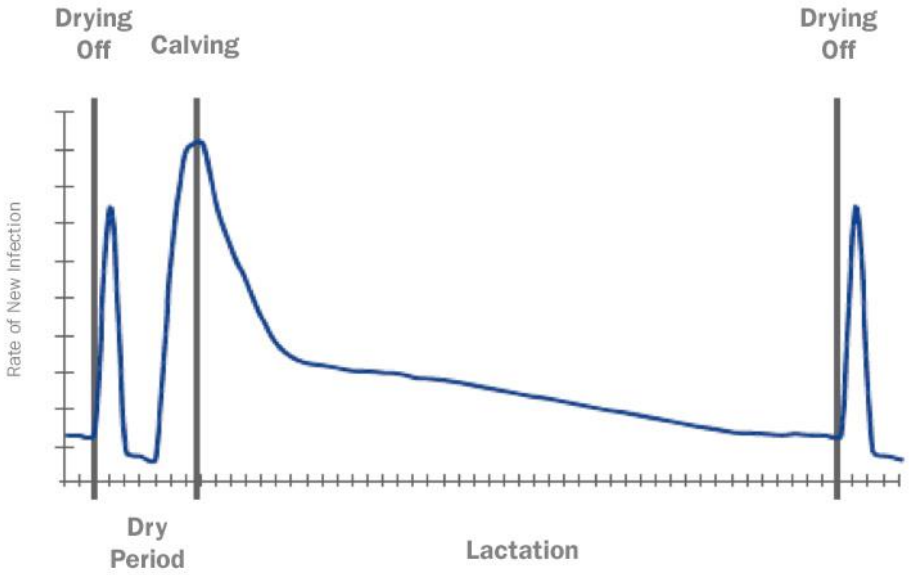

Figure 1. *Increase in new infections after dry off and at calving without dry cow therapy. (Adapted from Bradley & Green, 2004*)

As you can imagine, moving to SDCT was a daunting idea. However, studies have shown that SDCT is as effective as BDCT if utilized correctly (Østeras et al., 1999; Cameron et al., 2014). Moreover, use of antibiotics could drop as much as 21% (or more) thereby reducing mastitis program costs and enhancing consumer acceptance (Østeras et al., 1999; Cameron et al., 2014). However, implementation and success of a mastitis prevention and control program that utilizes SDCT is not for the faint of heart. So what are some common practices of herds that have successfully implemented SDCT?

1) Herds had consistently low bulk tank SCC (<200,000 cells/mL).

2) Only cows with low SCC (<200,000 cells/mL) and no evidence of clinical mastitis at time of dry off were considered for SDCT.

3) Assessment of infection status was conducted at time of dry off even in low SCC cows by testing milk for presence of bacteria, either through culturing or PCR analysis.

4) All cows, including those not receiving intramammary antibiotics, still received an internal teat sealant.

5) Producers maintained meticulous records documenting history of infections, causative pathogens, etc.

Implementing SDCT can be done but it takes diligence, patience, and an extreme attention to detail. The mindset for many is that it is better to be safe than sorry. However, consumer demands may eventually force our hand as an industry and SDCT programs may require implementation. In addition to the common practices described above, here are some additional dos and don'ts for SDCT in the event that you are considering the transition:

- Do enroll in a milk testing program to have a comprehensive SCC history on your cows and to track SCC on fresh cows to ensure SDCT is not failing.
- Do use a teat sealant, in every cow, even those not receiving antibiotic therapy
- Do explore on-farm culture programs or nearby laboratory culturing options to identify and track mastitis pathogens specific to your herd.
- Don't enroll cows on SDCT that have >1 clinical events during their most recent lactation
- Don't enroll individual cows with cell counts averaging > 200,000 on the last 3 tests.
- Don't implement SDCT if you are unsure whether you have contagious mastitis pathogens, such as *Staphylococcus aureus*.

A final important note that must not be neglected in this conversation. Whether implementing BDCT or SDCT, proper technique when infusing anything into the teat must be utilized. Partial insertion of the antibiotic or teat seal cannula should be used (Figure 2). If full insertion occurs, the risk of pushing pathogens into the teat that cannot be cured with antibiotics is greatly enhanced.

Figure 2: *Correct partial insertion (left) vs incorrect full insertion*

Ultimately, can you make selective dry cow therapy work? It depends.

References:

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Nutrition and pasture based management systems for dairy cattle operations

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Here in the southeast, dairy producers have an advantage of feeding our cattle on an inexpensive and highly valuable feedstuff. Because of our temperate climates, we have the advantage of a longer grazing season for pastures than the rest of the country, creating an opportunity for dairy producers to have a highly effective production system. With the decreasing numbers of dairy operations, it is important to consider this affordable and sustainable option as a way to combat this decline.

Cattle prioritize their nutrient use, meaning that any nutrients taken in by the body is first utilized for maintenance, then growth, and energy for milk production is only allocated after these other requirements are met. In order to be actively producing milk, cows must get plenty of energy through a proper diet which, in a pasture-based system, can be achieved through proper pasture management. In understanding how forage can be a practical method of maintaining a successful operation, it is important to understand some of the basics of cattle nutrition. The extraordinary thing about cattle is that they are ruminants, meaning they were built to eat grass! Their internal infrastructure allows them to act as factories that can turn a low value product like forage into a valuable product like milk.

The conversion of forage to energy to milk begins with some of the external features of cattle. Their wide muzzles and prehensile tongues act to rip up and collect large quantities of forage, while their jaw moves in a side-to-side motion that helps open up feedstuffs to help expose nutrients for absorption. The rumen is a large bag that is a chamber designed to retain large amounts of feedstuffs, which along with the reticulum allows for the remastication, or "cud-chewing" that helps to further break down forages and other feeds to allow for maximal fermentation and nutrient production by the microbial population. The ruminal microbial population is a mixed population of bacteria, fungi, and protozoa that ferment feed, to produce volatile fatty acids, like vinegar. Ruminal Volatile Fatty Acids are absorbed by finger-like structures called papillae which line the rumen, . Once feed are broken down in the rumen by re-chewing (or rumination) and microbial fermentation, it is further broken down as it passes through the omasum and abomasum, and into the hindgut. Forage consumption encourages saliva production which further stimulates the rumination process and allows for a more complete and efficient degradation and absorption of dietary nutrients. The microbial population of the rumen is incredibly diverse and act as the driving force for the conversion of feedstuffs to a form the animal can utilize. The microbial population degrades dietary protein to form microbial cells, or Microbial Crude Protein (MCP). Ruminally degraded protein from feed is the source of nitrogen to the animal nitrogen, As the microbes are able to function, it leads to production of Volatile Fatty Acids that are This leads to the production of VFAs, specifically Acetate, Proprionate, and Butyrate, that are able to act as a "currency" or energy production that the host animal can utilize to provide us

with a product like milk.

Dairy cattle have a wide assortment of internal and external tools to reach their fullest genetic potential. Paired with appropriate management strategies, these can efficiently be utilized in a pasture-based system! In a pasture-based dairy management system, productivity is completely reliant on cattle being able to adequately degrade plant material. The key to this is having a high-quality forage source. Forage quality can be difficult to assess, but there are a few basic guidelines that can help dairy producers achieve this.

As with any operation, it is important to make management decisions based on what forages you have available. Whether you have cool or warm season, annual or perennial pasture systems, you want to be sure to do some analysis of your pastures to decide if any additional fertilization and planting could be cost-efficient. Although this may appear as cost prohibitive, the potential for increased milk production could be worth the investment. This type of analysis can be done with the help of your local Extension agent! Forage testing will often look at factors like Neutral Detergent Fiber (NDF), which is the fiber portion that is well utilized by cattle to harvest nutrients, or Acid Detergent Fiber (ADF), which is less degradable. When considering our forage availability for a pasture-based system, methods range from long term grazing of pastures to methods of forage preservation when the growth is at its prime. It is important to strategize a way that addresses the relationship between animal performance and forage performance.

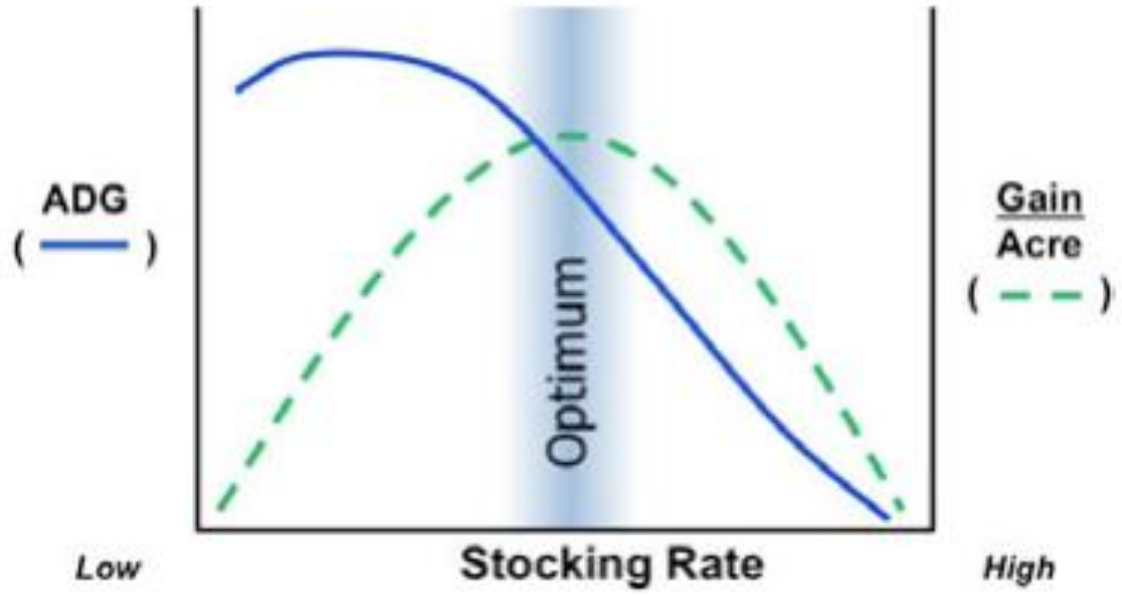

Figure 1: *The relationship between stocking rate, production/acre, and average daily gain. Source – UGA Cooperative Extension, Dennis W. Hancock, R. Curt Lacy, R. Lawton Stewart*

As producers, we must understand that there is a balance between stocking rate (the number of animals grazed on a given area) milk production, and the milk produced per acre you can achieve with your pastures is key. As stocking rate increases, our cattle milk production/acre can increase up to a certain optimal point. In the figure above, you will notice that as the stocking rate increases beyond the optimum, there is competition among the cattle and this milk production/acre goes back down. For this same reason, the milk production potential can be drastically decreased with overstocking. As producers, operating at the optimum level is crucial in producing high yield and

good quality milk. Well-managed stands of forage play a crucial role in achieving this.

There are many intensive management systems that provide a solution to a lot of the conflicting factors that exist when optimizing a pasture-based dairy operation. One of the most flexible and efficient methods is rotational grazing. This method can be described as a simple division of pasture lands into smaller paddocks or pens, which can be achieved through temporary fencing or wire. Groups of cattle can graze on one pasture until they eat about 2/3 of the available forage. Once they have grazed the viable portion of your forage stands, the cattle can then be moved onto the next pen to allow time for the previous to restore and mobilize the energy reserves. This rotation prevents maturity of forages, while also maximizing potential to increase stocking rate. Though the overall process remains the same, this method offers you the flexibility to make changes as needed. You may need to vary your stocking rate at different times of the year, give longer recovery time in between grazing for a paddock in periods of slow growth. Or even incorporate supplemental feed if needed to avoid overstocking an area.

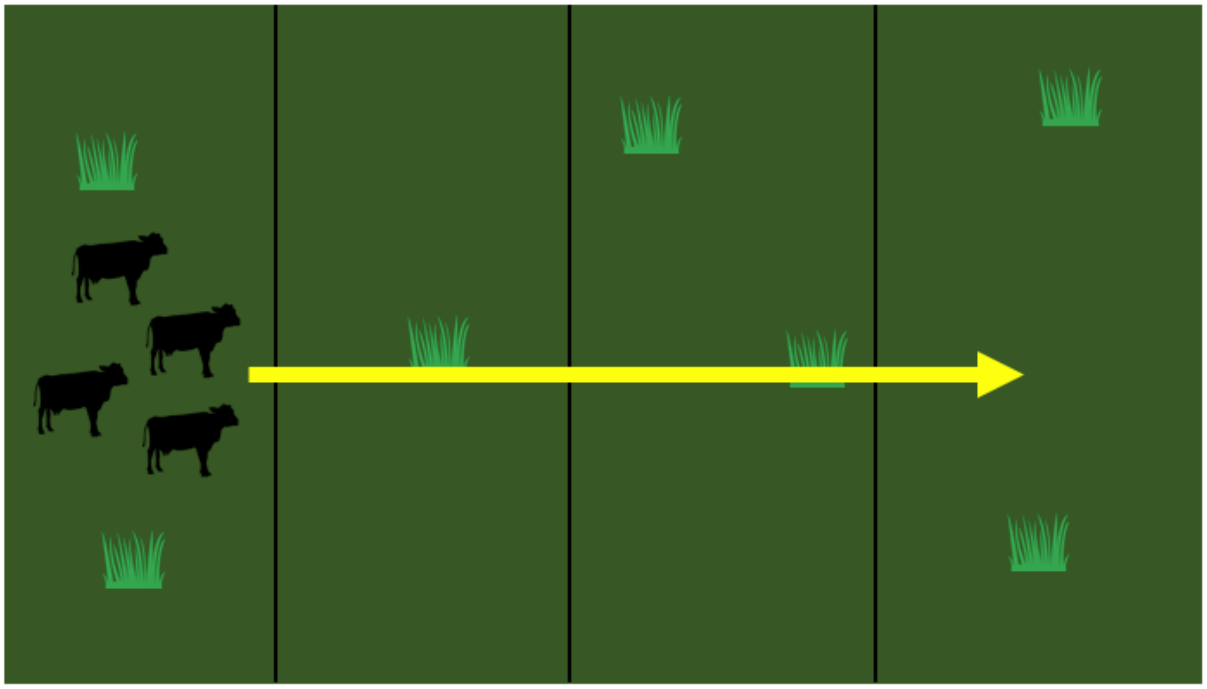

Figure 2: *Rotational Grazing System illustrated through subdivision of pasture lands to allow for movement of cattle*

The ultimate goal of this method of management is to get the most nutritional value out of a nutritious, inexpensive feed source while also continuing to produce efficiently. When considering implementing a pasture-based system for your dairy operation, there are many factors to analyze. It is important that before you implement rotational grazing or any other pasture-based management system you must be aware of your land availability, nutritional value of your forage, and what production goals you hope to meet. For more information on grazing systems, please contact your local Extension office (extension.uga.edu or 1-800-ASK-UGA-1).

References:

Hancock, Dennis W, et al. “Forage Systems for Stocker Cattle.” *UGA Extension Bulletin 1392,* University of Georgia - Cooperative Extension, georgiaforages.caes.uga.edu/publications/extension-bulletins.html.

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Important Dates

2020-2021

(The schedule of events may be changed due to coronavirus)

57th Annual UGA Spring Dairy Show

- April 4th, 2020
- UGA Livestock Instructional Arena
- https://site.extension.uga.edu/dairy/files/2020/03/UGASpringDairyShow2020EntryPacket-1.pdf

Top GA DHIA By Test Day Milk Production – December 2019										
					Test Day Average				Yearly Average	
Herd	County	Br.	Test Date	[1]Cows	% in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	H	12/2/2019	1224	89	94.9	4.1	3.54	30769	1260
DANNY BELL*	Morgan	H	12/5/2019	318	91	88.8	4	3.31	29212	1141
J.EVERETT WILLIAMS*	Morgan	X	12/9/2019	1977	88	87.1	4.3	3.19	27060	1132
A & J DAIRY*	Wilkes	H	12/18/2019	399	91	85.9			28909	
SCHAAPMAN HOLSTEINS	Wilcox	H	12/21/2019	736	89	83	3.7	2.61	26890	909
SCOTT GLOVER	Hall	H	12/12/2019	201	87	81.3	4.2	3.04	25175	1004
EBERLY FAMILY FARM	Burke	H	12/16/2019	1040	89	78.7	3.8	2.61	25180	965
PHIL HARVEY #2*	Putnam	H	12/20/2019	1624	88	78.3	3.8	2.68	25708	936
DOUG CHAMBERS	Jones	H	12/23/2019	442	88	78.1	3.6	2.42	25357	883
COASTAL PLAIN EXP STATION*	Tift	H	12/19/2019	268	89	74.9	4	2.57	22028	872
IRVIN R YODER	Macon	H	11/25/2019	247	90	74.7	4.1	2.7	24897	923
SOUTHERN SANDS FARM	Burke	H	12/24/2019	107	89	72.2	3.8	2.33	22726	826
TROY YODER	Macon	H	11/23/2019	323	88	72.1	4.3	2.45	25428	978
MARTIN DAIRY L. L. P.	Hart	H	12/5/2019	307	90	72	3.9	2.48	23631	928
OCMULGEE DAIRY	Houston	H	12/18/2019	322	88	71.7	3.8	2.28	21662	805
BRENNEMAN FARMS	Macon	H	11/19/2019	48	82	70.8	3.8	1.74	19986	712
WHITEHOUSE FARM	Macon	H	12/5/2019	250	88	68.5	3.9	2.39	21502	807
BOBBY JOHNSON	Grady	X	11/22/2019	576	91	67.3			21367	
SOUTHERN ROSE FARMS	Laurens	H	12/18/2019	102	85	67.3	4.3	2.51	19331	774
JERRY SWAFFORD	Putnam	H	12/22/2019	124	86	67.3	4.2	2.46	18772	739

[1]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 DHIA By Test Day Fat Production – December 2019										
					Test Day Average				Yearly Average	
Herd	County	Br.	Test Date	[1]Cows	% in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	H	12/2/2019	1224	89	94.9	4.1	3.54	30769	1260
DANNY BELL*	Morgan	H	12/5/2019	318	91	88.8	4	3.31	29212	1141
J.EVERETT WILLIAMS*	Morgan	X	12/9/2019	1977	88	87.1	4.3	3.19	27060	1132
SCOTT GLOVER	Hall	H	12/12/2019	201	87	81.3	4.2	3.04	25175	1004
IRVIN R YODER	Macon	H	11/25/2019	247	90	74.7	4.1	2.7	24897	923
PHIL HARVEY #2*	Putnam	H	12/20/2019	1624	88	78.3	3.8	2.68	25708	936
EBERLY FAMILY FARM	Burke	H	12/16/2019	1040	89	78.7	3.8	2.61	25180	965
SCHAAPMAN HOLSTEINS	Wilcox	H	12/21/2019	736	89	83	3.7	2.61	26890	909
COASTAL PLAIN EXP STATION*	Tift	H	12/19/2019	268	89	74.9	4	2.57	22028	872
SOUTHERN ROSE FARMS	Laurens	H	12/18/2019	102	85	67.3	4.3	2.51	19331	774
BOB MOORE #2	Putnam	H	12/12/2019	516	88	62.5	4.6	2.49	19680	721
MARTIN DAIRY L. L. P.	Hart	H	12/5/2019	307	90	72	3.9	2.48	23631	928
JERRY SWAFFORD	Putnam	H	12/22/2019	124	86	67.3	4.2	2.46	18772	739
TROY YODER	Macon	H	11/23/2019	323	88	72.1	4.3	2.45	25428	978
DOUG CHAMBERS	Jones	H	12/23/2019	442	88	78.1	3.6	2.42	25357	883
WHITEHOUSE FARM	Macon	H	12/5/2019	250	88	68.5	3.9	2.39	21502	807
KEN STEWART	Greene	H	12/23/2019	107	94	59	4.2	2.34	19766	664
SOUTHERN SANDS FARM	Burke	H	12/24/2019	107	89	72.2	3.8	2.33	22726	826
BERRY COLLEGE DAIRY	Floyd	J	12/18/2019	35	83	52.6	5.3	2.32	17072	829
OCMULGEE DAIRY	Houston	H	12/18/2019	322	88	71.7	3.8	2.28	21662	805

[1]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 DHIA By Test Day Milk Production – January 2020										
					Test Day Average				Yearly Average	
Herd	County	Br.	Test date	[1]Cows	% in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	H	1/6/2020	1208	89	93.6	4.2	3.46	30720	1255
J.EVERETT WILLIAMS*	Morgan	X	1/13/2020	1971	88	88.2	4.1	3.17	27161	1130
DANNY BELL*	Morgan	H	1/9/2020	322	92	88	4.2	3.41	29300	1149
A & J DAIRY*	Wilkes	H	1/23/2020	414	91	84.2			28988	
SCOTT GLOVER	Hall	H	1/10/2020	199	87	83.8	3.9	3.03	25317	1005
SCHAAPMAN HOLSTEINS	Wilcox	H	12/21/2019	736	89	83	3.7	2.61	26891	909
DOUG CHAMBERS	Jones	H	1/23/2020	438	88	80.7	3.7	2.63	25216	882
EBERLY FAMILY FARM	Burke	H	1/20/2020	1051	88	79.2	3.9	2.68	25137	964
PHIL HARVEY #2*	Putnam	H	12/20/2019	1624	88	78.3	3.8	2.68	25708	936
TROY YODER	Macon	H	1/16/2020	249	88	77.3	3.9	2.55	24992	959
HORST CREST FARMS	Burke	H	12/30/2019	189	84	75.3	3.9	2.53	19488	729
BRENNEMAN FARMS	Macon	H	12/28/2019	54	83	75.1	3.7	2.48	20201	725
SOUTHERN ROSE FARMS	Laurens	H	1/23/2020	96	85	74.8	4.3	2.64	19504	788
OCMULGEE DAIRY	Houston	H	1/23/2020	323	88	74.4	3.7	2.45	21638	805
COASTAL PLAIN EXP STATION*	Tift	H	1/21/2020	272	89	73.8	4.1	2.85	22028	875
MARTIN DAIRY L. L. P.	Hart	H	1/6/2020	311	90	73.3	4.1	2.82	23689	927
SOUTHERN SANDS FARM	Burke	H	12/24/2019	107	89	72.2	3.8	2.33	22726	826
MARK E BRENNEMAN	Macon	H	1/18/2020	148	87	71.4	3.7	2.43	18862	673
BOBBY JOHNSON	Grady	X	1/9/2020	595	91	69.4			21439	
WHITEHOUSE FARM	Macon	H	1/15/2020	253	89	68.6	3.9	2.41	21728	816

[1]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 DHIA By Test Day Fat Production - January 2020										
					Test Day Average				Yearly Average	
Herd	County	Br.	Test Date	[1]Cows	% in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	H	1/6/2020	1208	89	93.6	4.2	3.46	30720	1255
DANNY BELL*	Morgan	H	1/9/2020	322	92	88	4.2	3.41	29300	1149
J.EVERETT WILLIAMS*	Morgan	X	1/13/2020	1971	88	88.2	4.1	3.17	27161	1130
SCOTT GLOVER	Hall	H	1/10/2020	199	87	83.8	3.9	3.03	25317	1005
COASTAL PLAIN EXP STATION*	Tift	H	1/21/2020	272	89	73.8	4.1	2.85	22028	875
MARTIN DAIRY L. L. P.	Hart	H	1/6/2020	311	90	73.3	4.1	2.82	23689	927
EBERLY FAMILY FARM	Burke	H	1/20/2020	1051	88	79.2	3.9	2.68	25137	964
PHIL HARVEY #2*	Putnam	H	12/20/2019	1624	88	78.3	3.8	2.68	25708	936
SOUTHERN ROSE FARMS	Laurens	H	1/23/2020	96	85	74.8	4.3	2.64	19504	788
DOUG CHAMBERS	Jones	H	1/23/2020	438	88	80.7	3.7	2.63	25216	882
BOB MOORE #2	Putnam	H	1/16/2020	513	88	59.6	4.7	2.62	19676	735
SCHAAPMAN HOLSTEINS	Wilcox	H	12/21/2019	736	89	83	3.7	2.61	26891	909
KEN STEWART	Greene	H	1/22/2020	100	94	62	4.3	2.59	19703	674
TROY YODER	Macon	H	1/16/2020	249	88	77.3	3.9	2.55	24992	959
HORST CREST FARMS	Burke	H	12/30/2019	189	84	75.3	3.9	2.53	19488	729
BRENNEMAN FARMS	Macon	H	12/28/2019	54	83	75.1	3.7	2.48	20201	725
UNIV OF GA DAIRY FARM	Clarke	X	1/12/2020	117	87	66.8	4.3	2.47	17830	718
OCMULGEE DAIRY	Houston	H	1/23/2020	323	88	74.4	3.7	2.45	21638	805
MARK E BRENNEMAN	Macon	H	1/18/2020	148	87	71.4	3.7	2.43	18862	673
BERRY COLLEGE DAIRY	Floyd	J	1/16/2020	38	83	54.1	5.1	2.41	16949	816

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Top GA DHIA By Test Day Milk Production – February 2020										
					Test Day Average				Yearly Average	
Herd	County	Br.	Test Date	[1]Cows	% in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	H	2/3/2020	1197	89	97.9	4.3	3.74	30672	1253
DANNY BELL*	Morgan	H	2/6/2020	323	92	90.7	3.9	3.38	29386	1154
J.EVERETT WILLIAMS*	Morgan	X	2/10/2020	1968	88	89.7	4.1	3.22	27270	1128
A & J DAIRY*	Wilkes	H	2/26/2020	404	91	89.6			28896	
SCOTT GLOVER	Hall	H	2/13/2020	196	88	87.9	4	3.31	25674	1011
DOUG CHAMBERS	Jones	H	2/24/2020	433	88	85.1	3.7	2.9	25211	889
SCHAAPMAN HOLSTEINS*	Wilcox	H	2/3/2020	711	89	83.1	3.6	2.76	26662	914
EBERLY FAMILY FARM	Burke	H	2/17/2020	1039	88	80.9	3.9	2.85	25132	964
MARTIN DAIRY L. L. P.	Hart	H	2/3/2020	312	90	77.4	4	3	23773	926
TROY YODER	Macon	H	1/16/2020	249	88	77.3	3.9	2.55	24992	959
SOUTHERN SANDS FARM	Burke	H	2/11/2020	113	88	75.9	3.7	2.53	22550	820
VISSCHER DAIRY LLC*	Jefferson	H	2/5/2020	894	84	75.8	3.3	2.25	21681	755
SOUTHERN ROSE FARMS	Laurens	H	1/23/2020	96	85	74.8	4.3	2.64	19504	788
HORST CREST FARMS	Burke	H	1/31/2020	187	85	74	3.8	2.55	19978	746
COASTAL PLAIN EXP STATION*	Tift	H	1/21/2020	272	89	73.8	4.1	2.85	22028	875
OCMULGEE DAIRY	Houston	H	2/20/2020	324	88	73.5	3.8	2.49	21605	804
MARK E BRENNEMAN	Macon	H	1/18/2020	148	87	71.4	3.7	2.43	18862	673
BOBBY JOHNSON	Grady	X	2/4/2020	578	91	69.9			21395	
RODNEY & CARLIN GIESBRECHT	Washington	H	2/20/2020	453	87	68.7	3.9	2.42	18553	710
WHITEHOUSE FARM	Macon	H	1/15/2020	253	89	68.6	3.9	2.41	21728	816

[1]***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 DHIA By Test Day Fat Production – February 2019										
					Test Day Average				Yearly Average	
Herd	County	Br.	Test Date	[1]Cows	% in Milk	Milk	% Fat	TD Fat	Milk	Lbs. Fat
DAVE CLARK*	Morgan	H	2/3/2020	1197	89	97.9	4.3	3.74	30672	1253
DANNY BELL*	Morgan	H	2/6/2020	323	92	90.7	3.9	3.38	29386	1154
SCOTT GLOVER	Hall	H	2/13/2020	196	88	87.9	4	3.31	25674	1011
J.EVERETT WILLIAMS*	Morgan	X	2/10/2020	1968	88	89.7	4.1	3.22	27270	1128
MARTIN DAIRY L. L. P.	Hart	H	2/3/2020	312	90	77.4	4	3	23773	926
DOUG CHAMBERS	Jones	H	2/24/2020	433	88	85.1	3.7	2.9	25211	889
COASTAL PLAIN EXP STATION*	Tift	H	1/21/2020	272	89	73.8	4.1	2.85	22028	875
EBERLY FAMILY FARM	Burke	H	2/17/2020	1039	88	80.9	3.9	2.85	25132	964
SCHAAPMAN HOLSTEINS*	Wilcox	H	2/3/2020	711	89	83.1	3.6	2.76	26662	914
UNIV OF GA DAIRY FARM	Clarke	X	2/18/2020	124	87	66	4.3	2.67	18498	748
SOUTHERN ROSE FARMS	Laurens	H	1/23/2020	96	85	74.8	4.3	2.64	19504	788
TROY YODER	Macon	H	1/16/2020	249	88	77.3	3.9	2.55	24992	959
HORST CREST FARMS	Burke	H	1/31/2020	187	85	74	3.8	2.55	19978	746
KEN STEWART	Greene	H	2/19/2020	98	94	61.6	4.2	2.53	19622	686
SOUTHERN SANDS FARM	Burke	H	2/11/2020	113	88	75.9	3.7	2.53	22550	820
BOB MOORE	Putnam	H	2/4/2020	216	90	61.9	4.2	2.49	19646	800
OCMULGEE DAIRY	Houston	H	2/20/2020	324	88	73.5	3.8	2.49	21605	804
BOB MOORE #2	Putnam	H	2/13/2020	513	89	58.9	4.4	2.43	19625	747
MARK E BRENNEMAN	Macon	H	1/18/2020	148	87	71.4	3.7	2.43	18862	673
RODNEY & CARLIN GIESBRECHT	Washington	H	2/20/2020	453	87	68.7	3.9	2.42	18553	710

[1]***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 – December 2019									
Herd	**County**	**Test Date**	**Br.**	**[1]Cows**	**Milk-Rolling**	**SCC-TD-Average Score**	**SCC-TD-Weight Average**	**SCC-Average Score**	**SCC-Wt.**
DAVID ADDIS	Whitfield	12/19/2019	H	42	17630	1.3	33	1.3	56
BERRY COLLEGE DAIRY	Floyd	12/18/2019	J	35	17072	1.7	58	2	94
J.EVERETT WILLIAMS*	Morgan	12/9/2019	X	1977	27060	1.8	114	1.9	145
BRENNEMAN FARMS	Macon	11/19/2019	H	48	19986	1.9	187	1.7	118
DAVE CLARK*	Morgan	12/2/2019	H	1224	30769	2	153	1.9	149
FRANKS FARM	Burke	12/10/2019	B	201	18471	2.1	158	2.6	208
EBERLY FAMILY FARM	Burke	12/16/2019	H	1040	25180	2.1	159	2.2	183
SOUTHERN SANDS FARM	Jenkins	12/24/2019	H	107	22726	2.2	141	2.2	162
DANNY BELL*	Morgan	12/5/2019	H	318	29212	2.3	136	2.2	183
SOUTHERN ROSE FARMS	Laurens	12/18/2019	H	102	19331	2.4	114	2.7	217
ALEX MILLICAN	Walker	12/17/2019	H	104	17872	2.4	184	2.3	179
RUFUS YODER JR	Macon	12/13/2019	H	168	21221	2.4	193	2.4	212
UNIV OF GA DAIRY FARM	Clarke	12/16/2019	X	122	17555	2.5	123	2.7	170
SCHAAPMAN HOLSTEINS	Wilcox	12/21/2019	H	736	26890	2.5	198	2.5	190
DOUG CHAMBERS	Jones	12/23/2019	H	442	25357	2.5	204	2.3	192
IRVIN R YODER	Macon	11/25/2019	H	247	24897	2.6	152	2.2	157
JAMES W MOON	Morgan	12/20/2019	H	136	17513	2.6	223	2.9	254
MASSEY FAMILY FARM, LLC	Hart	12/4/2019	H	137	8154	2.7	174	3	320
DONALD NEWBERRY	Bibb	12/14/2019	H	117	13792	2.7	220	2.9	252
SCOTT GLOVER	Hall	12/12/2019	H	201	25175	2.7	233	2.7	194

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UGA extension

Top GA Lows Herds for SCC –TD Average Score – January 2020									
Herd	**County**	**Test Date**	**Br.**	**[1]Cows**	**Milk-Rolling**	**SCC-TD-Average Score**	**SCC-TD-Weight Average**	**SCC-Average Score**	**SCC-Wt.**
DAVID ADDIS	Whitfield	1/15/2020	H	41	17493	1.1	30	1.3	56
BERRY COLLEGE DAIRY	Floyd	1/16/2020	J	38	16949	1.8	51	1.9	87
J.EVERETT WILLIAMS*	Morgan	1/13/2020	X	1971	27161	1.9	119	1.9	143
BRENNEMAN FARMS	Macon	12/28/2019	H	54	20201	1.9	188	1.7	132
SOUTHERN SANDS FARM	Jenkins	12/24/2019	H	107	22726	2.2	141	2.2	162
EBERLY FAMILY FARM	Burke	1/20/2020	H	1051	25137	2.2	152	2.2	173
ALEX MILLICAN	Walker	1/14/2020	H	102	17727	2.2	171	2.3	179
DAVE CLARK*	Morgan	1/6/2020	H	1208	30720	2.2	175	1.9	150
FRANKS FARM	Burke	1/13/2020	B	207	18561	2.2	183	2.5	206
EUGENE KING	Macon	1/30/2020	H	123	18870	2.2	190	2.3	194
DONALD NEWBERRY	Bibb	1/25/2020	H	124	13830	2.3	143	2.7	234
DANNY BELL*	Morgan	1/9/2020	H	322	29300	2.3	145	2.2	172
SCOTT GLOVER	Hall	1/10/2020	H	199	25317	2.3	158	2.6	198
UNIV OF GA DAIRY FARM	Clarke	1/12/2020	X	117	17830	2.4	187	2.7	172
JAMES W MOON	Morgan	1/20/2020	H	135	17429	2.4	213	2.9	255
SOUTHERN ROSE FARMS	Laurens	1/23/2020	H	96	19504	2.5	158	2.7	209
SCHAAPMAN HOLSTEINS	Wilcox	12/21/2019	H	736	26891	2.5	198	2.5	190
MARK E BRENNEMAN	Macon	1/18/2020	H	148	18862	2.5	245	2.8	306
DOUG CHAMBERS	Jones	1/23/2020	H	438	25216	2.6	223	2.3	195
RODNEY & CARLIN GIESBRECHT	Washington	1/8/2020	H	464	18627	2.7	242	2.4	238

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UGA extension

Top GA Lows Herds for SCC –TD Average Score – February 2020									
Herd	**County**	**Test Date**	**Br.**	**[1]Cows**	**Milk-Rolling**	**SCC-TD-Average Score**	**SCC-TD-Weight Average**	**SCC-Average Score**	**SCC-Wt.**
DAVID ADDIS	Whitfield	2/10/2020	H	40	17408	1.3	37	1.3	56
EBERLY FAMILY FARM	Burke	2/17/2020	H	1039	25132	2	150	2.1	169
SOUTHERN SANDS FARM	Jenkins	2/11/2020	H	113	22550	2.1	127	2.2	164
J.EVERETT WILLIAMS*	Morgan	2/10/2020	X	1968	27270	2.1	133	1.9	144
ALEX MILLICAN	Walker	2/10/2020	H	102	17613	2.1	165	2.3	179
DAVE CLARK*	Morgan	2/3/2020	H	1197	30672	2.2	160	1.8	146
EUGENE KING	Macon	1/30/2020	H	123	18870	2.2	190	2.3	194
DONALD NEWBERRY	Bibb	1/25/2020	H	124	13830	2.3	143	2.7	234
DANNY BELL*	Morgan	2/6/2020	H	323	29386	2.3	162	2.1	165
BERRY COLLEGE DAIRY	Floyd	2/11/2020	J	38	16725	2.4	138	2	84
UNIV OF GA DAIRY FARM	Clarke	2/18/2020	X	124	18498	2.4	145	2.6	168
VISSCHER DAIRY LLC*	Jefferson	2/5/2020	H	894	21681	2.4	173	2.3	207
SCOTT GLOVER	Hall	2/13/2020	H	196	25674	2.4	212	2.6	200
RODNEY & CARLIN GIESBRECHT	Washington	2/20/2020	H	453	18553	2.4	231	2.5	246
SOUTHERN ROSE FARMS	Laurens	1/23/2020	H	96	19504	2.5	158	2.7	209
DOUG CHAMBERS	Jones	2/24/2020	H	433	25211	2.5	216	2.3	196
MARK E BRENNEMAN	Macon	1/18/2020	H	148	18862	2.5	245	2.8	306
JAMES W MOON	Morgan	2/18/2020	H	132	17499	2.5	271	2.9	263
ALBERT HALE	Oconee	2/17/2020	H	120	14611	2.7	193	3	286
MARTIN DAIRY L. L. P.	Hart	2/3/2020	H	312	23773	2.7	234	2.6	228

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UGA extension