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Student athletic trainers keep Hokies moving

By Zeke Barlow

Long before “Enter Sandman” echoes through Lane Stadium and football players huddle up for their first play, James Kiefer is hard at work. The senior majoring in human nutrition, foods and exercise is busy taping injured ankles, molding mouth guards, and doing whatever else it takes to help get the Hokies ready for a big game.

“It’s exciting to be involved with the athletes and be a part of the team,” said Kiefer, of Baltimore, who is headed to dental school after graduation. “But I’m also getting great training in sports medicine that will help my career.”

Kiefer is one of about 55 student athletic trainers from the Department of Human Nutrition, Foods and Exercise who help various Hokie sports teams excel while gaining valuable experience for their own careers. HNFE majors make up the bulk of Virginia Tech’s student athletic trainers.



Victoria Cederle, a senior human nutrition, foods and exercise major from Leesburg, Va., says her work as a student athletic trainer with the women’s soccer team helps her prepare for a career working with athletic teams in higher education.

Colleen Bannigan, one of many student athletic trainers from the Department of Human Nutrition, Foods and Exercise, helps Hokies athletes stay healthy. She works with the women’s soccer team.

Mike Goforth, associate director of athletics for sports medicine, teaches a course during the program, which is coordinated by Katie Baer, a certified athletic trainer.

Though students can receive up to three credits for their work as athletic trainers, many continue to work with the teams long after they have earned their credits because they like it so much.

“Students love this program because it gives them hands-on experience that they can’t gain anywhere else,” said Renee Selberg-Eaton, the undergraduate program director for HNFE. “Many of our students go on to be doctors, physician assistants, physical therapists, and professional athletic trainers, and they say that their experience here was invaluable.”

Many, like Colleen Bannigan, a junior HNFE major from Herndon, Va., were high school athletes who know what it was like to suffer injuries while playing sports. Bannigan, a former basketball and soccer player, broke 10 bones during her childhood.

“Many of our students go on to be doctors, physician assistants, physical therapists, and professional athletic trainers, and they say that their experience here was invaluable.”

— Renee Selberg-Eaton



James Kiefer, who majors in human nutrition, foods and exercise, attends every Virginia Tech football practice and home game as a student athletic trainer. Beyond gaining valuable experience for a career in medicine, he says the rush of being on the sidelines of Lane Stadium during a game is indescribable.

“I was always the one in the training room, so I can relate to the athletes really well,” said Bannigan, a student athletic trainer for the women’s soccer team.

Bannigan wants to be an orthopedic surgeon for a professional sports team and is already seeing the benefits of her experience. She’s been the first responder to athletes who have suffered knee injuries and was able to watch a surgery up close. She’s trying to get an internship in the athletic department of a National Football League team.

“This isn’t just fun; it is a great experience that is paying off,” she said in between giving ultrasounds to athletes and stocking water bottles.

Michael Cosgrove, a junior HNFE major from Fairfax, Va., works with the swim team, which means being in the locker rooms before most students are awake. But for Cosgrove, who wants to go into physical therapy or athletic training, the experience is priceless.

“I grew up playing sports,” he said. “So this is a great way to be involved with something I care about while helping further my academic career.”

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Dean's Update

Dear Colleagues,

Last fall, the college released our six-year strategic plan, wrapping up almost two years of work that included research, focused input from our external stakeholders, collaboration with the college administrative team, and internal review and feedback from faculty, staff, and students.

The strategic planning process is significant for the college and an opportunity to enhance our approaches in addressing current and emerging issues in agricultural and life sciences by building on the land-grant commitment of developing leaders and creating and sharing knowledge through diverse, hands-on experiences.

Our 2012-2017 Strategic Plan includes a list of values, emphasis areas, and four major goals with a number of strategies and high-priority action items in addition to new mission and vision statements. It is also aligned and linked with the vision, goals, and objectives of the university's long-range strategic roadmap, A Plan for a New Horizon.

Beyond the priority areas we continue to focus on, new cross-departmental areas of emphasis include safe and sustainable food systems, aging healthfully, climate-related changes, and bioprocessing/bioenergy and bioproducts. This was an important and rewarding process that will guide the college in new directions on several fronts, including the growth and expansion into a much more global research arena. I invite all of you to explore the exciting work we will undertake in the next six years.

Although the college relies on significant federal and state funding, annual levels of federal Hatch and Smith-Lever formula funding and state funding are no longer sufficient to maintain today's research and Extension programs, let alone meet future needs. Similarly, state support of the instructional mission has not kept pace with levels needed to provide students with a high-quality educational experience.

While our faculty and staff members have been very successful in growing extramural grant funding, it is clear that we must continue to enhance and leverage support well beyond traditional approaches and sources.

We thank you for your support and look forward to your involvement with the college as our programs evolve.

Sincerely,

Alan Grant
Dean



Alan Grant, dean

The strategic planning process is significant for the college and an opportunity to enhance our approaches in addressing current and emerging issues in agricultural and life sciences by building on the land-grant commitment of developing leaders and creating and sharing knowledge through diverse, hands-on experiences.

Extension launches statewide Animal Health Network

By Lori Greiner

The agriculture and food system is an extensive, open, interconnected, diverse, and complex network. Any disease, pest, or poisonous agent — whether it occurs naturally, is unintentionally introduced, or is intentionally introduced by acts of terrorism — could potentially cause catastrophic health effects or economic losses to the United States.

Recognizing that threat, Virginia Cooperative Extension, in partnership with the Virginia Department of Agriculture and Consumer Services and local feed retailers across the commonwealth, has put in place the Animal Health Network. This network connects underserved populations of noncommercial livestock and poultry owners with vital, disease-related alerts and information from the state veterinarian. The information comes through local feed retailers who receive it from the existing Extension system.

"The Animal Health Network enables my office to reach noncommercial livestock and poultry owners more effectively and in a timely manner with critical animal disease alerts," said Dr. Richard L. Wilkes, state veterinarian with VDACS. "This network will be extremely important in helping us reach those individuals that may only have a few head of livestock, such as chickens, goats, horses, and other pets."

Extension agents have worked in partnership with local feed retailers to establish the network in their counties.

"The agents will disseminate approved information from the state veterinarian to the network in the event of an emergency. The feed retailers will post the information in their stores," said Bobby Grisso, associate director of agriculture and natural resources for Extension.

After the alert is posted, Extension will work with the state veterinarian's office to provide additional education and suggestions.

Prior to launching the network, Extension and VDACS conducted two tests — one planned and one unannounced — to make sure the alert system worked as intended.

The development of the network concept was funded by the National Center for Foreign Animal and Zoonotic Disease Defense, one of 12 Centers of Excellence in the Department of Homeland Security's Office of University Programs.

Alumni making a difference

Johnny Davis jokes that helping others is part of his DNA.

It's a trait that was shaped by Virginia Tech's *Ut Prosim* (That I May Serve) motto when he was an agricultural and applied economics major at Virginia Tech and something the owner of the Richmond Dragway has lived by since he graduated in 2002.

When Johnny isn't running the business or helping his wife Allison (agricultural and applied economics '03) raise their two young children, he's often lending a hand at Hands Up Ministries in Richmond, Va.

"My personal statement is, 'Be a blessing,'" he said. "Hands Up is a program where you can see and feel the impact every time you serve."

Johnny and Allison help Hands Up Ministries renovate old homes for the needy and lead the vacation Bible school program at their church.

"At Virginia Tech it is mainstream to serve," he said. "It's just part of who I am."



Alumni Johnny and Allison Davis with their daughter Ainsley.

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Hurricane Sandy keeps Extension agents busy



Gov. Bob McDonnell (right) meets with Theresa Long, agriculture and natural resources agent in Accomack County, and Steve Sturgis, Department of Agriculture and Consumer Services board member, during a tour of the Eastern Shore following Hurricane Sandy.

By Lori Greiner

While most of Virginia missed the brunt of Hurricane Sandy's wrath, the October 2012 storm left its mark on the Tidewater and Eastern Shore areas of the commonwealth.

Soon after the storm swept through, Virginia Cooperative Extension agents began the arduous task of assessing agricultural damage in their localities. The agents assess damage to crops and livestock, outbuildings and storage facilities, machinery, fences, and roads — almost everything except for residential structures.

Agents work in partnership with the Virginia Department of Emergency Management in the event of a federally declared disaster and serve as liaisons between federal, state, and local officials during disaster relief activities, keeping them informed of the status, needs, and problems related to disaster recovery.

"Extension's involvement in disaster assessment helps improve the state's ability to assess the situation and get aid to those who need it," said Bobby Grisso, associate director of agriculture and natural resources for Extension. "Our knowledge of the local communities and resources allows us to be an advocate for others and helps the state determine where to allocate needed resources."



The George Washington Carver Program for Graduate Students allows Calvin Waldron to pursue his Ph.D. in food science and technology.

G.W. Carver Program provides graduate opportunities

By Zeke Barlow

Calvin Waldron is most at home in a laboratory.

The self-described "nerd at heart" loves nothing more than being surrounded by Bunsen burners and beakers as he discovers novel solutions to big problems.

But when Waldron, of Roanoke, Va., was getting ready to finish his master's degree in food science and technology earlier this year, it looked like his time in a university laboratory would soon end and he was headed for the job market.

Then he found out about the college's George Washington Carver Program for Graduate Students. Now, Waldron is earning his Ph.D. with a full assistantship that will allow him to continue his work developing new methods to prevent the spread of campylobacter bacteria in poultry processing plants.

"The George Washington Carver Program has meant the world to me," said Waldron. "Without it, I wouldn't have gone on to get my Ph.D. Now a much wider scope of careers await me when I graduate."

Waldron is one of 14 students in the program that started in 2011 as a way to encourage students from historically black colleges and universities, Hispanic-serving institutions, tribal colleges and universities, students from the Appalachian region, and nontraditional students to enroll in a graduate program. Since the program began, diversity in the college's graduate student population has increased 400 percent.

"This diversity allows for an interchange of cultural and intellectual viewpoints that we wouldn't otherwise have," said Randy Grayson, the program's coordinator. "This allows all individuals in the college to have experiences different from what they are used to, and it tears down some of the biases we have in our society."

As for Waldron, he's excited to continue his time in his research laboratory and looks forward to a career that will be enhanced by the advanced degree he is working toward.

Horticulture students refurbish local greenhouse

Students in the Horticulture Club planted a seed for the next generation of leaders in the green industry by rebuilding a greenhouse at Harding Avenue Elementary School in Blacksburg, Va.

"The remodeled greenhouse creates a dedicated space for the children's science projects," said Barbara Kraft, the club's co-advisor and a horticulture instructor.

Thanks to a \$600 grant from the university's Center for Student Engagement and Community Partnership and donations from Puckett Plants and Greenhouses in Patrick County, Va., club members laid gravel, sanded

and painted benches, and replaced the siding and doors of the greenhouse.

The club's vice president, Matthew Cox of Floyd, Va., said he appreciated the opportunity to give back to the community.

"Horticultural programs such as the greenhouse project help school-age children gain an appreciation for plant science," said Cox, a first-year landscape architecture major.

The Horticulture Club adopts a local community project each year.



Margaret Anne "Margo" Duckson of Sanford, N.C., a doctorate student in food science and technology and a member of the Horticulture Club, spreads gravel in the remodeled greenhouse at Harding Avenue Elementary School in Blacksburg, Va.

Art show highlights researchers' work

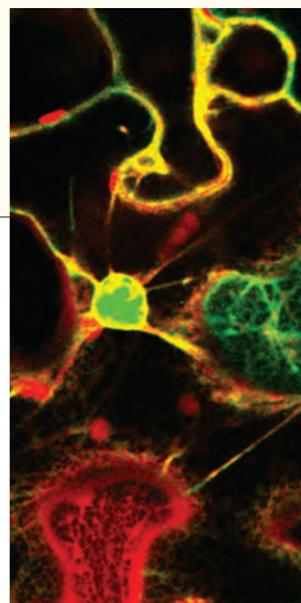
Science isn't just electron microscopes and high-tech instruments.

A recent art show titled "The Art of Science" displayed 11 microscopic masterpieces from researchers in the college, illustrating that science is also an art where the journey of exploration can lead to works of beauty.

More than 175 guests attended the opening of the exhibition at the Armory Gallery in Blacksburg, Va. on Jan. 11, 2013.

"These images are not only beautiful, but they also highlight the hard science we are tackling daily," said Saied Mostaghimi, associate dean of research and graduate studies for the college. "In splendid detail and vibrant colors, they tell the story of the research we are undertaking to curb pollution, feed a growing population, and help people lead healthier lives."

A narrated slideshow of the images can be found on the college's website, www.cals.vt.edu.



Alan Grant, dean, and Joe Marcy, head of the Department of Food Science and Technology, welcome guests to the Art of Science reception.





Kids swarm to Hokie Bugfest

Children of all ages enjoy the displays of live spiders, cockroaches, and other critters at the Hokie Bugfest.

More than 3,600 kids and adults who participated in the second annual Hokie Bugfest got to be entomologists for a day as they painted with cockroaches, examined bedbugs, and gazed at tarantulas.

“You only needed to look at the kids’ wide eyes and big smiles to know how big of a success this event was,” said Mike Weaver, entomology professor and director of the Virginia Tech Pesticide Program.

The Oct. 20, 2012, event at The Inn at Virginia Tech and Skelton Conference Center was put on by the college,

the Department of Entomology, and Virginia 4-H.

Perhaps the biggest testament of the success of the event came soon after it was over. A mother who attended with her family from Mechanicsville, Va., reported that her 11-year-old son had spent several days in his backyard digging up ants so he could start his own colony.



Students gain experience managing beef cattle sale

The 18th annual Hokie Harvest sale capped 10 weeks of work for students who orchestrated budgets, advertising, and operations of the annual beef cattle auction. The Oct. 26, 2012 event at the Livestock Judging Pavilion in Blacksburg, Va., 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.

Eversole’s students worked together on committees such as advertising, clerking, photography, animal display, and food and beverage. They quickly learned

about supply and demand and how each affects the bottom line.

“No books, no quizzes, no tests,” Eversole said of his two-credit class. “This is a nontraditional and unique approach.”

Laura Leigh Venable of Woodlawn, Va., a junior APSC major, learned that even decorating the arena and sales ring is an essential part of preparations.

“You do not want a buyer walking into a ugly environment,” Venable said. “You want someone to be confident that he is looking at a 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.

“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 Heishman of Mount Jackson, Va., a junior APSC major who is minoring in agricultural and applied economics.

Since its inception in 1995, the beef cattle sale has generated close to \$2 million in animal receipt sales.



From left, Tyler Musick, a dairy science major; Chad Joines, agricultural supervisor at the Beef Cattle Center; Ken Brubaker, auctioneer; and Jake Koontz, an agricultural technology student, work at the Hokie Harvest Sale.

Students invest \$500,000 in agricultural commodities

By Lois Caliri

Virginia Tech students are getting hands-on experience in risk and financial management by using \$500,000 in real money to invest in agricultural commodities that could yield high returns for the university’s foundation.

The Department of Agricultural and Applied Economics, with help from an endowment from the Virginia Tech Foundation, has created the Commodity Investing by Students fund, known as COINS.

Students in AAEC along with finance majors in the Pamplin College of Business run the fund with guidance from faculty advisers. Each of the 12 students is responsible for overseeing an agricultural commodity such as corn, soybeans, or livestock. They look for trends, including weather patterns, political developments, crop diseases, and other factors that impact commodity prices.

Students make their recommendations to the advisers, who place the trades with a broker.

“The student-run fund provides hands-on opportunities for students to perform supply-and-demand analyses of agricultural commodities while also learning how to create, monitor, and adjust an investment portfolio,” said Hyrum Smith, assistant professor in AAEC and faculty adviser to the students. “As far as I am aware, this is the only student-run agricultural commodities fund in the nation.”

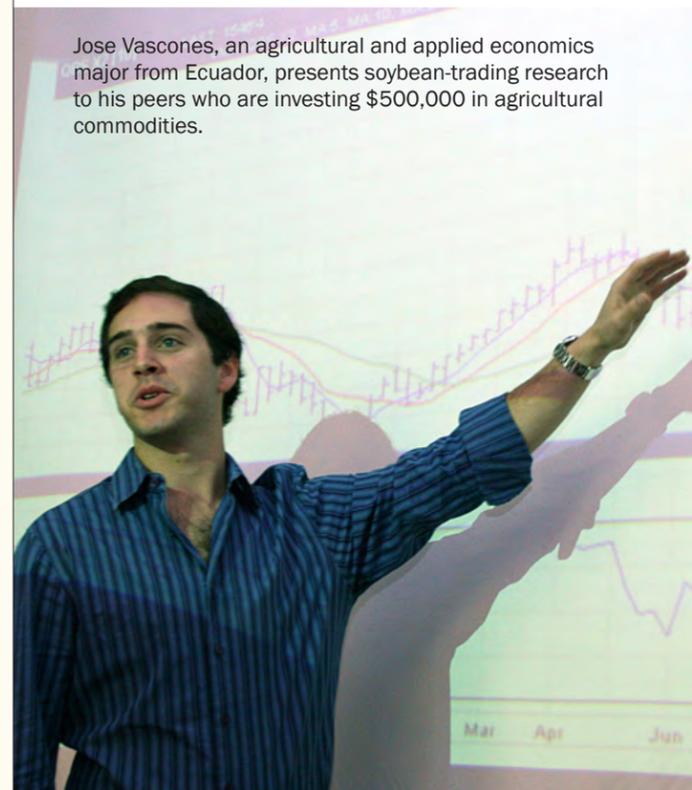
Though no course credits are given, students appreciate the unique opportunity that COINS offers.

“We’re able to make decisions with real money, and we will have a leg up in the highly competitive money management market,” said Nathan Butler of Midland, Va., a junior majoring in agricultural and applied economics.

Students are investing in exchange-traded funds, which are similar to mutual funds. Mutual funds are created when a company brings together money from many people and invests it primarily in stocks, bonds, or other assets. The difference is that exchange-traded funds can be traded throughout the day, are less volatile than individual stocks, and are cheaper than most mutual funds.

“With this experience, students reinforce concepts and theories learned in class, think strategically, and create investment strategies that could benefit the university,” said Jason Grant, assistant professor of AAEC and a student adviser.

Jose Vascones, an agricultural and applied economics major from Ecuador, presents soybean-trading research to his peers who are investing \$500,000 in agricultural commodities.



CALSAO board elects officers and new members

The CALS Alumni Organization held its biennial election of the executive committee at its fall meeting and welcomed three new board members.

Ryan Burnette (biochemistry '99) of Richmond, Va., was elected president

Tim VanReenen (agricultural and applied economics '06) of Hillsboro, W.Va., was elected vice president

Ronnie Gill (agronomy '82) of Tappahannock, Va., became past president

Newly elected board members are Hal Bailey (biological systems engineering '85) of Fincastle, Va.; Mollie Blythe (animal and poultry sciences '12) of Franklin, Va.; and Mike Ewing (agricultural economics '80), of Stephens City, Va.

The board will meet on March 23, 2013, for a full-day retreat to plan the coming year's activities.

Thank you to the 2010-12 executive committee members for their outstanding service to the organization: Gill; Scott Stevens (animal science '92) of Fincastle, Va.; and Eric Frazier (crop and soil environmental sciences '00) of Midlothian, Va.



Ryan Burnette

All graduates of the college are automatically members of the CALS Alumni Organization. There are no dues to join. Feel free to get in touch with any of the board members or contact Alumni Director Jamie Lucero at 540-231-9666 or jlucono@vt.edu.

Learn more about the organization and its leadership at www.cals.vt.edu/alumni.

Grisso takes on new role with Extension

A familiar face to many involved with Virginia agriculture, Robert "Bobby" Grisso, professor of biological systems engineering and farm equipment and safety specialist, has been named associate director of agriculture and natural resources for Virginia Cooperative Extension.

In this role, Grisso will work closely with industry partners, stakeholders, and other state agencies and university programs at Virginia Tech and Virginia State University to identify critical issues and develop knowledge-based resources to address the needs of Virginia's agriculture and natural resources sectors.



Robert "Bobby" Grisso

"We are extremely pleased that Dr. Grisso will be serving Extension in this capacity," said Edwin Jones, associate dean of the college and director of Virginia Cooperative Extension. "He brings years of experience with developing programming, collaborating with agents, and engaging stakeholders. We look forward to using his expertise in this leadership role."

"I am looking forward to the challenge of making Extension programs more effective and accessible to our Virginia clientele," Grisso said.

CALS research spans the globe

By Zeke Barlow

Twice a year, biological systems engineering Associate Professor Conrad Heatwole flies to Zambia to study how poor farming practices are damaging streams and destroying forests near one of Africa's last unspoiled national parks.

Biochemistry Professor Zhijian "Jake" Tu spends time in China every year, where he collaborates with fellow researchers to examine how the mobile DNA — or transposon — of malarial mosquitoes jumped from one species to the next.

Crop and soil environmental sciences Professor Ozzie Abaye is well-known in the Senegalese village where she has been investigating grassland management and preservation using techniques that are being adopted locally.

And Jim Westwood, professor of plant pathology, physiology, and weed science, has spent weeks in Africa and the Middle East researching ways to combat parasitic weeds that plague sustenance farmers and keep local economies from growing.

These four projects are just a sampling of the research that scientists in the college are conducting around the world. From Africa to Asia and South America to Europe, researchers are examining ways to feed growing populations, deal with the challenges of climate change, and protect our natural resources, among other concerns.

"We are helping some of the poorest farmers in the world," Westwood said of his work. "But these plants also have a history of finding their way to the United States, so it is in all of our interests to find ways to control and eradicate them."

Westwood has been focusing on two species that attach to the roots of other plants, causing them to wither and die and leaving locals without food to eat or crops to sell. His research involves ways to disrupt the relationship between the host and the parasite on a molecular level in hopes of creating a seed that fights off the parasite.

Meanwhile, Tu is researching how a transposon jumped between mosquito species. His hypothesis is that it jumped in and out of a virus that was shared between the two species. If the transposon is still able to move from one species to the next, it could be used as a tool to study mosquito genetics and to engineer a mosquito that can no longer transmits malaria or other vector-borne diseases that kill millions annually.

"I love that the result of our curiosity-driven research could be a profound benefit to society," said Tu.

In Zambia, poor agricultural practices in the Luangwa River basin have caused fields to be quickly abandoned, causing erosion and runoff and prompting farmers to cut down the forest in search of new farmland.

Heatwole has spent recent years researching the impact of such practices that not only damage the water supply but also impact the diverse wildlife that lives in the national park downstream.

"There are so many things that benefit from improving sustainability and productivity of the agricultural land," he said.

Abaye, an alternative crops specialist with Virginia Cooperative Extension, spent last year in Senegal, where she researched ways for locals to improve conservation agriculture in the West African nation. She introduced protein- and mineral-rich mung beans that increase the food and feed supply and provide groundcover.

Locals in the small village of Toubacouta were so excited after the first harvest that they held a celebration and dance.



Conrad Heatwole, associate professor of biological systems engineering, is studying how poor farming practices are harming forests near one of Africa's last unspoiled national parks.



Jim Westwood, professor of plant pathology, physiology, and weed science, is conducting research on parasitic plants in Africa and the Middle East.



Ozzie Abaye, professor of crop and soil environmental sciences, is examining grassland management and preservation in Senegal.

Alumni and friends enjoy CALS Fall Fest Homecoming

More than 200 alumni, faculty, staff, and students attended the college's annual Fall Fest Homecoming tailgate party prior to the Virginia Tech-Florida State football game on Nov. 8, 2012. Attendees enjoyed a buffet meal, a live band, visits with friends, and photos with the HokieBird. Abe Lincoln — or someone who looked a lot like him — also stopped by to celebrate the 150th anniversary of the Morrill Act.

A raffle for an autographed Virginia Tech football raised \$296 for college scholarships. The lucky winner was John Galbraith, associate professor of crop and soil environmental sciences.



Ned Jeter II (agricultural technology '03) and Rose Jeter (agricultural and applied economics '06, agricultural education '08) at the Fall Fest Homecoming tailgate party.

Alumni event raises \$6,300 for scholarships

Seventy-nine golfers and 17 sponsors helped raise \$6,300 for scholarships and alumni activities during the Eighth Annual CALS Alumni Organization Scramble for Scholars Golf Tournament at the Pete Dye River Course of Virginia Tech on Oct. 12, 2012.

First place went to the team of Terry Swecker, Tanner Bateman, Robert Swain, and Bobby Swain.

Five teams representing college departments competed in the inaugural department team competition: agricultural and applied economics, crop and soil environmental sciences, crop and soil environmental sciences graduate students, entomology, and entomology graduate students.

The agricultural and applied economics team of Steve Blank, Jason Grant, Randy Flinchum, and Jonah Bowles took home the first-place prize.

Congratulations and thank you to all participants and sponsored teams! See team photos, sponsors, and other awards at www.cals.vt.edu/alumni.



Small girl with a big heart

By Allison Hedrick

Katie Goodman, a member of the South Anna 4-H Club in Hanover County, Va., is gaining recognition for her work to feed the hungry.

"She just amazes me. She's just this ordinary little girl who does extraordinary things," said Rita Schalk, 4-H youth agent in Hanover County. "Katie has a great deal of compassion for people. She was raised to be a hard worker and do what she says she's going to do. She put the two together and that's why she is so successful."

Katie, 12, has made combating hunger her mission. In addition to coordinating countless canned food drives for local pantries, she began a program to provide fresh vegetables weekly to children who attend the summer lunch program at John M. Gandy Elementary School. She also began the Garden Writers Association's program, Plant a Row for the Hungry, in Hanover County. The program encourages local farmers to plant extra crops to donate to needy families. In addition, she started a Hunters for the Hungry program in her community that asks hunters to donate venison to local food banks.

So far, Katie has collected enough food and money to feed 6,773 people.

And it all started with 4-H.

In 2010, Katie competed in a 4-H public speaking contest, and the topic she chose was food insecurity in children.

"The information I learned really concerned me," she said. "I found out that there are kids I go to school who are struggling with hunger."



Virginia first lady Maureen McDonnell and Katie Goodman

“There are good people in this world and they are willing to help; you just have to get the needed information to them. Just because you are young doesn't mean you can not make a difference.”

— Katie Goodman

Katie has been acknowledged for her work with many awards and honors, including recognition by Gov. Bob McDonnell and first lady Maureen McDonnell. In May 2012, she received the 2012 Governor's Volunteerism Award in the youth category. In October, she was honored with the First Lady's Opportunity Hall of Fame Award. In February, the Prudential Spirit of Community Awards, a nationwide program honoring young people for outstanding acts of volunteerism, named her one of Virginia's top two youth volunteers of 2013.

"We didn't know she had won the award until they called her name," said Katie's mother, Betty Kay. Katie received a standing ovation from the crowd that represented many Virginia businesses and organizations.

"It was an honor," Katie said.

Being the mother — and chauffeur — of such an ambitious and busy girl can be pretty exhausting sometimes, Kay said. The most exciting part is seeing Katie's progress when she finishes a big project.

"It's not one big thing that Katie does; it's all the little things she does for the community," Schalk said.

"Her work is very simple. A lot of times it's just poster board and magic markers."

"There are good people in this world and they are willing to help; you just have to get the needed information to them," Katie said. "Just because you are young doesn't mean you can not make a difference."

Katie said she hopes to be a teacher or lawyer someday, or she might decide to work with horses and other animals. Whatever field she chooses, Katie is certain to make a difference.

iPads help 4-H agents reach children

By Allison Hedrick

It's hard to compete for a child's attention these days when television shows, computer programs, and video games tend to be favorite pastimes.

So Virginia Cooperative Extension agents decided that if you can't beat them, you might as well join them. The agents are using iPads to enhance educational programming and keep children engaged.

Last summer, Extension created an iPad lab that includes 12 iPads that agents can use in educational programs.

"Virginia 4-H emphasizes learning by doing, and using the iPad puts a modern spin on that," said Cathy Sutphin, associate director of 4-H youth development for Extension. Mark Sumner, information technology coordinator, and Melissa Breen, 4-H administrative assistant, helped to develop the iPad labs.

"When they say, 'There's an app for that,' they really mean it," Sutphin said. "Agents can use the iPads to go in so many different directions."

Ruth Wallace, 4-H agent in Buckingham County, said the iPads are good learning tools to keep children interested.

"On the first day when I mentioned that we would be using the iPads, the kids' eyes just lit up," Wallace said. "All of a sudden I had their complete attention."

Her 4-H group has been using iPads in an after-school program called "Mad Science." The students use the iPads to record their progress on science experiments, and they plan to turn their efforts into a video. They also use an iPad application called Tinkerbox to explore physics.

For Wallace, the technology allows her students to learn virtually in addition to the hands-on approach she uses.

"The iPads have helped us add another dimension to what we are doing," she said.

A 4-H group in Henry County used the iPads to explore and create music through the GarageBand app.

"Many youths are engaged in music and are musically inclined but can't afford all of the instruments. By having GarageBand, you have them all at once," said Brian Hairston, Henry County 4-H youth agent. "It lets you do things you could never do on a real instrument."



Bobby Griffith, teen leader of the Henry County 4-H group, plays a virtual drum on an iPad.



Tiffany Harvey

Harvey named to Multicultural Alumni Advisory Board

Tiffany Harvey (animal and poultry sciences and dairy science '06), a former Student Ambassador, will represent the college as a member of the Multicultural Alumni Advisory Board.

Board members strengthen relationships with alumni, ensure that everyone's voice is heard, and maintain a welcoming environment within the university, said Latanya Walker, director of alumni relations for diversity, inclusion, and community engagement at Virginia Tech.

"I look forward to working with the board and moving

the college and the university toward increasing multicultural student enrollment," said Harvey of Beltsville, Md.

Harvey, a territory manager for California-based Central Garden & Pet Co., said her experience as an ambassador enhanced her leadership skills and helped her career grow.

"I received a world-class education in agriculture at Virginia Tech and I want to share my experiences with potential students of various cultures," Harvey said. "This appointment means the world to me."

Virginia Junior Livestock Show

About 300 4-H and FFA members from 42 counties, along with their families and their more than 900 livestock projects, converged on the Rockingham County Fairgrounds for the 2012 Virginia Junior Livestock Expo — Virginia's largest youth livestock show — from Oct. 12-14, 2012.

The expo featured market and breeding shows for beef cattle, swine, sheep, and meat goats, as well as a stockman's contest. A recognition dinner and barn dance were also held. The Virginia 4-H Foundation announced its goal to expand the Virginia 4-H Livestock Program Endowment, which was established to support programs such as the Junior Livestock Expo.

"This event would not have been possible without the generous support of numerous sponsors and the faculty and staff members and volunteers who provided their time and talents to make the 2012 Virginia Junior Livestock Expo a huge success," said Paige Pratt, 4-H youth livestock specialist for Virginia Cooperative Extension. "Events such as the expo allow youth to come together from across the commonwealth to showcase their projects, learn from each other, and gain leadership skills."

Pratt said Extension is in discussions with the Virginia Farm Bureau Federation to explore the option of returning youth livestock shows to the State Fair of Virginia, but no decision has been made.

One of the many highlights of the show was the sheep and goat costume class. Exhibitors dress themselves and their sheep or goat in a themed costume.



Beef judge Curt Rinker of Shelbyville, Ill. gives an exhibitor instruction during the show.



Swine judge Warren Beeler of Caneyville, Ky. provides his placing on a class of crossbred market hogs.

Monitoring weather around the commonwealth

Virginia farmers and researchers will soon have access to climate data that will help them decide when to plant and harvest their crops, irrigate them, and apply fertilizers, herbicides, and insecticides.

The Virginia Agricultural Experiment Station has contracted with Blacksburg, Va.-based engineering consulting firm MapTech Inc. to update, install, and maintain the weather stations at the 11 Agricultural Research and Extension Centers, Kentland Farm, and the Northern Piedmont Center.

Each station tracks minute-by-minute measurements of air temperature, rainfall amount and intensity, wind speed and direction, relative humidity, barometric pressure, solar radiation, and soil moisture and temperature. The data will be provided over the Internet.

"We can add sensors to the weather stations that will monitor potential frost or flooding, alerting farmers when extreme temperatures may threaten livestock," said Saied Mostaghimi, associate dean of research and graduate studies and director of VAES.

Christopher Philips, a Ph.D. student in entomology, plans to use the weather data to predict the egg peak days for the cereal leaf beetle — a pest of oats, barley, and wheat. This information makes the scouting process more efficient and could minimize the use of automatic insecticide applications.

Ultimately, an online library of archived data will help subscribers with their research or farm operations.



Thirteen new weather stations around the commonwealth will supply researchers with minute-by-minute climatic conditions.

Dairy Challenge Team members win in regional competition

Nine students from Virginia Tech's Dairy Challenge Team competed as members of mixed-school teams at the 2012 Southern Regional Dairy Challenge, held Nov. 8-10, 2012 in Newberry, S.C.

Representing Virginia Tech were (left row, bottom to top) Peter Bachmann, a senior from Fallston, Md.; Clayborne Zimmerman, a junior from Walkersville, Md.; Trey Huffard, a senior from Crockett, Va.; Mark Hanigan, the David R. and Margaret Lincicome professor of agriculture; and Bob James, professor of dairy science and Extension dairy scientist. Right row, bottom to top: Roxanne Seltzer, a junior from Selinsgrove, Pa.; Erin Klingensmith, a junior from New London Township, Pa.; Elizabeth Sumners, a senior from Paris, Tenn.; Alli Davis, a senior from Philadelphia, Tenn.; Isaac Hammock, a senior from Chatham, Va.; and Tyler Boyd, a senior from Parrottsville, Tenn.

Davis, Seltzer, Zimmerman, and Hammock were on winning teams with students from other universities.

Four students will be selected to represent Virginia Tech at the North American Intercollegiate Dairy Challenge in April 2013.



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Making the best even better

By Lori Greiner

Jack Tyree, 97, will tell you that helping young people take on 4-H projects and seeing them grow and learn have made a big impact on his life.

From his early beginnings as an 8-year-old 4-H member in Cabell County, W.Va., throughout his career as a 4-H agent in West Virginia and Virginia and as the Virginia 4-H program leader, 4-H has helped shape Tyree into who he is today.

"My experience in the 4-H program provided me a foundation for my life," said Tyree. "I wanted to use the inspiration and guidelines I learned in 4-H to live according to the four-fold concept of head, heart, hands, and health and pass it along to others, which is what I have tried to do."

And to ensure that others will have similar opportunities in 4-H, Tyree and his wife have established two endowments — the Jack and Helen Tyree 4-H Teen Financial Education Endowment and the Jack and Helen Tyree 4-H Teen Leadership Endowment — that will help support financial education and leadership development programs in Virginia 4-H.

Tyree believes that helping 4-H members gain an appreciation for personal finance is important. He wants them to understand the value of money and how it can help them achieve their goals, but also to know that wealth comes in various forms. The endowment will be used to provide teen members with critical knowledge and skills in personal finance, such as investing, budgeting, and credit card management.

“It is important that 4-Her’s gain a greater appreciation for how finances can personally help us improve our lives and how we can invest that wealth to help others.” — Jack Tyree



"It is important that 4-Her's gain a greater appreciation for how finances can personally help us improve our lives and how we can invest that wealth to help others," said Tyree.

The Teen Leadership Endowment will enable Virginia 4-H to expand its leadership development opportunities for teens to learn about the leadership qualities and competencies that will help prepare them for the future.

"Jack continues to give back in ways that are not easily put in dollar terms," said Cathy Sutphin, associate director for 4-H youth development programs. "He continues to make a significant contribution to the wellness of the organization through his mentorship of faculty and sharing his wealth of knowledge and experience."

The Tyrees always loved the people and experiences they shared though their 4-H days. In addition to serving as an agent and state program leader, Tyree was instrumental in organizing the National Association of Extension 4-H Agents and served on the first NAE4-HA board, and served as the public relations chair for the executive committee. Helen served as a 4-H club leader for many years.

"I believe that adults who have had experiences through 4-H like I have would also be blessed by finding ways to assist in providing 4-H programs so that the programs will even be stronger today," said Tyree. "And I'm thankful for those that had the vision and determination to create the 4-H program."