

APSC

The Department of
Animal and Poultry Sciences

www.apsc.vt.edu

Dear alumni and friends:

I had the privilege of attending graduation a few weeks ago where we minted some 100 new alumni for Virginia Tech and the Department of Animal and Poultry Sciences in Cassell Coliseum. This is one of the most gratifying events for the faculty and staff as we get the opportunity to meet and greet the families of our graduating seniors. It was a marvelous graduation ceremony and the festivities started in the Litton-Reaves foyer and auditorium with a celebratory receiving line for family and friends.

Prior to awarding diplomas the department received two accolades this year. Assistant Professor Mark Cline, who teaches anatomy and physiology every spring, received the Certificate of Teaching Award for his efforts in the classroom. He is an outstanding educator and researcher and we are fortunate to have such a highly accomplished scientist and decorated faculty member teaching our undergraduates. Outstanding senior across the college, Hope Wentzel, was also recognized during the ceremony. She is from Alexandria, Virginia, and spent last summer working with forage researchers in Valdivia, Chile, on pasture sustainability. Hope is heading back to Chile this summer for some well-deserved sightseeing with aspirations to continue her education as a graduate student at the Universidad Austral de Chile this fall. Such recognition at graduation reflects well on this department and the caliber of students in our program. Congratulations to them both!

The department has more than 200 freshmen and transfer students starting this fall, which makes this class the largest in the department's history. While the exact numbers are difficult to pin down, the APSC freshmen class represents close to 40 percent of the total freshman enrollment in the College of Agriculture and Life Sciences, demonstrating an interest in understanding and working with animals as a career choice remains very high among incoming students.

Facilities have been and continue to be our most pressing challenge in Blacksburg. Working in facilities that were, in most cases, built in the 1950s makes the creation and translation of new knowledge to our students and stakeholders very difficult. Not only does it put our faculty at a disadvantage in terms of remaining competitive for federal dollars with their peers across the country, it also makes it nearly impossible to prepare the next generation of employees for the state's largest economic sector. The good news is that new livestock facilities are the most immediate priority for the college. We look forward to working with our stakeholders, friends, allied industries, university administrators, and government officials to get these facilities on Plantation Road and at Kentland.

As always, should you find yourself in Blacksburg, please don't hesitate to stop in for visit.

Sincerely,



David E. Gerrard
Department Head and Professor
Animal and Poultry Sciences



David E. Gerrard, professor
and department head





Galen Vosseller

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VT/0715/WEB/APSC-95

In Memoriam

Alvah Theodore Leighton Jr.

Alvah "Al" Theodore Leighton Jr. of Blacksburg died Wednesday, March 11, 2015, at Montgomery Regional Hospital. He was 85.

Al was born in Portland, Maine on April 17, 1929, the son of Margaret Elizabeth Mogan and Alvah Theodore Leighton Sr. In addition to his parents, he was preceded in death by his son, William Scott Leighton of Roanoke, brother, Robert Leighton Sr. of New Gloucester, Maine, and brother, Raymond Leighton of Gray, Maine. Leighton is survived by his wife, Frances Blanchard Leighton; sons, Alvah Theodore "Ted" Leighton III, Thomas William Leighton of Blacksburg; daughter, Krista Lynn Leighton of Forest; and grandson, Matthew Thomas Leighton of Greensboro, North Carolina.

He graduated from New Gloucester High School, received his Bachelor of Science from the University of Maine, his master's from the University of Massachusetts, and his Ph.D. from the University of Minnesota. Leighton met his wife Fran while she was a dental assistant in Portland, Maine.

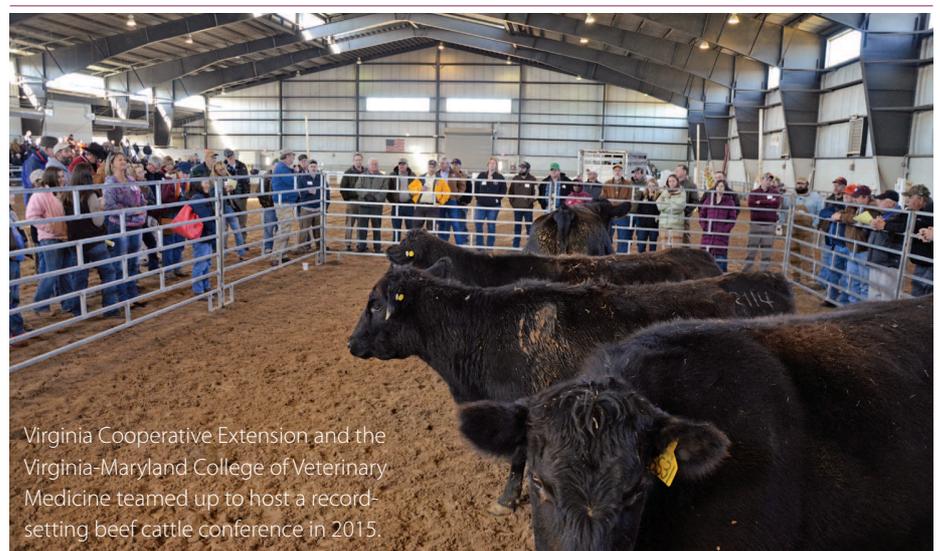
Upon completion of his Ph.D., he moved to Virginia where he worked for 30 years and retired as a tenured professor of poultry science from Virginia Tech. During his time at Virginia Tech, he was one of the top researchers and educators in the poultry science field. He also was involved in consulting and operating two personal businesses in Blacksburg and Christiansburg.

It was extremely important for Leighton to give back to the community. This was evident through the numerous committees that he took part in as part of the Blacksburg Presbyterian Church and in serving over 30 years as a member and vice mayor of the Blacksburg Town Council. Through a group effort he was instrumental in initiating Blacksburg Transit.

Leighton had a love for life and enjoyed spending time with family and friends, teaching, camping, fishing, boating, golfing, attending the Master's in Augusta, Georgia, and taking care of stray or sick animals. His family cherished his kind heart, baby blue eyes, and a smile that lit up a room and drew children to him his entire life. He was beloved by all whom he met and was known as a gentleman and a scholar.



Alvah Theodore
Leighton Jr.



Virginia Cooperative Extension and the Virginia-Maryland College of Veterinary Medicine teamed up to host a record-setting beef cattle conference in 2015.

Department News

New Cooperative Extension programming provides benefit to Virginia's small-scale pork producers

Jeff Wiegert and Mark Estienne

While the total number of pigs produced in Virginia remained relatively constant between 1987 and 2002, the number of farms actually raising swine decreased by over 77 percent as the industry consolidated and moved toward large, vertically-integrated production systems. Data from the USDA's 2012 Census of Agriculture, however, indicate a change in the swine production landscape in Virginia. Indeed, the number of pig farms in the commonwealth has rebounded considerably, from 855 farms in 2002 to 1,265 farms in 2012. This increase is attributed primarily to growth in the number of small-scale operations: the number of farms with one to 24, 25 to 49, and 50 to 99 pigs increased 55 percent, 25 percent, and 94 percent, respectively.

To serve the educational needs of the growing number of small-scale swine producers in Virginia, faculty and staff members at the Tidewater Agricultural Research and Extension Center in Suffolk created the "Small-Scale and Niche Market Pork Production Bulletin" in 2014. Bi-monthly articles are distributed through an ever-growing electronic mailing list that reaches over 100 pig farmers,

livestock specialists, veterinarians, and allied-industry representatives across Virginia and the Eastern United States. Topics covered in the publication appear in Table 1.

Educational programming for this particular clientele also includes an annual Small-Scale and Niche Market Pork Production Conference hosted at the Tidewater AREC. Topics covered at the conference include, among others: alternative swine housing systems, feeding strategies for the small-scale herd, genetic selection to maximize yield and quality of pork products, and management decisions to achieve desired animal welfare standards. "Hands-on" learning activities are often included. Original research conducted in the Department of Animal and Poultry Sciences and the Tidewater AREC is also presented at the annual conference. The fourth annual conference will be held November 7-8 in Suffolk.

Please contact Mark Estienne at mestienn@vt.edu if you wish to be added to the Small-Scale and Niche Market Pork Production electronic mailing list.



Darnell Cross, a local pig farmer, learns proper artificial insemination techniques at the Tidewater AREC in Suffolk.

“ Hey Mark, that's good stuff. Very valuable for folks like me without a lot of background in animal welfare. I am so happy I connected with you and the center. I appreciate being on your mailing list and have enjoyed participating in the events I have been able to attend.”

Thomas White
Green Pastures Fruit and Livestock
Suffolk, Virginia

Table 1. Articles appearing in the Small-Scale and Niche Market Pork Production Bulletin series.

Title	Authors
Porcine Epidemic Diarrhea Virus (PEDv) and Small-Scale and Niche Market Pork Production in Virginia May 1, 2014	M. Estienne [*] , J. Wiegert [§] , and S. Clark [†]
Heat Stress and Small-Scale and Niche Market Pork Production in Virginia July 1, 2014	J. Wiegert [§] and M. Estienne [*]
Swine Production in Virginia: A Brief Summary of Data from the 2012 USDA Census of Agriculture August 1, 2014	M. Estienne [*]
Methods for Improving Pre-Weaning Survival Rates of Piglets: I. Management of the Sow Prior to Farrowing September 12, 2014	J. Wiegert [§] and M. Estienne [*]
Methods for Improving Pre-Weaning Survival Rates of Piglets: II. Farrowing and Dystocia February 6, 2015	J. Wiegert [§] and M. Estienne [*]
Potential Use of Heritage Breeds in Small-Scale and Niche market Pork Production April 1, 2015	M. Estienne [*] , J. Wiegert [§] , R. Petrone [§] , and A. Fabi [§]
Methods for Improving Pre-Weaning Survival Rates of Piglets: III. Colostrum and Post-Partum Piglet Care May 1, 2015	J. Wiegert [§] and M. Estienne [*]

^{*} Faculty member – Tidewater AREC, Suffolk

[†] Faculty member – Virginia-Maryland Regional College of Veterinary Medicine, Blacksburg

[§] Graduate student – Department of Animal and Poultry Sciences, Blacksburg

The Latest Cuts: Islamic dining traditions honored at Virginia Tech

Faculty Recognition

Each Friday afternoon, almost 60 Virginia Tech students of the Islamic faith gather at West End Market for a communal Friday Jummah prayer and a meal of Halal chicken and lamb. Observance of this ancient tradition takes care and planning, and involves the collaboration of the Dining Services and the Meat Science Center.

Early in the spring semester members of the Muslim Student Association approached Virginia Tech Dining Services to discuss food options specific to their religion. They found staff members receptive to the idea of addressing the needs of all students.

"We have had increased requests for Halal dining options over the past several years as our Islamic population on campus has grown," said Bill Hess, associate director for Dining Services. "After meeting with the Muslim Student Association, we challenged our culinary team to develop some options that would meet the Halal dietary laws."

In order for beef, lamb, or chicken to be Halal, or permissible in the faith, it must be raised humanely throughout its whole life and then processed in a very quick and humane fashion. West End Market Executive Chef Mark Bratton helped the students work with the Virginia Tech Meat Science Center to ensure the lamb was prepared appropriately. Under the watchful eyes of a USDA inspector and a USDA veterinarian, the harvesting process went smoothly and was a learning experience for all.

The Virginia Tech Meat Science Center, which is housed in the Department of Animal and Poultry Sciences, is a fully equipped and inspected meat processing facility that aids in teaching, research, and Extension. It also serves as a hands-on learning experience for 13 undergraduate student employees who process more than 50,000 pounds of meat each year.

"Supplying the Halal meats is another great opportunity for our students to learn about how to provide food for a variety of clients and help us better understand the global food demand," said Jordan Wicks, the Meat Science Center coordinator. "This is another great example of how Dining Services and the College of Agriculture and Life Sciences are working together to serve the university."

Now, Muslim Hokies are able to enjoy Halal lamb, chicken, and other meats on campus throughout all of the dining halls. They are delighted and very grateful for it.

"The response was extremely positive, said Muslim Student Association President Obaid Rehman, from Clifton, Virginia, a senior majoring in biological sciences in the College of Science. "Several students and community members who don't even have meal plans come onto campus to enjoy the food."

The concepts of Halal and Tayyib, rooted in ancient traditions, are very much in step with modern day concerns about sustainability, safety, and sanitation.

"As we become a more diverse campus, it is imperative that we meet the nutritional needs of our customer," said Hess. "Halal processed proteins, such as the lamb and the chicken we procure, allow us to do that."



Executive Chef Mark Bratton with a plate featuring Halal lamb. With Bratton is Muslim Student Association President Obaid Rehman. Photo by William Foy Sr.



Dan Eversole

Dan Eversole of Blacksburg, Virginia was recognized with the 2014-15 Outstanding Faculty Service Award for his outstanding contributions to the college and the Department of Animal and Poultry Sciences.

Eversole's commitment to the university and the contributions he has made throughout his career have greatly benefited a multitude of students and the livestock industry as a whole.

He joined the faculty at Virginia Tech in 1984 as an associate professor and has been an active faculty member ever since.

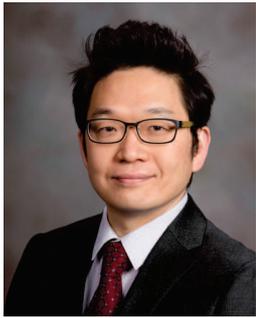
Within the department his contributions are outstanding and span his career at Virginia Tech. He serves as the scholarship and faculty honorifics chair, the director of Beef Cattle Programs, academic adviser in the department's central advising office, and as the faculty adviser for the Virginia Tech Beef Leadership Council. He is also a member of the CALS Steering Committee for the relocation of the dairy facility. He also supervises, coordinates, and directs the Hokie Harvest Sale, which in the last 19 years has involved 1,424 students and totaled more than \$2 million in animal sales, as well as officiates Block and Bridle Stockmen's and Livestock Judging Contests.

Eversole's contributions reach beyond the department also. He organizes and coordinates the State Livestock Judging Contest for the Virginia FFA, and he assists in officiating State FFA and 4-H competitions annually. He has also represented our college on numerous university committees such as the University Curriculum Committee.

continued on page 5

Faculty continued from page 4

Eversole has served on numerous national cattle association boards, led national and state industry groups, and is a trainer and certifier for the Beef Quality Assurance program. He has been involved in several community organizations such as 4-H, FFA, and athletic boosters, just to name a few.



Kiho Lee

Innovative Research

Kiho Lee's research relies on finding pathways. Whether these pathways are responsible for food intake, or pathways that viruses use as entryways to the host, Lee and his collaborators want to use these conduits to develop vaccines for humans and find ways for pigs to utilize feed more efficiently.

"Studying pathways means that we effectively have a platform to develop vaccines for a large number of infectious diseases," said Lee, an assistant professor of animal and poultry sciences in the College of Agriculture and Life Sciences.

He collaborates with Lijuan Yuan, an associate professor of virology and immunology in the Department of Biomedical Sciences and Pathobiology in the Virginia-Maryland College of Veterinary Medicine, to study norovirus and rotavirus, both of which cause gastroenteritis.

Their goal is to develop effective vaccines against norovirus gastroenteritis — a condition that is especially prevalent among elderly people and young children and is responsible for 56,000 to 71,000 hospitalizations and approximately 800 deaths per year, according to the Centers for Disease Control and Prevention.

Their work is conducted in a gnotobiotic pig facility at Virginia-Maryland College of Veterinary Medicine, where pigs are studied. Lee said pigs display disease symptoms similar to humans and they also correlate to human health better than rodent vaccine testing models.

While Lee conducts research on pigs together with Yuan to develop vaccines, he is also making inroads in hog production. "Basically I am a pig farmer," said Lee. "I'm still interested in production. The question I am asking is how can I produce these animals at a high rate and with high efficiency." He is developing a way to design models that both agricultural and biomedical industries can utilize to increase profit margins.

Typically it takes two-and-a-half years to select for traits in pigs through conventional genetic engineering approaches, but Lee's techniques shave two years from the process, which is helpful for agriculture specialists and pharmaceutical companies alike.

"That's a huge difference," said Lee. "In six months you have your model. The cost is lowered, and the low cost makes this kind of research practical for agriculture when it was not practical before."

Lee believes the research will increase livestock production. By revealing pathways in charge of food intake, the animals can better metabolize feed to increase muscle mass.

Lee works in conjunction with Dr. Sherrie Clark, an associate professor of theriogenology — the study of the physiology and pathology of reproductive systems — in the Department of Large Animal Clinical Sciences. Her work in embryo transplantation has helped move the research forward.

Whether it's biomedicine or hog production, Lee said the research in treating enteric viruses will itself be a pathway for research on more deadly viral diseases.



Mark Cline

Certificate of Teaching Excellence Award

Mark Cline, an assistant professor in the Department of Animal and Poultry Sciences, has taught at the university level for more than a decade, including six years at Radford University before joining the faculty at Virginia Tech. He is an animated professor who interjects humor as a teaching device, remains humble while retaining confidence, and incorporates students into his activities that are designed to stimulate student engagement.

Cline stands out among the faculty for his teaching methodology, which incorporates the innovative use of scientific discovery as a platform and catalyst for motivating and engaging students. He has also enriched his classroom instruction through engaging students in undergraduate research. Collaboratively he has published over 40 peer reviewed research articles with his students, made over 100 off-campus presentations based on their independent projects have been made.



New Staff



Jennifer Webb

Jennifer Webb from Blacksburg, Virginia, graduated from Radford University with a Business Management degree. She started at Virginia Tech as an office assistant in November 2014.



Jessica Edwards

Jessica Edwards has recently joined the Animal and Poultry Sciences Department as an Extension support specialist. She was born in Blacksburg and raised on her parent's farm in Craig County, Virginia.

Jessica joined 4-H at 9 years old and has been an active member ever since. After growing up with horses, chickens, pigs and sheep she began her undergraduate career at Virginia Tech as an APSC major, after two semesters in APSC she transitioned to the Fine Arts program at Virginia Tech. Jessica received her B.F.A. in Fine Arts from Virginia Tech in 2013, after graduation she started her photography business and took a job as an office assistant in a local ophthalmologist's office.

Her hobbies are photography, trail riding, fitness, and enjoying the great outdoors. She began her position as an Extension Support Specialist in March 2015.

Staff Recognition

Brenda Caldwell recognized for 50 years of service

In 1964 the Beatles occupied the top two spots on Billboard magazine, Barry Goldwater announced his candidacy for president, and the game show Jeopardy premiered on NBC.

In June 1964 Brenda Caldwell also graduated from Blacksburg High School. A few months later in 1965, she was employed full time in the Virginia Tech College of Agriculture and Life Sciences as an administrative support role. She is being recognized this year for 50 years of service to the university, a milestone that only a few university employees have ever achieved.

Caldwell, a program support technician in the Department of Animal and Poultry Sciences, has seen lots of changes. She can even recall when dictaphones were an essential tool for drafting correspondence in her job. It's a tool that caused a funny moment between her and a faculty member when she transcribed the word "ewe" as "you" in a report. Years later she transitioned to working on a computer, a technology advancement that vastly transformed the office environment.

Though her title has varied, from secretary, to clerk typist, to clerk stenographer, and now program support technician, Caldwell's position remained constant. "I think a job is challenging every day, and once you figure it out, you think 'Why did I make this so hard?'" said Caldwell.

It's a statement that provides insight into her longevity as an employee of Virginia Tech as much as a mantra about life in general. A lifelong resident of Blacksburg, Caldwell laughs easily and does not let much get in the way of being grateful for the time she has spent in her position. In fact she was offered early retirement in 2003. But Caldwell knew she couldn't do that. "I like coming to work," said Caldwell. "It gives me a reason to get out of bed."

Caldwell primarily supports 4-H programming and has supported programs dealing with the coordination of youth equine activities. Virginia Cooperative Extension Equine Specialist Celeste Crisman has worked with Caldwell for the last 10 years. "She's been a tremendous resource for the programs that she works with," said Crisman. "She keeps us on track and on schedule. Her institutional knowledge is priceless regarding people and administrative issues."

Some people count down the days to retirement, but not Caldwell. She stopped working full-time in February but will remain on staff part-time until June. After that she'll have more time to devote to doing the things she enjoys like reading mysteries, crocheting, and knitting.

"She's got a tremendous work ethic, sense of responsibility, and loyalty," said Crisman. "We will miss her dearly."



Brenda Caldwell

New Faculty

David Roper joined the faculty of the Department of Animal and Poultry Sciences in June of 2015 as an Extension youth livestock specialist.

David grew up in Central Texas as an active 4-H and FFA member. He and his family exhibited numerous species of livestock and were involved with both meats and livestock Judging programs.

David attended Texas A&M University and in 2005 received a Bachelor's of Science in animal science. While at TAMU, he was a member of the 2003 Meats Judging team and the 2004 National Champion Livestock Judging team. Following completion of his B.S., David was employed with Ultimate Genetics as a marketing representative with oversight of their bovine embryo recipient calf raiser program. David returned to academics in the winter of 2007 to pursue his master's and Ph.D. at the University of Tennessee in Knoxville. His specific area of focus involved improving fertility and pregnancy rates in bovine embryo recipient animals. During his time at the University of Tennessee David coached both the Livestock and Wool judging teams and taught courses in meat animal evaluation and sheep and goat production.

David is passionate about educating the next generation of livestock producers and educators. His Extension interests will focus on developing new programs to expand youth ability to experience and learn about today's ever evolving agriculture industry. His goal is to continue to build upon the current programs offered as well as instill additional hands on opportunities to expose youth to the industry and its leaders. David will also serve as the coach of the State 4-H Livestock team as well as assist with other youth educational activities.



David Roper

Graduate Students

Each year the APSC Graduate Program selects an M.S. and Ph.D. student who best demonstrate excellence in research and education. The recipient portfolios are submitted to the College of Agriculture and Life Sciences for further consideration of awards at the college level.

This year's winner of the Kornegay Outstanding Ph.D. Student is Eric England. England, a graduate student with Professor David Gerrard, examined the biological reactions that underlie meat quality. He will join the faculty at The Ohio State University upon graduation.

The recipient of the 2015 Outstanding M.S. Student is Sarah McCoski. McCoski also was recognized as the CALS Outstanding MS student. McCoski's research project examined the effect of growth factors on placental cells. She will continue her education as a Ph.D. student with Associate Professor Alan Ealy.

Jason Smith was awarded the APSC Outstanding Teaching Assistant as well as the prestigious Graduate School Teaching Excellence award. Smith, a Ph.D. student with Professor Mark McCann, has taught in numerous undergraduate courses from ranging from anatomy and physiology to beef cattle management. Upon graduation, Smith plans to accept a faculty position at a top-tier university.



Jason Smith, Sarah McCoski, and Eric England

APSC Graduate Degrees Awarded Fall 2014

M.S. Degrees

Drew Lugar

(Advisor: **M. Estienne**), Immunological castration of boars temporarily reduces testosterone concentration, testis size and function, without long term effects on libido and sperm quality.

Sarah McCoski

(Advisor: **A. Ealy**), Development of an Interferon Bioassay and Primitive Endoderm Cell Lines to Study Lineage Specification During Early Bovine Embryogenesis.

Tiffany Potter

(Advisor: **R. Dalloul**), Bacterial profiles and ex vivo effects of Salmonella Heidelberg on leukocyte function in turkey purebred lines.

Lindsay Sumners

(Advisor: **E. Gilbert**), Chickens from lines artificially selected for juvenile low and high body weight differ in glucose homeostasis and pancreas physiology.

Ph.D. Degrees

Abigail Zezeski

(Advisor: **M. Rhoads**), Utilization of Early Weaning and Intrafollicular Insemination as Methods to Improve the Reproductive Performance of Cattle.

research
achievement
academics

New APSC Graduate Students Spring 2015

M.S. Students

Steven Shipp (E. Gilbert)

B.S. Animal and Poultry Sciences,
Virginia Tech, 2014

Kevin Young (D. Gerrard)

B.S. Animal Science, University of
Missouri, 2014

Ph.D. Students

Amanda Reeg (S. Johnson)

M.S. Animal Science, Kansas State
University, 2014

B.S. Animal Science, University of
Florida, 2012

A.A. General Arts & Sciences, Lake
Sumter Community College, 2010

Junghyun Ryu (K. Lee)

M.S. Biological Sciences, Dankook
University, 2012

B.S. Biological Sciences, Dankook
University, 2009

Science
research
Animal Sciences
academics



Undergraduate Student Accomplishments and Activities

KaLynn Harlow wins National Pork Board Scholarship

KaLynn Harlow, a junior animal and poultry sciences major from Rocky Mount, Virginia, was recently awarded the 2015 Pork Industry Scholarship sponsored by Pork Checkoff and the National Pork Board.

This prestigious scholarship is awarded to only 21 students across the United States on the basis of scholastic merit, leadership activities, involvement in the swine industry, and plans for a future career in pork production. According to Associate Professor Cindy Wood, Harlow is the first Virginia Tech student to have received the Pork Industry scholarship.



KaLynn Harlow

Despite growing up on a beef cattle and horse farm, KaLynn found her niche in swine production at Virginia Tech. She is currently the assistant manager of the Virginia Tech Swine Center, is conducting an undergraduate research trial in applied swine nutrition, and was recently re-elected president of the Virginia Tech Swine Club for the 2015-2016 school year. In addition, she maintains an involvement with the Virginia Cooperative Extension Small-Scale and Niche Market Pork Production Bulletin, is a member of the College of Agriculture and Life Sciences student-run farm steering committee, and is pursuing a minor in civic agriculture and food systems.

Harlow spent the 2014-2015 winter break interning with Murphy-Brown LLC on a 5,000-sow farm in eastern North Carolina, and is currently working a summer research internship in swine reproduction with Iowa Select Farms in Iowa Falls, Iowa.

Harlow will graduate from our department in May 2016. After graduation she plans to attend graduate school in swine growth and development.

Hope Wentzel receives 2015 College of Agriculture and Life Sciences Outstanding Senior Award

Sponsored by the Virginia Tech Alumni Association and the senior class, the Outstanding Senior Award recognizes exceptional academic achievement and leadership by a graduating senior from each of the university's eight colleges. Recipients have a minimum grade point average of 3.75 on a 4.0 scale and are selected by faculty and students within the respective colleges.

Wentzel received a bachelor's degree in animal and poultry sciences with a minor in forestry during the University Commencement ceremony held May 15 in Lane Stadium.

A dean's list student, she was a member of the Phi Kappa Phi, Phi Sigma, and Phi Beta Delta honor societies. A Pamplin Scholar, Wentzel received numerous scholarships including the C. Gordon Thornhill Animal and Poultry Sciences Merit Scholarship, the John Lee Pratt Study Abroad Scholarship, and a Phi Beta Delta Scholarship to study abroad.

She completed four agriculture-oriented trips abroad in Nicaragua, Nepal, Brazil, and Chile and plans to return to Chile after graduation.

Throughout her academic career Wentzel served as a college ambassador, president of Block and Bridle, and was on the Student Advisory Committee for the Virginia Tech Board of Visitors' as an undergraduate representative.

Off campus Wentzel also founded and served as president of Ag for ECHO, a service organization providing agriculture and health education activities for an adult day services group through New River Valley Community Services.



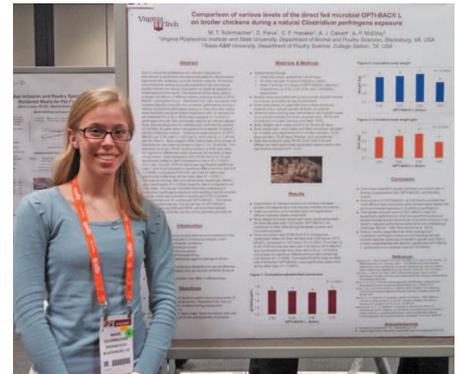
Hope Wentzel

APSC Dean's List Fall 2014

Allison Andrukonis
 Cassandra Basham
 Kathryn Baugh
 Catherine Beach
 Sierra Belcher
 Jessica Bimonte
 Stephanie Bishop
 Whitney Bowman
 Casey Braginton
 Caleb Brown
 Asjah Brown
 Alexis Bruzgul
 Jamie Burkhardt
 Rachel Calcutt
 Shannon Carney
 Brittany Carter
 Emily Cassell
 Brett Catington
 Lavanya Chakrapani
 Kyle Civalier
 Keagan Clevenger
 Noel Coleman
 Lauren Colletti
 Christin Conkwright
 Taylor Coombs
 Andrew Correa
 Lindsay Creger
 Thomas Cromer
 Morgan Daughtry
 Mary Davis
 Nycole Deleeuw
 Meghan Delp
 Dillon Didehvar
 Erin Dlubac
 Tanner Edwards
 Shelby Edwards
 Rebecca Ellis
 Cecelia Erwin
 Casey Federovitch
 Jessica Fitzpatrick
 Amanda Frecker
 Kristin Gardner
 Levi Gardner
 Gabrielle Gauthier
 Courtney Germroth
 Ursula Gerson
 Glorianna Giallombardo
 Savannah Giannasi
 Claire Gleason
 Ashley Glusic
 Anastasia Graf

Victoria Gray
 Sarah Greenway
 Carla Gutierrez
 Samantha Habib
 Kalyann Harlow
 Caitlyn Hearst
 Emma Helm
 Sarah Helweg
 Jessica Hirsch
 Ronson Ho
 Rhiannon Hodges
 Kaitlin Holmes
 Emily Horton
 Denise Hull
 Mary-Katherine Jones
 Erika Joseck
 Kathryn Joyce
 Rhiannon Kalbskopf
 Caitlin Keese
 Jordyn Kim
 Kea Kiser
 Elizabeth Knick
 Amanda Kordenbrock
 Jessie Kull
 Payton Lawrence
 Anthony Letersky
 Kellen Levinson
 Meredith Lewis
 Sarah Lipps
 Kristyn Lucci
 Keil Lycke
 Bethany Lyon
 Sarah Malinowski
 Margeaux Malone
 Christopher Margrey
 Sarah Martin
 Shannon Mazurowski
 Hannah McDonald
 Megan McLean
 Aidan Meehan
 Shenandoah Merbach
 Caleb Minger
 Nicholas Moore
 Courtney Morris
 Kyle Morrisette
 Lurette Muir
 Kellsie Mullikin
 Patrick Mumm
 Lauren Neff
 Arynne O'Kane
 Andrea Oliver

Grace Ott
 Rachel Owens
 Tess Pangle
 Hannah Parker
 Abbeigail Preddy
 Ella Rak
 Morgan Rea
 Monica Ricci
 Breanna Riley
 Kathryn Ritenour
 Emily Roberts
 Cassandra Robison
 Rainey Rosemond
 Brenton Saufley
 Marie Schirmacher
 Emily Schlake
 Steven Shipp
 Sidonie Shira
 Mary Smith
 Shane Softy
 Enilda Soto
 Aryn Spence
 Natalie St. John
 William Stafford
 Christine Stephan
 Eric Stewart
 Victoria Stewart
 Victoria Study
 Kimberly Swart
 Kaley Tate
 Sarah Taylor
 Alexis Taylor-Slocum
 Nicole Teets
 Allyson True
 Alexa Turner
 Julie Van Scoik
 Allyse VanCampen
 Anne Verghis
 Christina Vezza
 Angela Virostek
 Galen Vosseller
 Ashleigh Walker
 Olivia Wallner
 Hope Wentzel
 Sarah Wieland
 Carli Williams
 Austin Witmer
 Emily Woodward
 Kelsey Younts
 Madeline Zimmermann



Marie Schirmacher at the 2015 Southern Conference on Avian Diseases

Marie Schirmacher, a recent graduate of the department, presented her undergraduate research this past January in the 2015 Southern Conference on Avian Diseases. This was the 56th Annual U.S. Poultry and Egg Association Scientific Forum held before the International Poultry Expo in Atlanta, Georgia. Schirmacher competed against undergraduate and graduate students from around the nation and the world in the poster competition and won Best Graduate Student Poster Presentation.

Her research focused on various levels of a direct-fed microbial in broiler chicken diets during a natural *Clostridium perfringens* exposure. With the help of Professor Audrey McElroy and other members of the lab, she was challenged to run her own experiment and learn the processes involved in research. Marie has enjoyed her emphasis in poultry and working with a great group of people who constantly help her learn and expand her knowledge of poultry and research. She graduated with dual degrees in animal and poultry sciences and chemistry and will be working for Virginia Tech as an admissions advisor in the upcoming academic year.

2015-2016 APSC SCHOLARSHIP RECIPIENTS

Litton Sheep Industry Student Leader Scholarship

Alexis Taylor-Slocum

Lorenz Neuhoff Jr. Pork Industry Student Leader Scholarship

Michael Estienne

Ralph Hunt Beef Industry Student Leader Scholarship

Madison Slaven

Lou Dixey Beef Industry Student Leader Scholarship

Alexa Turner

Fred Campbell Horse Industry Student Leader Scholarship

Katie Baugh

Denver D. Bragg Poultry Science Student Leader Scholarship

Meredith Lewis

Rocco Lamb Farms Student Leader Scholarship

Emma Helm

Animal and Poultry Sciences Scholarship

Morgan Rae

A.L. "Ike" Eller Scholarship

Whitney Bowman

Tom Cromer

Virginia Kibler

Samantha Price

Zayne Williams

E.A. & H.H. Livesay Scholarship

Kathryn Joyce

Ashe-Lockhart Scholarship

Noel Coleman

Nicki Long

Kristyn Lucci

Owen Thomas Jr. Memorial Scholarship

Makala Childress

Enilda Soto

Tom and Christine Marlowe Freshman Scholarship

Grace Grossen

Richard S. Ellis IV and Roy A. Meek Jr. Scholarship

Kacie Tinnesz

Owen Thomas Jr. Memorial Scholarship

Sam Cross

Kurtis Devore

George G. Green Scholarship

Austin Witmer

Harry Wyatt Scholarship

Kellen Levinson

Lou Dixey Scholarship

Cora Moyers

William Earl Browning Scholarship

Allison True

Ralph Hunt Scholarship

Lauren Knaresboro

Margaret McCarty

Virginia Pork Industry Scholarship

Tyler Parr

Mary Howe diZerega Memorial Scholarship

Keri Hardin

Grace Ott

Virginia Pork Industry Scholarship

Catherine Beach

Mary Howe diZerega Memorial Scholarship

Keri Hardin

Grace Ott

Arden N. Huff Scholarship

Erin Dlubac

Rebecca Ellis

Delano Scholarship

Savannah Lambert

Hannah Parker

Jack S. Copenhagen Scholarship

Adam Beard

Lacy Dysart

KaLynn Harlow

Peyton Lee

David Martin

Jessica Vass

Charles W. Thomas Memorial Scholarship

Asjah Brown

C. Gordon Thornhill Scholarship

Shenandoah Merbach

Rachel Owens

Emily Jane Hilscher Memorial Scholarship

Harleigh Humphries

Kathryn Ritenour

General J.E.B. Stuart-Real Daughters (of the Confederacy) Award

Andrea Oliver

Annalee Marshall Memorial Scholarship

Natalie St. John

2015-2016

Equine Activities



The Block and Bridle Club members

Block and Bridle Spring News

Contests and Events

This semester Block and Bridle took part in many contests and events including Hippology and Horse Judging, Youth Swine Day, Livestock Weekend, 93rd Little International, Commonwealth Classic, Relay for Life, and Little All American. The pledges and members came together and helped out with a variety of tasks such as serving BBQ, setting up, and cleaning afterwards. These events wouldn't have been a success without the help of many of our members, pledges, alumni, and advisors.



Pledge Event – road clean up

Pledge Events

The pledge event for the spring semester was a road clean up. They braved the rainy Blacksburg weather in good spirits to help keep the community clean. Congratulations to 23 new members we welcomed to Block and Bridle this spring! Pledging starts again next fall, and we look forward to growing our Block and Bridle family.

We would also like to include a shout out to our graduating seniors. We will miss you next year!

For more information about the club, you can visit our website:

<http://vtblockandbridle.wix.com/vtblockandbridle> or feel free to contact any of our members or officers.

Officers (2015 – 2016)

President:

Peyton Lee
notyep94@vt.edu

Vice President:

Hannah McDonald
hannah8@vt.edu

Secretary:

Aldyn Abell
aabell13@vt.edu

Treasurer:

Meagan Satira
msatira@vt.edu

Pledge Coordinator:

Emily Hill
ehill426@vt.edu

Marshall:

Kerri Houser
houser16@vt.edu

Reporter / Alumni Relations:

Meghan Delp
megsd93@vt.edu

Historian:

Kristen Gardner
gkrist4@vt.edu



A flashy foal by Boon to be Wild!

It's a wrap!

The foaling season is finished at Smithfield Horse Center and we welcome the addition of seven new arrivals. The Equine Science Program extends a huge thank you to our stallion service donors:

- JB Quarter Horses of Refugio, Texas, breeders of world champion barrel horses.
- Don and Donna Coats of Shire Reeve Ranch in Reva, Virginia, for a breeding to Amber Pass, a QH sire of successful hunter horses, currently standing at Clemson University.
- Wasik Horse Ranch of Jamestown, Tennessee, breeders of versatile ranch pleasure and working horses.

Please follow these babies, and our other young horses at www.facebook.com/SmithfieldHorseCenter.

Virginia Tech **jump high** equestrian teams

The Virginia Tech equestrian teams finished the year with a bang and great achievements in all of their competitions! Even among many changes to the equestrian program, all the members rallied to make this year one of the greatest successes.

The Hunter Team started the year off well with a seventh place win out of 18 teams at the Pre-Season Tournament of Champions at Goucher College. In the fall, the team was reserve high point team at the Intercollegiate Horse Show Association event at Averett University and High Point University and high point team at both home shows and at Elon University! The hunter team kicked off the spring semester with two Tournament of Champions horse shows with beautiful rides from everyone. The team went on to win their last regular horse show of the year with seven riders individually qualifying for regionals: Katie Caruthers, Payton Lawrence, Deb Weinstein, Andrea Oliver, Molly Lumsden, Morgan Schneider and Lindsey Henry.

Overall, Virginia Tech was the No. 1 team in the region for the first time in history, qualifying a team of riders to advance to Zone IV finals! At nationals, Virginia Tech was represented by Molly Lumsden in Intermediate Flat and Morgan Schneider as the Cacchione Cup rider for Region 5. Molly was 8th on the flat and Morgan had a beautiful ride over fences. Thank you to our wonderful coach Sherri West for your constant support, guidance and faith in us!

The Dressage Team started the year with exciting new changes, beginning their first year at their new location at Flanagan Stables with coaches Lynn Jendrowski and Cody Armstrong. The team ended the season as reserve high point team in Region H behind Intermont Equestrian at Emory and Henry. Izzy Hernandez was reserve high point individual at Upper Training. Bralen Lamoureux was reserve high point individual at Lower Training.

In addition, team captain Megan Gildea received the Region H Sportsmanship Award. For only the second time in Virginia Tech history, the Dressage Team qualified for IDA Nationals. They had enormous success at IDA Nationals, earning National Reserve Champion Team! The was represented by Megan Gildea, National Champion in first level, Izzy Hernandez, fifth place in Upper Training, Hana Dudley, National Champion in Lower Training, and Bralen Lamoureux, ninth place in Intro. In addition, Izzy Hernandez was National Champion in Individual Upper Training and Bralen Lamoureux was eighth in Individual Intro Level. It was an incredible year for the Dressage Team! We look forward to their continued success at Flanagan Stables.

This year marked a immense transition for the Western Team. Last spring, they said farewell to previous coach Shelby Turner and welcomed their new head coach this year, Jessica Milhoan, and her husband Dusty as an assistant coach. The Milhoans brought exciting changes to the team, including all new horses and the encouragement to try other disciplines outside of their Western Horsemanship lessons in preparation for IHSA competitions. The Western Team competed not only in their IHSA Horsemanship classes, but also in Reining, Western Dressage, Competitive Trail, Showmanship, and even Hunter Flat and Over Fence classes. The support for interdisciplinary training has paid off for the team, as they sent two riders to Regionals, Chelsea Sterling for Intermediate Horsemanship, and Emily Hendricks for Beginning Horsemanship! Emily Hendricks was Reserve Champion at Regionals, and went on to compete at IHSA Semi-Finals. The team is very proud of their successes this year, as well as their continued growth, adding new team members each semester! Thank you Jessica and Dusty for their generosity and support of the Western Team!



Photos (top to bottom): Kellsie Mullikin celebrates a first place win at First Level at an IDA show hosted by Emory and Henry College.

Emily Twiford rides a reining pattern (the highest level of western IHSA) at a show hosted by Campbell College.

Morgan Schneider focuses during her ride at IHSA zones, representing the first VT team to win the IHSA region and move on to zones.

Go Hokies!

Horse Judging Team Successes

After preparing throughout the spring semester and traveling to Tennessee and Texas to learn the skills and insight to judging stock horses, the Virginia Tech Horse Judging Team had a very successful season.

After an incredible few days in Texas visiting with many of the top leaders in the horse industry and evaluating millions of dollars worth of horses, The Hokies competed against 13 universities in the Southwestern Spring Horse Judging Contest in Gainesville, Texas on April 15. The Hokie team of five students placed third overall among 26 horse judging teams from the top horse programs in the country!

The Virginia Tech Horse Judging Team applied their knowledge of five different performance events and stock horse conformation judging to take home first place in conformation judging followed by Mississippi State and Texas A&M Universities. Hokie team members defended their class places in the reasons competition and finished third, right behind Colorado State and Texas A&M with only a six point spread between the three schools. Virginia Tech was followed by New Mexico State and Oklahoma State to round out the top five teams in the contest.

Leading the senior team efforts was Hannah McDonald who was seventh in halter and reasons to help her earn a sixth place finish overall among the 150 individuals. Hanna Bartnick placed fifth in halter and Rachel Owens placed second in reasons and 10th overall individually. Rachel Bell was ninth in halter judging and Ashley Owens and Kerri Houser rounded out the team effort for the Hokies.

The Senior Limited contest required only two sets of reasons and is designed to give novice horse judges an "entrance contest." Harleigh Humphries and Stevie Williams garnered awards in the Limited Division. Humphries was the second high individual overall in the contest and Williams finished first in the reasons competition of the Limited division.

With the strong team finish, the Virginia Tech Horse Judging Team looks forward to the fall judging season and competing at the Ohio Quarter Horse Congress Contest in October. The team is appreciative of all the excellent horsemen who shared their time and horses to help them reach this pinnacle in this national horse judging competition. The team also appreciates the support of the Department Animal and Poultry Sciences, the Alphin-Stewart endowment funds, and faculty that accommodate these hard working students when absences are unavoidable. The team is coached by Julia McCann who admires the individual pursuit of excellence among each of the members and the TEAM effort to make the experience rewarding on many levels.



Pictured in front L-R: Hannah McDonald, Cross Junction, Virginia; Stevie Williams, Virginia; Kerri Houser, Fort Defiance, Virginia; Harleigh Humphries, Middleburg, Virginia; Hanna Bartnick, Roanoke, Virginia; Rear: Ashley Owens, Lebanon, Virginia; Rachel Owens, Virginia Beach, Virginia and Rachel Bell, Falls Church, Virginia.

Career tracks of recent graduates



- Nutritionist
- Pharmacist
- USDA inspector
- K-12 teacher
- Scientist
- Extension agent
- Veterinarian
- Zoo animal specialist
- Farm manager
- Animal production supervisor
- Physician
- Equitation instructor
- Animal specialist
- Pharmaceutical representative

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We are interested in knowing what you are doing! Please help us keep our mailing list current by completing and returning this form to the Department of Animal and Poultry Sciences, Virginia Tech (0306), Blacksburg, VA 24061 or email vtapsc@vt.edu with the following information.

Name: _____ Year and Degree: _____

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Employer: _____

Current Position: _____

Work Address: _____

E-mail Address: _____

News about Yourself:

Would you like to be contacted concerning support of one of our scholarship programs or extra-curricular group activities?

Yes No

APSC contact information

Department of Animal and Poultry Sciences Area Code 540

Main Office and Extension Office231-6311

Undergraduate Advising Office231-6936

Club Advisors

Block and Bridle Club

Mark McCann231-9153

Dave Linker231-9154

Equestrian Club.....231-3555

Poultry Club

Mike Persia 231-8339

Pre-vet Club

Mike Denbow.....231-6843

Facilities Contacts

Farm Supervisor, Dave Linker.....231-9154

Beef Center231-6280

Sheep Center 231-6988

Smithfield Horse Unit231-4366

Swine Center.....231-6250

Poultry Center231-5810

Turkey Center.....231-6283

Judging Pavilion 231-9150

Alphin-Stuart Arena 231-9150

The Department of Animal and Poultry Sciences newsletter is published by the Department of Animal and Poultry Sciences, 3460 Litton Reaves Hall (0306) Virginia Tech, Blacksburg, VA 24061.

Please contact 540-231-6311 or vtapsc@vt.edu with questions, comments, or requests for information.