

STORIES

IN AGRICULTURE AND LIFE SCIENCES VOL.10 NO.1 2016

GROWING LEADERS



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of Leadership

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to "Feed the 9"

STORIES

IN AGRICULTURE AND LIFE SCIENCES

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FOREWORD

FOR LEADERSHIP TO SUCCEED SOMEONE MUST FOLLOW.



Many words are used to describe leaders and leadership in this issue: collaborative, trustworthy, passionate, effective communicator—the list goes on. What's implied, and I think worth expressing, is that to be a leader you must inspire someone to follow. Together you must accomplish a shared objective or goal. The following pages are filled with students, faculty, staff and alumni who inspire others to work collaboratively, serve others, be innovative and advance agriculture and life sciences.

We're pleased to bring you a feature on the college's best known leader, Endowed Dean Wendy Wintersteen (page 20). Dean Wintersteen spoke to a group of women in agriculture attending the FarmHer conference last fall. Her main message to the young women in the audience has stuck with me: Be genuine. Be yourself.

Why is leadership important to the college? See Andy Zehr's Voices piece (page 18) and research by CALS faculty and staff (page 17), which explain how extracurricular activities allow our students to tailor unique collegiate experiences preparing them for successful and meaningful careers.

The growing role of women in agriculture is featured in a profile on student services specialist Stephanie Zumbach (page 8). Our CALS undergraduate student body is now 50 percent women. You'll meet several young women in leadership roles across the college in this issue. One is following in the steps of her father. Adelai Swanson and her dad Stuart are the first parent-child legacy to serve as Agricultural Business Club presidents (page 24).

Alum Todd Hall, senior vice president of Cargill, demonstrates the passion and ability to inspire that many attribute to leaders. He's helping develop future leaders at Cargill and at Iowa State through support of the Global Resource Systems major (page 32).

Leaders who've inspired me most over the years have been those who've stood with me side-by-side and said, "Let's make this better, together." I took a moment as this issue went to press to reach out to a few of those folks who've inspired me to follow them and also inspired me to be my own brand of leader. I encourage you to reach out to leaders in your life who've made a difference. You may find others follow your lead.

Kind regards,

Melea Reicks Licht



Sunlit Siberian Squill line a stone path leading to The Knoll on an early spring day.

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ON THE COVER

Hannah Fisher, a sophomore in agriculture and society and participant in the Dean's Leadership Seminar, showcases a leader she looks up to—CALS Dean Wendy Wintersteen. Wintersteen is holding a photo of Fred Poston, who recently retired as dean of the College of Agriculture and Natural Resources at Michigan State University. Poston was a professor of entomology and mentor of hers while she was an undergraduate. "A mentor can't guarantee success, but the best ones provide the opportunity to test one's self," Wintersteen says (read more on page 20). Images by Christopher Gannon, photo illustration by PUSH Branding and Design.





On consecutive weeks this spring, we hosted the 88th annual Iowa FFA Leadership Conference and the 22nd year of the World Food Prize Foundation Iowa Youth Institute.

The main sessions of both events were held in Hilton Coliseum.

The state FFA leaders put on quite a show. Lasers, pyrotechnics, fog machines, slickly produced videos and high-decibel rock'n'roll and hip-hop brought the house down. The theme was “Amplify” and the conference delivered. When you're in the same space with more than 5,500 energized, blue-jacketed Iowa FFA members, you feel it from the top of your head to the soles of your feet. It's a celebration of hard work, dedication and entrepreneurship from incredibly accomplished young leaders in agriculture.

The World Food Prize Iowa Youth Institute is a study in contrasts. About 300 students from 130 Iowa schools gathered around tables in Hilton to understand more about global food security and combating hunger and poverty. It's serious and sometimes sobering business, and leads into presentations of their own ideas and findings. If there are lasers and pyrotechnics, they're found within each of the participants as they discover more about other people and cultures—and more about themselves as they seek to make a difference in the world.

Despite the differing atmosphere and tone, the common threads between the two events are many. All these young people are passionate about food, agriculture and the future of Iowa and the planet. In their own unique ways, all have immersed themselves in programs that bring out their very best.

Some successfully commingle their involvement. Six of the nine Iowa FFA state officers had participated in the Iowa Youth Institute.

The College of Agriculture and Life Sciences is proud to be a perennial sponsor of the state FFA leadership conference. We're proud to be a long-time partner with the World Food Prize Foundation on making the Iowa Youth Institute a premier event to explore food security issues.

For these two institutions, a common thread with Iowa State is that we're all about providing opportunities for transformative experiences for young people. All of us believe that these experiences will have a lasting impact on their future. The challenges that Iowa and the world face are formidable—but they can be overcome with the energy and commitment we see every day in the College of Agriculture and Life Sciences, and that we see every year with the state FFA conference and the Iowa Youth Institute.

The World Food Prize calls the engagement with students the search for “The Next Norm.” Maybe the next Norman Borlaug—or Norma Borlaug—will be one of those 300 Iowa Youth Institute participants or one of those 5,500 FFA students. Now that's exciting to imagine.

Wendy Wintersteen

Wendy Wintersteen
Endowed Dean of Agriculture and Life Sciences



INCLUSIVE LEADERS LIFT AS THEY CLIMB

Story by Melea Reicks Licht
Images by Christopher Gannon

Elizabeth Martinez-Podolsky believes you need to give of yourself to learn about others.

She does a lot of giving in her role as the College of Agriculture and Life Sciences multicultural liaison officer (MLO).

“We work to create an inclusive environment for students of all backgrounds who desire a quality education and an active student life. As the MLO, I work with students to help them make connections from their learning to their professional development,” Martinez-Podolsky says. “As our university and workforce begins to see a change in the demographic of engaged citizens, we must work towards making space to accommodate and normalize different ways of thinking and learning.”

Martinez-Podolsky joined the college in April of 2015. She is using student

survey data and input from current students to develop ideas to improve diversity and multicultural programs and create future initiatives.

On a recent day Martinez-Podolsky spoke with the Iowa State University Extension and Outreach Regional Food Working Group on how to reach out to disenfranchised communities. She wrote a letter of recommendation for a student, drafted a weekly student newsletter and sourced funding for a professional development conference. There are no typical days for Martinez-Podolsky, but one theme drives her work.

“I promote an asset based mentality. I want to move our students away from focusing on deficits and instead use asset based language. I help students define and identify their skills—their cultural capital and wealth,” she says. “They have so

much to offer and don't know how to give themselves credit.”

This theme is ingrained into the language of Martinez-Podolsky's program. To encourage students to think like academics she refers to them as “CALS Scholars” in her weekly student newsletter, *Hello from MLO*.

CALS students are introduced to Martinez-Podolsky at orientation and she speaks to each major's introductory course. Students who self-identify as multicultural in their application materials receive information from her and others opt in as they become familiar with Martinez-Podolsky and the services she offers.

“I will serve any student. I'm here for those that identify as multicultural—Latino, Black, Asian Pacific Islander and others—and for those who are early parents, nontraditional students, veterans

“*I help students define and identify their skills—their cultural capital and wealth.*”

Caitlyn Minnis, freshman in animal ecology, touches base with Martinez-Podolsky often for help navigating her student experience inside and outside the classroom.

or members of the LGBT (lesbian, gay, bisexual and transsexual) community. Anyone who may feel disenfranchised,” she says.

Martinez-Podolsky hails from South Texas and identifies as Xicana (a female Mexican-American). She draws heavily upon her own personal experiences to connect with and serve students.

“**We have a responsibility to ourselves, others and our ancestors to remember to help others.**”

“Iowa was my first introduction to my brownness,” Martinez-Podolsky says. “But being here helped me heal and find my connection to agriculture and my blood line. Corn is sacred to my cultural background.”

A first generation college graduate, Martinez-Podolsky defied cultural expectations. Her parents were born in Mexico and college was not what they had in mind for their daughter—especially in the Midwest.

She earned her bachelor’s degree in cultural anthropology from the University of Texas at San Antonio and a master’s

degree in educational policy and leadership studies from the University of Iowa.

“I had never visited Iowa before I applied for graduate school, but I wanted a challenge. I hadn’t really been a minority before like I am here. After my interview I thought it might be too much of a challenge,” Martinez-Podolsky jokes.

She met her husband as a graduate student and together they have made Iowa their home. Prior to joining CALS she worked as a hall director at Iowa State University and has previous experience in multicultural pre-collegiate programs through her work at the University of Iowa and Iowa State.

“I really love this institution. The physical layout and space—it is a healing place to be around such large trees with the changing colors. And I love the challenge to provide evidence on research to direct the vision for my work,” she says.

Her vision is already making an impact. Alex Mitchell, a freshman in agricultural biochemistry from Arkansas, meets with Martinez-Podolsky weekly.

“I always feel so motivated after I meet with Elizabeth,” he says. “She helps keep me focused and helps me hone in on what I need to do to stay on track.”

Mitchell participated in the college’s George Washington Carver Summer Research Internship program as a high school sophomore and is serving as a student mentor for the program this summer. He’s also a member of the Minorities in Agriculture, Natural Resources and Related Sciences (MANNRS) club, which Martinez-Podolsky co-advises with CALS assistant dean of diversity Theresa Cooper.

Martinez-Podolsky also coordinates the college’s Academic Program for EXcellence (APEX)—an eight-week academic summer program designed to help multicultural students transition to Iowa State.

Her favorite advice to students is—“lift up as you climb.”

“As a community-of-color or under-represented populations, we have a responsibility to ourselves, others and our ancestors to remember to help others. We are given a precious opportunity to learn at an institution of higher education and this alone will present many opportunities to be successful. We must remember our communities as we progress,” Martinez-Podolsky says. ■

SERVICE ABOVE SELF



Jeff Iles serves as chair of the horticulture department and president of the Rotary Club of Ames. He works collaboratively with industry partners to host the annual Shade Tree Short Course, now in its 60th year, to provide education for arborists and horticulturalists from around the United States.

Story by Ed Adcock
Image by Dan McClanahan

Iowa State’s Shade Tree Short Course got its start 60 years ago in former forestry professor Sande McNabb’s living room. The meeting was created to discuss Dutch elm disease, which was killing the popular trees across the country. This year’s meeting drew about 700 participants, and emerald ash borer—a destructive pest claiming the lives of millions of ash across the United States—was a prominent topic of conversation. The annual, two-day event held each February is coordinated by Jeff Iles, chair of the Department of Horticulture.

“It’s the best part of my job,” he says. “I used to do a lot of extension work before I became department chair. I miss that kind of thing.”

Iles became involved in the short course as a committee member in 1988, after coming to Iowa State as a grad student the year before.

“I forget when I became short course chair for life,” he jokes, “but it’s a labor of love.”

The course has traditionally focused on urban and community trees, but now workshops and general sessions branch

out into all kinds of horticulture and arboriculture topics.

“If it has anything to do with the natural world or managed landscapes, we cover it,” Iles says. “This conference has become not just an Iowa event, but a regional signature event for arborists and people involved in horticulture.”

Iles puts the program together with the help of trade organizations—the Iowa Nursery and Landscape Association and the Iowa Arborist Association—which he calls “good partners.” Donald Lewis, extension entomologist, is another key player.

Iles’ participative style drew praise from former department head Charles Hall.

“Jeff has worked very well as an organizational leader with industry groups,” Hall says.

Hall met and recruited Iles when he was working for a commercial nursery in Denver, Colorado.

“He joined Iowa State as an extension associate, completed his doctorate (in 1993) and advanced to professor and chair of the department, which he has served as an excellent leader.”

About 10 years ago, Hall recruited Iles again, this time to join the Rotary Club of Ames—one of two local Rotary clubs with about 250 members.

“Jeff possesses and practices the Rotarian motto of: Service Above Self,” Hall says.

Last year, Iles was elected to lead the organization. He called the experience well worth the time commitment.

As leader of the horticulture department Iles leads a team of 20 faculty and staff. He teaches several undergraduate and graduate courses, maintains his extension appointment and, when time allows, conducts research.

He hopes to attract more students to horticulture majors.

“Horticulture remains an important and relevant discipline. To keep pace with job opportunities, we must continue to educate and train future horticulturalists,” he says. ■



Elizabeth Martinez-Podolsky (left), CALS multicultural liaison officer, helps create an inclusive environment in CALS. She meets regularly with students and co-advises the student organization Minorities in Agriculture, Natural Resources and Related Sciences.

STORIES EXTRA: www.stories.cals.iastate.edu

Iowa State University earned the designation of Tree Campus USA from the Arbor Day Foundation this spring. Go online to learn more and view how horticulture and landscape architecture faculty and students marked the occasion with a special installation dubbed Witch-hazel Walk.



PREACHING AGRICULTURE

TOM POLITO REFLECTS ON CAREER IN CALS

Story by Barbara McBreen
Image by Christopher Gannon

In high school, Tom Polito took an interest inventory that told him he should pursue a career in agriculture or theology. He says he's been preaching agriculture ever since.

Polito ('76 agronomy, '82 MS, '87 PhD) is an assistant professor in both agricultural education and studies and agronomy. He's also interim assistant dean for student services for the College Agriculture and Life Sciences. For the past 38 years, Polito has led the college's student services office and worked simultaneously as an administrator, adviser, teacher and researcher.

As Polito prepared for retirement in May he shared a few thoughts on what it's been like to lead the college's student services office.

Have students changed throughout your career?

I've observed students to be a product of their times.

During the Vietnam War, males didn't worry about a resume because we knew upon graduation, we would be drafted and probably traveling to exotic South Vietnam.

Then in the 1970s, the big challenge was feeding the world. When the green revolution increased food production, the emphasis switched to maintaining our environment. Today students are again worried about feeding the world and doing it in a sustainable way.

As the challenges facing society evolve, so do our students.

The processes at ISU have changed too.

It doesn't seem like I've been here for 38 years until I think of how technology has changed what we do. When I started, students submitted paper preregistration forms or stood in line to register. Today instead of standing in line, students can use their laptops to schedule classes while sitting on central campus!

How did the 1980s farm crisis affect the college?

The Farm Crisis of the 1980s devastated our enrollment. We dropped to 1,895 students in 1987. Also, the students were under a lot of stress. We have students who deal with stress now, but there was more then. Students were worried about grades, paying tuition and what was happening at home. For some, what was happening at home was a constant concern and weighed heavily on them—it was a challenging time.

Any memorable moments?

My memorable moments revolve around students.

For instance, I had one student who wanted to be a veterinarian but who initially struggled in his classes. He changed from pre-vet to general agriculture where I helped him choose a major and recover from his poor start. He eventually graduated and took a job in industry. A few years later, he returned

Interim Assistant Dean for Student Services **Tom Polito** retired this spring. He says his most memorable moments revolve around connecting with and supporting students including **Catherine Swoboda** ('08 agronomy, MS '10 crop production and physiology), director of planning, World Food Prize Iowa Education Programs.

to Iowa State to pursue his dream. One evening when I saw him in a restaurant, he came over to my table and said, "I've done it. I made it through vet school and I have a great job. Thanks for believing in me."

Whenever students thank me for helping them or making a difference in their lives—that's a memorable moment. I've been fortunate to have many in my career.

Who are your heroes?

My heroes have always been our advisers—the advisers who not only advise, but who also mentor students. They take time to meet the student's needs and come in after hours to advise student groups. They tell students what they need to hear, even when the student may not want to hear it.

When I started we had great advisers that I emulated. Detroy Green, Fred Foreman, Jim Dinsmore ('64 fisheries and wildlife biology) and Woody Hart are a few. Today we still have great advisers, Barb Clawson ('83 ag and life sciences education, '88 MS), Howard Tyler, Mike Retallick ('05 PhD ag and life sciences education), John Burnett and many others.

I also had the two best mentors I could hope for in emeritus associate dean of academic programs Louis Thompson ('47 MS agronomy, '50 PhD) and former director of college career services Roger Bruene ('56 agronomy).

Those are my heroes. I have a lot of them.

What is your biggest accomplishment at Iowa State?

I have trouble identifying anything major I accomplished on my own. My accomplishments were usually team accomplishments.

I take great satisfaction that we had 4,600 students enrolled this fall, instead of 2,500. I was part of that, but so was everyone in this office, the CALS

student ambassadors, our partners in the departments and the admissions office and our deans.

Even my teaching was a team effort. I convinced instructors in three other courses besides my soils course to partner in integrating our courses into a combined student experience. The same students were in all courses and the point of integration was a consulting relationship we shared with an area farmer. All the instructors will tell you it was a very rewarding experience. Many of the students told us they achieved more than they thought they could.

What's your number one piece of advice for students?

I tell students to identify their dream job 10 years from now. Once they decide that, I tell them to use the opportunities and experiences at Iowa State to build the toolbox they will need in the future. Use summer internships, clubs, electives and advisers to acquire the knowledge and skills they need to reach their goals. I tell them to deliberately build the best toolbox they can while they are here.

What are you most looking forward to in retirement?

Last summer I took my 4-year-old grandson fishing for the first time. He caught his first fish, a 14-inch brown trout. He was grinning from ear to ear. I look forward to having time to put more grins on my grandkids' faces. I also look forward to the time when the academic calendar is no longer controlling when my wife and I travel. 🎣



STORIES EXTRA: www.stories.cals.iastate.edu

A former student of Tom Polito's, Ellyn Bartges, created a scholarship in his honor to support activities that impact students' outlook on agriculture and life sciences and help refine their life goals. For information on contributing to the Polito Scholarship for High Impact Transformative Experiences visit STORIES online.

WOMEN IN AGRONOMY

FINDING A PLACE OF THEIR OWN

Story by Melea Reicks Licht
Images by Christopher Gannon

Stephanie Zumbach's office is a busy place. Students drop in to chat about career prospects, course planning, transfer credits and internship possibilities. For many, her office is the first stop on their Iowa State University adventure.

Zumbach ('99 agricultural studies) is a student services specialist in the Department of Agronomy. She's also a recruiter, marketer, counselor, mentor and friend to countless students.

A Woman's Place

As part of her charge to recruit, serve and retain students in the department, Zumbach leads the Women in Agronomy Program.

Kicked off more than 15 years ago, the program provides a safe and open venue

for women to learn, network and thrive. The program is supported by department funds, industry grants and university diversity funds.

"Our agronomy student body is about 33 percent women," says Kendall Lamkey, agronomy professor and chair. "This program is important because women are underrepresented in production agriculture and we feel women will be important to bringing change to the industry."

Zumbach lines up a roster of speakers, including many Iowa State alumni, who share their experiences with students, offer facility tours and workshops. Topics include balancing work and family life, unique interview scenarios, practical on-job advice and suggestions for maximizing the student experience at Iowa State.

"This program aims to show women they have a place in agronomy and in agriculture," she says. "We want to equip them with skills to be successful people, not just successful agronomists."

Thanks in part to these efforts, the department has seen the number of female undergraduate students double over the past three years.

Elizabeth Widder says Zumbach is known as a friendly and helpful resource for all students in agronomy.

"I'd say she's like our mom, but everyone knows that's Mary (Wiedenhoef). Steph is more like a friend. She's always willing to help with anything," Widder says. "When she heard I was really struggling with chemistry my first semester she encouraged me to consider a tutor. She followed up with an e-mail on where to find one

and how much it cost. She wanted to connect me with what I needed to succeed."

Drawn to Iowa State for her love of science "and the agriculture behind it," Widder made fast friends in the Women in Agronomy program. The junior in agronomy and animal science credits her peer mentor and personal invites from Zumbach for getting her interested in the program. She's now a peer mentor and president of the Agronomy Club.

What's the overall message students like Widder take away from the program?

"I've learned agriculture is a great place for women," she says. "Speakers introduce us to all different types of paths. They encourage us to be proactive and self-aware. They give us practical advice for dealing with interview situations, field calls and business travel."

Zumbach worked for 13 years in the seed industry before joining the agronomy staff. She can speak from experience about working in a predominately male industry.

"I know what it's like to not have my voice heard at meetings. I've experienced some of the same things they'll be dealing with. They know I support them and can relate," Zumbach says. "Hearing other women's stories shows students success is possible. They see what they can aspire to, how they can overcome issues and inspire other women. They know they're not alone."

Welcome Home

Helping students find their home in the Department of Agronomy is rewarding for Zumbach.

Coleman Kneifl, an agronomy freshman from Nebraska, says meeting with Zumbach is what helped seal his decision to attend Iowa State.

"My parents and I met with Stephanie during both of my visits to Iowa State University. The second time it was just my mom and I meeting with her. We were concerned about the residence halls and weren't sure they offered the welcoming

home-like atmosphere I was looking for," Kneifl says. "Stephanie offered to take time out of her schedule to give us a personal tour of Maple Hall and visit some students in the ACES (Agricultural Community Encourages Success) learning community. That visit confirmed Iowa State was the place for me."

Kneifl joined the ACES learning community as a new student and has been accepted to be an agronomy peer mentor next year. He'll be assisting new students with their transition to college life.

Zumbach attends recruiting functions like National FFA Convention, Iowa FFA Convention, and various high school events in and out of state. She communicates information regarding curriculum to current and prospective students and families.

"I enjoy showing students what a degree in agronomy can do for them. Some people have a very narrow definition of what agronomists do. I try to broaden that definition. I show them how their interest in science, farming, plants, soil, plant breeding or another part of agronomy will translate into a career," Zumbach says. "Agronomy has nearly a 100 percent job placement rate within six months of graduation."

I'm an Agronomist

The "I'm An Agronomist" recruitment campaign, which Zumbach oversees, seeks to build pride in the profession and illustrate the diversity among agronomists to inspire prospective students to pursue the field.

"The campaign really challenges me to highlight students with different backgrounds, interests and goals," Zumbach says. "This results in attracting a diverse group of students for our program."

Her efforts are making a difference. Agronomy enrollment increased 25 percent during the past three years. The department has 335 undergraduates and 316 graduate students.

"Stephanie has been key to both our undergraduate recruiting and our ability to recruit women. We now have as many women in our program as we had total undergraduates when I became chair," says Lamkey. "This increase in women undergraduates has been due to Stephanie's efforts and vision."

In addition to recruitment and retention efforts, Zumbach manages student orientation for approximately 100 incoming freshman and transfer students each year and allocates \$90,000 in freshman scholarship awards. 📧



Stephanie Zumbach (right) coordinates the Women in Agronomy Program bringing together students like Elizabeth Widder (center) and professor Mary Wiedenhoef to help women in the industry connect.

GLEANNING FOOD WASTE TO CURB HUNGER

Story Ed Adcock and Lynn Laws
Images by Christopher Gannon

Every Tuesday night Carol Cornelius, a seed analyst in agronomy, shows up at the local Panera restaurant after it has closed.

She is gleaning for Food at First, a perishable food pantry and free meal program in Ames. Cornelius collects food Panera is donating to the effort, which is now in its 12th year.

She has been involved for about four years, working about 15 hours a week. Cornelius wanted to do something for the community and a friend mentioned it. After starting, she stepped in when a core market volunteer left.

"I'm struck by the network of people out of the College of Agriculture and Life Sciences who spent their careers in the field of developing and producing food and now are focused on feeding people in our community," says Steve Padgitt, emeritus professor of sociology.

Padgitt ('65 ag journalism, '71 PhD rural sociology) and many of his former CALS colleagues volunteer 15 or more hours a week for Food at First. The service provided by the program and the reliability of its volunteers are well-known in Ames.

Food at First serves an evening meal seven days a week, at First Christian Church in Ames, to an average of 75 people. Nearly 25,000 meals were served last year. The program also distributes food from its perishable food pantry, at a free market, three days a week.

"We're now averaging 1,400 shoppers monthly; that's over 300 weekly," says Padgitt, who describes the program as a "no-questions-asked, come-as-often-as-you-need-food" operation.

Patty Yoder, Food at First's executive director and volunteer coordinator, and its only paid staff person, says the program's success is due to community support and a committed group of core volunteers.

"Tom Fenton ('66 PhD agronomy), emeritus professor of agronomy, is here at least 35 hours a week and helps with everything. Then there's Steve Padgitt; Ken Larson ('54 ag and life sciences education),

emeritus professor of agronomy; Bernie White, emeritus professor of biochemistry; Carol Cornelius, agronomy; Don Wishart ('62 animal science, '69 MS ag journalism), retired extension editor — they're some of our core volunteers who work tirelessly for this organization," Yoder says. "Others are Bob Jolly, emeritus professor of economics; John Schroeter, economics professor; and William Edwards, emeritus professor of economics, who have volunteered for a long time, as gleaners."

White assists with gleaning food from dining locations on Iowa State's campus.

"I coordinate the gleaning efforts of my fellow Ames Noon Kiwanians who do 11 pick-ups per week from campus cafés. I make the arrangements, promise location managers we will pick up and fill in for volunteers on vacation," White says. "My volunteers tell me this is a very meaningful experience for them. Even though it gets complex when the weather is bad or they have difficulty getting on campus, they would not give it up. They are totally committed to this effort."

In addition to gleaning, hundreds of Iowa State students volunteer for Food at First by holding annual food drives; planning, preparing, serving and cleaning up after the program's daily meals; and growing vegetables in gardens on- and off-campus.



This recurring feature offers a glimpse of how CALS faculty and staff spend their time outside office hours. Suggest an In the Margins profile by e-mailing stories@iastate.edu.

Carol Cornelius, a seed analyst in agronomy, and Steve Padgitt, emeritus professor of sociology, are two of many CALS volunteers at Food at First.

Garbrielle Roesch-McNally, a doctoral candidate in sociology and sustainable agriculture, volunteered as soon as she joined the Sustainable Agriculture Student Association (SASA) in 2012.

"I got involved with that right away because I already had some chef experience. I stepped in and worked with another student as co-head-chef for the meals we prepare," Roesch-McNally says.

In addition to the monthly meal, SASA students raise an abundance of herbs, fruits and vegetables in a plot behind Trinity Christian Reformed Church.

Rebecca Roberts, graduate student in agronomy and sustainable agriculture, learned about Food at First as a SASA member in 2013. In 2014 she managed Iowa State's Student Organic Farm, which donates produce to the program every summer. She says her volunteer work complements her studies.

"Food distribution and affordability are two main problems that keep people from having access to food. I like that this program makes food accessible for all regardless of income. People may not have time to cook nutritious food and this program helps with that problem, too," says Roberts.

While generous financial support comes from local churches, individuals and businesses, almost all of the food prepared for meals and distributed at Food at First markets is donated from local grocers, bakeries and restaurants, as well as from local growers. 📍

STORIES EXTRA: www.stories.cals.iastate.edu

Learn more about Food at First including how to volunteer or donate online.

"I'm struck by the network of people out of the College of Agriculture and Life Sciences who spent their careers in the field of developing and producing food and now are focused on feeding people in our community."

"I tell people, 'It's addictive for me. I just can't stop and when I don't go, I feel bad,'" Cornelius says.

Food at First gleaners are dealing with the parallel problems of hunger and food waste in Story County. Many are current and past Iowa State University faculty, staff and students.

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WWW.CALS.IASTATE.EDU/ALUMNI

IOWA STATE AG PROGRAMS TOP-RANKED IN U.S., WORLD

For the fourth straight year, Iowa State was ranked in the top 10 for programs in agriculture and forestry by QS World University Rankings. Iowa State's agriculture and biosystems engineering program also recently jumped to No. 2 in U.S. News and World Report's national graduate school rankings.



NACTA Judging Team

SUCCESS FOR CALS STUDENT TEAMS

- Four students from the Department of Food Science and Human nutrition received first place in the annual **Student Taste of Elegance** competition hosted by the Iowa Pork Producers Association. **Sam Wiesenfeld**, senior in culinary science; **Toluwani Awokoya**, freshman in nutritional science; **Brian Klopf**, senior in food science; and **Casey Halder**, senior in culinary science, competed against 13 teams, five of which were from culinary schools.
- The Iowa State University **Livestock Judging Team** placed second in the Nebraska Cattlemen's Classic in Kearney, Nebraska.
- CALS students won the overall sweepstakes award at the **North American Colleges and Teachers of Agriculture (NACTA)** Judging Contest. ISU teams have won the top prize in this competition for the past six years. Honors received in individual categories included Ag Knowledge Bowl, Ag Sales, Ag Computers and Ag Business.
- The Iowa State **National Agri-Marketing Association (NAMA)** team received Outstanding Student Chapter and John Deere Signature Award honors at the national student NAMA competition.



Student Taste of Excellence Team



RAO NAMED ASSOCIATE VICE PRESIDENT FOR RESEARCH, JOHANSEN INTERIM CHAIR

Guru Rao, Roy J. Carver professor in biochemistry, biophysics and molecular biology and chair of the department since 2009, has been named associate vice president in the office of the vice president for research. Kristen Johansen was named interim chair of the department.



TYLER NAMED ASSISTANT DEAN FOR STUDENT SERVICES

Howard Tyler, an animal science professor, is the new assistant dean for student services for the College of Agriculture and Life Sciences. Tyler began serving as assistant dean on June 1. For the past 25 years Tyler had research, teaching and advising roles in the animal science department. Tyler succeeds Tom Polito, an assistant professor of agronomy, who has worked in that position for 38 years (read more about Polito on page 6).



IOWA STATE TO HOST REGIONAL CENTER FOR FOOD SAFETY

Iowa State University will become a regional center for food safety in an effort to help businesses that grow and process food comply with new federal regulations in the coming years. **Angela Shaw** ('03 animal science, '06 MS meat science, food science and technology), assistant professor of food science and human nutrition, will lead the effort.

CALS FACULTY NATIONALLY RECOGNIZED FOR OUTSTANDING SERVICE TO EDUCATION

- **William Edwards** ('69 agricultural business, '71 MS agricultural economics, '79 PhD), retired professor of economics; **Matthew Ellinwood**, associate professor of animal science, and **Robert Jolly**, retired professor of economics, have been honored with an ISU Alumni Association Faculty-Staff Inspiration Award.
- **Joseph Sebranek**, distinguished professor of animal science, received the North American Meat Institute's Harry L. Rudnick Educator's Award.
- **Mike Retallick** ('05 PhD agricultural and life sciences education), associate professor of agricultural education, received the National Association of Agricultural Educators Teacher Mentor Award.



Colin Connor (left) found hands-on learning in the shop in the agricultural systems technology (AST) major and by leading his peers as president of the AST Club. He and club member **Ethan Brehm** prepare for one of the club's major fundraisers—Lawn Mower Service Days.

LEARNING AND LEADING BY DOING

Story by Ed Adcock
Image by Christopher Gannon

The hands-on nature of the agricultural systems technology major appealed to Colin Connor, and it turned out to provide ample opportunities for leadership development.

As a freshman and sophomore, Connor served on committees in the 80-member Agricultural Systems Technology (AST) Club. He became treasurer as a junior and was elected president as a senior last year.

"I wanted to get involved. I was a leader of different clubs in high school, and I enjoyed it," he says. "I liked getting to know the younger members and helping them progress through their careers at Iowa State."

Connor runs the club's meetings and helps organize fundraisers including snowblower and lawnmower service days open to the Ames community. The club hosts speakers at each meeting to help members learn about internships and full-time job opportunities. Connor

helped plan a technology industry night co-hosted by the AST Club and the ITec Club prior to the CALS Career Fair to encourage student networking with industry professionals.

"I like to bring together ideas from everybody and try to come up with the best idea possible. To me, the most important qualities of a leader are respect, responsibility and communication," Connor says. "As AST president, I had to communicate with a variety of people including companies that hire AST majors, our department chair, our club advisers and club members."

Connor says he appreciates his executive team and their help achieving club goals. He completed the club's entry to the Association of Equipment Manufacturers competition of student clubs of American Society of Agricultural and Biological Engineers. Their record of activities and achievement won the first place award for the technology branch last year.

Matt Darr, an associate professor in the agricultural and biosystems engineering department and one of the club's advisers, says Connor has been a tremendous asset to the club.

"His professionalism and organization are on display with everything he does within the department and within the AST Club. Whether it is his role in service events or leading club meetings, Colin is extremely reliable and always motivated to highlight the best of Iowa State," he says.

Connor grew up in Swansea, Illinois. He became acquainted with agriculture through his family's farmland and visits to his grandparents' farm near the Quad Cities.

"I like to solve problems and that's something they stress in ag systems technology," Connor says.

He had a job lined up months before graduation, solving problems for Monsanto at its Beaman, Iowa, soybean facility as a production associate. 📍

TAKING THE LEAD

Story by Barbara McBreen
Images by Larissa Pietrzak

A sorrel miniature horse with a flaxen mane follows Aimee Schulz anywhere she leads—even to Iowa State University. Her name is Lulu. She can jump higher than she is tall and she's only the second miniature horse to be inducted into the United States Equestrian Federation and EQUUS Foundation Horse Stars Hall of Fame. Schulz, a sophomore in genetics from Becker, Minnesota, says Lulu's been a showstopper since she began performing in 2009.

Keeping Lulu in shape for the show season requires practice. During a workout inside a practice arena Schulz led Lulu through her runs without a halter.

"Horses won't follow you unless you are a leader," Schulz says. "This isn't something you can teach a horse. The horse has to offer it to you. They have to choose you as their leader and their herd mate."



Genetics major **Aimee Schulz** has taken the lead as part of the Iowa State University President's Leadership Class, in her laboratory research and in training Lulu, her rescue horse.

Lulu was rescued from a collapsed metal building with 45 other miniature horses, ponies and donkeys on Mother's Day in 2008. She was severely traumatized and her right eye was so damaged it had to be removed.

"I spent hours just trying to touch her and gain her trust. She was absolutely wild. She was shaking, but I kept talking to her," Schulz says. "Finally she walked up to me and decided to adopt me. She fell in love with me and I fell in love with her."

Schulz says working with horses has taught her perseverance, dedication, patience, responsibility and time management. During her freshman year Schulz won Regional Champion, Semi-Finals Champion and went on to represent Iowa State's Western Equestrian Team at the National Championships at the Kentucky Horse Park in May.

"I believe if it weren't for Lulu and all the other horses in my life I wouldn't be where I am today," Schulz says.

Schulz is on a path to success. During her first year at Iowa State she was invited to participate in Iowa State's President's Leadership Class and the College of Agriculture and Life Sciences Dean's Leadership Class. Both provided scholarships and opportunities she couldn't pass up.

"President Leath is so cool. He's laid back, down to earth and he commands the attention of the whole room," Schulz says.

Each fall, first-year students are selected for the class based on their curricular

involvement, service and high school academics. The students meet with Iowa State University President Steven Leath and his wife, Janet, every Tuesday throughout the year.

"Aimee is an active, thoughtful member of the President's Leadership Class, which consists of 30 of the very best freshman at Iowa State. Her passion for learning and her leadership skills differentiate her even in this elite group of students," Leath says.

The Dean's Leadership Class introduced Schulz to leaders in the College of Agriculture and Life Sciences and industry leaders throughout the nation.

"I want to be a pioneer in my field, do cutting-edge research and find a way to help the world. No one is going to hold me back," Schulz says.

Working with Matt Hufford, an assistant professor in ecology, evolution and organismal biology, was another opportunity she couldn't pass up. She is working on various projects until she can start her own research project.

"My lab specializes in maize and teosinte evolutionary genomic research. Teosinte, a wild grass, is corn's ancestor. We are trying to identify highland and lowland adaptations of maize, look at hybridization of teosinte, and see how different climatic conditions change the appearance of maize and teosinte," Schulz says.

Her interest in genetics began in junior high after her team lost a 4-H Knowledge Bowl contest because of a genetics

question. Schulz began to pursue answers to questions and Jenn Feierabend, her seventh grade science and technology teacher, says she'd never seen anyone so interested. While her classmates were tackling introductory genetics she was moving beyond her grade level.

"She was one of the most enthusiastic science students I had," Feierabend says. "She was the only one that ever asked for extra tutoring to better understand genetics and she was only twelve. I have never taught or mentored a more dedicated, passionate and driven student."

When Schulz entered 10th grade, she knew she wanted to pursue a career in genetics. Her other passions include the 4-H horse program and Lulu.

After she adopted Lulu she began raising funds for horses, ponies, miniatures and mules. The program is called Pocket Change for Ponies and the first month she raised \$1,000. She's planning another fundraiser this year to help the Minnesota Hooved Animal Rescue Foundation.

Both Lulu and Schulz are leaders in their classes. Lulu serves as the unofficial mascot for the Iowa State University Equestrian Club and visits nursing homes and hospitals. Schulz hopes to certify Lulu as a therapy horse and continue to find new opportunities to make a difference in everything she does. ■

SERVING LOCALLY AND GLOBALLY

BETTERING COMMUNITIES, BRINGING PEOPLE TOGETHER
THROUGH CULTURAL AND NUTRITIONAL EDUCATION

Story by Haley Cook
Image by Christopher Gannon

Participating in the George Washington Carver Research Internship Program introduced Mica Magtoto to agriculture and inspired her to attend Iowa State.

Mica Magtoto is armed with a heart for service.

"I've always known I want to leave a positive mark on the world by serving others," she says.

The junior in nutritional science, international agriculture and public relations found her calling as a high school student in the College of Agriculture and Life Sciences George Washington Carver Research Internship Program.

The program offered her unique opportunities like studying eye cancer using a zebrafish model and assisting research to detect environmental toxins.

"The internships identified the scope of agriculture and helped me understand how I can contribute to others," she says.

Iowa State was a clear choice for Magtoto. When selecting a major, her goal of serving others was paramount to the decision.

"The prevention of disease is a strong component of nutrition. I knew I could apply that knowledge and help people and communities," she says. "Nutrition affects people globally."

Magtoto is an animated conversationalist, creating opportunities to learn with

each discussion. She credits her family, who emigrated from the Philippines, with fostering her need to serve others and providing the motivation to educate on a global level.

Involvement in student organizations has been a key part of Magtoto's student experience. She's an active member of Minorities in Agriculture, Natural Resources and Related Sciences and traveled with the group to Tuskegee University's George Washington Carver Symposium. She also participates in Enactus, an organization focusing on social entrepreneurship.

"Mica loves her major and sees the intersection of multiculturalism in her studies inside and outside the classroom. Though awareness of diversity means the acknowledgement of difference, Mica understands food belongs to everyone and is something that unites us," says Elizabeth Martinez-Podolsky, multicultural liaison officer for the college.

Last year, Magtoto participated in an agricultural business study program to Argentina. She quickly connected with fellow students and immersed herself in Argentinian culture.

Her experience studying abroad was followed by an internship in Peru with an organization providing outreach, nutrition resources and education to domestic workers and youth.

"I saw children who had so little, but loved going to school, loved learning and loved life," she says. "The experience inspired me and gave me a passion for educating others."

Magtoto returned from the internship and began service with AmeriCorps, providing educational programming in food culture and nutrition at the Ames Boys and Girls Club.

According to Theresa Cooper, assistant dean of diversity for the college, Magtoto's continual search for knowledge and ability to apply what she's learned in daily life makes her unique.

"Mica is a careful and creative thinker with an eye for details and a devotion to logic," she says. "These skills are making her an excellent scientist and will serve her well in the future as an advocate of multicultural diversity." 

DEVELOPING LEADERS; A MODEL OF LEADERSHIP

By Ed Adcock

College of Agriculture and Life Sciences students are known among recruiters for their involvement and leadership in extracurricular activities.

"Our employers say CALS students have great leadership skills. We're trying to understand what those skills are and what activities are most likely to influence those skills," says Beth Foreman, program coordinator in CALS Student Services.

“Our alumni often say their out-of-classroom involvement was so important when they were students here. It’s nice that we have data to confirm the impact of those experiences on our students.”

-Beth Foreman

For her doctoral research, she sought to identify and describe experiences of undergraduate extracurricular involvement that result in increased leadership development. Foreman, ('12 PhD agricultural education) continued her research within the college, most recently studying the impact of high school leadership experiences and collegiate leadership involvement on leadership development. She collaborated with Mike Retallick, associate professor agricultural education and studies.

Leadership skills were defined in the study as the influential relationship among leaders and followers to make change or meet shared objectives. Leadership skills were measured in four different areas: individual skills, team skills, organization skills and community/global skills.

The online survey of CALS seniors showed an impressive amount of involvement among the college's students with 96 percent in an extracurricular activity, specifically:

- 95 percent in clubs and organizations
- 29 percent in competitive teams, such as judging teams
- 21 percent in the Greek system

"We found the extracurricular involvement they had as high schoolers was also relevant in predicting leadership skills," she says.

CALS students were involved in a wide variety of extracurricular activities in high school, and more than 60 percent served as an officer. Involvement consisted of:

- 77 percent in athletics
- 69 percent in student government
- 53 percent in national honor society
- 49 percent in music
- 45 percent in FFA
- 41 percent in 4-H

"Based on our research we can tell students if they want to be a good leader when they graduate from college, they should be involved in extracurricular activities," Foreman says.

Some students reported participating in more than 10 clubs or activities. Results showed optimum involvement was between three to four clubs. Nearly three-quarters served as officers, and the students spent an average of five hours a week on extracurricular activities.

"Student leadership development increases dramatically with participation in up to three to four clubs, but after that it goes down just as dramatically as it went up. Once people got that involved the quality of those experiences went down," Foreman says.

Reflection is important in helping students make meaning of their experiences and apply what they learned to future experiences. Foreman says this can be accomplished in a variety of ways, such as journaling and group discussion.

The research is helping CALS recruit students, Foreman says. Using information about prospective students' high school involvement will help CALS recruiters suggest the type and number of opportunities on campus. 

DEVELOPING LEADERS

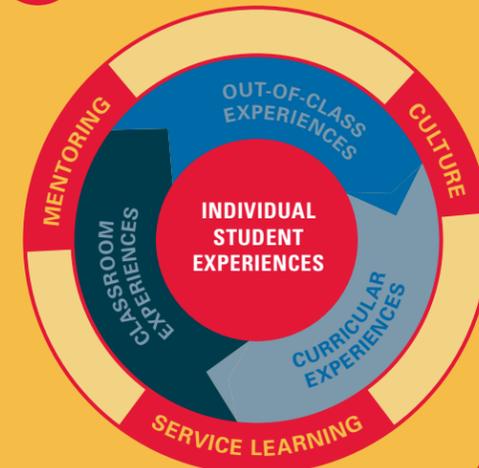


PRECOLLEGIATE CHARACTERISTICS AND EXPERIENCES

- Sociodemographic traits
- Academic preparation
- Personal and social experiences
- Leadership self-perception



COLLEGE EXPERIENCES



LEADERSHIP DEVELOPMENT OUTCOMES

- Individual skills
- Team skills
- Organization skills
- Community/global skills

Reflective Practice

Collegiate Leadership Development Model
(Foreman & Retallick, 2012)



TELLING THE STUDENT EXPERIENCE STORY

Story by Andy Zehr
Images contributed

Dana Robes is a storyteller. Ask any student who has received a scholarship from Dana and his wife, Martha. Most have met him personally and heard tales of his adventures – particularly the one about how he, as a young man from New Hampshire, discovered Iowa State through dairy judging and an enthusiastic coach. He'll tell you how he stumbled upon "The Harvard of Agriculture" in Ames, Iowa.

Like any good storyteller, Dana has a purpose for each anecdote. He has a message, and he knows how he'd like it to make you feel or act. As the director of recruiting for the college, I can relate.

My position was created by a gift from Dana and Martha. They recognized that to increase our enrollment we needed to invest in new and creative ways to reach prospective students. That's what I try to do every day.

Student leadership plays a key role in our story.

I connect with this remarkable couple several times a year. One theme that's been constant over nearly a decade is Dana's message to scholarship recipients. He

reminds students that education is the one thing a person receives that can never be taken away. In some ways, the refrain sounds very familiar—I've heard colleagues at other schools say similar things. What makes Dana's statement unique is he means the full educational experience—the unique combination of curriculum and out-of-class experiences that make up each student's Iowa State adventure. Dana and Martha share this vision of leadership development with the college and they join us in investing in it. They work with us to develop unique programs providing tuition for classes while encouraging key leadership experiences out of class.

For example, Dana and Martha believed that promoting participation in student clubs and organizations would lead to increasing enrollment, retaining students and developing leadership skills. They created the Fred Foreman Scholarship for Growth in Leadership Participation to reward students active in clubs with preference to those who serve the college by recruiting students. Dana chose to name the scholarship in honor of Fred Foreman, a faculty member in dairy science who personally urged Dana to get involved. To date, nearly 500 scholarships have been awarded to student leaders in the college through this single program.

Mentorship plays a key role in our story.

Also consistent in Dana's stories is the importance of personal attention. In his experience, the mentorship he received through on-campus work at the Iowa State Dairy Farm was important to his retention. This tradition is still a priority of the college today, and one Dana and Martha wanted to preserve. So we developed the Dean's

Leadership Scholarship, a program for 20 out-of-state freshmen and sophomores. This opportunity includes a considerable scholarship and stipends to support on-campus work with faculty. It brilliantly allows us to draw top talent with an attractive award and a resume building work experience. Most importantly, it pushes students to make mentoring connections during their first year that will help keep them on campus and possibly last their entire career. To date, over 130 student-faculty connections have been made.

There's always more to the story.

My position, the Foreman Scholarship and the Dean's Leadership Scholarship are results of an ongoing dialogue. They aren't three separate gifts or programs. They blend a number of academic goals—increasing enrollment, encouraging club participation, developing leadership, first-year retention, study abroad, undergrad research—in a way that provides a very personal experience for students.

The true impact of the Robeses' investment isn't measured in dollars or number of students impacted. The true impact lies in each student's unique combination of experiences—the gift that can never be taken away. All these students go forth into the world to tell their own stories. Together this collection of stories becomes our story.

Andy Zehr is director of marketing and recruiting for the College of Agriculture and Life Sciences.



DANA AND MARTHA ROBES

Dana ('67 dairy science) and **Martha** ('15 honorary alum) Robes have generously invested in Iowa State University with gifts of time and treasure—including scholarships, faculty and programmatic support for the College of Agriculture and Life Sciences. Since 2008, more than 1,100 scholarships have been awarded from the Fred Foreman Scholarship for Growth in Leadership Participation, the Dean's Study Abroad Scholarship and the College of Agriculture and Life Sciences Dean's Leadership Scholars, all of which are funded by the couple. They have created an endowed professorship in the Department of Animal Science and a marketing and recruitment director position in the college. The Robeses frequently travel back to Iowa State to participate in college events; while on campus, they try to meet with all 130 of their annual scholarship recipients.

The Robeses spend nine months of each year living in St. John, Virgin Islands and have a second home in Round Pond, Maine. They worked to bring expertise from Iowa State's Department of Horticulture to the students at Giffit Hill School, a coeducational day-school serving St. John. Through the Robeses' generosity, the Education and Resiliency through Horticulture program—otherwise known as EARTH—was created, teaching students about growing crops in a sustainable fashion and the ways in which horticulture can enhance and improve their daily lives. More than 30 Iowa State University interns, both undergraduate and graduate, have worked with the EARTH program. They are members of the Order of the Knoll William M. Beardshear Society and Campanile Society, and are life members of the ISU Alumni Association.



A CONVERSATION ON LEADERSHIP

with DEAN WENDY WINTERSTEEN

Story by Brian Meyer
Images by Christopher Gannon

What do you recall about leadership from your days as an undergraduate student?

I majored in agricultural crop protection at Kansas State University in the mid-1970s. Honestly, I simply wasn't focused on leadership. At that time, in many of my agriculture classes, I was either the only woman or one of the few women present. That sometimes led to unique or at least memorable experiences. I remember one class where the professor blithely likened the topography of farmland to a woman's body, which resulted in most of the class

snickering. Today in Iowa State's College of Agriculture and Life Sciences I see many undergraduate women in leadership roles. It makes me proud to see how capable and talented all our students are and, more importantly, how they step into leadership roles and grow.

Did you have a memorable mentor as an undergraduate student?

I was mentored by a number of incredible faculty at K-State, including Fred Poston, who recently retired as dean of the College

of Agriculture and Natural Resources at Michigan State University. Fred was a professor of entomology. He opened the doors to me to work in his laboratory and with his field research for three years. His research was working on management strategies for southwestern corn borer. He was the one who really acquainted me with this thing called "science." He gave me an opportunity to prove myself. In some ways, it was an opportunity not only to prove myself to others, but just as importantly to prove myself to that person

Members of the external Dean's Advisory Council (alumni, agribusiness and industry partners) and the CALS Student Advisory Board offered their thoughts on Dean Wendy Wintersteen's leadership style. Their responses are represented in this word cloud. The larger the word, the more often it appeared in their responses.



I saw in the mirror every morning. Working on his research project for three years as an undergraduate helped me realize that my abilities, my ideas and my thoughts had value and importance. A mentor can't guarantee success, but the best ones provide the opportunity to test one's self.

What did you learn about leadership as a graduate student?

My graduate school years were spent here at Iowa State, after a few years working for ISU Extension. As I worked on my doctorate, I was asked to lead the statewide Pesticide Applicator Training program. If I had better understood what a huge program it was, I might have declined. But instead, I orchestrated a large, complex effort with help from my colleagues and with oversight from the state and federal government. It was then that I got an education in the three P's: People, Problems and Personalities. This was something that an economist had told me. All administrative leaders had to engage successfully with the three P's if they intended to remain in their leadership roles.

Who mentored you as a graduate student?

Dave Foster was my major professor for my Ph.D. Dave was my mentor by example. I often joke that he barely spoke to me in the first three months, yet I heard loud and clear his verbal and nonverbal messages. In his laconic way, he mentored me by his actions. From his actions, I learned how to model professionalism, the scientific approach and how to be engaged in one's discipline. Significantly, he made it clear to me that there are choices in life and that choices lead to pathways with various consequences. He taught me to recognize I was on a pathway and that I was creating the direction of that pathway, unknowingly or knowingly.

What is one characteristic you believe to be essential for a leader?

Everyone who intends to lead had better learn to listen, both actively and passionately. Coming from an extension background taught me the importance of listening. When an agricultural producer, faculty or staff person feels like you have taken the time to listen to them, you have established rapport or a connection. By

listening, you begin to understand the terrain, whether it's mental, emotional, financial, political or whatever. Listening opens your eyes to new opportunities. It also warns you about possible dangers. When you listen, it seems much easier to accomplish the other tasks of leadership, like building partnerships to work on agriculture-related issues, negotiating conflicts or communicating a vision. When people understand that you have listened to their interests and concerns, and have creatively tried to respond and move things forward, they will get behind you. One of my more recent mentors is Catherine Woteki, who was the dean of the college before me. She taught me how to listen deeply, absorb the comments and then consider the information carefully in reflection. People want to be heard thoughtfully, and I learned from Dean Woteki that you honor them by carefully considering their comments. Immediate responses, without a time for reflection, can prove to be counterproductive.



What is the biggest challenge facing leaders of agricultural colleges today?

In two words, research funding. Without adequate funding for faculty and staff, facilities and initiatives in agricultural research, progress grinds to a halt. Eighteen months ago, I spoke at the National Press Club on the great need to make federal agricultural research funding a higher priority in light of the enormous national and global challenges

facing agriculture, the environment and the steady population increase. Federal research funding for agriculture simply must increase if we hope to address these issues that impact every single person. So I am in the process of working with other leaders at universities, scientific organizations, producer groups, industry and others on pursuing a unifying message in support of increased funding for food, agricultural and natural resources research.

This is not just an Iowa State University problem or an agricultural college problem. This is an extremely important global issue that I am providing leadership on, along with many others, including Brian Meyer, our CALS communications director and the board members and allies of the Charles Valentine Riley Memorial Foundation, of which I currently serve as president. Hopefully, Congress will listen and respond with resources and leadership to address this critical need.

Growth and moving forward requires new approaches, not just for research funding but for many aspects of leadership. What my experiences have taught me is that striving for something more is liberating. Cultivating a new belief or expectation about what is possible should always motivate leaders. It's an important part of what motivates me. ■

HARMONIZING EXTRACURRICULARS & ACADEMICS

Story by Barbara McBreen
Image by Christopher Gannon

Music Hall is filled with the sounds of students practicing flutes, horns and pianos. Inside one of the practice rooms Marena Bartz is teaching piano to a junior high student. It's one of many activities in her busy schedule.

"Studying music takes a lot of discipline," Bartz says. "I started playing piano at seven, and my teachers still expect me to practice every day. That can be challenging."

Keeping up with Bartz's schedule also can be challenging. Along with piano lessons, she's mentoring peers, singing and performing, working in a research lab and pursuing a double major.

Bartz will finish her genetics degree in December and plans to graduate in music education in the spring of 2018. Both majors are in smaller departments and Bartz says it's helped her feel at home at Iowa State University.

"I know most of the students in my classes and I think that camaraderie is something you don't always find," Bartz says.

She credits her genetics learning community, The Secret of Life, for helping her get to know her peers. Now she serves as a peer mentor. Bartz says students sometimes find it easier to ask their peers for advice.

"Students may feel like they have to have everything lined up to meet with an

adviser, but they can come to us when they aren't sure what they are doing," Bartz says.

In February, Bartz shared her expertise at a workshop titled Creating the Future Workforce in Food and Agriculture at the National Academy of Sciences in Washington, D.C. She was invited to represent Iowa State's College of Agriculture and Life Sciences.

The meeting was organized by the Board on Agriculture and Natural Resources, which is a major part of the National Academies of Sciences, Engineering, and Medicine. Members of the board asked for input from university students about incorporating experiential learning, internships, club activities and hands-on research into the curriculum.

Bartz says the only resource she lacks is time. In addition to being a peer mentor, she's president of the Genetics Club. She also works as an undergraduate research assistant in the plant pathology and microbiology department helping with research on soybean cyst nematodes.

"Marena has a jam-packed schedule juggling two very different majors, research lab work and work as a peer mentor," says Lois Girton, Iowa State biology and genetics adviser. "As a peer mentor, she provides assistance to individual students and the group as a whole."

Marena Bartz shares her musical expertise with a young piano student during a recent lesson in Music Hall. Bartz shared her genetics expertise and extracurricular involvement at a National Academy of Sciences workshop this spring in Washington, D.C. titled Creating the Future Workforce in Food and Agriculture.



When it comes to her music, Bartz says she enjoys teaching more than performing. She will student teach in the spring of 2018 before graduating with her vocal education degree. After graduating she plans to move back to Grafton, Iowa, to help with her parents' grain farm, work with her husband to build a livestock operation and teach private music lessons. ■

DEAN'S LEADERSHIP SEMINAR

Each fall semester, a new cohort of students takes the Dean's Leadership Seminar. The students are offered the opportunity as recipients of some of the college's premier endowed scholarships. The seminar, co-taught by Dean Wendy Wintersteen and Associate Dean of Academic and Global Programs David Acker, introduces the freshmen to leadership qualities, problem solving on current issues, global perspectives and responding to societal needs in agriculture and life sciences.

Hannah Fisher, a sophomore in agriculture and society, featured on this issue's cover, was a member of last year's class.

"The Dean's Leadership Class brought together 15-20 first year students from all different backgrounds," Fisher says. "The best part was everyone was so excited to be there—so excited to learn—even the deans."

Fisher says she built lasting friendships with many in her class. They spent weekly sessions investigating case studies, discussing leadership characteristics and qualities and exploring global issues.

They also got to know the deans.

"Dean Wintersteen is an engaged leader and her passion for what we do here is obvious—without passion the other characteristics of a leader aren't effective. She has the respect of students, the university, our community and beyond," she says. To Fisher, it's inspiring to have a woman in the dean's office.

"It's empowering to see her as a woman at the forefront of CALS. She represents that women have a place leading in agriculture, in STEM (science, technology, engineering and math). It's not just a man's world," she says.

Fisher is an active leader serving as vice chair of the CALS Ambassadors and was on the hiring committee for the assistant dean for student services. She was among the young women selected to represent the college at the Iowa Women's Leadership Conference last fall. She works for Iowa State University Extension and Outreach Local Foods as a communications assistant and for sociologist Carmen Bain as a research assistant.



"She has the respect of students, the university, our community and beyond."

-HANNAH FISHER

LIKE FATHER LIKE DAUGHTER

A LEGACY OF LEADERSHIP

Story by Melea Reicks Licht
Images by Christopher Gannon

For Adelai Swanson, former president of the Agricultural Business Club, there was never any other major to consider. Just ask her dad Stuart, who led the club 26 years before she did.

“You could say I was encouraged to major in ag business, but it was more like forced,” Adelai jokes.

“The commitment from ag business advisers and the relationships they have with their students are really unique,” Stuart says. “I wanted that for my kids.”

That special relationship started at orientation for Adelai when Ron Deiter, Stuart’s adviser, called her out as the daughter of a former club president. It continued when Adelai showed up to her first advising appointment—with Deiter.

“Dr. Deiter is still excited to be teaching,” Stuart says. “You can see his passion. I recognize and appreciate that not just from him, but also from all our advisers, staff and faculty. It feels like a family.”

Stuart, a farmer near Galt, Iowa, worked with the Iowa Pork Producers before returning home to the family farm. He’s kept connected with his fellow agricultural business alumni through industry leadership positions and with Iowa State through collaborative on-farm research. He’s served terms on cooperative boards and numerous industry leadership teams.

When Stuart was president in 1988, enrollment in agricultural business was 389 and membership in the club was

around 100. He says he was drawn to the major because of its good placement rates despite the downturn in the farm economy.

The percent of women in the major was around 10 percent. President Gordon Eaton was in charge at Iowa State and Dean David Topel led the College of Agriculture. Johnny Orr was head basketball coach and Jim Walden led the Cyclones on the football field. The Agricultural Business Club had not yet won an Outstanding National Club award. Carol Elliot was secretary in the agricultural business office.

“Times were tough then. There wasn’t a lot of pride in agriculture—it wasn’t as popular as it is now. Farm kids would choose to major in business and that frustrated me,” Stuart says.

In Fall 2014, when Adelai was voted president, there were more than 485 agricultural business majors at Iowa State—30 percent were women. More than 300 students were in the club, which had won 15 Outstanding National Club

Stuart and Adelai Swanson catch up with Ron Deiter (center) during a recent visit to campus. The economics professor served as academic adviser for Stuart and, more than 20 years later, for Adelai.

awards. Club activities of the past such as mock interviews and the VEISHEA food stand were replaced by an industry golf tournament, a pre-career day mixer, industry tours and many more.

“We focus on networking and professional development. Our industry support for the club is growing—like the endowment in Dr. Dieter’s honor from Farm Credit Services of America. We do a lot to build community, too,” Adelai says.

When she was president, participation in learning communities and in the Agricultural Entrepreneurship Initiative was commonplace for agricultural business students. Steven Leath was president of the university and Wendy Wintersteen was dean of the college. Paul Rhoads was head football coach and Fred Hoiberg was carrying on Hilton Magic. Carol Elliot was, and still is, secretary in the agricultural business office.



Stuart and Adelai Swanson make up the first father-daughter legacy team to have served as Agricultural Business Club Presidents. Both say they were drawn to the major by the family-like atmosphere within the program and high placement rates.

Adelai, the oldest of four daughters, made a good early first impression among her peers and was named the club’s Outstanding Freshman.

“With Adelai, it’s ‘like father, like daughter’ when it comes to academic ability and leadership skills,” Deiter says. “She hit the ground running and made a huge first impression on me. As president, she raised the bar immensely in terms of how to conduct meetings and how to effectively communicate with an officer team.”

At first Adelai tried to blaze her own trail away from agricultural business. She became involved in Greek life, student government, dance organizations, “anything and everything.” But she says she kept feeling a pull to the club where, like her father, she found a family and worked hard to create that feeling for others.

“My goal was to empower students and make them feel comfortable so they had a place to call home. Many in our officer team returned and I love what

they’re doing with the club now. Others have moved on to leadership roles elsewhere in the college and are improving the university on a larger scale.”

It’s statements like this that led to Adelai being recognized as the Ag Business Club’s “biggest cheerleader.”

“I told Addie when she came to college I didn’t want her to have a list of regrets she didn’t take advantage of during her time on campus,” Stuart says.

Adelai studied abroad in South Africa, Argentina and Australia. She’s been on the Dean’s List each semester and received the Fred Foreman Scholarship for Growth in Leadership Participation. Her list of leadership positions, campus involvement and internships doesn’t leave much room for regret: member of the President’s Leadership Council; model in the Iowa

State Fashion Show; active member of Alpha Delta Pi; intern with Coalition to Support Iowa’s Farmers, North Central Cooperative and FLM+; the list goes on.

She graduated in May with degrees in agricultural business, international agriculture and public relations and a passion for agricultural policy. She’s accepted a position with Dow Agro-Sciences as a sales trainee.

The next eldest Swanson daughter, Celeste, is a sophomore in agricultural business at Iowa State. She’s also a leader on campus in Alpha Delta Pi, Bacon Expo, the Student Alumni Leadership Council and the Agricultural Business Club.

Stuart, who met his wife, Lori, at Iowa State, says his other two daughters, Lilian and Delia, are excited to follow suit and find their own adventures at Iowa State. ■

STORIES EXTRA: www.stories.cals.iastate.edu

The Swansons are part of the Ron and Florine Swanson family named 2016 Iowa State University Family of the Year. Stu is the son of Ron (’61 farm operations) and Florine (’64 home economics education), retired executive director of the Iowa 4-H Foundation. Adelai nominated her grandparents for the award. Read more about this Cyclone family online.



STUDENT TO STUDENT

Q&A with CALS Student Leaders

By Allison Rossman, sophomore in agricultural and life sciences education, communications option

The CALS Council Executive Team offers a few thoughts on leadership: **Trey Forsyth** (second from right), senior in agricultural business, president; **Mitchell Hora** (second from left), senior in agricultural systems technology, vice president; **Katie Schrodt**, junior in agricultural communications, secretary; and **Patrick White**, sophomore in agricultural business, treasurer.

What does leadership mean to you?

Leadership is all about supporting those you work with. I believe a leader is able to listen to the needs and desires of others to accomplish common goals. I also believe being a leader revolves around influence. A strong leader can connect with others and empower them to work together.
-Trey Forsyth

“A strong leader can connect with others and empower them to work together”
-Trey Forsyth

Leadership means, helping an organization and its members to live up to its potential. By helping, I develop strong leadership skills and return them to the organization.
-Katie Schrodt

What are the most important decisions you make as a leader for your organization?

Being on the executive team really puts into perspective how much emphasis the college puts on the opinions of students. There are many meetings and surveys that we participate in to give feedback to the university on behalf of all CALS students. I have been better able to ask others' opinion on issues that concern the student body.
-Pat White

What is one characteristic that you believe every leader should possess?

Communication is the number one role a leader should possess. Communication is a two-way street. Communicating happens when someone is talking and someone is listening.
-Mitchell Hora

I believe that being trustworthy is the most important part of being a leader. Being the treasurer, the college has put its trust in me to manage funds effectively and fairly.
-Pat White

What are you doing to ensure you continue to grow and develop as a leader?

To keep developing my personal leadership, I have worked on listening more to other people's unique opinions, rather than only acting on my own opinions. This has given me the opportunity to see things from a different perspective and make better choices that are more beneficial for CALS students.
-Pat White

How has CALS Council and being on the executive team made you a better leader?

CALS Council is the icing on the cake for leadership positions as an undergrad at Iowa State. My role as the vice president for 4,500 students is a big responsibility. I am using everything I have learned in previous leadership positions. The opportunity to serve in such a big position will help me in future leadership opportunities that come after graduation.
-Mitchell Hora

Before serving on CALS Council as a representative, I didn't feel like I had found my place on campus yet. CALS Council has introduced me to some of my closest friends; this has made campus seem a lot smaller and has made me feel at home.
-Katie Schrodt

The College of Agriculture and Life Sciences Student Council serves as a unifying body among students and administration. The council is composed of representatives from 35 agricultural-related student organizations. The council hosts annual events such as National Ag Day, Freshman/Transfer BBQ and CALS Week.

How does CALS Council serve the college?

CALS Council brings together leaders from every aspect, background and focus within the college. Having this diversity of membership allows for CALS Council to reach students all across the college. Most of the decisions we make revolve around organizing communication between our student organizations and thinking of new opportunities for the council to pursue.

The executive team communicates the council's work and views to faculty, students and the university as a whole. We also try to provide as many resources as possible for our committees and representatives.
-Trey Forsyth

As a member of the executive team, what do you plan to do for CALS Council?

I hope to create the positive experience that I had last year for the new members. CALS Council really brought me out of my shell and introduced me to so many great people as well as influenced me to take on leadership roles at the collegiate level. I hope this year's council has a similar experience.
-Katie Schrodt

2016 CALS Council SENIOR LEADERSHIP EXCELLENCE AWARD WINNER

- Drew Mogler** ('13 agricultural business)
- Agricultural Business Peer Mentor
 - Agricultural Business Club Officer
 - Agriculture Marketing and Management Organization Officer
 - CALS Student Council Vice President
 - Iowa State Bacon Expo Committee Co-chair

Mogler offered the student address at the college's spring convocation celebration. You can read or watch his address at: www.stories.cals.iastate.edu. Mogler joined the staff of the Iowa Pork Producers Association following graduation as director of producer education.



MAUKA MAKAI

BUILDING CONNECTIONS INLAND AND SEAWARD

Story by Lynn Laws, Image by Christopher Gannon, Hawaiian images by Lily Jenkins



“At Iowa State, I think we’re such a unique mash-up of different cultures,” Jenkins says. “I’ve made friends from a lot of different countries. It’s been fun to learn about their cultures. Even people from different states have unique things to share, like I have being from Hawaii.”

Moriah Ka’iulani Jenkins served as a community adviser in the residence halls in addition to her rigorous pre-veterinary course load, work as a research assistant and study abroad experiences. She is known for drawing upon her Hawaiian culture to connect with others.

Aloha ‘Āina (pronounced eye-nah) or “love for land” is a way of life on the Hawaiian island of Molokai. The people have a profound respect for nature and an understanding that from mauka (inland towards the mountains) to makai (seaward) everything is connected.

“Mauka Makai means what you do in one place affects the other,” says Moriah Ka’iulani Jenkins. Jenkins is a senior in animal ecology with a minor in animal science, pre-vet emphasis and a recipient of a George Washington Carver scholarship.

Jenkins was born and raised on the island of 7,500 people who value family, age-old traditions and their culture. Much of Jenkins’ schooling revolved around the importance and fragility of natural resources in an island ecosystem. Field trips to fish ponds, forest preserves and wetlands began as early as kindergarten. In contrast to the abundance of wildlife and a wide range of natural habitats, Molokai was, and still is, short on modern

conveniences. There are no stoplights, malls, movie theaters, fast food restaurants or full-time veterinarians.

“I lost a lot of animals to trivial illnesses that could have been prevented,” says Jenkins. “With no vet to administer vaccinations, I lost a dog to Parvo. Another dog was hit by a car, but there were no emergency services, no vet. So I lost him.”

Jenkins knew she wanted to be a veterinarian and began volunteering for the local animal shelter at the age of eight. The Molokai Humane Society was housed in a 40-foot converted shipping container and had no running water or x-ray machine. The next year she began volunteering to help with bird counts for a wildlife biologist and learned the connection between shelter work and wildlife protection. Nonindigenous animals, such as cats, threaten native species, such as birds. Shelters that provide spay and neuter clinics can help keep feral and domestic animal populations in check.

After a tour of her top seven college choices, in the summer of 2012, Jenkins chose Iowa State for its pre-veterinary medicine and animal ecology programming, and because “it was a big school with a small school feel.”

She is a self-described extrovert with a bubbly personality, who makes friends easily and loves to talk. While Jenkins prides herself on her strong communication skillset she explains, “I often found myself having to translate certain words from the Hawaiian language to English so that my friends and hall residents could better understand the nuances of my dialect.”

Back home Jenkins spoke Hawaii Creole English, usually referred to as Pidgin by Hawaiians. It is the first language of the majority of Hawaii’s locally-born children and the first language of a little less than half the state of Hawaii’s population.

During her first year at Iowa State, Jenkins relied on the Multicultural Student

Association Office, her residence hall community adviser (CA) and newly-made friends to smooth the transition from Hawaii to Iowa. In 2013, her sophomore year, Jenkins became a CA for Larch Hall.

“I thought it was cool how CAs had the opportunity to create an inclusive community and create a home away from home. My CA had floor activities that helped me meet people and build close friendships. I thought it would be cool to be that person for others,” says Jenkins. “This is my third year. It’s been a long road with ups and downs, but I’ve learned a lot from it.”

Elizabeth Martinez-Podolsky is a multicultural liaison officer for the College of Agriculture and Life Sciences and was the hall director for Larch Residence Hall when Jenkins first became a CA.

“Moriah went through a lot her first year: academic challenges and also some challenges with some of the things that were going on at the residence hall with her residents. Through all of that she was

really strong, used resources available to her, overcame those challenges and became a true leader,” says Podolsky.

Podolsky commended Jenkins for using Hawaiian words, traditions and philosophies to connect with others and support residents of Larch Hall and, at the same time, learn from other people’s experiences.

“I’m sure she knows every Hawaiian on campus. But she came to the Midwest for a reason. She wanted to experience something really different. She’s done a really good job of blending in with students and welcoming new experiences, from snow to Midwest living and Midwest food,” Podolsky says.

“At Iowa State, I think we’re such a unique mash-up of different cultures,” Jenkins says. “I’ve made friends from a lot of different countries. It’s been fun to learn about their cultures. Even people from different states have unique things to share, like I have being from Hawaii.”

Jenkins’ Iowa State adventure has included a study abroad semester in

Ecuador and the Galápagos Islands, where she assisted with spay and neuter operations on feral dogs. She has assisted veterinary medicine professor Wilson Rumbelha with toxicology research since May 2014 and spent a summer on Maui as an endangered wildlife management intern.

After graduation, Jenkins will attend Western University of Health Sciences, College of Veterinary Medicine, in Pomona, California.

“I’ve volunteered at the Molokai Humane Society my whole life. They’re excited that I am the first person to get into vet school from my island,” says Jenkins.

After graduating from vet school, Jenkins plans to spend two years shadowing a vet who specializes in shelter medicine and then return to Molokai to offer the veterinary services that the island has been without for so long. 🐾

Ben Brown presents his research in the atrium of Molecular Biology during the Stupka Symposium. The annual symposium promotes communication skills and networking among young scientists.

JOURNEYING FROM STUDENTS TO SCIENTISTS

Story by Ed Adcock
Images by Christopher Gannon

A painting of a smiling young man wearing an Iowa State hoodie hangs inside the main doors of the Molecular Biology Building. It commemorates Rob Stupka who was a senior majoring in biochemistry when he was killed in a traffic accident in 2005.

Research was important to Stupka. He worked with transgenic plants to increase crop yields through improved pollination with the goal of feeding more people worldwide.

He had the idea of creating an undergraduate research symposium in the department, led the effort and served as chair of the first one. Stupka died before it took place, but it now bears his name.

These many years later, he continues to inspire those who study in the Roy J. Carver Department of Biochemistry, Biophysics and Molecular Biology (BBMB).

The 11th Stupka Undergraduate Research Symposium was held April 7 in the Molecular Biology Building with 190 registrants.

“The Stupka Symposium gives undergraduates in the department a chance to present their original research to others, in poster and lecture formats, thereby honing presentation and networking skills that are central to future success in a scientific career,” says Kristen Johansen, interim department chair.

“That the students themselves plan, organize and coordinate all aspects of this symposium gives them an opportunity to develop leadership and team management skills,” Johansen says. “Not to mention how the excitement and enthusiasm of these students is infectious. It brings the entire department, as well as others from Iowa State and beyond, together in a day of celebration of science.”

The annual event is organized by student leaders within the department and takes 18 months of planning. The organizing committee is comprised of freshmen through seniors, majoring in either agricultural biochemistry, biochemistry or biophysics.

For the 10-year anniversary Sarah Brinkman, who majors in agricultural biochemistry and agricultural business, was the CALS Council representative for the symposium and the Biochemistry, Biophysics and Molecular Biology Club. The anniversary event expanded to two days to feature BBMB alumni, former Stupka scholars and committee members.

Alumni traveled from 16 different states to attend. An event of this scale required an increased budget and Sarah petitioned to get the club representation on the college student council to secure additional funding. Thanks to the generous support of many, the symposium continues to be free and open to all.

“It is a really good leadership opportunity, and it’s really cool the way the committee is a bunch of undergrads that come together and plan this big event respected in the biochemistry world,” Brinkman says.

“The symposium has many facets, but all focus on the journey from student to



CALS students Tyler Gilbreath, left, and Sarah Brinkman, are among the undergraduate organizers of the symposium held in memory of Rob Stupka. Stupka, featured in the portrait, was killed in a traffic accident in 2005 while chairing the first symposium.

scientist,” says Desiree Gunning, co-adviser of the Biochemistry, Biophysics and Molecular Biology Club. “The planning and presentation of this event is significant because it promotes scientific interaction and communication.”

Each year the committee selects and invites two world-class scientists as keynote speakers. One important criteria for their selection is that they actively mentor undergraduate students conducting research. To give students the opportunity to talk with these outstanding researchers, keynote lunch sessions are scheduled for students only.

The success of last years’ alumni participation resulted in having an alumni speaker selected each year.

“Having alumni from past symposia return in such strong numbers in 2015 served to strengthen our community but also to demonstrate the power of the Stupka experience for today’s students,” Gunning says.

Two poster sessions are held in the afternoon followed by the speaker program which features three student speakers. At

the conclusion, the audience gathers in the Molecular Biology Building atrium for dinner and continued conversation.

Tyler Gilbreath, an agricultural biochemistry and microbiology major, is already planning for next year’s symposium. He has volunteered for two years and serves as co-chair of the speaker committee.

“Stupka is very prestigious within the department, university and beyond. Last year we were one of six regional clubs or student organizations recognized by the American Society of Biochemists and Molecular Biologists,” he says.

Ben Brown, a senior in agricultural biochemistry, has been treasurer of the symposium for two years. He also presented a poster of his research at the last symposium.

“I got involved with Stupka because it seemed like a great way to get to know

people in my major and I wanted to experience some leadership in a new area. I’d never been a treasurer before. I figured, what better way to learn to balance a real budget than by doing it with the symposium.”

Rob Stupka’s family attends the symposium each year. His father Bob Stupka gave an emotional address at the 10th anniversary celebration, clearly moved by the attention his son’s efforts generated.

“I can’t tell you what a difference it has made in our lives the last 10 years,” Stupka said in his remarks. “We get a chance to see through these alumni when we hear what they’re doing, we get to see Rob going forward and I want you to know that we’re as proud of you as we would be of Rob. You’ve just done such a good job taking his ideals and moving them forward.”

STORIES EXTRA: www.stories.cals.iastate.edu

Hear from student leaders involved in the Stupka symposium and learn more about its namesake Rob Stupka in a video online.



BUILDING TRUST, TALKING SCIENCE

Story and image by Melea Reicks Licht

Marcella Szymanski is on the front lines of the global trade war surrounding genetic engineering. To her, it's really more of a trade wreck.

"When we're dealing with genetic engineering we're dealing with a regulated technology. Some countries regulate this technology differently than we do," Szymanski says.

Szymanski ('97 PhD forestry), deputy director for agricultural policy for the U.S. Department of State, works in the Agricultural Policy Office in the Bureau of Economic and Business Affairs.

"The U.S. considers regulation on a product-by-product basis, the European Union regulates by technique. This tends to produce trade wrecks, rather than trade wars. Trade wars occur when a country tries to keep a product out because they say their consumers don't want it. Think poultry chlorine washes or hormones in beef. With those we have a trade war. But with biotech, we have had, such as in Europe, trade wrecks," Szymanski says.

Szymanski is responsible for developing and implementing U.S. trade policy related to new agricultural technologies and working with foreign governments to address regulatory barriers to U.S. agricultural exports. She also works closely with officials from developing countries to support the development of biosafety legislation and facilitate technology transfer to increase agricultural productivity.

"We are not going to feed the world on organic or non-input agriculture," she says. "We need 60 percent more food by 2050 using less land, water, fertilizer and

pesticides. To do this we need science. We need to find the solution in agriculture."

One potential solution is genetic engineering, a biotechnology tool used to speed up the results of conventional breeding. Genetic engineering uses modern molecular biology to transfer well-characterized genes into a plant resulting in a genetically modified organism (GMO). The alterations are made to achieve a desired trait such as drought resistance or improved nutritional value. The technical precision and knowledge of manipulated genetic information makes the risks of this type of gene transfer comparable to or less than classical breeding, according to the American Society of Plant Biologists.

How did a technique used by plant breeding scientists get so polarized?

Science is moving beyond the speed people are comfortable with, says Szymanski.

"To calculate old-school risk we used to multiply the hazard times exposure. Now, thanks to the 'tweetification' of risk, the new school of risk is calculated by multiplying the hazard times media exposure. The result is the perception of risk. Perception drives policy. You can't tweet common sense. But, as scientists we can provide links to resources," she says.

To connect with consumers, Szymanski encourages scientists to do four things before getting to the science: Personalize the story. Acknowledge concerns. Connect. Build trust.

Szymanski has been building trust her entire career.

She was introduced to policy work when she accepted a science and technology policy fellowship with the American Association for the Advancement of Science in 2004.

While on fellowship to the U.S. Department of State, she served as a desk officer advising on science and technology issues for Pakistan. Szymanski says after 9/11, strengthening a long-term U.S.-Pakistan relationship became a priority. Her efforts to bring together scientists, educators and officials in collaborative talks helped improve non-military cooperation with Pakistan. They formed 16 joint working groups and more than 30 joint science projects were funded. Fulbright exchanges also were expanded and groundwork laid for private sector partnerships and vocational training.

She joined the State Department in 2005 and two years later had the opportunity to step up and play an integral role in diplomacy at a crucial time in Bangladesh's history.

"Bangladesh had one foot in a coup and one foot in a democracy. I acted as the desk officer several times and as an interlocutor with Bangladesh Foreign Service officials," she says. "I prepared and presented analyses to senior U.S. officials on developing a road map toward democracy, monitored a rapidly changing political situation and met with human rights and other interested nongovernmental organizations."

As deputy director for agricultural policy with the U.S. Department of State, **Marcella Szymanski** works on trade policy, food security and development issues related to biotechnology. Szymanski visited campus last fall as part of a delegation from the State Department that spoke with students and met with CALS faculty and administration.

Prior to joining the State Department, Szymanski taught and worked in agricultural extension with the University of Kentucky. She received her master's in forest genetics from Oklahoma State and her bachelor's in forestry from the University of Georgia. She has worked with rural farmers in the United States and abroad as a Peace Corps Volunteer in Maragoli, Kenya.

"Thanks to the 'tweetification' of risk the new school of risk is calculated by multiplying the hazard times media exposure. The result is the perception of risk. Perception drives policy."

Szymanski continues to encourage scientists to lead the discussion about GMOs and other agricultural biotechnologies as they are key tools in meeting the global food challenges of tomorrow.

"I believe technology will help us meet these challenges. A great example is in 2013 the World Food Prize awarded three distinguished scientists—Marc Van Montagu, of Belgium, and Mary-Dell Chilton and Robert T. Fraley of the United States—for their independent, individual breakthroughs in founding, developing and applying modern agricultural biotechnology." 



EMERGING LEADER DRIVEN BY

FAITH, FAMILY, FARMING



The college's 2016 Emerging Iowa Leader **Andrew Lauer** is a known and effective community and youth volunteer and advocate for agriculture and Iowa State University.

Story by Darcy Maulsby
Images contributed

“Life will change without your permission, but it's your attitude that will determine the ride.”

It seemed like such a logical plan for Andrew Lauer. Graduate with an ag studies degree from Iowa State University in 2012. Get a good job. Help run the family farm. Marry your high-school sweetheart. Start a family.

Then came Dec. 27, 2014. Just a week earlier, Lauer had returned from a 12-month stint with DuPont Pioneer in Canada, and he and his girlfriend, Chelsey Henkenius, were relishing their time together. The pair spent the evening of Dec. 26 with friends and family in Carroll and headed back to their home town of Lake City when the unthinkable happened.

In the early morning hours of Dec. 27, their Pontiac slipped off the road north of Glidden and started fishtailing when Henkenius tried to steer it back on the

pavement. As the car spun around twice, Lauer saw headlights from an oncoming truck bearing down into the passenger side of the car where he was sitting. He squeezed his eyes shut, and everything went black.

When he woke up in the hospital, his first thought was “Where's Chelsey?” Lauer says. “When I found out she died instantly, my first thought was, ‘It should have been me.’”

The months since that dark December night have been a time of pain, healing and hope. “Life will change without your permission, but it's your attitude that will determine the ride,” says Lauer, a sales promoter and Encirca certified services agent with DuPont Pioneer for Calhoun County and Carroll County. “Faith, family and farming drive me, in that order.”

These commitments also define leadership to Lauer, who was named the 2016 Emerging Iowa Leader by the College of Agriculture and Life Sciences. He was selected for making significant contributions in the college's young alumni program—The Curtiss League—an initiative providing recruitment, awareness and advocacy opportunities for alumni age 40 and younger. “Through his leadership and service, Andrew is an effective advocate for agriculture and demonstrates the impact our graduates make in their communities,” says Wendy Wintersteen, endowed dean of the College of Agriculture and Life Sciences. He also was named a 2016 STATEment Maker by the Iowa State University Alumni Association.

Lauer's 10 tips for leadership success

1. Grow where you're planted. Lauer grew up on a farm between Rockwell City and Lake City. “I always wanted to be like my dad,” says Lauer, whose father, Kevin ('81 ag business) is a Pioneer Hi-Bred account manager. Lauer credits his parents (including his mother, Linda, also an Iowa State alum), his church youth group, 4-H and FFA for learning leadership basics. “When I was a kid, Dad emphasized that the calves eat breakfast before I do,” Lauer says. “My parents also took active leadership roles in our community, from the hospital board to the local Rotary club.”

2. Find mentors. Lauer values his fellow ag professionals (including John Chism with Pioneer Hi-Bred and Rodd Whitney) who lead by example. Lauer strives to share this wisdom with local students and other young ag professionals.

3. Learn from history. Lauer finds inspiration in Henry A. Wallace, the founder of Pioneer Hi-Bred who integrated his interests in agriculture, politics and writing. Lauer admires President Theodore Roosevelt, who experienced a double tragedy at age 25 when his mother and wife passed away within hours of each other. Lauer also respects President Abraham Lincoln, who overcame countless obstacles.

4. Advocate for agriculture. The need for strong ag leadership became evident to Lauer when he served as a legislative intern in Washington, D.C. in 2013 for Iowa Sen. Charles Grassley. “I learned how vital it is to have professional communication and leadership skills to keep agriculture at the forefront.”

5. Always keep learning. After serving as president of Iowa State's Alpha Gamma Rho fraternity and joining the Iowa Corn Grower Association's Collegiate Advisory Team, Lauer continues to learn through the DuPont Commercial Development Program, Agriculture Future of America, Iowa Foundation for Agricultural Advancement, Future Seed Executives and other professional groups.

6. Strengthen relationships. Networking is important. “So is caring about others—something Chelsey exemplified,” Lauer says.

7. Embrace gratitude. Lauer was transformed by his international travels, including his Iowa State study-abroad experience in Costa Rica. “These trips taught me to be grateful for all we've been blessed with in America,” he says.

8. Give back. Lauer, a Jackson Pioneers 4-H Club leader, serves on the Calhoun County Farm Bureau board, Calhoun County Corn Growers board, District Advisory Board of the Iowa Soybean Association, Rotary International and more. “Winston Churchill said most of the significant contributions that have been made to society have been made by people who are tired,” Lauer says. “I enjoy pushing myself.”

9. Dream big. Lauer spent 2014 in Saskatoon, Canada, developing digital marketing strategies and more for Pioneer Hi-Bred. “I was inspired to pursue new goals and accomplish things I didn't think I could do,” he says.

10. Act now. Don't wait to follow your dreams. “I'll never forget Chelsey telling me, ‘Let's do this now, because we don't know how much time we have,’” Lauer says. “I want to do what I can now to ensure future generations of ag leaders have an even better experience than I did.”

CYCLONE FAMILY

KNOWN FOR DAIRY GENETICS, BUTTER COWS

By Melea Reicks Licht
Images by Christopher Gannon

This story starts with two dairy farming brothers and ends with a herd of 50 Iowa State University alumni—and counting.

For more than 90 years the Lyon family of Toledo, Iowa, has been milking Jerseys. For nearly 75, they've been attending Iowa State.

Lyon Jerseys started when brothers Robert and Earl Lyon formed a partnership in 1921. Earl's sons, Joe ('51 dairy science) and Howard ('45 engineering), showed registered Jerseys in 4-H. Together they developed a dairy operation, as did Robert's sons separately.

Earl's other sons, Durward ('50 animal science) and Tom ('62 dairy science), joined agribusiness enterprises. Their cousin William Zmolek ('44 animal science, '51 MS) also was reared in the Lyon family and spent his professional

career as an extension livestock specialist at Iowa State.

Robert's sons, Earl A. ('39 agronomy) and Russell ('41 animal science) also were 4-Hers and Iowa Staters before joining the ranks of the Lyon dairy farmers.

Joe and his son Eric ('76 dairy science) have ushered the farm into its third generation, milking more than 300 cows in partnership with Howard's son Stuart ('75 dairy science).

Eric oversees the 1,000 head of Jersey cattle (320 are milked twice daily). Stuart supervises the 1,100 acres of cropland. They employ around 10 full- and part-time help, selling their milk to Swiss Valley Farms Cooperative.

The Lyon Jersey partners—Eric, Stuart and Joe—were recently honored with the American Jersey Cattle Association's prestigious "Master Breeders" award.

Cardinal and Gold Bloodline

Tom marvels at the cardinal and gold running through the Lyon bloodline. He's a well-known dairy leader credited with building and leading the world's largest animal genetics and herd improvement cooperative—Cooperative Resources International in Shawano, Wisconsin.

"The two brothers, Robert and Earl Lyon, produced six sons. They along with their kids and grandkids have a cumulative number of about 50 Iowa State graduates," says Tom. "Iowa State provided a world-class educational experience for a middle class family living just 60 miles from the campus. It was affordable, and

has been the launching pad for members of the family to enjoy productive lives."

A former president of the University of Wisconsin System Board of Regents and recipient of an honorary doctorate from UW-Madison, Tom is still a Cyclone at heart. He has been inducted into the National Cooperative Business and Wisconsin Business Hall of Fames.

Quality and Comfort

The Lyons still use some of the original buildings from the 1920s in addition to a series of expansions added over the years. Their 350 milking cows each produce 60 pounds of high test Jersey milk per day.

"A long record of breeding show winners and high production cows has given us a reputation for elite Jersey genetics. Jerseys

are in exceptional demand these days for commercial dairy operations," Eric says. "Cow comfort and milk quality are our priorities. We've been innovative. We've used sand as bedding for 40 years. Sand dries out fast, leaving less chance of bacterial infection causing mastitis."

The Lyons also sell genetics through semen sales and natural service bulls.

Butter Cows and Accolades

In addition to Master Breeder status, the Lyon family has a line up of honors and awards.

Joe's wife Duffy was internationally known for her work as the "Butter Cow Lady" for 46 years. Norma "Duffy" Lyon ('51 animal science) was the fourth person and first woman to sculpt the Iowa State Fair Butter Cow. Although she primarily worked with butter, in 2007 she created the beautiful bronze Jersey Jewel on display at the Iowa State Dairy Farm. She died in 2011, the same year the Iowa State Fair celebrated 100 years of the Butter Cow.

The World Dairy Expo has honored Tom, Joe and Duffy as Industry Person, Dairyman and Dairywoman of the Year, respectively. Howard and Joe followed their father Earl in being named Iowa Master Farmers. And Joe and Tom have been named Guests of Honor by the National Dairy Shrine.

Joe is an internationally recognized dairy cattle judge. His leadership in the industry includes serving as founding director of the National Dairy Promotion and Research Board and past president of the American Jersey Cattle Association and National All-Jersey Association. He was also

a pioneer in a system of payment for dairy farmers based on milk's eventual cheese yield.

Cyclone Supporters

Members of the Lyon family are strong supporters of the dairy science program at Iowa State. They offer scholarships for students, serve on advisory boards for the college and animal science department and host students on their farm for dairy judging workouts.

"We appreciate the long-standing friendship and support of the Lyon family," says Donald Beermann, professor and chair of animal science. "Joe has been involved in boards and committees for decades. And, Eric has played an important role in the Grow Iowa Agriculture group supporting legislative priorities for animal agriculture in the state."

Tom and his wife Barb created a scholarship for students studying agricultural cooperatives. There also is a scholarship in the College of Engineering in Howard's name.

Durward and Joe have been inducted into Iowa State's Animal Science Hall of Fame, and the Dairy Science Club has honored Joe, Tom and Eric.

Durward, Tom and their spouses are longtime members of Iowa State's Order of the Knoll. Lyon Jerseys provides the cows for the Dairy Science Club's "I Milked a Cow" fundraiser at the Iowa State Fair.

"Two things are for certain," says Eric. "Lyon Jerseys will continue in the family into the future in one form or another. And future generations will continue to attend Iowa State University for many years to come." 🐄



#Texas4H

CALS GRADS NAMED STATEMENT MAKERS BY THE ISU ALUMNI ASSOCIATION

Three recent graduates of the college were honored by the ISU Alumni Association for their personal, service, entrepreneurial, business and scholastic statements reflecting the spirit of an Iowa State education.

- **Justin Saenz**, left, ('11 public service and administration in ag), 4-H and youth development agent, Texas A&M AgriLife Extension Service, Bryan, Texas
- **Andrew Lauver** ('12 ag studies), farmer and seed sales professional at DuPont Pioneer, Lake City, Iowa
- **Colin Hurd**, right, ('13 ag studies), founder and CEO of Agriculture Concepts, Roland, Iowa



ROWES EARN ACCOLADES FOR ENVIRONMENTAL STEWARDSHIP

Glenn ('71 animal science) and **Bev Rowe** ('88 ag business), farmers near Lorimor, Iowa, were honored by the National Cattlemen's Beef Association as Region III nominees for the environmental stewardship award program. They were honored for making improvements to benefit the land and sustainability of their cow-calf operation.

CALS ALUMNI, FRIENDS RECEIVE TOP HONORS FROM IOWA STATE

CALS alumni and friends were among those honored by the ISU Alumni Association and the ISU Foundation during the annual Distinguished Awards Celebration April 15. Former CALS dean **David G. Topel** and distinguished professor **Jay-Lin Jane-Topel** ('84 PhD biochemistry and biophysics), received the Order of the Knoll Faculty and Staff Award from the ISU Foundation. **Delbert "Hank" Harris** ('63 pre-vet med, '67 DVM, '70 PhD veterinary micro-biology), with Harris Vaccines, was presented with the Distinguished Alumni Award from the ISU Alumni Association.

PETERS Named Among Top Women in Grocery

Rita Peters ('77 horticulture), assistant vice president of floral operations for Hy-Vee, Inc., has been named to Progressive Grocers Top Women in Grocery. Peters oversees all retailer floral operations and the customer education program for the company.

ACCUGRAIN NAMED RURAL ENTREPRENEURSHIP INITIATIVE OF THE YEAR



Ryan Augustine's ('12 ag studies) Rose Hill, Iowa, based agricultural technology startup, AccuGrain, was named the Rural Entrepreneurship Initiative Challenge winner at the American Farm Bureau Annual Convention. AccuGrain uses X-Ray technology to provide real-time grain inventory management for farmers. Augustine (center) developed the concept for the company as a student in the Iowa State Agricultural Entrepreneurship Program.

UNDERWOOD SPEAKS AT HERTZ LECTURE

Roger Underwood, entrepreneur and co-founder of crop-technology company Becker Underwood, Inc., presented the 2016 Carl and Marjory Hertz Lecture on Emerging Issues in Agriculture April 7 at Iowa State. Underwood's ('80 agricultural business) presentation "Your future is short. Don't waste it working for someone else." is available online at www.stories.cals.iastate.edu.



DODDS NEW ISU ASSISTANT VP FOR EXTENSION AND OUTREACH

Robert Dodds ('77 ag and life sciences education, '85 MS), a 30-year veteran with Iowa State Extension and Outreach, has been named the organization's assistant vice president for county services.



WEBER ELECTED NATIONAL PORK PRODUCERS COUNCIL PRESIDENT

John Weber ('71 animal science) was elected president of the National Pork Producers Council. Weber is a pork producer near Dysart, Iowa, and manages Valley Lane Farms, Inc., a livestock and grain operation with his family. He also serves on the board of directors for the Iowa Pork Producers Association.



Bellara Huang, left, of Pella High School and Mason Ohnemus, of Southeast Warren High School, work in a hands-on immersion on soils and sustainability in an agronomy soils teaching lab during the World Food Prize Iowa Youth Institute. The college partners with the World Food Prize in hosting nearly 300 high school students from 125 schools at the annual institute.



PRIZED PARTNERSHIP OPENS WORLD OF OPPORTUNITY

Story by Breanna Wetzler and Melea Reicks Licht, Images by Christopher Gannon

As home to the World Food Prize, Des Moines, Iowa, has been at the center of the Green Revolution to end hunger and improve the global food supply for nearly 30 years. The World Food Prize honors the work of individuals who have advanced human development by improving the quality, quantity or availability of food in the world.

The Prize, created by Iowa native Norman Borlaug, recognizes contributions in any field involved in the world food supply—food and agriculture science and technology, manufacturing, marketing, nutrition, economics, poverty alleviation, political leadership and the social sciences.

Borlaug's vision expanded in 1994 to include the "Borlaug Dialogue"—an international symposium bringing together top minds to engage with high school and college students to explore career paths. With respected programs in agriculture, a foundation in science and close proximity, the College of Agriculture and Life Sciences at Iowa State began to partner with the Prize in 2012 hosting youth programs as part of its Iowa Youth Institute.

"The World Food Prize Youth Institutes are designed to encourage participants to stretch their thinking to address a global food challenge and consider careers in agriculture," says Jacob Hunter ('11 agriculture and life sciences education), director of World Food Prize

Iowa education programs. "The College of Agriculture and Life Sciences is home to many of the programs Borlaug was looking to promote to youth. Working with Iowa State is a natural partnership that gives our participants access to global experts right here in central Iowa."

Cited as the only youth programs of their kind, the World Food Prize Youth Institutes originating in Iowa have since been modeled in 15 states across the country.

Participation is based on competitive selection. High school students write an essay on a world issue. Topics range from sustainable agriculture and international trade, to biofuels and malnutrition, among others. The essays are judged on the quality of their analyses of food security factors and how to improve lives in the selected country. Participants are invited to Iowa State University to discuss their paper with experts, many of whom are Iowa State University faculty, staff or alumni. The event also includes immersion sessions hosted by Iowa

State showcasing research currently underway to address global food challenges.

In 2016 nearly 300 high school students participated from 125 high schools. More than 150 volunteers from Iowa State University, area agribusinesses and Iowa State alumni collaborate to mentor participants at the institute.

"During their time on campus participants are introduced to faculty experts working in their areas of interest," says Andy Zehr, director of marketing and recruitment in the College of Agriculture and Life Sciences. "We value these connections as they help high school students get a feel for Iowa State and the opportunities available to them in the college."

Participants are awarded a \$500 scholarship to the College of Agriculture and Life Sciences upon completion of the institute.

STORIES EXTRA: www.stories.cals.iastate.edu

Meet alum Jacob Hunter in a video online and learn more about the Iowa Youth Institute.





Todd Hall, senior vice president of Cargill, is passionate about building the next generation of food and agriculture leaders.

NEW LEADERSHIP NEEDED TO “FEED THE 9”

Story by Melea Reicks Licht
Images contributed

a core set of technical agricultural competencies. Students choose a world region in which to specialize. Then they develop competency in a relevant language and participate in an immersion experience in their chosen world region. They carry out a senior project related to their technical specialization within the context of that region to complete the program.

GRS's multi-pronged approach makes students especially well-suited for being open to new viewpoints, says Hall. He appreciates how the major encourages thinking critically and creating innovative solutions—all key to meeting future global food challenges.

“Cargill has 150,000 employees who manage these complexities in 70 countries around the world every day,” says Hall. “We work with growers, producers, manufacturers and retailers to put food on tables every day. It's likely everyone consumes one product produced by Cargill each day.” In Hall's more than 30 years with Cargill, he has held leadership positions within animal nutrition businesses regionally and globally. In his current role he's

responsible for strategy, execution, profit and loss in the area of animal protein and salt. Hall's work with Cargill has taken him around the world. Most recently he worked as a platform leader focusing on poultry operations in Central America, China, Europe, Thailand and the United States before accepting his current position earlier this year. He also serves on Cargill's Board of Directors.

Cargill has provided a \$485,500 gift to the GRS program to enhance student recruitment, support faculty and award two new types of Cargill GRS Scholarships. Gail Nonnecke, Global Professor in horticulture and faculty coordinator of GRS, says programs made possible by the gift will strengthen the curriculum and develop students' leadership skills and global competencies.

“We are excited to help develop future agriculture, food and natural resource leaders who have an understanding of resource systems, as well as the passion and ability to approach these challenges with a global perspective and understanding,” says Nonnecke. 📧



Hall is co-chair of the advisory council for the Global Resource Systems (GRS) major at Iowa State. He visits with students on campus and provides input on the multi-pronged approach GRS offers students combining agricultural science, global culture and foreign language.

It's going to take a new type of leader to pave the way to global food security according to Todd Hall, executive vice president of Cargill.

Hall ('82 animal science) spoke at a Global Food Security Consortium symposium at Iowa State University in April. He emphasized that to successfully feed 9 billion people by 2050, agriculture needs leaders who can approach the volatility and interdependencies within the industry with open minds and global perspectives.

“To tackle these challenges we need a workforce with a thorough understanding of the issues and their complexity and the ability to bring informed, intelligent and global perspectives to the solutions. That's one of the reasons Cargill is such an advocate and supporter of the Global Resource Systems major at Iowa State,” says Hall.

Building the next generation of leaders to navigate complexities and anticipate consequences of their decisions is a passion for Hall.

He is co-chair of the advisory council for Global Resource Systems (GRS) at Iowa State. GRS allows students to develop

STORIES EXTRA: www.stories.cals.iastate.edu

Watch Todd Hall's complete remarks and those of other speakers at the Global Food Security Consortium's 2016 symposium in a series of videos online.

IN OUR NEXT ISSUE

STORIES IN AGRICULTURE AND LIFE SCIENCES

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Learn about the latest advancements in **AGRICULTURAL HIGH TECHNOLOGY** in the next STORIES in Agriculture and Life Sciences. Catch up with the latest in **DIGITAL AGRICULTURE** used in the field and get a peek into **HIGH TECH CLASSROOMS** and laboratories at Iowa State. Meet students and faculty working to uncover innovative ways to manage **MACHINES** and equipment, **BIOLOGICAL PROCESSES** and other technologies to create advanced **AGRICULTURAL SYSTEMS OF THE FUTURE**.

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Online registration available in August. We look forward to seeing you at the BBQ!

- * 3-6 p.m. prior to the ISU vs. UNI football game at 7 p.m
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- * Celebrate growing leaders
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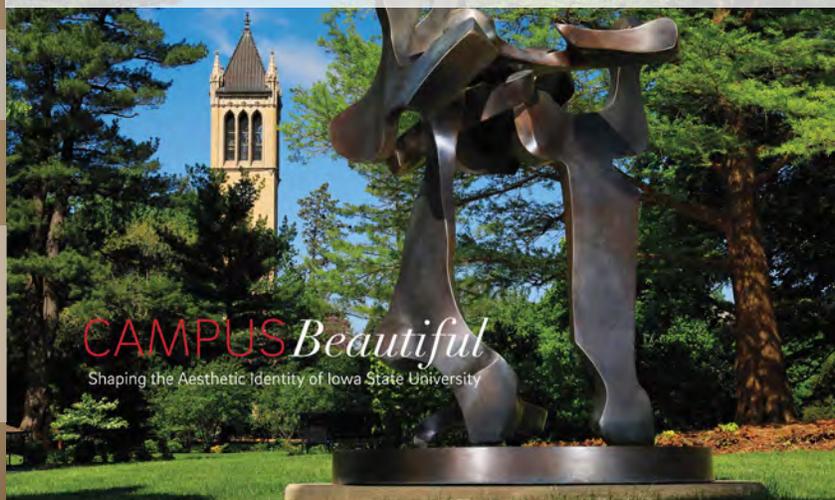
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