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Dairy Update

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UF Represented by a Team and Three Academy Students At the 14th North American Intercollegiate Dairy Challenge

Mary Sowerby

Dairy Challenge Competition

The place: Syracuse, New York. The event: The 14th Annual North American Intercollegiate Dairy Challenge. Amongst the 32 teams vying for top positions this past April 9-11 were a University of Florida team comprised of Alexandria Lemus from Miami; Sloan Garcia from Miami; Blake Klein; and Jonathan Smith from Wellborn.

These four analyzed a New York dairy farm along with seven other teams. This dairy, despite losing one-third of their free stall barn roof earlier in the winter due to an overload of snow, welcomed the Dairy Challenge students to comb their farm and their financial, production, reproduction and other records for their strengths, weaknesses and potential ways to improve their operation.

Although the UF team did not place in the top two awarded for their farm analysis (University of Tennessee took the top spot), they did gain incredible experience to help them all become better veterinarians (the goal of all four) or to otherwise work in the dairy industry. None had a dairy farm background of any kind, yet all worked hard to learn how to become dairy consultants.

Alexandra Lemus, an Animal Sciences Pre-vet senior, (and currently Treasurer of the UF Dairy Science Club) summed up her entire Dairy Challenge experience (from taking Dairy Farm Evaluation class, to participating in both the Southern Regional and North American Dairy Challenges) as follows: "Dairy Challenge is an amazing experience where college students apply what they learn in the classroom to a real job setting. Growing up in the city with no previous farm experience, Dairy Challenge has given me the unique opportunity to not only tour farms in different states, but also to be surrounded by peers who share the same passion about dairying as well as making valuable connections with established individuals in the industry."

"Dairy Challenge has enhanced my college experience by providing me the opportunity to travel to more than 15 farms around northern Florida and southern Georgia for practice, to travel to farms in North Carolina for regional competition, and to travel to farms in New York for national competition. Additionally, Dairy Challenge has helped me to develop my communication and presentation skills. Being able to walk on a farm and properly evaluate its procedures, techniques, and facilities is a fundamental value in the dairy world whether your goal is to be a veterinarian, a farmer, a consultant, a nutritionist, or a farm worker. Overall, it was such a powerful experience that I would recommend it to any student."

The University of Florida team that competed in the 14th Annual North American Intercollegiate Dairy Challenge, held in Syracuse, New York, April 9-11, 2015. From left to right are Mary Sowerby (coach), Jonathan Smith, Sloan Garcia, Blake Klein and Alexandra Lemus.

Dairy Challenge Academy

Three UF students also attended the Dairy Challenge Academy held in conjunction with the Dairy Challenge competition. These three, Laura Rodriguez from Miami; Monika Trejos from Orlando; and Nekia Walker also from Orlando, were part of the Academy mentoring program along with about 160 other students from universities and two-year colleges across the U.S.

The UF students were each placed in a group with about seven other students from different universities and 2-year colleges around the country, and had the opportunity to analyze a dairy farm with the help of two industry representatives. Each group, like each team in the actual Dairy Challenge competition, stood and gave a presentation about the strengths, weaknesses and opportunities for improvement of their dairy farm as their ultimate challenge.

Laura Rodriquez, a senior Animal Sciences Food Animal Production major (and currently the UF Dairy Science President), summarized her Dairy Challenge Academy experience as follows:

"I participated in the Academy portion of Dairy Challenge and I was paired up with students from all over the country and mentors with vast experience in their fields of reproduction and veterinary medicine. While on the farm evaluation portion of the Academy, I was taught to look out

for certain small details that most people forget while consulting a farm. We discussed the nutrition, reproduction, health, and finances of the farm then presented our SWOT analysis to the rest of our academy peers. It was an amazing leaning experience and I am looking forward to participating in the competition portion in 2016!"

The students and their instructor/coach, Mary Sowerby, would truly like to thank all the North Florida and South Georgia dairy owner/managers who allowed students to visit and evaluate their farms and took their valuable time to answer endless questions. Many, many thanks!

More information at the NAIDC website at http://www.dairychallenge.org and from Mary Sowerby, meso@ufl.edu. Dairy Challenge is made possible by generous donations from the dairy industry.

ADSA-SAD Meeting in Orlando Gave Florida Students Opportunities to Meet Other Dairy Science Students and Attend Scientific Congress

Mary Sowerby

Six UF Dairy Science Club members represented the University of Florida at the American Dairy Science Association - Student Affiliate Division meeting in Orlando FL, July 11-14, 2015. The ADSA-SAD meeting was held in conjunction with the ADSA-ASAS Joint Animal Meeting (http://www.jtmtg.org/JAM/2015). Over 140 undergraduates and their advisors from 14 universities across the United States met at the Rosen Shingle Creek Hotel and Convention Center, first for a Saturday trip to Sea World and their Animal Rescue and Recovery Unit and then on to serious business and competition.

The UF Dairy Quiz Bowl team of Monika Trejos, Laura Rodriguez, Wayne Garcia, and Katelyn Mulinix went head to head against teams from Washington State and Louisiana State before being knocked from the contest. Ultimately, Penn State University took the coveted trophy home for the 2015-16 school year.

Sloane Garcia gave an excellent presentation about "Post-mortem factors relevant to veal quality" in the Dairy Foods paper presentation contest. Alexandra Lemus also admirably represented UF in the Dairy Production paper presentation contest with her topic, "The effects of heat stress on reproductive fertility: An effective solution."

In addition, Alexandra Lemus gave a presentation about the UF Dairy Science Club sponsored Dairy Daze, the Club's annual event to teach Alachua County first graders all about dairy cattle at the UF Dairy Unit in Hague each December during the Activity Symposium. The students also attended a Career Symposium while in Orlando, plus met people like Dr. Temple Grandin, renowned animal behaviorist, and attended other events at the ADSA-ASAS meetings.

Average Somatic Cell Counts in Florida Milk

Fernanda C. Ferreira and Albert De Vries

In the Winter 2015 issue of this newsletter, we reported an increase in the bulk tank somatic cell count (SCC) in the summer months for almost all Florida farms. Yet, many farms also produce less milk in the summer as reported in the Spring 2015 issue (http://dairy.ifas.ufl.edu/dairyupdate). This seasonality has consequences for the interpretation of "average" SCC for the state.

There are different ways to calculate an annual average and they lead to different interpretations of milk quality. For example, one could calculated the average SCC for each calendar month, and then take the average of these 12 averages. This method ignores the lower volume of milk in the summer. We call this the arithmetic average SCC or ASCC. Another way is to pool all milk produced in a year, and then calculate the SCC in that pooled milk. This method recognizes that in the summer less milk is produced. We call this the weighted average SCC, or WSCC. We studied the effects of these two methods on the "average" SCC in Florida.

We used monthly bulk tank SCC and milk volume records from at least 100 dairy farms in Florida in 2012 and 2013 (we did not have access to the SCC of the individual tanker loads). Data were analyzed separately per year.

In 2012 and 2013, 72% and 74% of the monthly milk volume observations were <400,000 cells/mL. A clear seasonal pattern with lower milk volume and higher SCC in the summer was observed for most farms. In 2012, the ASCC was 342,000 cells/mL while the WSCC was 297,000 cells/mL. In 2013, the ASCC was 327,000 cells/mL and the WSCC was 274,000 cells/mL in 2013. Therefore, the weighted averages were 13 and 16% lower than the arithmetic averages in the respective years. In 2012, 82% of the farms shipped milk with a lower WSCC than their ASCC. In 2013, 97% of the farms shipped milk with a lower WSCC than their ASCC. The difference between a farm's WSCC and its ASCC tended to be greater in more-seasonal farms for SCC and milk volume.

Collectively, these results show that the SCC of pooled milk from Florida was substantially lower than the arithmetic averages of monthly SCC values. Therefore, it should be made clear if the SCC is weighted by milk volume when "average" SCC results are reported. The state average SCC were still higher than desired, however. Programs to improve milk quality in Florida might be focused on conditions during August, September, and October because the SCC is then markedly increased on many farms.

The study was published in Journal of Dairy Science 98:4182 (2015). For more information, contact Albert De Vries at devries@ufl.edu

Proceedings of the 51st Florida Dairy Production Conference, held April 29, 2015 in Gainesville, are available at http://dairy.ifas.ufl.edu/dpc

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