

APSC

The Department of
Animal and Poultry Sciences

www.apsc.vt.edu

Dear Alumni and Friends:

As we end another semester of educating the next generation of leaders for the Commonwealth and the nation, there is much optimism swirling about the department. In fact, the future seems as bright as ever during my four-year tenure in Blacksburg. Undergraduate and graduate student numbers are up, the number of faculty members is higher than it has ever been, and we have “dusted off” the facilities master plan with the hopes that new facilities may be just around the corner. Moreover, the faculty is working diligently on a six-year strategic plan to mesh with those college and university plans that were newly minted this year.

As is the case with all progressive programs, the faculty is beginning to revisit our undergraduate curriculum, looking for places to improve or better prepare our graduates for future challenges. Clearly, this is in part due to changes in student demographics; however, this is also because the global needs from agriculture are changing rapidly. According to most experts, the world’s population will peak at more than 8 billion people by the year 2030. In response to this growth, the agricultural sector must adopt technologies and practices that will allow the American farmer to produce more with less. Many of these technologies are a direct result of years of discovery efforts, spearheaded by faculty members in this college and their

colleagues housed at other land grant institutions across the nation. In addition, agriculture does more for humanity than feed its population. Agriculture, animals in particular, not only satiate the hunger pangs of humanity but these creatures also serve mankind as outstanding translational models to understand better the human and its maladies. Further, animals improve the wellbeing of mankind by providing a source of companionship and entertainment. This complex and ever-expanding role of animals in society ensures the existence of this department well into the foreseeable future.

Again, we are super excited about a number of developments in the department, and we hope you will find the time to learn more about these, either through this newsletter, by visiting our website, or simply by interacting with our graduates and faculty.

Have a most blessed holiday season.

Sincerely,



*David E. Gerrard, professor and department head
Department of Animal and Poultry Sciences*



*David E. Gerrard, professor
and department head*



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VT/0201/WEB/APSC-35

In memorium

Annalee Marshall



Annalee Sanford Marshall, 20, of Adamstown, Md., died on Dec. 27, 2012, from injuries sustained in a car accident on Christmas

Day. A junior at Virginia Tech's College of Agriculture and Life Sciences, she was majoring in pre-veterinarian studies with a minor in psychology. She interned at the Food and Drug Administration's Center for Veterinary Medicine in 2009 and at the Greenbriar Veterinary Hospital in Frederick in 2012.

An accomplished artist, her paintings and drawings were displayed in student art shows at the Visual Arts Education Center in Frederick and at the Maryland State Board of Education in Baltimore. Annalee received many awards as an equestrian. She and her horse, Splash, received numerous awards, and she took

special pride in winning first place at the AAA-rated competition in Culpeper, Va. Anna combined her talents as an artist and as an equestrian when a banner she painted won first place at the Washington International Horse Show.

At Virginia Tech, Annalee was known for her work with groups such as Help Save the Next Girl. The group seeks to empower young women and encourage community vigilance against violence. She was an active member of To Write Love on Her Arms (TWLOHA) a non-profit movement dedicated to presenting hope and finding help for people struggling with depression, addiction, self-injury and suicide.

Teresa McDonald, equitation instructor and coach for the riding teams, remembers Annalee in the following way: "I believe everyone on the team would agree with me when I say she was the most hard working member. Her improvement over the semester [in riding] was amazing. I could not ask for a better team player. She was always smiling whether she won or lost. Always giving an extra hand and encouraging others."

Cindy Hixon



Cynthia Joann "Cindy" Hixon, 53, of Riverview St., Pembroke, departed this life Tuesday

morning, Sept. 4, 2012 at Carilion Roanoke Memorial Hospital in Roanoke. Born in Tacoma, Washington on August 1, 1959, she was the daughter of Ernest "Doug" and JoAnn Meredith Eaton of

Ripplemead. For more than thirty-six years she had been employed as an Executive Secretary in the Animal and Poultry Sciences Department at Virginia Tech. She was a 1977 graduate of Giles High School.

Cindy leaves to cherish her memory her parents; her husband Jerry W. Hixon; her son William D. "Will" Hixon of Pembroke; her daughter Cassandra N. Hughes of Pembroke; her grandchildren Desirai Lynn Hughes and Aubrie Grace Hughes; her sister and brother-in-law Tammy and Jerry Roach of Pearisburg; her step-daughters Bobbie Joe Stanifur of Blacksburg and Rebecca Stanley of Radford; and her five step-grandchildren.

Welcome new faculty members

Samer El-Kadi



Samer W. El-Kadi recently joined the Department of Animal and Poultry Sciences as an assistant professor of nutritional physiology.

El-Kadi earned his B.S. in agriculture and M.S. in poultry nutrition from the American University of Beirut, in Lebanon. He went on to earn a Ph.D. in animal science from the University of Maryland, College Park studying amino acid metabolism in sheep and cattle. Before joining the faculty at Virginia Tech Samer conducted postdoctoral research in the Department of Animal and Food Sciences at the University of Kentucky. He then moved to Baylor College of Medicine in Houston to conduct research in the area of neonatal nutrition in the Department of Pediatrics.

Samer's research interest is primarily to elucidate the underlying factors that contribute to macronutrient metabolism. His major goal is to identify areas where novel dietary or management interventions could be used to enhance growth and improve the efficiency with which amino acids are deposited in muscle.

Samer's research is centered on two areas. One is focused on understanding why amino acids are catabolized excessively by the liver and intestines, and whether dietary or physiologic factors such as amino acid supplies or muscle growth could affect their metabolism. Another area is focused on investigating the *in vivo* regulation of protein synthesis and degradation in growing pigs. To obtain insight into the partitioning of amino acids to anabolic and catabolic pathways, he is using animal models and primary epithelial cell culture and an integrated approach that combines stable

isotope dilution and protein expression techniques.

Mark Cline



Mark Cline Joined the Department of Animal and Poultry Sciences in August 2012 as an Assistant Professor of neurophysiology.

Mark grew up on a dairy and beef farm in the Shenandoah Valley. He earned his B.S., M.S., and Ph.D. from the Department of Animal and Poultry Sciences at Virginia Tech. His M.S. research was in reproduction and his Ph.D. in neurophysiology. For the past seven years and prior to joining Virginia Tech, Mark held a faculty position at Radford University in the Biology Department.

The goal of Mark's research program is to explain appetite regulation and to inspire the next generation of neurobiologists. His group studies neurotransmitters that are associated with the perception of hunger and satiety with a particular interest at the diencephalon and myelencephalon level. The animal models they most commonly use are chicks including those from lines that have undergone selection for body weight. These lines consist of anorexic and obese individuals.

From an agricultural standpoint, the results of the research may contribute to increased production efficiencies in chickens. The group's research findings may also eventually contribute to the pharmacological cure for anorexia or obesity in a variety of species, including humans. Mark pointed out that his group was the first to report the appetite-associated roles of six neurotransmitters in any species and that they have contributed to the elucidation of other mechanisms of appetite adjustment.

Nada Tamim



Nada Tamim joined the faculty of Animal and Poultry Sciences Department in August 2012. Nada grew up in Beirut, Lebanon where she

received her B.S. in Agriculture and M.S. in Poultry Nutrition from the American University of Beirut. She later moved to University of Maryland in College Park where she completed her Ph.D. in Poultry Nutrition and Waste Management. She continued her research at UMD as a postdoc investigating means of reducing the impact of poultry production on the environment through minimizing phosphorus excretion. Prior to joining Virginia Tech, Nada held an Assistant Professor position for five years at Virginia Western Community College where she taught a variety of courses and was highly involved in supporting students in their transition from two- to four-year colleges. At VT, and in addition to teaching undergraduate courses, Nada will be working with students as one of the academic advisors in the APSC undergraduate office. She has two young boys, Firas and Danny, who play soccer, and so most of her spare time is spent either at a soccer field or traveling to a soccer tournament along with her husband Rami Dalloul.

Lucy Bergamasco



Lucy Bergamasco joined the faculty of Animal and Poultry Sciences in August 2012 as an Instructor. Lucy grew up in Italy (Torino)

and earned a DVM degree and Ph.D. in Neurological Sciences from the University

New Faculty: *Continued from page 3*

of Torino, Italy. She spent many years at the University of Torino as an Assistant Professor in Physiology at the School of Veterinary Medicine. In 2006, Lucy and her family moved to Kansas State University where she was a Research Assistant Professor of neurophysiology at the College of Veterinary Medicine.

Lucy's research focuses on neurophysiological indicators of pain in livestock, animal welfare and electroencephalography in companion animals. Since joining the department Lucy taught a couple of classes which she found very exciting and interesting. She is enthusiastic about being part of the animal and poultry sciences faculty. Lucy moved to Blacksburg with her family. Her husband is an Associate Professor of Cardiology at the Virginia-Maryland Regional College of Veterinary Medicine. They have two daughters — Magda who is eighteen and just left for college this year, and Giorgia who is fourteen and is attending Blacksburg High School. They love traveling and good food. The Blacksburg area is a great place for the family and especially for the local food that Lucy uses for her Italian recipes.

Sally Johnson

Sally Johnson is a Michigan native and avid supporter of her alma mater, Michigan State. Upon receiving a B.S. and M.S. in Animal Science, she completed her formal academic training at the University of Arizona, earning a Ph.D. in Nutritional Biochemistry. The underlying theme of her education is skeletal muscle formation and function with an emphasis on muscle stem cell biology. During the past 20 years, Johnson has directed a nationally recognized research program that has been instrumental in furthering the



understanding of adult stem cell biology and the local and systemic cues that regulate their activities during health and disease. As the Paul Mellon Chair, Johnson will reshape and expand the research program to examine muscle and tendon stem activity during post-exercise recovery and following traumatic damage. Ongoing projects will include working closely with colleagues and collaborators at the Virginia-Maryland Regional School of Veterinary Medicine and within the equine industry to fully realize the potential of stem cells as therapeutic aids.

Alan Ealy



Alan Ealy joined the faculty of Animal and Poultry Sciences in August 2012 as an associate professor of fetal and placental biology. Alan grew up on a family owned and operated dairy farm in Western Pennsylvania (Mercer County) and received a Bachelor's Degree from Penn State. He earned an M.S. from Michigan State and a Ph.D. from the University of Florida and spent several years at the University of Missouri, first as a postdoctoral fellow and later as a research assistant professor of reproductive biology.

Alan's research focuses on gaining a better understanding of the basic physiological and cellular events that control early placental and fetal development in farm animals. He uses a variety of experimental techniques to conduct this research, and undergraduate and graduate students working in his lab receive a mix of whole animal, cell culture and molecular biology during their program of study. Alan's wife, Sally Johnson, also is new to the faculty. They have a daughter, Elayna, who is ten years old. When asked about how he likes the new surroundings, Alan commented;

"I really enjoy it. The department is filled with fantastic, enthusiastic researchers and educators, and the Blacksburg area is a great place for the family."

Ben Dorshorst

Ben Dorshorst joined the Department of Animal and Poultry Sciences this past August as an Assistant Professor of Genetics. Ben grew up on a dairy farm in central Wisconsin



and received his B.S. in Dairy Science and Poultry Science at the University of Wisconsin at Madison. He completed his Ph.D. in Functional Genomics at North Carolina State University in the Department of Poultry Science. Ben recently returned from Sweden where he completed a two-year postdoc at Uppsala University in the Department of Medical Biochemistry and Microbiology. There he worked primarily on chicken and cattle developmental and pigmentation trait mapping projects.

Ben's research focuses on genetic mechanisms underlying basic developmental processes affecting morphological variation, pigmentation and patterning in avian and mammalian domestic agricultural animal species, primarily chicken and cattle. This work often focuses on single gene traits, representing a mutation that was under positive selection during animal domestication or breed creation.

Recent studies have documented a large role for structural genomic variation (deletions, duplications, rearrangements) in causing single gene traits with large phenotypic effects. The impact of structural genomic variation on economically important traits with smaller and more polygenic effects like milk, meat or egg production is an area of active research interest.

Department News



At Experimental Biology 2012, held in San Diego from April 21-25, several APSC alumni reunited for dinner. From right to left: **Hong Chen** (Ph.D., 2001), **Ilan and Ian Pan** (Hong and Pan's children), **Yuan-Xiang Pan** (Ph.D., 2000), **Dongmin Liu** (VT HNFE; Ph.D., 2000), and **Elizabeth Gilbert**.



Shuai Zhang, originally from Jiyang, China, earned a Bachelor of Agronomy degree from China Agriculture

University in summer of 2012. He joined Elizabeth Gilbert's research program in fall of 2012 as an M.S. student in nutrition.



Yunjie Tu, a visiting professor from the Jiangsu Institute of Poultry Science, is spending the fall semester of 2012 at

Virginia Tech. She is researching lipid metabolism in the body weight selected lines of chickens, in collaboration with Paul Siegel, Elizabeth Gilbert, and Mark Cline.

Awards & Recognition



Rob Rhoads received the ASAS Early Career Achievement Award, American Society of Animal Science Foundation, this summer at the 2012 ASAS/ADSA

Joint Annual Meeting



Poultry Science Certificate of Excellence awards were given to graduate students **Bailey Zwarycz**, left, and **Hannah Wladeki**



Joe Fontenot received the ASAS Retiree Service Award

CALENDAR OF EVENTS

January 22	Spring 2013 classes begin
January 28	Last day to add courses
March 4	Last day to drop courses without penalty
March 9	Spring break begins
March 17	Spring break ends
March 26	Opening of course request
April 2	Close of course request
May 8	Classes end
May 9	Reading Day
May 17	Spring Commencement Ceremonies

Promotions



SCOTT GREINER, left, and **AUDREY MCELROY** were promoted to full professor in Spring 2012

APSC Dean's List • Spring 2012

Meredith Adams	Lindsay J. Deacon	Alyssa L. Homyk	Stacy A. McPaters	Ariel M. Schmidt
Jackson T. Ames	Anna C. DeBerardinis	Maureen E. Howren	Kami R. Meador	Taylor L. Scott
Katherine C. Amos	Nycole E. Deleeuw	Katie L. Huffman	Victoria E. Mellin	Danielle H. Sedlak
Christopher Andrews	Erin N. Deliere	Camilla Hughes	Melodie J. Messer	James R. Shatt
Kaitlyn A. Asbury	Rachel R. Dialectos	James M. Hunt	Kayleigh J. Mize	Lauren M. Sheehan
Brent A. Ashley	Jennifer M. Donaggio	Emily G. Hurley	Nicholas G. Moore	Justine H. Sherer
Nathan J. Ayersman	Summer B. Driscoll	Erica T. Jacquay	Jody L. Morris	Emma P. Shirey
Hayley R. Bance	Noell K. Dunlap	Emma L. Jefferies	Rebecca C. Mowry	Brittany L. Sholes
Ella C. Barnes	Megan L. Dunn	Margaret-Katherine Jeter	Scott J. Neil	Farah-Dale S. Siodmok
Christine M. Barton	Kayla B. Eckard	Caitlin R. Jordan	Amber R. Noel	Drew A. Sollenberger
Katelynn E. Basala	Melanie M. Eldred	Aminata B. Kalley	Megan N. Ohlhaber	Wesley L. Spangler
Mollie P. Blythe	Lauren A. Engel	Caitlin P. Keese	Andrea D. Oliver	Victoria J. Stewart
Chester G. Boutelle	Christine A. Evans	Leah W. Kerner	Karen M. Park	Meredith V. Taccetta
Amanda N. Bradbery	Kimberly L. Evans	Kelsey H. Kirschnick	Grace A. Parker	Emily S. Tanner
Andrea M. Bradley	Alison M. Fecho	Kea M. Kiser	Akash P. Patel	Michelle K. Thompson
Casey T. Braginton	Erica R. Feldman	Erin E. Klingensmith	Bly A. Patterson	Brittany L. Trexler
Amy M. Brandon	Shawnee L. Felts	Elizabeth R. Knick	Morgan R. Paulette	Kristen M. Ulmer
Patrick J. Brennan	Caitlin M. Flint	Erin M. Koperna	Callie S. Pierce	Maria E. Vezza
Alyssa B. Brooks	Stephanie E. Folkerts	Kathryn A. Lacy	Kelly E. Quesinberry	Caitlin E. Ward
Kayla L. Brooks	Kathryn E. Foster	Andria E. Laib	Richard H. Preisser	Taylor L. Watson
Olivia D. Brooks	Rachel K. Grant	Caitlin M. Leith	Devon N. Reed	Mary E. Weatherman
Sabrina N. Brooks	Aaron J. Gringer	Sarah N. Lipps	Jessica D. Repep	Hope H. Wentzel
Stephanie M. Bruce	Anna L. Gustafson	William J. Little	Anna K. Revercomb	Marilyn M. Wheaton
Brittany A. Castle	Samantha A. Habib	Margeaux E. Malone	Cassie Rini	Megan E. Whipp
Jazmin B. Cheveres	Martha A. Helbert	Gabriel A. Mastromano	Maria C. Rittenhouse	Mallory B. White
Chelsie F. Church	Patricia J. Helsel	Samantha J. McCarter	Miranda M. Ritzi	Sarah E. Williams
Benjamin F. Cockerille	Sarah G. Helweg	Jessica L. McCarty	Jessica A. Ross	Meaghan K. Wilson
Elizabeth G. Cory	Brittany L. Hendrix	Bailey K. McDade	Amber L. Rosser	Andrea L. Wolkoff
Elena C. Cox	Hanna J. Herdegen	Erin S. McDougall	Jaime K. Rutter	Sarah L. Wray
Victoria M. Cox	Patrick C. Hilson	Colleen R. McIntyre	Michelle A. Sadler	Janie G. Young
Bradley D. Dalton	Rhiannon N. Hodges	Sarah M. McKay	Courtney Scarborough	Kelsey P. Younts
Emily H. Davison	Erin E. Holland		Marie T. Schirmacher	Madeline Zimmermann

STUDENTS GAIN EXPERIENCE managing Virginia Tech beef cattle sale

by Lois Caliri

The 18th annual Hokie Harvest Sale culminated 10 weeks of work for students who orchestrated the budgets, advertising, and operations of a beef cattle sale that raised \$104,450 for animal and poultry sciences programs. “Students received concentrated experience that would otherwise have taken years to gain,” said Dan Eversole, associate professor of animal and poultry sciences in the College of Agriculture and Life Sciences.

This year’s livestock merchandising class was the largest ever with 95 students, 15 of whom were from colleges other than agriculture and life sciences. Two-year students in Agricultural Technology and four-year students in the Department of Animal and Poultry Sciences made up the majority of the class.

Some students had no experience with livestock, and most had little knowledge of merchandising. The course combined all aspects of livestock merchandising, giving students the opportunity to receive the highest returns on their time and labor. Students quickly learned about supply and demand, and how each affects the bottom line. They also attended a number of lectures given by industry representatives.

From creating and placing sales advertisements to preparing the cattle for sale, the students did it all, which provided them a chance to learn about merchandising firsthand. “No books, no quizzes, no tests,” Eversole said of his two-credit class. “This is a nontraditional and unique approach.”

Eversole also factors teamwork into the final grade evaluations. His students worked together on committees, such as advertising, clerking, photography, animal display, and food and beverage.

Laura Leigh Venable of Woodlawn, Va., a junior majoring in animal and poultry sciences, learned that even decorating



From left, Tyler Musick of Callaway, Va., a dairy science major, Chad Joines, agricultural supervisor at the Beef Cattle Center, Ken Brubaker, auctioneer, and Jake Koontz of Orange, Va., a second year student in agricultural technology, at the Hokie Harvest Sale.



Jenna Swanson of Shenandoah County, Va., a sophomore majoring in agricultural sciences, records information at the Hokie Harvest Sale.

the arena and sale ring is an essential part of preparations.

“You do not want a buyer walking into an unwelcoming environment,” Venable said. “You want someone to be confident that he is looking at a high-quality animal.”

From portraying a wholesome image of a farm operation at Virginia Tech to preparing a budget for the sale, students paid attention to every detail. For example, students laid mulch on the floor of the sale ring, elevating the cattle. This gave the viewers a complete picture of what the animals looked like

SEE MORE PHOTOS FROM THE
2012 HOKIE HARVEST SALE:
[www.cals.vt.edu/news/galleries/
hokie-harvest/index.html](http://www.cals.vt.edu/news/galleries/hokie-harvest/index.html)

all the way around, according to Logan Martin of Pearisburg, Va., a second-year student in agricultural technology.

“Anything that got overlooked could have spelled disaster,” said Robert Cromwell of Virginia Beach, Va., a junior majoring in animal and poultry sciences.

Preparing the budget for the sale was a worrisome assignment for students because a lack of attention to expenses could have resulted in a loss, Venable said.

“We had to project expenses, gross sales, high lots — which are livestock that sell for the most money — and low lots — which are livestock that sell for the least amount,” said Aaron Heshman of Mount Jackson, Va., a junior majoring in animal poultry sciences and minoring in agricultural and applied economics.

Fall graduate Omelete and Crepe Breakfast

APSC faculty and staff traditionally hold an omelet and crepe breakfast in honor of undergraduate students who finish their degrees in December. This year's breakfast was a tremendous success with students, their families and friends enjoying the cooking and serving talents of departmental faculty and staff. Celeste Crisman organized and supervised this event.



New faculty member Alan Ealy, right, tries his hand at cooking crepes.



Students and their families enjoyed a special breakfast prepared by faculty members before the fall graduation ceremonies.



Samer El-Kadi impressed everyone with his culinary skills.

Hokie Harvest Sale: *Continued from page 7*

Two animals were often shown together Oct. 26 at the sale ring at the Livestock Judging Pavilion, located on Plantation Road in Blacksburg, Va. "Double the money, take them both, and sweep the ring," barked Ken Brubaker, the auctioneer from Brubaker Sales & Marketing.

Some did just that, drawing grins from Kraig Smith of Catlett, Va., and Matt Lawrence of Stanley, Va., agricultural technology students, and Adam Murray of Leesburg, Va., a sophomore majoring in animal and poultry sciences. They quickly alerted the auctioneer of the bids and kept their eyes peeled on the bidders who winked, nodded, smiled, or held up a small sign.

Angus, Simmental, and Hereford breeders bid on a cross section of beef cattle, including a strong offering of cow-calf pairs, bred heifers, and breeding-age bulls. Virginia Tech's breeding program stresses the importance of genetics and predictable production parameters that are essential for a successful operation. The university-owned cattle are mainly

purebreds and are registered with their respective breed associations. This ensures a traceable lineage and helps in predicting performance.

Since its inception in 1995, more than 1,250 students have worked on all facets of the auction. The sales have generated close to \$2 million in animal receipt sales. Proceeds from the auction are reinvested in departmental programs with animal and poultry sciences.

Nationally ranked among the top research institutions of its kind, Virginia Tech's College of Agriculture and Life Sciences focuses on the science and business of living systems through learning, discovery, and engagement.

The college's comprehensive curriculum gives more than 3,100 students in a dozen academic departments a balanced education that ranges from food and fiber production to economics to human health. Students learn from the world's leading agricultural scientists, who bring the latest science and technology into the classroom.

VT Beef Leadership Council activities

The Virginia Tech Beef Leadership Council is a professional student organization that consists of undergraduates interested in promoting the beef industry.

The council currently has 18 members, and two advisors — Dan Eversole and Paige Pratt. The group's goal is to serve as knowledgeable advocates for the industry as well as promote the development of leadership in members to prepare them for professional careers. Throughout the course of the year, the Virginia Tech Beef Council members have actively promoted beef through events such as conducting workshops at the



2012 Virginia Tech Beef Leadership Council

Virginia FFA State Convention, running booths at fairs and expos, attending producer meetings, and offering their services at the Junior Livestock Expo and Hokie Harvest Sale. Long term, the group would like to raise enough funds to go

out West to learn more about western commercial beef production systems, to become more aware of the different production systems and be able to apply newly learned ideas in their professional capacities.

VT Horse Judging Team wins big at national competition

The Virginia Tech Horse Judging Team landed in Oklahoma City, completed their final preparations, and had a very successful finish in the National Reining Horse Association Contest.

The team members took a written test, evaluated video clips of horses in the various reining maneuvers, and then scored and ranked two classes of 10 reining horses during the horse show. The students evaluated the top amateur riders in the country who were competing for \$62,955 for first place, so the competition was intense and fierce!

The Hokie team placed fourth in a field of 15 teams from across the country. Marilyn Wheaton of Chapel Hill, NC, was sixth-high individual and was the only contestant to have a perfect score for the class of 10 horses. Courtney Walski of Chesapeake, Va., placed eleventh overall. Rounding



From left: Kat Slaughter, Courtney Walski, Brittany Neal, Kaja Baum, and Marilyn Wheaton.

out the total team effort were Kaja Baum of Fredericksburg, Va., Brittany Neal of the Chesterfield, Va., and Kat Slaughter of Lexington, NC.

Before leaving the event, the team witnessed Casey Deary and Americasnextgunmodel win the big prize of \$165,000 with a phenomenal score of 76. This horse and the second place finisher were sired by the stallion known as Gunner that the team saw in 2011 on a judging farm visit to Tim McQuay's ranch. There is no doubt these students represented themselves, the

equine program, and Virginia Tech well. The team's friendships and experience will inspire them to greater accomplishments in the future. The team was coached by Julia McCann of APSC.

Equestrian Club continues to win awards

Congratulations to our VT Hunter Team member Katie Caruthers for her second- and fourth-place finish at Zone finals! As she advanced, she had a great performance at the Washington International Horse Show, placing fourth in the Adult Finals. Congratulations, Katie!



Our fellow club member Morgan Schneider was selected to be one of the 16 finalists for the USHJA Emerging Athletes Program out of more than 150 participants. She participated with the other finalists on November 15-18 in Illinois. The program consisted of Olympic Gold Medalist, Peter Wylde, as the lead clinician. The 2012 National Training Session included presentations from a variety of Equine Specialists: Sally Ike, USEF Managing Director of Show Jumping Activities; Kip Rosenthal, Sports Psychologist; and Janice Marquis, Equine Physiotherapist.



Hunter Team member Kelly McEvoy was selected for the Intercollegiate Horse Show Association's Public Relations Internship for our region. She will be working with the IHSA's public relations manager in order to provide news, updates, and information to our region. She will also be working with other interns promoting our great teams in our region. Congratulations on a great opportunity, Kelly!



The Western Team is now at its new location at Paris Mountain Stables. They are having a great start to their show season with their new head coach Shelby Turner. They had a show at St. Andrews with new open reining rider Jordan White placing Reserve High Point in her first IHSA show! The group was recently Reserve High Point Team at North Carolina. Great job ladies!



Morgan Schneider, left



Members of the Western Team



The Dressage Team has been quite successful so far this year



Katie Caruthers



Tony Angell



The horse show known as "Dressage for a Cure" was held on October 28 and was a great success in its second year! Many exhibitors had a great time showing off all of their pink. Thank you to everyone who participated and supported the Susan G. Komen Breast Cancer Fund — we raised \$1,300!



The Dressage Team has been quite successful so far, especially at Appalachian State where they had a first place team and individual finish!



The Hunter Team has been off to a

successful start as well. They have been Reserve High Point team at the UNCG-Elon IHSA show, the Virginia Tech IHSA show, and the Virginia Intermont back-to-back IHSA show. Very recently, they were tenth at the annual Holiday Tournament in Otterbein, Ohio. A big congratulations to Krissy Peacock, Katelynn Basala, Cassella Slater, Rachel Calvert and Jessica Ropelewski for qualifying for Regionals so early in the season!



Several of our very own Hunter Team riders rode at the Kip Rosenthal clinic, hosted by Virginia Intermont — Olivia Wymer, Katelynn Basala, and Rachel Calvert.

Graduate students finishing summer/fall 2012

Student	Degree date	Major professor	Thesis/dissertation title
Bailey Zwarycz	M.S. July 2012	Eric Wong	Tissue- and development-specific expression of proton-mediated peptide transporters in the developing chicken
Tracy Scheffler	Ph.D. July 2012	Dave Gerrard	AMP-activated protein kinase and muscle metabolism
Napoleon Vargas	M.S. July 2012	Ron Lewis	Assessing the reliability of plant-wax markers to delineate diet choice and feed efficiency in beef heifers
Samantha Won	M.S. July 2012	Eric Wong	Acute and chronic heat stress alters the metabolism of skeletal muscle in growing swine
Hannah Wladecki	M.S. Sept. 2012	Audrey McElroy	<i>In vitro</i> evaluation of particle size differences, various Ca sources, and different phytases on pH and calcium and phosphorus digestibility in a simulation of broiler digestion
Jayantha Adikari	Ph.D. Sept. 2012	Ed Smith	DNA sequence and haplotype variation analysis of circadian genes in the turkey, <i>Meleagris gallopavo</i>
Elizabeth Riley	M.S. Sept. 2012	Scott Greiner	Fecal phosphorus characteristics of grazing beef cattle
Jennifer Bradley	Ph.D. Sept. 2012	Audrey McElroy	Influence of incubation conditions on turkey poult intestinal development and susceptibility to poult enteritis
Diego Paiva	Ph.D. Sept. 2012	Audrey McElroy	Effects of calcium and enzyme supplementation on necrotic enteritis outbreaks
Lidan Zhao	Ph.D. Sept. 2012	Honglin Jiang	Mechanisms of growth hormone inhibition of adipose tissue growth

Virginia Tech Horse Judging Clinic

On Nov. 3, 2012, the Virginia Tech chapter of the **Block and Bridle Club** hosted their annual Horse Judging Clinic in cooperation with the Virginia Tech Horse Judging Team. Each fall, Block and Bridle hosts a clinic to educate students on the fundamentals of horse judging. The clinic offers an assortment of subjects that vary each year to ensure returning participants will always be able to learn something new.

The members of the Virginia Tech Horse Judging Team are instrumental in conveying this information in a fun, yet

educational manner for the students to use in future contests, or simply for personal, everyday knowledge for use in the equine industry. This year, members taught the principles of hunter under saddle and hack, reining, breed type and conformation, and they added a special session offering a visual explanation of the biomechanics of a horse's movement.

Brittany Neal and Erica Jaquay, both members of the spring 2012 Horse Judging Team, used their artistic talents to provide the clinic with an "Inside

Out Horse." They painted a skeleton on a horse provided from the herd at Smithfield and used him to illustrate how the angles of bones effect the way the horse moves. It was certainly an exciting sight and served as a great teaching tool to keep the students engaged at lunch time.

After a delicious lunch of the signature Block and Bridle barbeque, the students were separated for some valuable time working with experts on presenting

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4-H members compete at Arabian Nationals

In October 2012, members of the State 4-H Horse Judging Team competed at Arabian Nationals in Tulsa, Ok. Team members included Hannah Ho and Jacquelyn Henley, both of Albemarle County, and Hunter Liles of Pittsylvania County. In the 4-H Individual Halter Division, Liles was 4th, Ho was 7th, and Henley was 11th. Overall, Virginia 4-H was 2nd in the 4-H Team Halter Division. In the 4-H Individual Performance Division, Liles placed 2nd, with Henley and Ho placing just out of the ribbons. The team was 4th in the 4-H Team Performance Division. For the 4-H Individual Reasons Division, Liles placed 6th, with Ho placed 11th, Henley placed 14th, and the team placed 4th in the 4-H Team Reasons Division. Overall,



Virginia 4-H members, from left, Jacquelyn Henley, Delaney O'Donnell, Hannah Ho, and Hunter Liles at Arabian Nationals.

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Liles was the High Individual Champion in the 4-H Division, with Ho and Henley placing 14th and 15th respectively. The team placed 4th overall in the 4-H

competition — very impressive for a three-person team!

Delaney O'Donnell competed at Arabian Nationals in Tulsa as an individual in the Arabian Horse Association Division on behalf of the Virginia Arabian Horse Association. Delaney placed 7th in the Individual Halter Division, 2nd in the Individual Performance Division, and 2nd in the Individual Reasons Division. Delaney was also the 3rd High Individual Overall in the AHA Division!

Travel funding for the 4-H Horse Judging Team is made possible through private donations, parental support, funding from the 4-H Horse program endowment and the Fred and Jane Campbell Endowment.

Horse Judging Clinic: Continued from page 11

reasons. Most students find giving reasons to be the most challenging and nerve-wracking part of contests, as they are required to prepare and present from memory evidence to support their placings of contest classes. Current and former Horse Judging Team members assisted students in their style of taking notes, writing their reasons, and concentrated heavily on the presentation aspect of this part of the contest. A special highlight came at the end of the day, when a young 4-H member approached Julia McCann and members of the judging team to report how excited she was about giving reasons!

For the last part of the day, the students were seated in the arena to practice applying the judging principles they learned in the morning sessions. Volunteers from the Western and Hunter Equestrian Teams helped to provide a rare opportunity to have a dress rehearsal for a real judging contest. Afterward, a member of the Horse Judging Team announced and explained the placings of each class to help solidify how to apply the standards of judging properly for each class.

This year, a total of 130 students from 25 different counties across the state traveled to the event to perfect their horse judging skills. Additionally, many coaches and parents also attended the events to share in the learning for the day. Students were sent home with several informational worksheets and puzzles to review at a later date.

The coaches for each county that attended were asked to complete a survey, rating several different aspects of the clinic from 1.0 to 5.0. Highlights of the survey included the overall

organization and quality of the clinic each rating a 4.7 out of 5.0, and more than 75 percent of the participants reported planning to return for the contest in the spring. The contest planning is already well underway, and Block and Bridle looks forward to hosting a large number of contestants again on Feb. 15-16, 2013.

The clinic and contest are both chaired by Horse Judging Team and Block and Bridle members Courtney Walski and Kathryn Slaughter, with appreciated help from current and former teammates, the other members of the Block and Bridle Club, other students from the Department of Animal and Poultry Sciences, and McCann.



Brittany Neal and Erica Jaquay, both members of the spring 2012 Horse Judging Team, used their artistic talents to provide the clinic with an "Inside Out Horse."

4-H Livestock Judging Team finishes strong in fall contests

The 2012 Virginia 4-H All-Star Livestock Judging Team has been busy this year competing against many teams across the nation.

The eight members of the Virginia 4-H All-Star Livestock Judging Team include: Cody Boden, Frederick County; Cole Kaufman, Augusta County; Chelsea Ellington, Rockingham County; Emily Dyer, Madison County; Cora Moyers, Rockbridge County; Jack Redifer and Jacob Bowman, Montgomery County; and Catie Hope, Clarke County.

The members of the Virginia team earned their spot on the team by finishing in the top-10 at the state level livestock judging contest at Virginia Tech. The contests the team attends occur throughout the fall months of the year and are held in Nebraska, Maryland, Pennsylvania, North Carolina, and Indiana. The national contest is at the North American International Livestock Exposition (NAILE) in Louisville, Ky.

These participants receive extensive training in order to prepare for the strenuous NAILE contest.

“The students develop valuable oral communication, critical and organized thinking, and observational skills as they prepare for their final contest,” said Paige Pratt, youth livestock Extension Specialist at Virginia Tech.

Throughout this extensive training regime, the team has successfully managed to stay in the top five of teams for the majority of the contests.

The team ventured to the AK-SAR-BEN contest at the River City Rodeo and Stock Show in Omaha, Neb., where 32 teams consisting of 89 individuals from across the country came to compete.



4-H All-Star Livestock Judging Team, from left: Chelsea Ellington, Rockingham Co.; Emily Dyer, Madison Co.; Cora Moyers, Rockbridge Co.; Cole Kaufman, Augusta Co.; and Dr. Paige Pratt, coach.

Boden was the overall second-high individual at the competition. Redifer placed fifth in beef. Ellington placed seventh in swine, and Lindsey Fenster placed tenth in swine. The Virginia team as a whole dominated the competition by placing second in swine, second in beef, and second overall among the 32 teams.

Next, the team made their way up to Harrisburg, Penn., where they competed at the Keystone International Livestock Exposition. The livestock judging competition registered 13 teams with 44 individuals. Kaufman had a great day, and placed first overall in junior angus, second in beef, and twelfth overall individually. Dyer ranked third in swine, and Boden placed second in Beef, and 8th Overall. The Virginia team placed first in beef, third in swine, third in questions, fifth in reasons, and topped it off with a fifth overall finish.

The Eastern National Livestock

Judging Contest in Timonium, Md., came around, and the Virginia livestock judges were not far behind. This smaller contest had five teams consisting of 17 individuals. The members made some dents in the competition by placing well. Kaufman ranked second in swine, third in beef, fifth in reasons, and sixth overall. Boden racked up a seventh in sheep/goats, sixth in beef, tenth in reasons, and finished seventh overall. Dyer came out ninth in sheep/goats and eighth in reasons. Moyers followed with a tenth in sheep/goats and ninth in beef. The team left the competition third in sheep/goats, third in swine, second in beef, second in reasons, and finished strong in third place overall.

The final regional contest was the Southeastern Regional in Raleigh, NC. The team placed first in meat goats, first in beef, and first overall.

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4-H members compete at the Eastern National Roundup

In early November 2012, a group of Virginia 4-H members traveled to Louisville, Ky., to compete in the equine divisions of the 2012 Eastern National Roundup.

Representing Virginia in the Individual Presentation Division was Emily Johnston, with Monet Wilson and Olivia Wells competing in the Team Presentation Division. Abby Worth-Jones participated in the Public Speaking contest this year.

Virginia was also represented by teams competing in Hippology, Horse Judging, and the Horse Bowl Competition this year.

Representing Virginia in the Horse Bowl Competition were Kimberly Buonomo, Jake Buonomo, Jordan Ruffner, and Michaela Yowaiski. Hippology team members included Shelley Brown, Lily Johnston, Megan Wilson-Bost, and Julia Wenger.

For the Individual Written portion of the Hippology contest, the team was second overall, with Brown placing second and Wenger placing fourth, individually.

In stations, Wenger and Brown placed sixth and ninth respectively, leading the team to third for that portion of the contest. Brown was the third-highest individual, and Wenger placed fourth!

Overall, the team placed sixth in Horse Judging, first in Team Problems, and



Back row, from left: Monet Wilson, Olivia Wells, Shelley Brown, Lilly Johnston, Rachel Dominguez, Virginia Reasor, Jacquelyn Henley, and Delaney O'Donnell. Front row, from left: Megan Wilson-Bost, Emily Johnston, Abby Worth-Jones, and Michaela Yowaiski.

was the second-highest overall team in the Hippology Contest!

The 4-H members representing Virginia in the Horse Judging Competition for 2012 included Delaney O'Donnell, Virginia Reasor, Jacquelyn Henley, and Rachel Dominguez. In the Individual Halter Division, O'Donnell placed first, Henley placed third, and Dominguez placed eleventh!

In the Individual Reasons Division, Dominguez and O'Donnell placed fourth and fifth, respectively. O'Donnell also placed as the ninth-highest individual in the contest!

Virginia was eleventh in Performance, third in Reasons, first in Halter, and third Overall!



Virginia 4-H members Rachel Dominguez, Virginia Reasor, Michaela Yowaiski, Jacquelyn Henley, and Delaney O'Donnell with Coach Yvonne Miller (bottom row center).

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4-H Judging: *Continued from page 13*

The final competition for the team was held back in Louisville. The team finished fifth in sheep/goat, sixth in swine and eighth overall at the North American International Livestock Exposition.

"The team had a very successful fall and finished the season well. The NAILE was a very competitive event and our youth were consistent in their placings all day; they did very well given the especially tough competition this year," Pratt said. Virginia youth livestock programs are

supported by the Youth Livestock Endowment through the Virginia 4-H Foundation. For more information on youth livestock programs or how you can support these programs please contact Pratt at 540-231-4732 or pjpratt@vt.edu.

State 4-H Championship Horse & Pony Show

The 2012 Virginia State 4-H Championship Horse & Pony Show was held in Lexington, Va., at the Virginia Horse Center Sept. 13 – 16, 2012. This statewide event attracts more than 700 youth from across the commonwealth. These youth participated in a wide variety of contests, from educational events to the horse show itself.

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Youth interested in educational events could compete in the District Challenge – an annual knowledge contest comprised of

Horse Bowl, Hippology, and Horse Judging. Congratulations to the Southeast 4-H District on winning the 2012 District Challenge!

Other contests held at the horse show included a state-wide photography contest and an art contest that are both open to all interested 4-H members.

The horse show portion of this event brought out almost 500 participants who represented 64 counties across Virginia. Competitors had the opportunity to compete in events ranging from Gymkhana to Pleasure and Dressage to Hunter Over Fences. Numerous champion, reserve champion and high point awards were recognized at the show.

The 51st Annual Virginia State 4-H Championship Horse & Pony Show drew more than 2,000 youth, parents, and volunteers from across the state. The State 4-H Horse Show is self-funded through entry fees, donations by friends of the State 4-H Horse Program, and corporate sponsors such as the Virginia Horse Industry Board, The Virginia Horse Council, Blue Ridge Trailers, Virginia Farm Bureau, Southern States, and Weller Insurance Co. The Horse Show Hero Program also helps to fund this event by allowing participants to raise monies in lieu of paying entry fees.



Top: The Rixeyville Riders from Culpeper County participated in Saturday night's Freestyle Drill Team Showcase.

Middle: Brittany Ramer and Know What I Mean of Hanover County were Champion in Friday night's Side Saddle Western Class.

Bottom left: Mary Sayers and Dun N Platinum of Lee County were Champion in the Freestyle Reining Class.

Bottom right: A 4-H Member participating in the Dressage Equitation Classic in Waldron Arena.

Virginia Junior Livestock Expo showcases youth livestock projects

Hundreds of youth filled the Rockingham County Fairgrounds in mid-October for the Virginia Junior Livestock Expo. The event served as the culminating event for all beef, sheep, swine and meat goat projects for youth across the Commonwealth of Virginia.

The 4-H and FFA show was made possible by the support of the Virginia Cooperative Extension as well as numerous sponsors' generous donations. More than 280 exhibitors, representing 42 different counties showcased more than 925 animals at the expo.

Youth exhibited their projects in market and showmanship classes and had the opportunity to compete in the State 4-H/FFA Stockmen's Contest, which consisted of judging and evaluating classes of animals, a written comprehensive exam, and identification of different feeds, equipment, meats, and breeds.

At the beef cattle shows, purebred and commercial breeds of cattle were exhibited. There were 140 cattle exhibitors showing 281 head of cattle.

Beef show results:

- 1,340-pound Champion Market Steer was shown by Sarah-Jane French from Cumberland
- 1,365-pound Reserve Champion Market Steer went to Kelsi Lawson from Loudoun County
- The Supreme Champion Heifer was owned by Weston Snyder from Augusta County
- The Reserve Supreme Champion Heifer was shown by Hailey Cox from Augusta County

The sheep show at the Virginia Junior Livestock show consisted of 438 head of sheep shown by 113 exhibitors.

Sheep show results:

- The Champion Market Lamb went to a 139-pound lamb exhibited by Hayley Blevins from Washington County.
- The Reserve Champion Market Lamb was Jack Redifer's 151-pound lamb
- The Supreme Champion Ewe was shown by Hayley Blevins from Washington County
- The Reserve Supreme Champion Ewe went to Emilie Webb from Shenandoah County

The swine shows followed on with 57 exhibitors showing 124 head of market, breeding and prospect hogs.

Swine show results:

- The Champion Market Hog went to a 279-pound hog exhibited by Cory Bennett from Augusta County
- The Reserve Champion Market Hog went to a 266-pound hog exhibited by Trevor Brown from Culpeper County
- In the breeding division, the Supreme Champion Gilt went to Dow Leonard from Augusta County
- The Reserve Supreme Champion Gilt went to Zachary McCall from Augusta County

The final four of the livestock species shown at the expo were the meat goats. Forty-eight exhibitors showcased their projects, totaling 87 head of goats.

Meat goat results:

- The Champion Meat Goat went to a 99-pound goat exhibited by Hunter May from Rockingham County
- The Reserve Champion Meat Goat was a 98-pound goat exhibited by Jack Redifer from Montgomery County
- The Supreme Champion Doe was shown by Sarah Harris of Botetourt County
- The reserve Supreme Champion Doe shown by William Strecker of Rockbridge County



Youth meat goat exhibitors brace their animals for the judge at the 2012 Virginia Junior Livestock Expo.



A 4-H/FFA youth exhibits a feeder steer at the 2012 Virginia Junior Livestock Expo in Harrisonburg.

Many congratulations are extended to all of these species winners as well as to the many exhibitors for their excellent species representations that came to the Virginia Livestock Expo.

Virginia youth livestock programs are supported by the Youth Livestock Endowment through the Virginia 4-H Foundation. For more information on youth livestock programs or how you can support these programs please contact Paige Pratt, Youth Livestock Extension Specialist at 540-231-4732 or pjpratt@vt.edu.

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