Meet Doris Kelley Christopher, '67, and other ACES alums

ACES students on the move: East St. Louis, Washington DC, Sierra Leone

Extension 4-H’er tackles bullying
Greetings,

This year, the nation celebrates the 150th anniversary of the signing of the Morrill Act by President Abraham Lincoln. This significant legislation led to the establishment of land-grant institutions, including the University of Illinois, across the United States. The intent was to promote education in agriculture and other practical professions and to ensure access to higher education for citizens in all social classes.

While much has changed in 150 years, the College of ACES remains focused on its mission to provide high-quality education, to address society’s most critical challenges through cutting-edge research, and to serve the public with practical information based solidly on research findings. In this issue of ACES@Illinois, we highlight a sampling of our teaching, research, and outreach initiatives representative of the land-grant tradition. We also introduce you to some outstanding ACES alumni whose lives and careers have been shaped by their education at the University of Illinois.

This issue also spotlights valuable outcomes of the university’s recently completed Brilliant Futures campaign. I am grateful to our alumni and friends who continue to rise to the occasion to invest in our future. Because of this support, we are able to offset rising tuition with private scholarships, provide hands-on educational experiences beyond the classroom, invest in faculty who are educating future generations and advancing science and technologies, and provide public outreach and engagement. The College of ACES certainly benefited from many generous contributions, and the impacts are visible every day.

In whatever ways you are engaged with the College of ACES, thank you for helping us build a “Brilliant Future” for so many young people today. An investment in ACES is an investment in our collective future.

Best wishes,

Robert Hauser
Dean of ACES
The College of ACES and the University of Illinois invite you to “come home” and celebrate 150 years of the signing of the Morrill Act on Friday, October 26, during Homecoming Weekend.

In 1862, President Abraham Lincoln signed the legislation that gave 10,000 acres of federal land to each state. The states in turn were to sell the land and use the proceeds to create a public university to teach agriculture and the mechanical (engineering) arts.

“The Morrill Act democratized higher education in the United States,” said ACES dean Robert Hauser. “The act not only provided the public greater access to higher education, with a focus on agriculture and the mechanical arts, but it emphasized the importance of research and innovation to the nation’s continuing success.”

This anniversary marks a recommitment by land-grant and public universities to their public service missions—educating students, seeking new knowledge, and helping solve problems locally, regionally, nationally, and beyond.

At the University of Illinois, the College of ACES is fulfilling these missions in part by finding solutions to the world’s critical challenges. “The global challenges that we address as a college focus on food, energy, the environment, health, family, and community,” Hauser said. “The way we address them is simple—with world-class faculty, trained in biological, physical, or social sciences, who are passionate about researching critical issues and teaching the next generation.”

Don’t miss the opportunity to celebrate the Morrill Act with the College of ACES and the University of Illinois on October 26 during campus homecoming festivities. A day of events engaging faculty, staff, students, alumni, and community members is being planned to commemorate this special occasion.

Bob’s back!

In the winter issue of ACES@Illinois we reported that Robert Easter, Ph.D. ’76 in animal sciences, was retiring after 35 years at the University of Illinois. A few things have happened since then.

Just as the issue was going to press, Easter came out of retirement—for what was to be a brief period—to meet a need as interim vice-chancellor for research.

In March, university president Michael Hogan resigned, and Easter was named president-designate. He has agreed to serve in the position for two years.

The ACES family is proud to have one of our own at the top.

After earning his doctorate in animal sciences, Easter joined the faculty as a professor in the Department of Animal Sciences and department head in 1996. In 2002, he was promoted to dean of the College of ACES.
Doris Kelley Christopher never believed that being female would limit her success in business. The founder of The Pampered Chef first learned to recognize her unique strengths and turn them to her advantage when she was a U of I student. “Women are uniquely qualified to be 21st-century leaders. We are intuitive, collaborative, and nurturing. Those traits, backed up with a first-class education and experience, make us exceptional entrepreneurs. The key is to love what you do—because you will spend a lot of time doing it,” Christopher said.

In following her passion, the budding entrepreneur did encounter one obstacle. “Working mothers often struggle to overcome guilt. Do your best in each part of your life, and don’t beat yourself up. There will always be compromises and sacrifices,” she said.

In starting The Pampered Chef in 1980, Christopher found a solution to the obstacle she described. She was able to play to a strength—her love for both cooking and teaching—while enjoying the flexibility to spend time with her young children and empowering other women to do the same.

“Delight was a familiar feeling from the moment she arrived at the U of I. “My uncle thought I would be lost on such a large campus, but it felt as if I were attending a small school within a large university. I was like a kid in a candy store, not knowing which class to take first.”

By the time Christopher graduated, she had formulated a life mission: family first, meaningful work, and service to others. As The Pampered Chef grew beyond her wildest dreams, Christopher looked for a way to give back to the university that was the foundation for her success. She knew that ACES’ human development and family studies programs were outstanding, and on a campus visit, she toured their facilities. “In the basement of a building I had frequented as a student, I encountered a makeshift laboratory. The crude arrangement required researchers to sit in a furnace room behind a screen to observe families as they interacted. We decided this program deserved to leave the furnace room behind,” she said.

Christopher’s support resulted in a state-of-the-art facility with an observation suite that allows families to interact as if they were at home. Doris Kelley Christopher never believed that being female would limit her success in business. The founder of The Pampered Chef first learned to recognize her unique strengths and turn them to her advantage when she was a U of I student. “Women are uniquely qualified to be 21st-century leaders. We are intuitive, collaborative, and nurturing. Those traits, backed up with a first-class education and experience, make us exceptional entrepreneurs. The key is to love what you do—because you will spend a lot of time doing it,” Christopher said.

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Kelley Christopher Hall, home to the Department of Human and Community Development and the new Family Resiliency Program, opened its doors in 2006.

Today the Christopher Family Foundation Food and Family Program continues funding programs that strengthen families.

Christopher is not surprised that studies continue to reveal that family mealtimes play a critical role in children’s physical and emotional health.

“I’ve made it my mission to bring families back to the table. The table is where we mark milestones, divulge dreams, bury hatchets, make deals, give thanks, plan vacations, and tell jokes. It’s where children learn manners, cooperation, communication, self-control, values, following directions, sitting still, and taking turns. It is the heart of family life,” she said.

Nutrition expert honed leadership skills at U of I

When Roberta Larson Duyff graduated from the U of I as one of 100 Outstanding Seniors, she had absorbed countless facts and ideas about nutrition education in a “phenomenal” series of classes. She had also internalized the expectation that being a professional means being a leader, and that conviction took her places she never imagined she’d go.

“Although I’ve been busy lately writing the 4th edition of the American Dietetic Association’s Complete Food and Nutrition Guide, I’ve had a very varied career,” she said. “I’ve appeared on national TV as a culinary nutrition expert, authored high-school nutrition textbooks and children’s books about healthy eating, served as a consultant to USDA and the food industry, and much more.”

The ADA guide—attractive, comprehensive, and easy to read—is about choices you make every day about food, nutrition, physical activity, and health. “Some of these choices set the course of your life,” noted Duyff, who knows something about how choices can turn into lifestyles.

A student leader in college—she served on the College of Agriculture student council and was president of the campus chapter of Phi Upsilon Omicron, a national honor society in family and consumer sciences—Duyff has also assumed impressive leadership roles in her profession.

Among them are president of the Society for Nutrition Education Foundation and national chair of both Home Economists in Business and the ADA Food and Culinary Professionals practice group.

But Duyff is not motivated by accolades. “I attended the U of I at a turbulent time. In fact, I didn’t have to take senior exams because we were sent home early after the shootings at Kent State University. I wasn’t a protester, but the campus climate made me think about my direction, and I wanted to help make the world a better place,” she said.

That led her to build a consulting business and to participate in government projects, including USDA’s Team Nutrition. In one project, teens were asked to create graphics for low-literacy nutrition education materials to be used in food-stamp (SNAP) offices. First-time offenders, former gang members, and others created posters conveying positive nutrition messages.

“One of the teens, recently released from prison, showed a pregnant mom and her tiny daughter at a grocery counter with the caption ‘Look! Who’s checking out the food you buy?’ When I asked him why he chose that image, he said, ‘My girlfriend is pregnant, and I want to make sure she eats healthy for our child,’” Duyff said.

A former gang member drew an almost Norman Rockwell-style image of a family around a table eating a meal, she said.

“Making sure family meals are both emotionally and physically nourishing has always been important to Duyff. ‘Cooking skills are important. They let you take control of the nutritional quality of your meals while you are building relationships,’” she said.

Did you know?

There are 6,881 ACES alums with master’s degrees.
Given Rich Feltes’ career of nearly four decades in the commodities business, you might be surprised by one of the secrets of success that he shares with new brokers. “I tell them the eight most important keystrokes on your computer: the Reply button, t-h-a-n-k-s, and Send. Following up consistently with thanks is something that’s missing in today’s culture,” said Feltes, currently the vice president of research at R.J. O’Brien and Associates in Chicago, the country’s largest independent futures brokerage firm.

Feltes graduated from ACES in 1970 with a degree in what was then called agricultural industries. Over the decades he has honed his skills in commodity research and risk management. “I’ve benefited by staying in the same industry,” Feltes said. “Working in a variety of positions in the cash grain and futures markets proved to be excellent training for my current role as a commodity analyst.”

Striving to be the best is another piece of advice Feltes gives young professionals—and it’s been a motto for his own life, including during his years as a U of I wheelchair athlete. “Because I had polio as an infant and grew up on a farm, I applied to the U of I for its reputation as a top-tier agriculture school on the most accessible campus in the United States. I set the U.S. record for the wheelchair mile in 1969 and played on the university’s national champion wheelchair basketball teams in 1969 and 1970.”

Disabled athletes were not honored with varsity letters until 1976, but Feltes successfully petitioned the U of I to award the letters to all prior wheelchair athletes. “I never set my sights on being an average grain merchandiser, crop scout, or analyst, but to be the best. Because of that, I have never had a day without work.” In fact, each of Feltes’ career moves has been made because a company contacted him to work for them.

Feltes and his wife, Anita, ’72, have three children, the youngest of whom graduated in May from the U of I College of Applied Health Sciences with a degree in community health.

Elliott makes lasting contributions to agricultural engineering at Oklahoma State

Ron Elliott, ’73 AgE, MS ’74 AgE, is a professor emeritus at Oklahoma State University in Stillwater. Elliott spent several years with the State of Illinois Environmental Protection Agency, then received his Ph.D. from Colorado State in 1981.

“After earning my Ph.D., I interviewed at four universities,” said Elliott, “including the University of Illinois, but I decided a position at Oklahoma State was my best opportunity.”

His instincts must have been correct, because after “moving through the ranks” to full professor, Elliott eventually became head of the Department of Biosystems and Agricultural Engineering in 2001, retiring in 2010.

Elliott is highly regarded for his research involving hydraulics of surface irrigation; interactions among soil, water, plants, and atmosphere; and evapotranspiration, which advanced the theory and practice of effective irrigation water management. He co-founded the Oklahoma Mesonet, a state-of-the-art weather and soil-monitoring network.

The 120 automated solar and battery-powered stations that make up Mesonet report weather and soil measurements every five minutes. This data is turned into value-added products—information that can be used by farmers and ranchers, as well as by emergency management personnel and many others, in decision making.

Elliott credits his time at Illinois (“back when the Earth was still cooling”) as both influential and enjoyable. “Illinois has one of the premier engineering programs in the country, as well as one of the premier ag programs in the country. So for an ag engineer, it was a pretty fertile place,” he noted.

“The faculty I interacted with—individuals like Walt Lembke, Roger Yoerger, Kent Mitchell, and Don Day—had a huge influence on me. Walt was my mentor and M.S. advisor, and I was a teaching assistant for Kent in his surveying class. They were wonderful to work with, and I had some great classmates as well. Illinois was a good fit for me.”
Portuguese explorer Ferdinand Magellan is the namesake for both the email address and the cat belonging to Jim Henderson—himself a globetrotter who has circumnavigated the planet in visiting, at last count, 102 countries for business and pleasure.

Henderson grew up in Illinois near Bloomington. He graduated from the U of I in 1967 with a bachelor’s degree in forest management.

“I was surprised to find a forestry program at Illinois,” Henderson said. “Most programs are in areas of the country surrounded by forests, such as the Pacific Northwest. And although the state of Illinois is mainly prairie, the degree prepared me well on the basics of forestry and as a general environmental degree.”

During that undergraduate program, Henderson attended a summer camp in Minnesota, interned another summer at Montana’s Beaverhead National Forest, and took a senior trip to Louisiana, Mississippi, and Arkansas.

“The general requirements of the program allowed for a lot of flexibility,” he said. “I found that I wanted to go into land planning, and that led me into landscape architecture. My professors at Illinois encouraged me to go on for a master’s degree.”

Henderson received that degree in logging engineering from Oregon State University and a second master’s in environmental planning from the University of Washington. His Ph.D. work was in remote sensing and satellite image analysis at the University of British Columbia.

Henderson’s first job was with the U.S. Forest Service in northeastern Washington, where he was responsible for reforestation and silvicultural management in the Republic ranger district. His then-supervisor went on to become the chief of the U.S. Forest Service.

“After I got the degree in environmental planning at U of Washington, I traveled for a year with my best friend in Africa, where I eventually met my wife,” Henderson said. “She and I moved to England for a short time, then returned to the States, where I worked with an environmental planning consulting firm in Seattle. After four years in the Pacific Northwest, we moved to Alaska. I took a position with the U.S. Fish and Wildlife Service working on land-use management plans and environmental impact statements for over 100 million acres of new wildlife refuges, which had been established as a result of the Alaska Native Claims Settlement Act.

“It was here that I gained my experience managing geographic information systems (GIS), which eventually led me to my current position with the Environmental Systems Research Institute (Esri), where I became a trainer and technical support analyst.”

Esri, headquartered in Redlands, California, had fewer than 60 employees when Henderson joined the company in 1985. Today it employs almost 4,000 people worldwide.

“I’ve seen phenomenal growth in both Esri and GIS in my 24 years with the company,” Henderson said. “GIS has become a pervasive technology, underlying a wide variety of software applications that most of us take for granted these days, such as the navigation system in our car, the maps and directions we get from travel websites, and the maps of voting results we see on TV during election night coverage. My job at Esri has evolved into management of our international user conferences, the most important being the annual meeting in San Diego—with over 15,000 attendees, the largest gathering of GIS professionals in the world.”

Henderson retired early in 2012. He plans to continue traveling the world, adding to the list of countries he has visited while pursuing his passion for photography at a more professional level.
Outstanding in their field? It’s no joke with Andrew and Karlie Elliott Bowman, who received one of four national Outstanding Young Farmer Awards for 2012.

The Danville Jaycees nominated the Bowmans for the award, based on Andrew Bowman’s qualities and the contributions he has made locally, statewide, nationally, and internationally in agribusiness and the ag community.

As a fifth-generation farmer, Andrew considers himself an “investment vehicle” for the farming operations he is in charge of. “I am a financial steward of four previous generations,” he said. “To forget that and become arrogant would be tantamount to forgetting why I farm. I am blessed with great help from my family but humbled by the responsibility it bears.”

The Bowmans are members of the Knox County Farm Bureau Young Leaders. A grain-bin safety fundraiser that Andrew organized brought in more than $22,000 for trainings and equipment for local fire departments. The funds enabled the purchase of five rescue tubes and educated more than 60 area first-responders in grain bin safety.

As members of their local FFA alumni chapter, Andrew said, he and Karlie “continue to advocate for the education and experiences we attained at Illinois to new recruits. As alumni we hope to become more involved with recruiting and alum boards going forward, in more formal roles.”

Karlie works at Wyffels Hybrids as digital media manager. While she may not drive a grain cart, a tractor, or a combine, the role she plays in strategic planning, communications, and overall support far outweighs any physical labor she could perform, Andrew said.

Andrew graduated from ACES in crop sciences in 2008. While at the U of I, he founded the Ag Day Meal in Alpha Zeta fraternity. Karlie graduated from ACES in 2009 in ag communications and received a master’s degree in advertising from the College of Media two years later.

Jeff Ehrhardt, a 1999 agricultural mechanics grad, has worn multiple hats on multiple continents in his career with John Deere. He began as a marketing intern with an international emphasis, received a master’s degree from the University of Nebraska, then came back to Deere.

“After nine months in wholesale finance and marketing development, I hopped over to the factory as a manufacturing engineer for three years,” he said. “Eventually, I became a territory sales manager for Hitachi. John Deere Construction markets Hitachi-branded construction products in the Americas.”

In late 2005, Jeff and his wife Jenny (Reason, a 2002 graduate in human development and family studies), moved to Singapore, where Ehrhardt managed commercial operations for southeast Asia, Oceania, Australia, and southern Africa.

“Tis far better to beg for forgiveness than ask for permission!”
Soy protein alleviates symptoms of fatty liver disease

University of Illinois scientists report that soy protein may significantly reduce fat accumulation and triglycerides in the livers of obese persons. And they’ve discovered why it happens: soy restores partial function of that organ’s key signaling pathway.

“Almost a third of American adults have fatty liver disease, many of them without symptoms. Obesity is a key risk factor for this condition, which can lead to liver failure,” said Hong Chen, a U of I assistant professor of food science and human nutrition.

Fat is metabolized in the liver, and in obese persons, the transport of fat to adipose tissue can slow down to the point that the liver becomes a dumping ground for excess fat, she said. “When fat accumulates in an organ that’s not supposed to store fat, like the liver, that organ’s vital function can be dangerously compromised.”

Eating soy protein, in such sources as tofu and soy yogurt, appears to alleviate some of the stress on fatty livers. Chen compared fat accumulation in the livers of lean and obese rats, which were assigned for 17 weeks after weaning either to a diet containing casein, a milk-based protein, or to one containing soy protein.

Diet had no effect on the liver profiles of lean animals, but obese rats fed soy showed a 20 percent reduction in triglycerides and overall fat accumulation in the liver, leading Chen to believe that soy protein could be used to alleviate the symptoms of fatty liver disease.

Further, the scientists discovered that soy protein isolate partially restores the Wnt/β-catenin signaling pathway, a crucial player in fat metabolism.

“In many obese persons, there’s a sort of traffic problem, and when more fat can make its way out of the liver, there is less pressure on that organ,” Chen said.

New formula ingredients boost babies’ immunity

Adding prebiotic ingredients to infant formula helps colonize the newborn’s gut with a stable population of beneficial bacteria, and probiotics enhance immunity in formula-fed infants, two University of Illinois studies report.

“The beneficial bacteria that live in a baby’s intestine are all-important to an infant’s health, growth, and ability to fight off infections,” said Kelly Tappenden, Kraft Foods Human Nutrition Endowed Professor in the Division of Nutritional Sciences. “Breast-fed babies acquire this protection naturally. Formula-fed infants get sick more easily because the populations of bacteria in their gut are less stable.”

The idea is to make formula more like breast milk by promoting the sorts of intestinal bacteria that live in breast-fed babies’ intestines, she added.

Prebiotics are carbohydrates that resist digestion by human enzymes and stimulate the growth and activity of beneficial bacteria in the gastrointestinal tract. Probiotics are actual live bacteria that are beneficial to intestinal health.

The researchers compared the effects of feeding prebiotics and probiotics with feeding breast milk and control formulas by testing babies’ stool samples. They also compared the enhanced formulas’ effects in babies delivered vaginally and by cesarean section. “The probiotic formula significantly enhanced immunity in formula-fed infants,” Tappenden said.

Babies delivered by C-section also had improved immunity, an important finding because these babies are a more vulnerable group.

Why is this true? Babies delivered vaginally are exposed to the mother’s bacteria as they travel through the birth canal, and they develop a healthier population of gut bacteria as a result. Babies delivered by C-section enter a sterile environment, Tappenden said, and their gut bacteria are quite different.
Berm enables teaching, training in erosion control and stormwater management

A dirt berm 300 feet long and 13 feet high graces the research farm of the Department of Agricultural and Biological Engineering (ABE). The department teamed with state and professional entities to develop the berm, which will enable multiple research and training opportunities in erosion control and stormwater management.

The construction was funded by a $450,000 grant from the Illinois Department of Transportation (IDOT) and an in-kind contribution of $50,000 from the Illinois Land Improvement Contractors Association (ILICA). Prasanta Kalita, an ACES agricultural engineer, is a co-investigator for the project, along with Niels Svendsen and Heidi Howard of the U.S. Army Corps of Engineers’ Construction Engineering Research Laboratory (CERL).

Four erosion plots will be used to evaluate products used for erosion control, said Kalita. “IDOT spends considerable money on these products, and they need to know which are most durable and do the best job.”

IDOT, ILICA, and other organizations will use the new facility to train engineers and technicians to install effective erosion control and develop stormwater management plans, Kalita said. “We have developed three classes to provide this training. The first covers the fundamentals of erosion control practices. The second class focuses on design, and the third addresses installation, maintenance, and inspection.”

The berm is also used to involve students in research. Graduate students Joseph Monical, Carlos Bulnes, and Kim Wojtulewicz are working on projects that evaluate vegetation cover on slope seed conditions, study sediment control check dams, and do basic research on sediment source tracking.

“This facility is an excellent example of fulfilling the university’s threefold mission of research, teaching, and outreach,” Kalita concluded.

Students spruce up veterans center in East St. Louis

How could raking a yard and painting a building help a student in human development and family studies (HDFS) clarify her career aspirations?

“An HDFS degree is a great starting point for many careers, but department head Bob Hughes and I noticed that our incoming freshmen weren’t always aware of the possibilities,” said Gerry Walter, undergraduate adviser in the Department of Human and Community Development.

Last year Walter and Hughes brought all first-year HDFS majors together in a semester-long class to talk about their adjustment to university life and explore their career options. The class included a trip to East St. Louis to volunteer at the Eagle’s Nest veterans center.

“As the students got away from campus, talked with each other, and worked together, you could see them make some connections and begin to think about the future,” Walter said.

Many HDFS students, who are learning about child development and healthy family life, go into social work, psychology, or health careers. But Walter believes that the insight they gain in their classes enhances any career they choose.

“Imagine you have two doctors, one with a U of I biology degree, one with a degree in HDFS. Say they went to the same medical school, took the same classes, got the same grades. Who would you rather have taking care of your sick child? The HDFS major will be every bit as good a doctor, but she’ll also understand why your three-year-old is crying and have ideas about how to comfort her,” Walter said.

Many students found working with the veterans very satisfying. “I enjoyed interacting with East St. Louis residents,” said Felix Cardoso. “They have a rich cultural heritage that they enjoyed sharing. I want to make volunteer work like this a part of my life going forward.”

HDFS student Rianna Schmidt clears weeds from a fenceline at the Eagle’s Nest, a veterans center in East St. Louis.
Right hybrid sweetens your profits

Research on the number of plants needed to optimize sweet corn yield is badly needed, says Marty Williams (above), associate professor of crop sciences and USDA-ARS ecologist. “Plant populations have been studied extensively in field corn,” he said. “However, since the 1960s, nothing has been published on processing sweet corn.”

In a research project for the Midwest Food Processors Association, Williams examined the relationship between plant populations and profitability. He evaluated a range of populations, planted under different growing conditions, for six sweet corn hybrids from Del Monte, Syngenta Seeds, and Crookham Company.

He found that canopy density and light capture increased with population size, silk emergence was delayed, and filled ear length and recovery (the percentage of ear mass represented by kernel mass) were reduced. Lower recovery increases costs for processors because they have to handle larger volumes of corn.

Across all the environments, the optimal plant populations for the various hybrids differed by more than 9,000 plants per acre. The average plant population was 23,500 plants per acre—not enough to maximize yield for some varieties, but too much to maximize it for others.

“The sweet corn hybrid itself has a major effect on profitability,” Williams said. “The gross profit margin to processors varied among hybrids by $1,500 an acre. If I were growing sweet corn under contract, I’d want to know more about the hybrid. The grower’s profit varied by as much as $211 per acre among the varieties we tested.”

Williams noted that it was not clear why the top-performing hybrids had better stress tolerance to higher populations.

“We compared these results to plant populations observed in growers’ fields throughout Illinois, Minnesota, and Wisconsin,” Williams said. “We found that higher profits to growers and processors alike are possible with greater plant populations of certain hybrids.”
Rice swamps provide unique learning experience


These are some of the words associate professor Paul McNamara uses to describe a study-abroad trip he led in January to Sierra Leone. Eleven students, together with McNamara and former Peace Corps volunteer Lisa Sechler, made the two-and-a-half-week trip for students to learn about agriculture, the environment, and community development in the African nation.

“What makes this study-abroad trip unique is that the students actually complete an academic service project,” McNamara said. “This year we were asked by World Vision to assess the impact of the rice swamp development with water and berms and irrigated rice fields that has been supported through the USAID-funded Promoting Agriculture, Governance and the Environment [PAGE] project for the past six years.”

The students performed a 7-day rapid assessment of the rice farmers’ growing methods and business practices. They interviewed farmers in villages in eastern and southern Sierra Leone about their agronomic practices, seeds, weeding, and fertilizer and chemical use. With some of the highest rainfall in the world, farmers in the region face unique challenges.

“One of those challenges is building berms,” McNamara said. “It’s very labor intensive. The farmers don’t have machinery, so the work is all done with hand hoes.”

After the assessment the students wrote a 30-page report about what they learned; they presented their findings, with recommendations for the proper focus going forward, to World Vision staff in Freetown, the country’s capital.

During their trip the group also participated in a workshop at Njala University, which the University of Illinois has been in partnership with since 1964. Agricultural engineer Prasanta Kalita gave lectures on global issues in water management and shared information on land and water management.

“Participating in the workshop and the service project makes this an excellent educational trip for students,” McNamara said. “It’s about jumping in and learning.”

We can feed the world, but will we?

Can we meet the challenge of feeding the world’s hungry people? Yes, we can, according to animal sciences professor James Pettigrew. But will we? His sense of urgency motivates him to carry this question to audiences around the world.

Pettigrew is a passionate advocate for solving the world’s challenges of both food sufficiency, meaning that farmers produce enough to feed everyone, and food security, or ensuring that everyone has enough to eat every day.

“In three decades we doubled food production, mainly because we developed and applied agricultural technology. It’s not enough. We need to make the necessary investments in research, education, and extension that will drive that success into the future,” Pettigrew said.

In three of the last four years, the world has consumed more cereal grains than it has produced. In the U.S., at the end of a production season, a four- to six-week supply of corn and two to three weeks’ worth of soybeans remain. “That’s a very thin margin,” he noted.

“We need to continue to produce as much as we can in the U.S., but the solution lies in bringing the rest of the world up to our productivity levels. Not only do we need to work with commercial agriculture in poorer countries, we need to help their small landholders adopt technology and produce more.”

In approaching this challenge, there are headwinds, Pettigrew said. First, there isn’t much more land to bring into production. Second, some places will experience reduced groundwater supply. Third, our supply of fossil fuels, important for both powering agricultural equipment and producing nitrogen fertilizer, is limited. Fourth, much material from the food supply is being diverted to the creation of energy. Finally, climate change is likely to affect our production systems.
Mazes, MRIs, and piglets teach scientists about human brain development

Mazes and MRIs are among the tools ACES animal scientists are using to learn about brain development in piglets—and in humans.

“Piglets are an excellent model for human pediatric research,” said researcher Rodney Johnson. “When pigs and people are born, their brains are 25 percent of their adult size, and in the first two years of life, that size doubles. A tremendous growth spurt occurs in both cases just before and just after birth.”

Johnson is interested in how nutrient deficiencies and infections affect the human brain during this time of early and rapid growth. “How do stressors in that window change the way the brain is wired? Will the child be more susceptible to behavior disorders later in life?”

Johnson and colleague Ryan Dilger have developed a unique system for studying memory and learning in the piglet brain that should help them answer those questions. Experimental diets and behavioral testing begin in the lab’s sophisticated facility when the pigs are only one week old.

Recently the scientists did MRIs on the brains of baby pigs every four weeks, from the time they were two weeks to 24 weeks old.

Managing Mississippi flooding

When the water in the Mississippi River rose to 58 feet in May 2011, with a forecast of 60 feet or higher, an emergency plan established over 80 years before was put in motion to breach the levees, whether naturally or intentionally.

What was the result? “The force and depth of floodwater caused more building damage and more deep land scouring than was anticipated,” said Ken Olson, ACES soil scientist. “The strong current and sweep of water through the Birds Point, Missouri, breach created hundreds of acres of deep gullies in the Missouri farmland located in the 133,000-acre New Madrid floodway; it displaced tons of soil and damaged irrigation equipment, farms, and homes.”

Olson has followed the drama of the deliberate flooding closely, and he believes it will create long-lasting, if not permanent, agricultural damage. The rushing water gouged large, deep gullies and crater lakes on parcels of agricultural land adjacent to the blown levees, and it created gullies even on some distant fields. The agricultural land near the crater lakes was also covered with thick sand deposits.

Olson believes that even if the fields of gullies are reclaimed, the soils are likely to have lower productivity. “The resulting land surface will have less soil aggregation and less organic carbon and it will be more sloping, making it difficult to farm,” he said. “Some of this lost cropland could be restored as wetlands and wildlife habitat adjacent to the patched levees.”

Olson recommended possible solutions to reduce flooding impact on agricultural lands in flat watersheds with poorly drained soils, such as creating temporary water storage structures, changing the crop rotation in the upland to include more forages rather than row crops, converting more of the agricultural land to timberland or grassland that can use or store more water, and building higher and stronger levees that are located farther from the riverbanks to widen the river flow channel.
Spurred by Illinois legislation enacted in 1996, the Certified Livestock Manager Training program has been offered to Illinois livestock producers each year since 1997. Ted Funk, an agricultural engineer and extension specialist in the Department of Agricultural and Biological Engineering, has headed the program since its inception.

“The Livestock Management Facilities Act was passed in Illinois in May of 1996,” said Funk, “requiring certification in livestock manure management for producers with more than 300 animal units. At that time, Loren Bode [then-head of the department] said we needed to take the lead on the project.”

Funk helped write the original curriculum for the training. “I would estimate we’ve seen more than 3,000 different people since our first year of operation,” said Funk. “The response of the livestock producers was exemplary when we started. They wanted to make a good faith effort to get the certification process going. I give them a lot of credit.”

In 2000, the U of I collaborated with other land-grant universities and the USDA to write and test the Livestock and Poultry Environmental Stewardship National Curriculum, which is the current manual and the source of state test questions.

Typically a dozen workshops are held across Illinois from December through March. Some are species-specific (beef/dairy cattle or swine), and all of them offer the state examination required for producers with 300 or more animals.

Funk said the workshops have helped reduce the environmental impact of manure handling and have introduced new technologies in areas such as odor control, carcass management, and construction procedures.

“Producers don’t get into the livestock business to manage manure,” Funk concluded. “They see it as a cost, so we do everything we can to help them improve their manure management.”

Master Gardener Youth Project Wins International Award

The work of Champaign County Master Gardeners took second place in the Search for Excellence Award at the International Master Gardener Convention in Charleston, West Virginia. The Master Gardeners have volunteered for the last eight years at the Champaign County Juvenile Detention Center, providing an exceptional horticulture program focused on at-risk youth ages 12 to 17.

Livestock certification program achieves 15 years of service

Farmdoc daily makes quick inroads in agricultural web news

Farmdoc daily, a website focusing on “Corn Belt farm economics” launched a year ago in March, quickly achieved a significant milestone in the agricultural blogosphere. In its first year, the fledgling site published one original article of research-based analysis and information every business day.

Scott Irwin, farmdoc daily team leader, is the Laurence J. Norton Chair of Agricultural Marketing in the Department of Agricultural and Consumer Economics (ACE). Irwin also led the team that developed farmdoc, the parent website, more than a dozen years ago.

“We wanted something that would complement farmdoc,” said Irwin, “and it needed to fit with the technology that has undergone enormous changes in the last decade.”

Team members and contributors include Irwin, Paul Ellinger (ACE department head), Bryan Endres, Darrel Good, Gary Hoff, Nick Paulson, Gary Schnitkey, and Bruce Sherrick, all professors in ACE; Dwight Raab, an ACE extension specialist; and Paul Peterson, The Clearing Corporation Foundation Endowed Chair in Derivatives Trading. Chris Hurt, a professor of agricultural economics at Purdue University, and Carl Zulauf, a professor of agricultural, environmental, and development economics at Ohio State University, are also regular contributors. Mark Althouse is the site’s project manager.

The website receives roughly 30,000 visits a month, with that number growing about 10 percent a month. Two posts from farmdoc daily have been featured on AgWeb, the largest web news service for agriculture around the world.

“I knew when we began that we had something that was interesting and fun, but I never could have foreseen that it was going to be this successful this fast,” Irwin concluded.
One challenge of preparing for disaster is addressing the insistence that “it could never happen here,” said Anne Heinze Silvis, interim program leader for Extension’s Community and Economic Development program. When coupled with an attitude that “we can’t do anything about it anyway,” Silvis said, planning becomes easy to put off as community leaders stay busy managing ongoing issues.

Silvis is collaborating with Extension staff to help communities ready themselves to respond efficiently and effectively should the unthinkable occur. The program includes preparedness, response, recovery, and mitigation planning. The goal of the program is to build leadership capacity through effective planning, creating more disaster-resilient communities.

“Oftentimes, community leaders do not have specific, assigned responsibility for disaster management,” said Silvis. “Extension educators work with community leaders to develop appropriate expectations for disaster incidents and realistic approaches to preparation.”

Silvis said there are three requirements of disaster preparedness: knowing what to do in the face of disaster, knowing how to do what needs to be done, and being equipped with the right tools to do what needs to be done. “Often,” Silvis said, “it takes the entire community to fulfill these three requirements.” She cited one example that illustrates successful community engagement to plan for and manage disaster.

“When small communities along the Mississippi River were flooded several times over a period of years, they decided to use funding from private, state, and federal sources to organize a regionwide property buy-out, and they worked together to rebuild on higher ground,” Silvis said. “By focusing on a collaborative response to disaster, these communities created a shared vision for their future and developed a public–private partnership to make it happen.”

Silvis concluded, “Our overall goal is to help local leaders plan for, respond to, recover from, and mitigate disaster in their communities.” For more information on disaster resources, visit web.extension.illinois.edu/disaster.

“Farm to School” program now part of Illinois Extension

As part of the ongoing commitment to “put knowledge to work,” U of I Extension has taken the Illinois Farm to School program under its umbrella.

The National Farm to School Network connects schools and local farms, with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing education, and supporting local and regional farmers. The national program began in 1996 as a pilot project in California and Florida, and today there are over 2,000 programs in all 50 states.

In January of this year, Extension hired Julia Govis as the coordinator for Illinois Farm to School. Govis has volunteered in the program for several years, working with individuals and organizations to foster a presence statewide.

Govis works with the State Board of Education, Department of Agriculture, and Department of Public Health as well as the offices of the governor and lieutenant governor. “I reach out to these agencies to address barriers or obstacles within our state that I’m made aware of,” said Govis, “as communities work toward creating their own unique programs. For instance, right now I’m working with the public health department to put together recommendations for school garden safety.”

Govis also works with volunteers across Illinois to coordinate efforts that include “getting more locally grown, fresh produce into school cafeterias, establishing school gardens on school premises, or taking field trips to farms.”

You can learn more about the Farm to School program by visiting web.extension.illinois.edu/farmtoschool.
4-H’er speaks out and acts out against bullying

After winning the Effingham County Fair Junior Miss Pageant, Paige Logan, became a victim of bullying. She said it was difficult for her to speak out at first because she believed the bullies were her friends. Soon she was afraid to go to school, and her grades plummeted.

Logan turned to 4-H as a safe zone. She founded the Effingham County Youth Ambassadors, a 4-H club dedicated to leadership and community service.

“4-H is where I met my true friends,” Logan said. “Without it, I would not be the person I am today. This organization has really changed my life and given me many opportunities.”

Today the club has about 25 members. They run a prescription drug disposal program and write grants to help organizations receive the funding they need for service projects.

Two years ago, the club received a $10,000 grant to hold a leadership camp for junior high youth called SCORE, or Skills Created Togetherto Reach Excellence. Camp SCORE teaches students about seven leadership skills instilled by 4-H. Logan said she hopes that these skills influence students at an age when many experience bullying.

Logan said she knows the damage bullying and cyberbullying do to victims’ self-esteem.

“I want everyone to know they are important,” she said. “Never let anyone make you feel unworthy. We are all special, and don’t ever let anyone convince you otherwise.”

She said she tells bullying victims that it’s important to talk to parents or other adults about what’s really happening.

“You can’t hold it in,” she said. “The more you hold it in the more you are going to get upset and down about yourself, which can lead to depression and suicide.”

Logan also tells parents it is important for them to be involved in order to stop bullying or cyberbullying.

Last September, Logan was the voice for nearly 8 million American youth during the Federal Partners in Bullying Prevention Summit. She was invited to share her story in hopes of creating stronger legislation and policies against bullying and cyberbullying.

Logan is a member of the Illinois 4-H Youth Leadership Team, Speaking for Illinois 4-H, and the Illinois Board of Education Student Advisory Council. She is also a national spokesperson for the NO BULL Challenge, a national video contest to raise awareness about cyberbullying in America.

Illinois 4-H member makes “Prom Possible”

Last year Brooke Crawford, 18, read a magazine article about donating used prom dresses to charities. She thought little of it until she realized that many of her peers could not afford to attend prom. She posted a plea on Facebook for dresses and received a huge response.

In March 2011, 32 girls perused more than 150 donated dresses, shoes, and other prom accessories. Local businesses donated gift certificates for flowers and salons to complete the girls’ prom experience.

“I believe a lot of underprivileged girls aren’t confident about themselves. They may not feel like they are as good as everyone else if they don’t have money because today’s world is materialistic,” Crawford said. “This is a good way to give them confidence and help them feel they are just like everyone else, no matter their financial situation.”

Last year’s donation drive developed into Prom Possible, a charity that provides formal dresses and accessories to girls in need in southern Illinois, southern Indiana, and northwestern Kentucky.

“It’s humbling to help these girls in ways I’ve taken for granted,” Crawford said. “Some of the girls who come in have never had money to go out and get a dress. Some have never been able to have a shopping experience with their moms. Prom Possible is benefiting not just them but the whole family.”
With state funding for higher education on the decline and university tuition rates reaching new highs as a result, private money has become a crucial piece of the financial puzzle—one that fundraisers often refer to as “the margin of excellence.”

While support from alumni, friends, corporations, and foundations provides just 3 percent of the total University of Illinois budget, it is responsible for making tuition affordable for many students, providing experiential learning opportunities, enabling the recruitment and retention of highly sought-after faculty, funding innovative research, and permitting construction of new and upgraded facilities.

Since 1980, state funding has covered less than half of the university’s budget, and this share has been on a steady decline. The state now supports about 15 percent of the U of I’s $5-billion operating budget, covering only $285 million of a $1.9-billion total for the Urbana-Champaign campus.

Over the past decade, the state has cut funding for day-to-day university operations by more than 30 percent, President Michael Hogan said in the U of I’s budget request for the 2013 fiscal year. In 1970, U of I received $12 in direct state support for every $1 of tuition revenue. Today that figure is 70 cents for every $1 in tuition, as reported in Illinois Alumni magazine. For the first time in the university’s history, in FY2011 student tuition and fees made up a larger portion of the budget than state revenues.

This reality means that the university relies increasingly on private donations to help.

“In reality, we are in ‘campaign mode’ every year,” said Barry Dickerson, ACES senior director of advancement.

The U of I Foundation reported $253.9 million in new gift commitments for FY2011, the sixth highest total ever. This was the fifth consecutive year that new commitments exceeded $250 million.

In ACES, donations made to the Brilliant Futures Campaign have had a lasting impact on students, faculty, and staff. The gifts of Doris Christopher, alumna and founder of The Pampered Chef, and her family made possible the construction of Doris Kelley Christopher Hall. The research and educational facility houses The Pampered Chef Family Resiliency Program, the Resiliency Center, and the Department of Human and Community Development.

The $1.5-million Sarah McFarland Carillon, built west of the ACES Library, was donated by H. Richard McFarland in his wife’s memory. The 173-feet tall carillon, surrounded by gardens, has 48 bells and is electronically programmed to play songs.

“Frankly,” said Dickerson, “there is not a building built on this campus that doesn’t have private support.” He cited the ACES Library as a prime example of public–private partnership.

“I think the total cost was around $21 or $22 million, and half of that money came from private support,” Dickerson said. “The library is very much the heartbeat of the college.”

Nearly 9 percent of donations made to ACES are for scholarships, a critical area for support going forward. Jason Emmert, assistant dean in academic programs, said the college awarded nearly $2 million in scholarships for each of the past two academic years. As tuition rises, offsetting those increases with private scholarship support is imperative to making a public education affordable to all.

In ACES, corporate support contributes 38 percent of all gifts. Alumni follow with 29 percent, and non-alumni contribute 15 percent. Stacey Cole, assistant director of advancement, said ACES relies on its loyal base of more than 31,000 living alumni for continuing support.

“We have an extremely loyal group of alumni and friends who give year after year,” she said. “The financial support from all of our donors, including individual, corporations, and foundations, makes a significant difference in building brilliant futures that are certain to create lasting legacies for generations to come.”
The Pizzo family didn’t know their holiday gathering back in 2010 would be more than a party, but it was the starting point for a unique family legacy scholarship fund that will change the world for many deserving University of Illinois students.

The Pizzos’ passion for education and helping others originated with parents Joe and Beth. To date more than 35 extended family members have earned more than 40 academic degrees from Illinois, so their Illini ties are strong.

Of Joe and Beth’s six children, five graduated from the U of I: Pat, Jim, Joel (deceased), Jack, and Pamela. (Youngest daughter Peg married into an orange-and-blue family instead.)

“Our parents said we could apply wherever, but they strongly suggested we start at the U of I,” laughed Pamela Russell, a 1987 ACES graduate.

The Pizzos raised their children in Naperville, where Beth was instrumental in managing the family’s three floral shops and Joe worked as a biology professor by day and spent nights with the business.

“We’ve had to work hard, but it’s been fun,” Beth said. “Our kids learned early the value of a strong work ethic and the importance of charity and giving to others.”

So when Stacey Cole, assistant director of development, approached the Pizzos at their holiday gathering about supporting ACES, nobody thought twice about saying yes.

“They were already giving back to help fund various educational programs and projects,” Cole said, “so I challenged them to consider giving as one large family to a scholarship fund.”

The idea was a hit. Pooling their money enabled the group to establish a scholarship in honor of the Bauer, Mickelson, Pizzo, and Russell families and in memory of Joel, a 1982 ACES graduate.

The family’s generosity will benefit students in the College of ACES, the College of Media, the College of Engineering, and the College of Liberal Arts and Sciences. Initially, four students will receive $1,000 each year, but the plan is to increase the scholarship’s impact in the future.

“We want to do more, and we plan to reach out to the next layer of our family,” Pamela said. “This scholarship is a tie that binds our family to each other and to the university. We want to create something bigger than ourselves.”

Already the scholarship has reached beyond the lives of the students receiving financial support.

“This scholarship has brought my family even closer,” said Jack, a 1984 ACES graduate. “It was the perfect way to memorialize our brother, who was an extremely successful florist and entrepreneur, partly because of his Illinois education.”

Jim, a 1982 College of Business graduate, agreed, adding that the scholarship has served as a great motivator for future giving.

“It’s very rewarding to be able to directly influence someone,” Jim said. “You can see how much it means in the life of another person. Putting this scholarship together...

“Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has.”

—Margaret Mead
challenges our family to give more, and it provides us one more opportunity to get together.”

Peg (Pizzo) Mickelson, the mother of two children contemplating college decisions in the near future, said being able to help deserving kids is important to her and her husband.

“We recognize the value of education for everyone, whether they can afford it or not,” Peg said. “It’s nice to be a part of something that can make a difference in someone’s life.”

As a professor at City Colleges of Chicago, Joe has watched kids struggle with financing their education, and he knows the value of a degree.

“I’m thankful our children were able to receive scholarships,” Joe said. “But now it’s time to give that back.”

Pat (Pizzo) Bauer, a 1980 U of I College of Communications graduate, agreed with her father and is thankful she can pass along support to deserving students who have a true financial need.

“We all have the same desire to help others, and it simply made good sense to come together to create this scholarship,” Pat said. “It’s rewarding to be a part of a legacy that will be here when I’m gone.”

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**The Pizzo family at a glance**

Joe Pizzo, professor of biology and floral shop owner
Beth Pizzo, nurse and floral shop owner
Brian Bauer, 1979 ACES; senior vice president at PNC Bank
Pat (Pizzo) Bauer, 1980 Communications; a registered nurse pursuing a master’s degree to become a nurse practitioner
“I gained confidence from my years at U of I that allowed me to work in a variety of occupations over my career. I could say ‘I’ll give it a try’ and be successful.”

Jim Pizzo, 1982 Business; managing director for Kaufman Hall & Associates
“The core analytical skills in accounting and finance that I received from the College of Business have enabled me to get where I am today.”

Marguerite Pizzo, proud wife of Jim and mother of a current U of I student
Joel Pizzo (deceased), 1982 ACES; owner of multiple floral shops
Jack Pizzo, 1984 ACES; owner of Pizzo & Associates Ltd.
“The U of I gave me a great education and an ability to communicate my plans.”

Peter Russell, 1986 Engineering; principal at Deloitte Consulting
Pamela (Pizzo) Russell, 1987 ACES; owner of Russell Design Studio
“The U of I taught me the value of a good education and hard work. You can take what you are given and run with it or you can go slowly along the path. U of I gave me the skill to jump to the next level.”

T. Alan Mickelson, senior manager with Deloitte Tax in Tax Management Advisory Services

Peg (Pizzo) Mickelson
“The U of I is awesome. I’ve always felt like I was part of it by watching my entrepreneur siblings do such good things with their education.”

PHOTOGRAPH BY JULIE TAYLOR
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Brilliant Futures grows ACES scholarship pool

The College of ACES, in collaboration with the U of I and the U of I Foundation, has been hard at work on the university's most ambitious fund-raising campaign ever—Brilliant Futures. Not only is the $2.25-billion campaign the largest in the school's history, the target is one that just a few of the nation's top universities have ever attempted.

ACES met its campaign goal in May 2011, said Meg Cline, the college’s associate dean of advancement. With state aid meeting only about 15 percent of the U of I’s total budget, the remaining 85 percent must come from tuition, fees, grants, and private giving.

The college’s needs and its wish list range from faculty support to lab renovations to study-abroad funding, said Cline, but the highest priority for ACES and the U of I is scholarship support.

“We are working to make the quality education at the University of Illinois and in the College of ACES affordable and accessible so we can remain competitive in attracting and retaining the most deserving students. We absolutely cannot accomplish this without private supporters investing in us,” said Stacey Cole, assistant director of advancement.

Four years of planning for Brilliant Futures began in July 2003, and in June 2007 the campaign was announced to the public. The Urbana campus has received $1.6 billion in private gifts, while Chicago and Springfield have received $597 million and $26 million, respectively.

Corporate and business donations make up the largest percentage of contributions, at 38.3 percent. Alums have contributed 29 percent of the ACES Brilliant Futures goal.

“A quarter of total contributions to the college have landed in the ACES Annual Fund, which allows for unrestricted support of the college. We rely heavily on these gifts for student support [scholarships, study-abroad opportunities, internships, etc.] and to assist departments with their most critical needs,” Cline said.

Significant portions of the donations were made to research (25.4 percent) and scholarships (8.7 percent).

“The tremendous support of our alumni, friends, and corporate partners is at the very heart of providing first-class education, outreach, and research to the state of Illinois, our country, and the world,” Cline said. “As the beneficiary of their generosity, we are the stewards of this investment to pay dividends for generations to come.”

ACES students express their thanks to supporters of the Brilliant Futures campaign.
Put your money where your heart is

Four years ago, University of Illinois students organized the 1867 Society, a student group focused on philanthropy. Since then, the organization's efforts have resulted in flat-screen televisions and power-assist doors in the Undergraduate Library and a GPS system to help create I-map, an online tool that shows different routes to campus buildings.

“Our goal is to encourage students to give back to the university that they love, which has provided them with endless opportunities and a great education,” said Tori Frobish, 1867 Society president and senior in agricultural communications.

The 1867 Society communicates that the size of a donation is not what matters—the group helps students realize that every dollar counts, and there is no need to wait until after graduation to start donating.

“As students, we know where the money needs to go,” Frobish said. “This is our chance to put money where our heart is.”

The society wants to motivate students to make a habit of giving now that they will continue after they graduate. Frobish said that for her the best part about donating to the U of I is choosing where her money goes.

“The 1867 Society educates students that their tuition doesn’t cover everything and that, by donating, they can support something they are passionate about,” she said.

In the fall of 2011, the society hosted a unique “tag” project to identify the most famous and well-known sites around campus that have resulted from donor gifts.

The group took photographs of all the gift sites and posted them online for a campuswide scavenger hunt. The first student to send in the most (or all) photos of themselves at the gift sites received a prize. Competition among registered student organizations was part of the fun.

“The point of this campaign was to show students that there are things they use every day that wouldn’t be here if it weren’t for donors,” Frobish said. “The most amazing part is that many campus elements are the result of class gifts that wouldn’t have been possible without the partnership of students just like us.”

Frobish said it was an easy decision for her to become involved with the 1867 Society because, growing up in Urbana, she has benefited greatly from the university. In addition, both of her parents graduated from the U of I.

“I recognize the impact of our alumni,” Frobish said. “Not only do they provide great financial backing, but they also help current students find success.”

She said the opportunity to network and develop connections with U of I leaders and alumni is an added bonus of the society. In fact, it was Frobish’s connection to an alum that landed her the internship experience of a lifetime in Australia.

“I’m so thankful to be a part of a university with such an active and strong alumni base,” Frobish said. “The 1867 Society helps me apply that gratitude and give back to the university now rather than later.”

Food and Agricultural Communications: The Next Frontier

On February 17 the College of ACES and the College of Media hosted a groundbreaking, feature-packed symposium on global hunger and food security. The event created a forum for professionals with diverse perspectives to consider complex societal challenges and innovative, comprehensive solutions. The U of I Agricultural Communications program is devoted to finding strategic ways to address significant issues such as global hunger and food security while continuing its reputation for excellence. To see photos and videos from the event, visit www.agcommevent.com.

Senator Michael Frerichs (center) proclaimed February 17 as Agricultural Communications Day in Illinois and presented College of Media dean Jan Slater (left) and College of ACES dean Robert Hauser (right) with Senate Resolution No. 558 at the symposium.
**ADM grant enables research into postharvest loss**

Researchers in the Departments of Agricultural and Biological Engineering (ABE) and Agricultural and Consumer Economics are working with colleagues across campus and around the world to develop practical strategies to combat postharvest crop loss. Their work is being funded by a $10-million grant given by the Archer Daniels Midland Company to establish the ADM Institute for the Prevention of Postharvest Loss.

Luis Rodriguez, an assistant professor in ABE, is leading a team that will develop the platform and modeling framework for using Concurrent Science, Engineering, and Technology (ConSEnT) tools to improve postharvest system design and operations. Other team members are Yanfeng Ouyang, an associate professor in transportation engineering in the Department of Civil and Environmental Engineering, and Yogendra Shastri, a visiting research assistant professor at the Energy Biosciences Institute.

Grace Danao, an assistant professor in ABE, leads a second team that is working with colleagues at three universities in Brazil to determine the extent and economic cost of grain losses at three stages of the supply chain: harvest, transportation, and storage. Richard Gates, Steven Eckhoff, and Marvin Paulsen, all professors in ABE, are also on the team.

“Estimates of postharvest loss range anywhere from 30 to 50 percent around the world,” said Rodriguez. “In the developing world—India, for example—they lose most of their product before it gets to the market. It’s either lost during harvest—it doesn’t get picked up—or the quality of their storage doesn’t protect against pests or climate problems. Moisture can cause mold and fungus to proliferate, and the crop might spoil before even the pests can get to it.

“If we want to solve problems related to our food security in the future,” Rodriguez concluded, “we have to address these issues.”

**Urban agricultural education center opens**

If they’re interested in STEM—science, technology, engineering, and math—Chicago middle and high school students will want to know about the new Illinois Center for Urban Agricultural Education.

Part of a unique partnership between the College of ACES and Chicago high schools, the new center will offer a strong STEM education, opening up later educational and career opportunities for its students.

“Some experts say that the greatest challenge facing American agriculture is identifying and preparing the next generation of agriculturalists—plant breeders, biotechnology researchers, fertility consultants, technical systems managers, animal scientists, agribusiness professionals, horticulturalists, food scientists, and restaurant managers. One thing is clear: there aren’t enough young people coming from the farm to meet that need,” said Robert Easter, former ACES dean and current U of I president beginning this summer.

Center director Corey Flournoy B.S. 1998 in Agricultural and Consumer Economics, who was the first African-American and urban president of the National FFA organization, knows that the opportunities for minority and urban students to succeed in STEM careers are real.

The center is located at the Chicago High School for Agricultural Sciences, an experimental magnet school that teaches ag sciences to urban students.

“Students commute from across the city because they love the hands-on experience and opportunities for externships and full-time employment after college with the Lincoln Park Zoo, Nestle-Purina, Purina, Proctor & Gamble,
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Publication helps identify the green menace

U of I entomologist Jim Appleby’s full-color leaflet helps homeowners identify the destructive emerald ash borer. The metallic green, bullet-shaped pest leaves telltale D-shaped holes when it exists an infested tree.

A printable order form for How to Diagnose, Detect, and Search for Infestations of the Emerald Ash Borer, which costs $2, is available at nres.illinois.edu/Appleby_Emerald_Ash_Borer. (Or contact Beth Leamon, 217-333-2770, eleamon@illinois.edu.) A discount is offered for orders of more than 100 copies.

Chicago Board of Trade, and others,” Flournoy said.

The center is already providing opportunities for its students, Flournoy said, including career pathway visits with ACES faculty and students, trips to food and agricultural industries, and recruitment into the college’s Research Apprenticeship Program, a multi-summer college preparation and career exploration program for talented underrepresented high school students.

“The center is a national model for what is possible when a land-grant university partners with a science- and career-based high school,” said Marc Schulman, president of Eli’s Cheesecake Company and co-chair of the school’s business advisory board.
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Jonathan Bressler, natural resources and environmental sciences, Newton, MA