Hello fellow graduate students!

Hopefuly everyone is beginning to enjoy the spring sunshine and feel its warmth! As you gear up for the summer, do not forget to register for the 2019 ADSA Annual Meeting. June will be here before we know it. If you have already registered and are putting some final touches on a poster or presentation, take some time to browse through the ADSA Graduate Student Division newsletter. The GSD Communications Committee has once again put together a great newsletter! In this month’s newsletter you will find the following:

- Meet your 2019–2020 GSD president!
- GSD events at the 2019 ADSA Annual Meeting
- Have you voted for the 2019–2020 GSD nominated officers?
- Country Spotlight—Bangladesh
- Industry Spotlight—David Kirk
- Student Spotlight—Sena Field
- Student Spotlight—Brittney Riebel

I hope to see everyone in Cincinnati! The GSD officers have been hard at work planning some exciting programming that you will not want to miss. If you have not registered yet, be sure to sign up as soon as possible before the graduate student price goes up on May 30! Also, if you have not done so yet, please renew your ADSA membership to continue receiving great member benefits and the discounted price to the meeting. As always, be sure to check out our Facebook and Instagram pages. And if you have any questions, please reach out to us at gsd@adsa.org.
Meet the 2019–2020 GSD President

Name: Bethany Dado-Senn

Current university and program: University of Florida, PhD in animal sciences

Research: I study lactation physiology, specifically the effect of heat stress on mammary gland development during the dry period and in utero. My project this past summer analyzed the combinatory effect of heat stress both pre- and postnaturally on dairy calf performance.

Background: I grew up on a 500-cow dairy farm in northwestern Wisconsin with my family, where I was responsible for calf care and general chores. I got my undergraduate degree in dairy science and genetics at the University of Wisconsin–Madison, where I participated in Badger Dairy Club and the Association of Women in Agriculture and worked in two animal science laboratories. Go Badgers!!

Favorite dairy product: Cream cheese

Favorite part about graduate school: Seminars—I love learning about other people's projects and sharing my own!


Fun fact: I played Mrs. Potts in my high school musical “Beauty and the Beast.”

Benefits of being a GSD member: The Graduate Student Division of ADSA offers unique opportunities to improve our career development and education skills while building our professional networks. It can be challenging to meet other students or faculty outside of our own departments, but the GSD provides events both during the ADSA annual meeting and throughout the year that can help bridge that gap. I highly encourage all members to take advantage of the programs we offer and to suggest areas that you would like to added or improved upon. We are here to serve you!
GSD Events You Do Not Want to Miss at the ADSA Annual Meeting

**SAD and GSD Dairy Tour**  
Saturday, June 22, 12:00–5:00 pm

Young’s Jersey Dairy in Yellow Springs, Ohio  
Buses depart from Hampton Inn/Homewood Suites (student headquarters)  
Tickets: $15

Young’s Jersey Dairy was established in 1946 with a focus on milking cows and row crop farming. They began selling their Jersey milk to the public in the late 1950s. That evolved into the opening of a convenience store featuring hand-dipped ice cream. Today, Young’s is a favorite Ohio destination, with two restaurants, a dairy store, and loads of family fun activities including a petting zoo, mini golf, giant slides, and more. They also host a multitude of special events including car shows, bike tours, and seasonal festivals. Young’s is a model for agritourism; their operating dairy is also a top family destination, offering more than 70,000 gallons of ice cream and 45,000 pounds of cheese to more than 1 million guests each year. The tour includes a farm tour ticket and bus transportation. Students, both undergraduate and graduate, are given first opportunity. The tour will be offered to professional members on a remaining-availability basis.

**GSD Workshop: Grant Writing**  
Sunday, June 23, 2:00–4:00 pm

All ADSA graduate students are encouraged to attend this extremely valuable grant writing workshop. Jodi Williams, PhD, national program leader at USDA-NIFA, will share tips and tricks for successful grant writing. After the presentation, an open discussion will be held between the audience and a panel of academics in dairy science. Topics to be covered include finding funding, choosing a grant, knowing what goes into a grant proposal, writing clearly and concisely, crafting a compelling first page, and making a timeline for planning and writing your proposal.

**GSD Business Meeting and Open Forum**  
Sunday, June 23, 4:15–5:00 pm

In addition to greeting the incoming GSD officer team, attend this meeting to voice your ideas and opinions about ADSA graduate student activities. While at the meeting, sign up for a GSD committee to become involved and help shape the future of our organization.

**GSD Mixer**  
Sunday, June 23, 7:30–9:30 pm

16-Bit Bar and Arcade  
Tickets: $10

Kick off the week with a fun night of entertainment and networking with your fellow dairy science graduate students at 16-Bit Bar and Arcade, located just a short walk or trolley ride from the Convention Center. Join us to enjoy trivia night, arcade games, and free drinks! Use this opportunity to meet other graduate students you can network with throughout the week at the annual meeting.

**GSD Career Insights Lunch**  
Monday, June 24, 12:30–2:00 pm

Convention Center  
Tickets: $10

Graduate students, plan to join us for lunch and interact with a diverse panel of academia and industry professionals! Be prepared to question panel members about their experience moving from graduate school to the professional world. This lunch is intended to give students an informal environment in which to inquire about each professional’s personal journey and the challenges they encountered along the way. A boxed lunch is included.
**GSD Three-Minute Thesis Challenge**  
**Tuesday, June 25, 2:30–3:30 pm**

ADSA graduate students are encouraged to participate in the return of the Three-Minute Thesis Challenge. This event will test the competitors’ ability to convey their research in a way that is understandable to all, in three minutes or less! Emphasis will be placed on the ability to explain research to a lay audience. Entry details will be released prior to the annual meeting, and competition will be limited to 10 students selected by a panel of judges based on strength of CV and a 100-word interpretive summary. All ADSA members are invited to attend the challenge and watch students compete for cash prizes and present their research in a fun and exciting way!

**GSD Mix and Mingle**  
**Tuesday, June 25, 7:00–9:00 pm**

Register to attend the GSD Mix and Mingle with professional members. At this speed-networking event, graduate students will have the opportunity to mingle with industry professionals and faculty members looking for employees. Students are encouraged to bring copies of their CV as well as business cards. Professional ADSA members looking to hire graduate students or discuss research are encouraged to attend the mixer as a way to interact with graduate students outside of the typical poster session atmosphere. Light refreshments will be provided.
International Spotlight: Bangladesh

by Arup Sen

Bangladesh. The name consists of two words: Bangla, which is the mother tongue of its people, and Desh, meaning country. By name, it is the home of Bengali people. People of this country sacrificed their lives in 1952 for the sake of their mother tongue on a day that is now known as International Mother Language Day. It then emerged as an independent and sovereign country after nine months of the War of Liberation. Bangladesh is located in South Asia and shares its border with India and Myanmar on three sides and the Bay of Bengal on the south side. The flag of Bangladesh represents its history (i.e., red represents the blood of liberation war martyrs, and green represents the lushness of the land). Dhaka is the capital and the largest city of Bangladesh, and Chittagong serves as the port city and the second largest city of Bangladesh.

Bangladesh is a riverine country with 360 miles of coastline on the Bay of Bengal on the south, and the core sector of its economy is agriculture. Agriculture contributes around 17% of the gross domestic products (GDP) and also provides employment to 45% of the labor force (BBS, 2015). Around 84% of the rural people earn their livelihood from agriculture either directly or indirectly (Mirza, 2015). The animal farming subsector of agriculture contributed about 1.73% of the GDP in fiscal year 2014–2015 (Rahman, 2017). However, it contributes largely toward meeting essential daily protein requirements. Livestock shared 13.62% of the agriculture GDP in fiscal year 2017–2018. Cattle, among the livestock species available in Bangladesh, are the most versatile, considering the existing farming system, and are multipurpose. Nearly 24.1 million head of cattle are distributed throughout the country, and 85% of the cattle population is nondescriptive and of an indigenous breed with low productivity as compared with exotic breeds (DLS, 2018). However, they are well adapted in a tropical harsh environment and maintain their body condition on poor-quality feedstuffs.

The cattle genetic resources of Bangladesh consist of Red Chittagong cattle, Munshiganj cattle, Pabna cattle, North Bengal Grey cattle, crossbreeds and exotic breeds (Holstein Friesian, Shahiwal, Jersey, and Sindhi), and nondescriptive breeds (Hamid et al., 2017). The indigenous breeds are Zebu-type cattle having developed hump. They are low in production and used for various purposes (milk, meat, and draft). However, Pabna cattle have better production among the indigenous cattle breeds. For commercial farming, people use crossbreeds of Holstein Friesian and Jersey, because they produce more milk compared with other breeds available in Bangladesh. For beef fattening, Bangladesh does not have any specialized beef cattle. People use the available cattle breeds in Bangladesh for the beef fattening program. Farmers are involved in beef fattening
just before three to four months of Eid-ul-Azha (Baset et al., 2002), a religious ceremony of the Muslim community of Bangladesh in which a large number of cattle are sacrificed. During this ceremony, an influx of cattle occurs through the Indian border.

Because most of the farming is in the rural area of Bangladesh, cattle housing depends on the economic condition of the farmers. Cattle housing could be a stall type having tin or straw roofing with limited grazing on the roadside, embankment slope, and fallow land (Hossain et al., 2005). Few farmers provide a semi-pucca shed with a brick floor. Others use an unpaved shed. For commercial farming, they use a stanchion barn for the milch cow. For beef cattle, farmers usually use an open housing system. Farmers use both stall feeding and grazing depending on the availability of grazing land. Feed resources used also depends on availability, market price, production, and economic status of the farm. The major feeds used in cattle feeding are rice straw, wheat straw, roadside grass, sugarcane tops, rice bran, pulses bran, till oil cake, and molasses (Baset et al., 2002; Rashid et al., 2007). However, for beef fattening, farmers use maize, urea-molasses block, urea-treated straw, rice gruel, boiled rice bran, oil cakes, and vegetable by-products (Baset et al., 2002). With rice straw being the staple food and the unavailability of high-yielding varieties suitable for a tropical region, the per capita milk production is very low (158.19 mL/day per head; DLS, 2018). As a result, Bangladesh invested $295.90 million for milk and cream import and $1429.984 million for power milk in fiscal year 2017 (BBS, 2017).

Starting from its inception Bangladesh struggled a lot with its economy and poverty alleviation. However, it has made remarkable changes in its economy and development. Bangladesh is moving forward to be a developing country by 2024, fulfilling the criteria set by the United Nations. Despite having differences in religion, culture, and opinion, when it comes to hospitality, the people of Bangladesh treat people as their own, wholeheartedly. I am proud to be a Bangladeshi.
References


Sources

The map is from https://www.targetmap.com.

Student Spotlight: Sena Field

**Award won:** National Milk Producers Federation paper presentation contest in dairy production, MS division

**Country of origin:** United States

**Current school:** University of Florida—Animal Molecular and Cellular Biology MS Program

**Degree:** Bachelor’s degree from the University of Florida in animal biology

**Year in school:** Second year

**Area of specialization:** Endocrinology

**Research focus:** Exploring the role of serotonin in metabolism and bioenergetics in Holstein calves

**Future plans:** Following my master’s, I will continue my education by pursuing a PhD in dairy science with a focus on serotonin

**Advice for future graduate student poster competitors:** Be confident and clear when presenting! Also, always remind yourself that you are the connoisseur of your research.

**Just for fun, what is your favorite dairy food?** Cheese and ice cream!! But not eaten together 😊
Student Spotlight: Brittney Riebel

**Award won:** Dairy Foods Graduate Student Paper Presentation Competition

**Country of origin:** Minnesota, United States

**Current school:** University of Wisconsin–Madison

**Degree:** Master’s degree

**Year in school:** Third year

**Area of specialization:** Cheddar and process cheese

**Research focus:** Maintaining high intact casein during aging in Cheddar cheese used for process cheese

**Future plans:** I plan to work in dairy R&D or technical services. I look forward to having a small hobby farm with goats and rabbits as well.

**Just for fun, what is your favorite dairy food?** Ice cream, mint chocolate chip
Industry Spotlight: David Kirk

What degrees do you hold and from where?
BS in animal science—Rutgers University
MS in nutrition—Texas A&M University
PhD in animal science—Virginia Tech

What company do you work for?
Phibro Animal Health Corporation

What is your position—title and duties?
Director, Dairy Technical Services, North America

I lead and am a member of the US team of dairy technology managers who provide technical support and training on Phibro’s Nutritional Specialty Products for dairy cattle. The team also develops and supports research projects conducted by universities, commercial research groups, and our own research facility.

Why did you choose your current position?
The dairy technology manager position provides a great mix of meaningful roles: outreach, teaching, and research. We get to work with and provide support to many of the top dairy producers, nutritionists, veterinarians, and feed companies in the world (outreach). We get to develop training materials and teach both our own employees and our customers’ employees (teaching). We help design and manage projects conducted by leading research scientists across the United States (research). In my current role as director of this team, I get to lead a top-notch group of PhD and DVM professionals who work hard every day to achieve their personal, team, and corporate goals.

What previous jobs have you held?
While finishing my PhD at Virginia Tech, I managed the Ruminant and Equine Nutrition Research Unit, which is where I was taught what real work is all about. My first job out of school was with Dawe’s Laboratories, a small vitamin–trace mineral premix company headquartered in the Chicago area. At Dawe’s Laboratories, I worked in formulation and technical support for all species, but developed a dairy technical support program that allowed me to work and travel across the United States and a bit overseas. I worked with this company for 15 years. I then took a position as dairy nutrition manager at Pennfield Animal Feed Technologies, a regional feed company located in Lancaster, Pennsylvania, where I provided technical support for the dairy sales team. After a few years, I was moved to director of nutrition at Pennfield, where I oversaw all nutrition and quality assurance programs for the company. After seven years, I took a position as technical service specialist with Milk Specialties Global, which provides milk replacers and energy supplements to the dairy industry. I was with Milk Specialties Global for one year before joining Phibro in 2013.

What is your favorite part about your current position or company you work for?
Honestly, I really enjoy the opportunity to work with leaders in the dairy industry as a member of a highly respected company. Working at Phibro has given me the chance to work closely with people in this industry I never thought I would have the chance to interact with.
Did you always know that one day you would work in the dairy industry?
Absolutely not! I was a city kid whose first on-farm job was feeding cows on weekends at the Rutgers dairy barn. I was there most Saturday and Sunday mornings at 4:30 am. I swore I would never work with dairy cows because the hours were unreasonable. So, I focused on beef cattle in graduate school. Fortunately for me, I was able to get work in the dairy industry once I finished school and got to understand the business much better. I truly enjoy the great people I've gotten to know and work with in the dairy industry.

If you could give advice to any student, what would it be?
Get as much education outside the classroom as possible. Intern at an industry-related job every summer, even if the pay is poor (if you can). The payback for this experience is very high. Develop your “soft skills” by working with people in as many areas of the industry as you can.

What is your favorite thing about the dairy industry in general?
The friendly, hard-working, passionate people that are a part of this industry.

Just for fun, what is your favorite dairy food?
Almost all flavors of ice cream (except pistachio...I HATE pistachio). I also really enjoy blue cheeses.