

# ANFSScratchings

The Newsletter of the Department of Animal and Food Sciences at the University of Delaware

Issue 7

January 2014

## Message from the Chair

The 2012-2013 academic year was busy and productive. Dean Mark Rieger joined the College and guided us through a master planning process to help shape our future. We also underwent an Academic Program Review, a regularly scheduled event involving extensive meetings with external reviewers from the animal and food science fields. You, our alumni, helped us tremendously by taking part in alumni surveys last summer. This information will help us embrace needed changes in instructional, research and outreach programs.

Here are some of the findings of the surveys: Undergraduate students indicated that they came to us for the hands-on experiences in lab courses, capstone/production classes, and experiences on the farm. They also liked their professors and access to them, the quality of ANFS courses, and the chance to conduct research with faculty. The majority of our alumni were satisfied or very satisfied with their salaries, opportunities for advancement, professional responsibilities, benefits, location, and personal growth in their current jobs, and 79% replied that they would choose the same major again.

Graduate student alumni cited the quality of their education at UD, location of the University, and the reputation of a specific program or faculty member as reasons they enrolled in our department. Program strengths included faculty advisor availability, assistance, and competency, the relevance of coursework to their program and later employment, and their timeframe to degree completion. Over 80% of respondents were

satisfied or very satisfied with their salaries, opportunities for advancement, professional responsibilities, benefits and personal growth, and 72% would choose the same degree program again.

Undergraduate and graduate survey respondents would like to see improvements in career assistance and advising, and expanded internship opportunities. The department already requires undergraduates to take the course "Perspectives in Career and Professional Development," but perhaps a follow-up course in the junior year might also be necessary. Already, our faculty are reaching out to potential employers by inviting animal and food science alums and leaders to meet with students, and by seeking additional paid internship opportunities. Some business leaders have expressed the need for higher education to do a better job in preparing graduates for employment. Many of our courses now include training in broadly applicable communication, interaction and problem solving skills; however, college should also be an experience that allows students to develop creativity and leadership qualities. By fostering a multifaceted educational experience, we will graduate students who are able to address global human and animal health and food production challenges and be successful in their personal and professional lives.

I thank all of you who took the time to participate in the alumni surveys. We take your responses to heart. Best wishes for a healthy, prosperous and happy 2014.



Jack Gelb, Jr.

Want to learn more about what we have been up to? Visit us at <http://ag.udel.edu/anfs>

## ANFS People, Groups and Events\*

### The Farm - Part of our 350-Acre Classroom

Our farm provides students with animal production experiences right on campus. As a highlight for this year's issue, we asked current and former students to tell us about how their time with the animals contributed to their learning. We hope you enjoy reading these as much as we did.

"I found it really interesting when we had to formulate a poultry diet in our animal nutrition class. I couldn't believe how detailed and thought-provoking the whole process was!" **Kyle Lestrangle,**



Newark Farm



Webb Farm

\* **Giving to the Department of Animal and Food Sciences:** If you wish to make a gift to the Department of Animal and Food Sciences, please visit: <http://www.udel.edu/development/makeagift.htm>. One-hundred percent (100%) of your gift will impact the program you wish to support. You may make your gift to the University, the College of Agriculture and Natural Resources, or another program. If you desire to designate your gift specifically to our department, please be sure to complete the "Other designation - indicate a specific purpose below" section and input "Dept. of Animal and Food Sciences." If you have any questions or require assistance when completing any of these forms, please contact Daniel Sarkissian, director of development - College of Agriculture and Natural Resources - at 302-831-4595 or [djs@udel.edu](mailto:djs@udel.edu).

## Contents

- Message from the Chair
- The Farm—Part of our 350-Acre Classroom
- New Courses in ANFS
- In Memoriam
- Awards and Recognitions
- News from Students and their Organizations
- Thank you to Donors

Edited by Rolf Joerger  
and Tanya Gressley

2009 BS, 2013 MS, Quality Assurance Senior Technician, To-Jo Mush-rooms

"I went to check in on my mama pig on a Friday night, on my way out to eat with my boyfriend, and to my surprise she was in labor! She delivered 8 piglets, all healthy, and I

got to be completely hands on with the whole experience, from detaching the umbilical cords and giving vaccines. I have a ton of pictures, and will never forget it!"

**Melissa Luts**, BS 2004, Clinical Trial Lead, Novartis Pharmaceuticals

One of **Brittany (Benson) Sturgis'** (BS 2007, Watershed Planner, DNREC) favorite memories was "trying to name 17 piglets that our sow gave birth to in my Swine Production course!"

"Having the opportunity to gain ample hands-on experience from the poultry production course was priceless. From learning how to set up a broiler house to catching 2,000 chickens at 5 am, each day we broadened our knowledge about the poultry industry and connected the farm to fork movement." **Lauren Mindel**, ANFS

"I have had many priceless opportunities at UD's Webb farm such as labs, an Extension Scholars Internship, Independent Study and opportunities to help professors and graduate students with their projects. UD and CANR would not be the same without all that the farm offers. I love being on south campus because of it!" **Rebecca Frost**, PVAB

"Raising a flock of chickens for Poultry Production has so far been the best experience of my life. Once when I was walking through the house, the birds kept sitting on my boots and I'd continue going, with a chicken perched on top of each foot. They were so curious and playful. That's not really something you can learn in lecture. You have to actually go out to the farm and interact with the animals to learn that though they are raised for food, they still need to be cared for humanely." **Bethany Fox**, ANFS

"There are so many parts of UD that I miss as an alumna, especially the farm. Although every Friday afternoon was filled with fun experiences in Dairy Production Lab, my favorite day was the day that we decided to taste the calf milk replacer... It smells a lot better than it tastes!" **Monica Sterk**, BS 2013, Veterinary Student, Western University

"As a senior, I honestly believe that I got the education I was paying for in Poultry Production. I remember checking on my flock of chickens and feeling responsible for their well being. It was just me and the chickens. Getting my hands dirty and applying what I had learned in class proved to me that I was capable of succeeding in the animal and food science field." **Lauren Berlin**, ANFS

"My favorite memory came while out at Webb Farm during our very first semester taking Animal Science 101 Lab. I discovered that I absolutely loved working with the sheep and made sure to teach that lab in the years to follow!" **Holly Powers**, BS 2012, Veterinary Student, UPenn

"Working with the horses on Webb Farm has been a wonderful experience. I have learned more out on the farm one-on-one with the horses than I ever could have gained in a classroom. It's amazing to think that there are opportunities for hands-on equine involvement right in UD's backyard!" **Christine Delacourt**, ANFS



Students in the Swine Production course



Rebecca Frost



Monica Sterk



Students in the Beef and Sheep Production course

"I still find myself laughing out loud when I think back to the wonderful memories of my fellow students, now colleagues, out on Webb Farm and UD Dairy. Whether it was catching sheep in the pouring rain and mud to trim their hooves or clicker training horses, these rewarding and cultivating moments will always be cherished. The farms were where I could go to forget about the stresses of studies and exams, and focus on what I love most." **Brooke Fenamore**, BS 2012, Veterinary Student, UPenn



Becca Savage

"I volunteered to help during the Dairy Production embryo transfer lab so I got a front row view and joked with the veterinarian who said, 'Remember, your one job is to not drop the tin and kill all the eggs. It's a lot of pressure for one person, but I think you can do it.' It was one of the most interesting procedures I had seen on the farm. At the end of the lab, we learned that the cow I had helped flush out had about 40 eggs! You don't get to call home about that every day!" **Becca Savage**, PVAB

"From Intro to Animal Science Lab all the way to Equine Management, I have learned incredible things about horses, my future career, and myself. I have enjoyed every second of this journey, and it's easy to say the favorite moments of my undergraduate career have taken place at Webb Farm. With graduation looming in the spring, I know that I will always look back on my experiences with the horses fondly, and I thank Dr. Wickens and CANR for supporting my equine dreams." **Hannah Paxton**, ANFS

"One of the funniest moments I had during Animal Science labs was sticking my arm inside a cow's rear end to palpate her reproductive tract. It was a messy and smelly experience!" **Justyna Kwiecinska**, PVAB

"Equine Management was the highlight of my week. I loved spending my Friday afternoons on the farm with the horses and it was a great learning opportunity that I wouldn't have experienced simply in a classroom."

**Deanna Lentini**, ANR

"The farm has been my favorite classroom over the past four years, especially during Equine Management where I worked with a mare every week as she learned new skills. Not only did she improve, but I learned how to use clearer commands and read her behavior. We learned from each other. The confidence and skills that I gained every week are definitely going to benefit me in the future no matter what that may entail." **Kelsey Johnson**, PVAB

"There are so many good memories. One of my favorites was when one of the groups in my dairy production class successfully bribed Dairy Manager Richard Morris with a burrito into dressing up as the 'dairy fairy,' complete with wings and a magic wand, for their final project video." **Christa Kurman**, BS 2011, MS Student, University of Tennessee



Deanna Lentini

## New Courses in ANFS

**Dr. Eric Benson** developed the new course Emergency Animal Management. This course addresses Emergency Animal Management from the roles of farmers and animal production companies, state and government agencies, and private veterinarians. The course also introduces the concept of Technical Large Animal Emergency Rescue, a grass roots movement designed to link emergency responders and the equine community. Also discussed are companion animals, working military and police animals, livestock, and specialty animals. Dr. Benson has been involved in response to animal diseases and to structurally damaged animal housing in local, national and international events.

**Dr. Erin Brannick** has developed two experimental courses. In

ANFS added around 50 internships to the **internship database** in 2012 and we are looking to add even more in 2014. Would you be interested in sponsoring an undergraduate intern? If so, please contact Ms. Laura Nemec at [nemecm@udel.edu](mailto:nemecm@udel.edu).



Biomedical Communication, students develop skills in written, oral, and visual scientific communication. Students prepare a scientific manuscript over the course of the semester in a step-wise fashion while learning to read and critically evaluate several different types of scientific communications. Course projects culminate in formal presentations through three formats- a mock laboratory meeting, poster session, or scientific meeting with oral presentations- to simulate these experiences for students. In 2014, a generous grant from the UD Center for Science, Ethics & Public Policy will also allow students in Biomedical Communication to discuss ethical issues in scientific research with a panel of invited speakers and to present cases of scientific misconduct to a broader audience from case studies covered during the course.



Students in Biomedical Communication evaluate the final course projects of peers during a mock poster session.

In Animal Histology, students identify and compare animal tissues by evaluation of microscopic architecture. The course emphasizes comparative analysis across animal species ranging from mammals and birds to snakes and marine invertebrates. To reinforce concepts and provide real-world applications of course material, student groups compare normal tissues to diseased tissues from diagnostic cases submitted to the CANR Comparative Pathology Laboratory and develop 3-dimensional models of selected tissues for demonstration to their peers. Animal Histology has been recognized by the University of Pennsylvania School of Veterinary Medicine as a substitute for its first-year histology course for ANFS veterinary students.

**Dr. Marlene Emara** has developed two new courses. The Human-Animal Bond explores companion, farm, zoo, and wild animals as significant components of human society. This course examines the benefits of animals to human health, work and service, and research, as well as concerns related to loss of pets and grievance, zoonotic disease, natural and man-made disasters, animal conservation, and animal welfare.

Dr. Emara's other new course, Famous Animals in History, analyzes how animals have impacted human society and culture in their roles in food and fiber production, work, research, and companionship. They are included in literature, art, religion, and entertainment, and serve as emblems and symbols.

Dr. Emara's other new course, Famous Animals in History, analyzes

how animals have impacted human society and culture in their roles in food and fiber pro-



Fall 2013 students in The Human-Animal Bond

duction, work, research, and companionship. They are included in literature, art, religion, and entertainment, and serve as emblems and symbols.

**Dr. Hong Li** introduced Bioenvironmental Management to junior/senior and graduate students centered on the principles of poultry and livestock environmental management. Understanding of poultry and livestock responses to environmental changes, management practices to reduce pollution from poultry and livestock operations, improvements of animal and human health, welfare, and protection of natural resources are the focal points of the course.

After serving as dean of the College of Agriculture and Natural Resources for 10 years, **Dr. Robin Morgan** returned to the classroom this fall to teach Microbiology and Microbial Interactions. This new experimental course was designed for students interested in pre-veterinary medicine, animal biology, food science, and related disciplines. Besides being an introduction to the fundamental biology of bacteria, *Archaea*, eukaryotic microorganisms, and viruses, the course focused on interactions of microorganisms with each other, various hosts, and the environments in which they are found. The accompany-

ing lab covered exercises from classic staining of microorganisms to high throughput genomic sequencing. According to Dr. Morgan, "Teaching this class was a perfect fit for me at this time in my career, and I enjoyed this group of students immensely. I am thankful for their patience with my ventures into new technology, and I very much appreciate the questions they asked and the discussions we had. Microbiology has changed a lot during the past ten years and also over the three decades that I've been involved with it. It is still quite a frontier discipline with about 97% of what's actually out there yet to be discovered!"

### In Memoriam

**Robert William (Bob) Keown**, ANFS professor emeritus, died March 31, 2013. After a distinguished career with the DuPont Company, Dr. Keown joined the Department of Food Science in 1984 and was chair until the department was merged with the Department of Animal Science in 1995. Dr. Keown remained on the ANFS faculty until his retirement and continued to be involved with the department for many years afterwards.

### Awards and Recognitions

**Mr. Brian Ladman**, Ph. D. candidate, received the Richard B. Rimler Memorial Paper Award at the American Association of Avian Pathologists Annual Meeting. Brian's winning paper was entitled, "Evaluating the Genetic Diversity of a Wild Bird Origin H5N1 Low Path Avian Influenza Viral Genome After Adaptation to Different Poultry." Co-authors were Jack Gelb, Jr., Conrad Pope, Erin Brannick, Erica Spackman and Richard Slemmons.

**Mr. Nick Siano**, MS student with Mark Parcells, won the best Graduate Student Presentation award at the 84th Northeastern Conference on Avian Diseases meeting. His presentation was entitled, "Reprogramming of energy metabolism by oncogenic Marek's Disease virus in chicken embryo fibroblasts."

**Ms. Jessie Weir** received the Best Student Poster Award at the International Society for Equitation Science Conference. Jessie's winning poster with co-author Carissa Wickens was entitled, "Impact of a new equine behavior and welfare course on student views of important equine welfare issues."

### News from Students and their Organizations

The **Food Science Club** started off the spring semester with a lot of College Bowl practice and competed against three other schools at the Regional IFTSA Meeting at the University of Maryland. The remainder of the semester was devoted to preparation for Ag Day, where the club served veggie burgers and hotdogs. During the fall semester, speakers from Perdue Farms, Inc., David Michael, TIC Gums, and Advanced Food Products talked to us about their companies and job opportunities. As part of Braeden Mannering's service project called "3B: Brae's Brown Bags" to help feed the homeless, the club helped pack 100 snack bags for the homeless. This Thanksgiving about 130 sweet potato pies were baked for the Food Bank of Delaware. The semester ended with preparations for our College Bowl appearance at NC State in the spring.

The **Animal Science Club** sent its NESA livestock judging and quiz bowl team to Rutgers University where we overthrew Penn



At the 3BL Brea's Brown Bags service project

State's reign to take 1<sup>st</sup> place in the Quiz Bowl! We are currently preparing for the next NESA competition. Guest speaker and UD alumnus Mr. Steve Cook took us on a behind the scenes tour of the rhino and zebra facilities at the Maryland Zoo. An artificial insemination trip, AG Day, and a trip to Kilby Cream were also on the agenda as was our annual Pumpkin Sale, volunteering at local farms and animal rescues, a Halloween hayride & bonfire, Penn Vet panel (with UD alumni!), a tour of the Painted Sky Alpaca Farm, and, of course, NESA

preparations. The club has grown and regularly seats about 40 members at our weekly meetings. For more information check out our new website (<http://universityofdelaware.wix.com/animalscienceclub#>), Facebook, or email club president, Katie Williams ([kewill@udel.edu](mailto:kewill@udel.edu)).



Livestock judging and quiz bowl team

**We would like to thank the following individuals who have supported our Department through generous donations in 2013**

Elizabeth C. Abraham '13  
AviServe LLC  
Alexandra V. Bayles '13  
Amy Estey Becker '06M  
Stephen D. and Victoria F. Benson  
Erin M. and Nicholas Brannick  
Francisco J. Brockway and Madeline A. Paladino  
Jane Burton Bruins '75  
I. G. Burton and Co., Inc.  
Marie DiNenno Burton '84 and Charles L. Burton  
Blair R. Carmean '88 and Cheryl Spartz Carmean '87  
Ronald R. De Marco Jr. '91 and Deborah M. De Marco  
Ecolab Foundation  
Christina Taylor Edwards '01 and David Edwards

John T. Ellis '73  
Julia Ludwig Emerson '87  
Royal B. Freas III '84PhD and Audrey Gallo-Freas '78 '82  
Jack Gelb Jr. '74 '76M and Rebecca Finch Gelb '76 '96M  
Joseph J. Giambrone '72 '74M  
Tanya F. Gressley  
Lesa G. Griffiths  
George F. '60M and Elizabeth Z. Haenlein  
Rolf D. and Melissa S. Joerger  
Carole Lynch Jorgensen '81  
Marianne B. Josefiak  
Patricia L. Kirik  
Sherly Joseph Kurian '96M and Joseph V. Kurian  
Judith Farkas Lamborn '76  
Ryan J. Lawrence '09 and Sarah

Pierson Lawrence '09  
Amanda Higman Lawrie '03  
Mark W. Jackwood '78  
David Michael & Company  
Daniel P. Moore '84  
Jessica L. Moore  
Kerrin A. Moore  
Kathryn Lamborn O'Connell '00  
Mark S. '84 '94PhD and Sandra L. Parcels  
Alfred L. Pennesi and Candice L. Hoffman  
Arthur W. Perdue Foundation, Inc.  
Kristin L. Ritchings '93  
Michael J. Rohr '93 and Denise B. Rohr  
Michael Rosenberg '88 and Joanne Grillo Rosenberg '88  
Lynn N. Rudman

Dr. Paul H. and Diane Sammelwitz  
Nancy P. Searl '73  
Nancy Shaffer-End '80  
William E. Shainline Jr. '76 and Elizabeth A. White  
Adrienne Hagelstein Shearer '89 '96M  
J. Thomas and Constance C. Sims  
Raymond R. Stankiewicz  
Brian T. Stephan '04 and Christy L. Mannering  
Michelle F. Styles '90M  
Katherine Johnson Swanson '75 and David E. Swanson  
Stephen F. Sylvia '90  
H. Wesley Towers Jr. '64 and Saralee Webb Towers '65  
Kerrin A. Trotter '07  
Unidel Foundation, Inc.

The University of Delaware is committed to assuring equal opportunity to all persons and does not discriminate on the basis of race, creed, color, gender, age, religion, national origin, veteran or handicapped status, or sexual orientation in its educational programs, activities, admissions or employment practices as required by Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, and other applicable statutes. Inquiries concerning Section 504 compliance and information regarding campus accessibility should be referred to the Americans with Disabilities Act ([ADA](#)) Coordinator, 831-4643, located at 413 Academy Street. Inquiries concerning Title VII and Title IX should be referred to the [Office of the Assistant Vice President for Affirmative Action](#), 831-8735, located at 124 Hulliher Hall.