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News from the College of Food, Agricultural, and Environmental Sciences

Summer 2018



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Business buzzes and blooms for these Ohio State ATI graduates.

FINDING THEIR NICHE

ALAYNA DEMARTINI AND SHERRIE WHALEY



WITH THEIR HIGH-DEMAND DEGREES, THESE RECENT CFAES GRADS ARE GRATIFIED TO WORK IN FIELDS THEY'RE PASSIONATE ABOUT. **AUSTIN ROSENTHAL** WATCHES CENTRAL OHIO GROW DAILY AS HE OVERSEES THE CONSTRUCTION OF NEW BUILDINGS. **JENNA ODEGARD** PARLAYED HER KNOWLEDGE IN WATER QUALITY INTO A JOB RESTORING LAKES AND STREAMS. AS A FOOD TECHNOLOGIST, **ANNA SCHMENK** HELPS CREATE NEW FOOD PRODUCTS. AND **DAN PIETA** REPAIRS MACHINERY THAT NOT MANY PEOPLE KNOW HOW TO FIX.

MEET THE STUDENTS



AUSTIN ROSENTHAL
'17, BS, Construction
Systems Management
Project Manager,
Compton Construction



JENNA ODEGARD
'17, MS, Fisheries
and Wildlife
Environmental Scientist,
MAD Scientist Associates



ANNA SCHMENK
'18, BS, Food Science
and Technology
Food Technologist,
SensoryEffects



DAN PIETA
'16, AS, Hydraulic Power
and Motion Control
Hydraulic Specialist,
Kraft Fluid Systems

CFAES GRADS LAND JOBS OR SEEK MORE SCHOOL SOON AFTER GRADUATION

Graduates of The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES) excel after graduation. Nearly all (92 percent) of graduates from the 2015–16 school year landed a job or pursued additional education within six months of graduating, according to the most recent survey analysis available.

Among those same graduates, the average starting salary reported was \$43,442. However, graduates with some majors reported even higher incomes. For example, graduates of the agricultural systems management program reported starting salaries averaging \$51,669.

Students graduating with a major in meat science or construction systems management reported an average starting salary of \$55,000 and \$55,817, respectively, topping the starting salaries.

“Our students and graduates have a lot of opportunities before them,” said Adam Cahill, the college’s career development manager. “Students in our college are positioned very well to be successful in industry.”

At on-campus CFAES career expos, the number of employers actively targeting students for internships and graduates for full-time jobs has increased significantly. So many company representatives have shown up at the expos in recent years that the venue has had to be changed three times to accommodate them all. **O**



AUSTIN ROSENTHAL

If working for a construction company conjures up images of grueling, repetitive physical labor, a career in the field may not sound appealing.

However, for Austin Rosenthal, who majored in construction systems management, the field is quite alluring. He doesn’t work in the sweatier side of construction. In his position as a project manager for Compton Construction, he oversees the progress of constructing restaurants, breweries, offices, and other buildings in central Ohio, troubleshooting problems as they come up.

Most of the work Rosenthal does is in heated or air-conditioned offices, with the exception of visits to construction sites to ensure projects are built on time and under budget.

He thrives on taking people’s ideas and then watching them rise up into buildings.

With each construction project being so different, from a chic Hawaiian restaurant to an architect’s office, the job is always interesting to Rosenthal.

“I’ve never had a day in which I did the exact same thing as the day before,” he said.

AVERAGE STARTING SALARIES OF CFAES GRADUATES*

*According to the most recent survey analysis available, from the 2015–16 school year



\$55,817

CONSTRUCTION
SYSTEMS
MANAGEMENT
MAJOR



\$51,669

AGRICULTURAL
SYSTEMS
MANAGEMENT
MAJOR



\$55,000

MEAT SCIENCE
MAJOR



\$43,442

ALL MAJORS
COMBINED



JENNA ODEGARD

Growing up in the “Land of 10,000 Lakes,” Minnesota-native Jenna Odegard was surrounded by water. To say that it impacted her life would be an understatement.

Odegard developed a strong interest and passion for investigating, protecting, and restoring aquatic-terrestrial interfaces and has made it her career, spending much of her time either on water or in it.

After obtaining a bachelor’s degree in aquatic biology from the University of Wisconsin-River Falls in 2013, she made her way to the CFAES School of Environment and Natural Resources, where she conducted her graduate research and wrote her thesis on the taxonomic and functional diversity of fishes and invertebrates in Lake Erie coastal wetlands. She has also studied and researched amphibians, birds, and marine mammals.

Odegard completed her master’s degree in fisheries and wildlife in 2017 and had an environmental scientist job waiting for her with Westerville, Ohio, MAD Scientist Associates, a wetland and ecological consulting company. The scuba-certified diver brings her biological focus to the company’s ecological survey and restoration projects in the Midwest.



ANNA SCHMENK

Anna Schmenk gained a strong love of food early in her life. Her parents had a huge garden. She also spent summers on her grandparents’ dairy farm, where she followed her grandma around the kitchen. Never using a recipe, Schmenk always soaked up the secrets her now 82-year-old grandma shared.

Little did her grandma know the impact she was having on her granddaughter. “My grandma would milk cows, cook both breakfast and lunch for family and farmhands, and babysit at the same time,” Schmenk said.

The Henry County resident naturally gravitated to Ohio 4-H youth development cooking projects and FFA food science and technology contests. There was never a question as to what her career would be. She couldn’t wait to dive into CFAES classes in food science and technology.

At CFAES, she pursued many opportunities including undergraduate research, mentor programs, and internships. Boasting a 4.0 GPA and graduating with research distinction in May, the 22-year-old had a job waiting for her as a food technologist in Defiance, Ohio, at SensoryEffects.



DAN PIETA

Dan Pieta was snatched up by Kraft Fluid Systems for a full-time position as a hydraulic specialist just after completing an associate degree in hydraulic power and motion control from Ohio State ATI.

Since he began his job in Strongsville, Ohio, in May 2016, Pieta has tested and repaired parts for fire trucks and horizontal drilling machines as well as for amusement park rides. The chunk of metal Pieta works with looks nothing like the brightly painted car the metal will propel. Even so, he likes the challenge of reconfiguring an electric drive or adding a new wiring harness to a motor. He does this so the ride will safely carry enthralled children or adults through another adventure.

What he thrives on in his job might give others angst. He has to tend to the smallest of details: a tiny malfunctioning component, a surface that might have been contaminated.

“It isn’t assembly-line manual labor,” Pieta said. “I’m constantly learning on-the-job, and working with things that are foreign to me. In that way, it’s challenging, and I like that.”

“I’m constantly learning on-the-job, and working with things that are foreign to me. In that way, it’s challenging, and I like that.”

Dan Pieta

» CFAES recently celebrated *Thank a Donor Day* in appreciation of the “Buckeyes for life” who support our researchers, educators, students, and mission. Thank you, donors, for helping us sustain life!

BUCKEYES FOR LIFE

Cathann A. Kress, PhD
Vice President for Agricultural
Administration and Dean,
College of Food, Agricultural,
and Environmental Sciences

 @cathannkress



A year ago, I was welcomed into the CFAES community—a community of researchers, educators, students, partners, and loyal alumni. At my first event, I stumbled through Carmen Ohio but was struck by its meaning, particularly by “How firm thy friendship.” Our friendships are an important Buckeye value, and when combined with the mission of our college, a powerful force. Our mission at CFAES is simple and fundamental: We sustain life.

This mission weaves through nearly 150 years and thousands of graduates who have gone into the world bringing our mission to life. It represents our heritage and most cherished hopes. To serve and sustain life, we encourage the desire to understand, to question, and to help find solutions to increasingly complex problems. We celebrate persistence, service, dedication, and those who reach out to build not just solutions, but also relationships.

Each of our faculty, staff, students, and alumni has increased the value and reputation of CFAES. As a result, our star shines a little brighter. The dividends we receive from being part of the CFAES community go up with each achievement, each act of service, each innovation, and each addition to our assembly. Moreover, we come just that much closer to achieving our mission.

At CFAES, we strive to address on a small scale the grand challenges facing humanity and our world. We do this through discovery, research, education, and partnerships. But mostly, we sustain life through the persistent efforts of each one of our people. Because of our people, I have learned that the *Carmen Ohio* lyrics live here, within our CFAES community. I hope that being Buckeyes for life creates in each of us a restlessness to do better, to seek our best, and to sustain life. **Q**

Cathann Kress

» Both Alexander Grobman and Ming-Tsao Chen received the 2018 CFAES International Alumni Award in March. Learn about more outstanding alumni on Pages 8–9.

CFAES INTERNATIONAL ALUMNI



Number of Living CFAES International Alumni as of April 2018

MOST POPULAR MAJORS AMONG CFAES INTERNATIONAL ALUMNI BY DEPARTMENT

641

Agricultural, Environmental, and Development Economics

255

Agricultural Communication, Education, and Leadership

383

Animal Sciences

132

Food, Agricultural and Biological Engineering

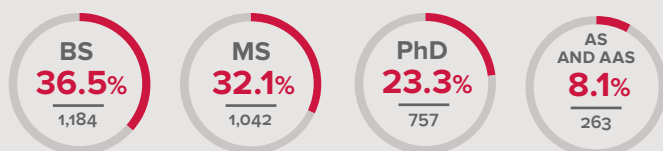
243

Food Science and Technology

559

Horticulture and Crop Science

CFAES INTERNATIONAL ALUMNI BY DEGREE*



*Some hold multiple CFAES degrees.

INTERNATIONAL IMPACT

Growing up with an agricultural background in Peru, Alexander Grobman had an interest in plant physiology, so much so that as a teen, he bought a textbook on the subject.

That purchase, which changed Grobman's life, helps illustrate how CFAES shares knowledge worldwide through its international alumni.

Plant Physiology, published in 1939, was co-authored by Bernard S. Meyer, PhD, who was chairman of the Department of Botany and Plant Pathology at The Ohio State University. It made Grobman want to come to Ohio State.

"He became my professor. I learned a lot from him," said Grobman ('48, BS, Agronomy), now an internationally known crop geneticist who has had a major impact on global food security, primarily through groundbreaking research on improving maize genetics and other food staples.

Grobman, of San Isidro, Lima, Peru, has spread his expertise throughout Latin America. He has conducted research and directed outreach in Africa and Asia, including work in the Soviet Union, Pakistan, and Turkey.

Another alumnus who has made a global impact is Ming-Tsao Chen ('77, PhD, Animal Sciences), of Taichung, Taiwan.

He is considered a meat-industry pioneer in Taiwan, where he has served as dean at National Chung Hsing University and later, Da-Yeh University.

"I took all of the basic material that I learned from here to Taiwan," said Chen. "I told my people, 'meat quality is affected by the slaughter process.'"

He has sent about 35 graduate students to the CFAES Department of Animal Sciences. Five of those students returned to Taiwan and became deans at Tunghai University.

Chen's influence changed world history, his former professor Herb Ockerman said, when Chen created a congress involving meat scientists from China and Taiwan.

"He took Taiwanese and Chinese scientists and created a conference at a time when the countries did not communicate with each other." **MATTHEW MARX**

ATI GRAD'S GIFT RECOGNIZES INSPIRATIONAL INSTRUCTOR

Some honors are expected; others are unexpected.

Upon accepting his 2018 Meritorious Service Award from the CFAES Alumni Society, an honor he had known about for a few months, Kent Hammond got a surprise.

He learned that his former student Joel Korte is establishing a scholarship fund in Hammond's name.

The Kent Hammond Academic Scholarship (#316161) will benefit landscape horticulture students at Ohio State ATI.

The announcement came during the 2018 CFAES Alumni Awards Ceremony segment honoring Hammond, an associate professor emeritus and retired ATI program coordinator who began teaching landscape horticulture at ATI in 1975.

"He's the inspiration, not only for me, but for so many students," Korte said of Hammond before the ceremony. "Overwhelmingly, it was his integrity and his

passion for the industry. He always told us 'Do the right thing.' You wanted to succeed because of him."

A few minutes earlier at the ceremony, held in Columbus (see Pages 8–9), Korte himself had received the Distinguished Alumni Award, and Hammond was there to see it.

"He's the superstar," Hammond said of Korte, who has worked with commercial developers and landscape architecture firms in more than 25

municipalities, including Columbus, Chicago, and the District of Columbia. "I'm just along for the ride."

Hammond had no idea about the scholarship. Prior to that weekend, the men hadn't seen each other in at least 15 years.

Upon receiving his award, as Hammond made his way back to his seat, teacher and student shared a congratulatory hug.

"Thank you for the fund," Hammond said.

"Thank you," Korte replied. **MATTHEW MARX**



A MENTOR TO MANY

KENT HAMMOND, PICTURED ABOVE FROM 1988, HAS REMAINED COMMITTED TO OHIO STATE ATI AND ITS STUDENTS FROM THE TIME HE JOINED THE FACULTY TO THE PRESENT DAY. MANY OF HIS FORMER STUDENTS HAVE BECOME LEADERS IN THE LANDSCAPE INDUSTRY THROUGHOUT OHIO AND BEYOND.



From left, Joel Korte, Kent Hammond, and Dean Cathann A. Kress.

► Have someone in mind for a 2019 CFAES Alumni Award? Download a nomination form from go.osu.edu/nomination or email cfaesalumni@osu.edu before Oct. 1, 2018.

ESTEEMED ALUMNI

—  MATTHEW MARX —

The recipients of the 2018 CFAES Alumni Awards are 13 more reasons to take pride in the CFAES community. Their achievements were celebrated at the 2018 CFAES Alumni Awards Ceremony in Columbus on March 3. “Each of our award recipients has increased the value and reputation of CFAES. Because of them, all of us within our community benefit,” CFAES Dean and Vice President for Agricultural Administration Cathann A. Kress told 180 alumni, relatives, faculty, staff, and friends during the 2018 CFAES Alumni Awards Ceremony.



The **MERITORIOUS SERVICE AWARD** is given to alumni or non-alumni who have been singularly significant in CFAES' quest for excellence. From left, **Michael Day**, of Laramie, Wyoming, is head of the Department of Animal Science at the University of Wyoming. He is honored for decades of meritorious service as a faculty member in the CFAES Department of Animal Sciences. **Dale Seiberling** ('50, BS, '51, MS, Dairy Technology), of Granville, Ohio, is called the Clean-In-Place (CIP) Evangelist. He is credited with revolutionizing the food industry by combining the developing technologies of in-place cleaning and industrial automation. **Kent Hammond** ('72, BS, Horticulture), of Wooster, Ohio, is an Ohio State ATI associate professor emeritus who served with distinction as a program coordinator of the landscape horticulture associate degree program from June 1975 to July 2006 (see Page 7).



The **DISTINGUISHED ALUMNI AWARD** is given to those who have brought distinction to themselves and to CFAES through their commitment and leadership. From left, **Carl Zulauf** ('73, BS, MS, Agricultural Economics), of Nevada, Ohio, displayed an unquestionable passion for students and a dedication to teaching during his 35-year career. **Clifford Baughman** ('59, BS, '69, MS, Agricultural Education), of Saint Paris, Ohio, is recognized for a lifelong dedication to agricultural education, which has made a profound impact in western Champaign County, Ohio. **Rohini Desai Mulchandani** ('76, PhD, Food Science and Nutrition), of Worthington, Ohio, has broken barriers while developing products at Abbott Laboratories and running her own business. **Edison Fowlks** ('65, PhD, Plant Pathology), of Hampton, Virginia, is considered a pioneer in molecular biology education. His dedication to promoting hands-on experiences as learning tools has benefited underrepresented students at all academic levels. **Joel Korte** ('87, AAS, Landscape Construction and Contract Technology), of Chicago, Illinois, is a prominent executive in the landscape industry in both Ohio and Chicago (see Page 7). **W. Kirk Miller** ('70, BS, Agricultural Economics), of Fairfax, Virginia, has advocated for U.S. farmers, taking leadership roles in the private and public sectors, as well as in the field of international agricultural trade consulting.



The **YOUNG PROFESSIONAL AWARD** recognizes young men and women for their early professional accomplishments. **Kevin Fath** ('10, BS, Animal Sciences), of Takoma Park, Maryland, has made a global commitment to improving lives as an agricultural leader. **Nutsuda Sumonsiri** ('12, PhD, Food Science and Nutrition), of Bang Sue, Bangkok, Thailand, is the assistant head of the Department of Agro-Industrial, Food, and Environmental Technology, as well as a faculty member of Applied Sciences at King Mongkut's University of Technology North Bangkok.



The **INTERNATIONAL ALUMNI AWARD** is given to outstanding international alumni who represent, support, and promote CFAES and Ohio State worldwide (see Page 6). From left, Alumni Board President Cyndi Brill; **Ming-Tsao Chen** ('77, PhD, Animal Sciences), of Taichung, Taiwan, known as a meat-industry pioneer; **Alexander Grobman** ('48, BS, Agronomy), of San Isidro, Lima, Peru, an internationally renowned crop geneticist; and Dean Cathann A. Kress.

OUTSTANDING SENIORS >>



Ashlee Balcerzak
Environmental Science
Maumee, OH



Christine Balint
Agriscience Education
Vermillion, OH



Blake Campbell
Agriscience Education
Waterford, OH



Grace Dannemiller
Agribusiness and
Applied Economics
Pickerington, OH



Mikaela Disbennett
Animal Sciences
Croton, OH



Katie Frost
Animal Sciences
Bloomington, OH



Ryan Goddard
Agribusiness and
Applied Economics
Urbana, OH



Brianna Gwirtz
Agricultural Communication
Shelby, OH



Holly Huellemeier
Food, Agricultural and
Biological Engineering
Georgetown, KY



Hannah Jarvis
Animal Sciences
Homeworth, OH

1. After Balcerzak traveled to Guatemala for a mission trip, she realized she wanted to do international work within the environmental and water science fields. Her TED Talk, youtu.be/k-XOKVbkmd4, about the 2014 Lake Erie algal blooms that contaminated the Toledo water supply, whet her appetite for water science even more.

2. "To be a Buckeye means that you have found a home, no matter where you are in the world," said Balint. Her favorite class was oral communications with Tom Stewart because she will need speaking skills to work as an agricultural science teacher.

3. "Leading Agricultural Education Society's first Buck-I-SERV experience to the North Texas Food Bank illustrated issues of food insecurity, and the role of agricultural education in resolving these issues," Campbell said. Campbell is launching his career as an agriscience educator at Warren High School in Washington County, Ohio.

4. After getting married six days after graduation, Dannemiller began working as a grain buyer in Illinois. She loves sales, "because of the personal connection that you get with every farmer, and the opportunity to hear each of their stories."

5. The opportunity to conduct research as an undergraduate broadened her horizons, Disbennett said. After completing veterinary school, she hopes to conduct research in the public health sector, studying zoonotic diseases.

6. Frost's favorite memory of Ohio State was her acceptance phone call into the College of Veterinary Medicine. "I worked really hard towards this and to hear them say that I was accepted validated all of the late hours of studying."

7. Goddard got a job as a district sales manager after graduation. His favorite class was with Dr. Susie Whittington. "She shook everybody's hand the first day of class. The passion she has for her job and students is something I look up to."

8. One of Gwirtz's best memories at Ohio State took place at the Celebration of Agriculture luncheon at the Farm Science Review, where she spoke about how scholarships made college possible. "I'm a first-generation college student, so being a Buckeye is a really big deal."

9. Huellemeier combined her love for cooking with her love for math and science when she decided to become a Buckeye. "Ohio State is one of the few universities that offers food engineering." Her next step is to work on her master's degree.

10. Jarvis's favorite professor is Dr. Francis Fluharty, who teaches beef production. "I learned a lot from him, not only for coursework and my future career, but to apply at home with my own facilities." After veterinary college, she hopes to work in production animal medicine and continue her beef cattle operation.

Judging from this year's crop of CFAES Outstanding Seniors, the future is in good hands. These young people are already traveling the world, giving TED Talks, hiking the Appalachian Trail, conducting research, and anxiously waiting to solve world hunger. CFAES launched the prestigious Outstanding Senior honor in 1967, although at the time, just two awards were presented to the Outstanding Senior Man and Outstanding Senior Woman. Today, the college recognizes annually around 20 graduating seniors who have excelled throughout their undergraduate experience, in and out of the classroom, in the areas of academics, service, and influence.

MIRANDA LIPTON AND SUZANNE STEEL



11. Klass spent two and a half months in Uganda conducting her honors research project on small-herd dairy producers. "I loved the culture and interacting with the farmers and learning about their management practices and their challenges."

12. Lindemer's favorite class was strategic management. "We got to run our own business, which was really exciting and fun to do," he said. Six days after graduation, he married fellow Outstanding Senior Grace Dannemiller. After that, he began his career at Cargill in central Illinois.

13. "Being a Buckeye means never seeing an unfriendly face," Nicol said. Her immediate plans are to teach agriculture to high school students in central Ohio. Eventually, she would like to get her master's degree and work for Ohio State University Extension.

14. "Ultimately, I hope to help farmers through Extension ... to get the best bang for their buck by raising healthy crops." Pennewitt plans to attend graduate school to earn a master's degree and a doctorate degree in plant pathology.

15. Starlin's favorite class was the hands-on ag systems management, where she drove a tractor and learned how to do concrete and electrical work. After graduation, she headed to Arkansas to work in the poultry industry, and she hopes to someday own her own turkey farm.

16. Eventually, Stollar hopes to follow in her grandfather's and two uncles' footsteps by becoming an Extension educator. Her favorite teacher was Dr. Scott Scheer. "He was always very upbeat. I haven't met anyone as passionate as him about Extension."

17. Sweet's first season of football tickets was purchased with her mom's Spartan credit card. Both of her parents are Michigan State alumni, and other family members attended the University of Michigan. "Mom always jokes that, 'Spartan cried when the purchase was made.'"

18. Taylor's six-week study abroad trip to Brazil with Alpha Zeta partners is among her fondest memories. "It was my first time out of the country. One thing that will stick with me is being deep in a cave in pure darkness singing *Carmen Ohio* as a group."

19. Vonderhaar's favorite memory at Ohio State took place off campus, when he hiked the Appalachian Trail for five days with his best friend. His favorite class is Tom Stewart's media campaigning class. "We got to prepare for the real world by making plans for businesses."

20. If Wolfe could give one piece of advice to future Buckeyes it would be, "Don't be afraid to push yourself and do something that you think you wouldn't like. Take classes that you know nothing about."

➤➤ To watch video interviews of these students, visit youtube.com/OSUCFAES. ◀◀

» Contact the CFAES Office of Advancement at 614-292-0473
or faesdevcom@osu.edu for details on estate gift planning.

HELPING BUCKEYES FOREVER

Moved by experiences and opportunities made possible through Ohio State, CFAES alumni Daryl and Connie Faustini have made a lasting commitment to future Buckeyes.

They like that their gift, through the endowed professorship (see below), will help attract and retain top entomology faculty, as they know the impact a great instructor can have.

Connie ('80, MS, Entomology) remembers the assistance she received after graduation from Professor W.J. Collins, from whom she had taken a course in human health toxicology. Like many graduates, she found herself at a job that required a specialty outside of her major.

Connie needed assistance in reading a complicated gas chromatograph, which helps analyze pesticide concentrations.

"I called Dr. Collins to help me. He took the time to do things that he didn't have to do. He cared," she said. "His teaching went beyond the school."

The study abroad scholarship is inspired in part by their travels when Daryl ('80, PhD, Entomology) worked abroad during his career at Altria Group Inc. He went to Africa, Asia, Australia, Central America, South America, and Europe.

The fund that will enhance experiential learning provides a different form of opportunity. "How else can a person—in addition to what they get in the classroom—how else can they expand their horizons?" Daryl asked.

That they will never meet the recipients of their generosity is OK, Daryl said. "Giving is a personal decision. Connie and I have always been givers. It's the foundation of who we are. I never like to be told to give. It's a responsibility. It should be natural to give. It's what Buckeyes do." **MATTHEW MARX**



Thanks to the generosity of scholarship donors, recent graduate Ryan Goddard was able to study abroad in both Nicaragua and Brazil through CFAES. "These two study abroad programs have been highlights of my college experience, and I honestly couldn't imagine college without these two international educational opportunities," said Goddard. He graduated this spring with a bachelor's degree in agribusiness and applied economics as well as a double minor in agronomy and agricultural communication. Goddard went to Nicaragua for 11 days for the CFAES First Year Experience. There, he learned firsthand about global agricultural and environmental issues in an international context. The second trip was to Piracicaba, Brazil, for six weeks with the Alpha Zeta Partners. While in Brazil, he attended classes at the University of São Paulo College of Agriculture and went on excursions traveling to different farms, manufacturing plants, grain operations, and businesses.

EMILY JEWELL

The Maryland couple's estate gift creates three endowed funds that will benefit CFAES students in perpetuity:



THE DARYL AND CONNIE FAUSTINI ENDOWED PROFESSORSHIP IN ENTOMOLOGY



THE DARYL AND CONNIE FAUSTINI STUDY ABROAD SCHOLARSHIP FUND



THE DARYL AND CONNIE FAUSTINI EXPERIENTIAL LEARNING FUND IN THE SCHOOL OF ENVIRONMENTAL AND NATURAL RESOURCES



If you'd like to share your
own memories, visit
senr.osu.edu/memories.

SENr is celebrating its 50th anniversary

It's late 1968. Apollo 8 completes humanity's first orbit of the moon, takes its soon-to-be-famous "Earthrise" photo, and in turn gives rise to an experience called the Overview Effect. Felt when seeing the Earth from a distance, the effect is what an NPR story describes as "a sudden recognition, a cognitive shift that we are part of a living, breathing planet." A few months earlier, a similar shift, an Overview Effect of its own, occurred at CFAES. On July 1, 1968, the college established its new School of Natural Resources (SNR). Today, the school, which took on a new name in 2005—School of Environment and Natural Resources (SENr)—is celebrating its 50th anniversary. A few of the steps in its history follow. **KURT KNEBUSCH AND MOLLY BEAN**



Gardening veggies, yielding positivity

A 1,200-square-foot vegetable garden is housed within the Juvenile Justice Center in Painesville, Ohio. The gardeners are boys and girls, ages 11 to 18, who have committed either a misdemeanor or a felony that's resulted in their being held at the center from as little as six months up until they turn 21. While tending the vegetables, the gardeners learn how food grows and how hard work can yield positive results. The garden is part of the Detention Gardening Program, run by nine Lake County Master Gardener Volunteers including Becky Foltz. All of the volunteers have received intensive training in horticulture from OSU Extension. The program was started in 2009 by Lake County Common Pleas Juvenile Court Judge Karen Lawson, who facilitates the volunteers to work with the juveniles at the center annually from April to October during the growing season, Foltz said. Last year, they harvested 200 pounds of food, which the juveniles ate, with a portion donated to the Salvation Army. **TRACY TURNER**

1968

SNR begins operation with faculty on the Columbus campus and the Wooster campus at the college's Ohio Agricultural Research and Development Center (OARDC). The school has four divisions: Conservation and Outdoor Education, Fisheries and Wildlife Management, Forestry and Forest Industries (later Forestry), and Park Administration and Outdoor Recreation (later Parks and Recreation Administration). A fifth division, Resource Development and Conservation (later, Natural Resources Development), will be added in 1971.



1968
Charles Dambach serves as SNR's first director. Five acting and interim and 10 permanent directors will follow him, including the school's current director, Jeff Sharp.

1969

O.L. Barnebey of Columbus donates the former Camp Indianola, 980 acres of land and buildings in Fairfield and Hocking counties, to SNR to create a field lab, the Barnebey Center for Environmental Studies.



1969
The Master of Science in Natural Resources program is initiated.

1969
Director Dambach forms the Honorary 100 group (go.osu.edu/honorary100) to garner support for and ensure community input into SNR.

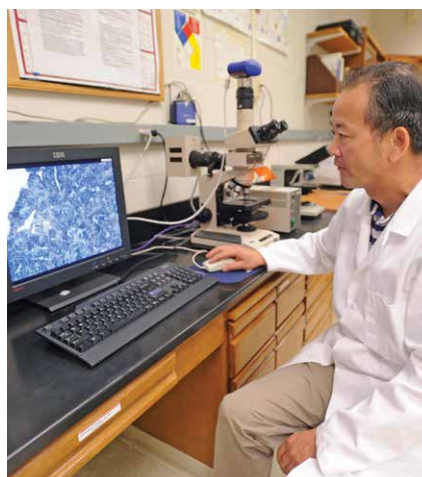
» For a longer version of this story, visit go.osu.edu/fishbreeding. For more information about the aquaculture program, visit southcenters.osu.edu/aquaculture.

Breeding for faster-growing bluegills and yellow perch

Inside cool-water-filled fish tanks in southern Ohio, the laws of nature are being defied: Female yellow perch mate with other female yellow perch; male bluegills with other male bluegills. Hanping Wang, who manages The Ohio State University's Ohio Center for Aquaculture Research and Development, has succeeded in raising faster-growing fish by artificially mating them in a not-so-typical way. The aim of the center, in Piketon, Ohio, is to spur the state's aquaculture industry, in part, through research on two of the state's most common fish: yellow perch and bluegills. On average, the resulting offspring reach market size six months faster than bluegills or yellow perch bred out of a standard male-female breeding. "We're using the animals' maximum potential to make them grow faster for human benefit," Wang said. "We have to do it this way to meet the growing need for food, specifically protein." **ALAYNA DEMARTINI**



Yellow perch.



Critical to the selective fish breeding program is a key accomplishment of Wang's research team: completing genome sequencing of both yellow perch and bluegills. That might not sound like a huge feat to someone outside the aquaculture world. After all, fish have far fewer genes than humans. But knowing the genetic makeup of these two species makes it possible to see how genes interact with each other and to examine the exact gene that controls economically important traits in the fish, such as growth pace and disease resistance. By changing the fishes' genetic makeup, researchers can select for high disease resistance and larger, faster-growing fish, Wang said. "We know long-term it will have a huge impact."



Robert W. Teater serves as acting director (1970) and director (1971–74).

1971

Forestry Extension functions are moved from the college's Department of Horticulture to SNR.

1971

The Forestry Division in Wooster assumes responsibility for Sequest Arboretum, which also is part of the Wooster campus.

1973

Director Robert W. Teater forms the School of Natural Resources Alumni Society.

1981

SNR's Columbus units move into the new Agronomy, Natural Resources, and Plant Pathology (ANRPP) Building.

The ANRPP Building is renamed R.M. Kottman Hall. The name honors Roy M. Kottman, who retired that year as Ohio State's vice president for agricultural administration and dean of the College of Agriculture and Home Economics (formerly the College of Agriculture, now CFAES), director of OARDC, and director of the Ohio Cooperative Extension Service (now Ohio State University Extension).



1970

1982

NATURE PUBLISHES EROSION STUDY

A recent study has found that topsoil erosion, besides reducing crop productivity, causes the release of greenhouse gases.

But the study, whose co-authors include Rattan Lal, director of CFAES' Carbon Management and Sequestration Center, also found that eroded topsoil can be restored, and its negative impacts reversed, faster than had been previously thought.

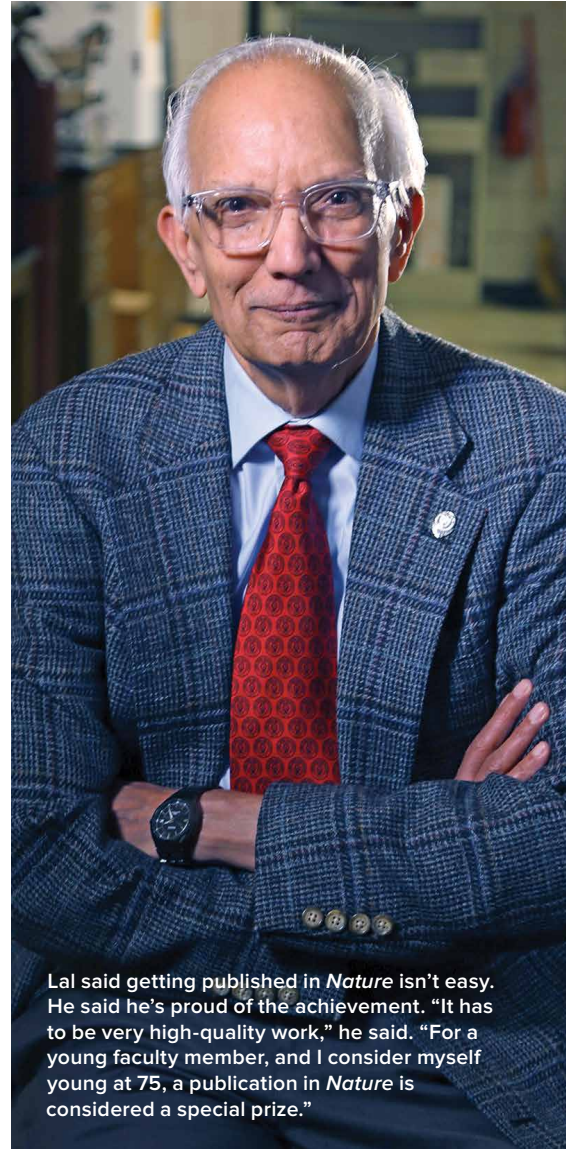
"The general statement is that forming 1 inch of topsoil may take thousands of years," said Lal, who is Distinguished University Professor of Soil Science in CFAES' School of Environment and Natural Resources. But he said that adding organic matter—in the study's case, composted manure—to eroded land can reduce that time significantly.

The study, which was started in 1997 at CFAES' Waterman Agricultural and Natural Resources Laboratory in Columbus, appeared late last year in *Scientific Reports*, part of the high-impact *Nature* family of journals.

The findings are important, Lal said, because topsoil erosion is a concern both for farmers trying to stay profitable and for nations trying to feed all their people, while they also at the same time try to protect their environments. He said that globally, about 4 billion acres are affected by erosion. And, as he and his co-authors wrote in the study, the impacts of that erosion, such as shrinking crop yields, often happen so slowly that they "may not be recognized until crop production is no longer economically viable."

It's for that reason that soil erosion is called "the quiet crisis," Lal said.

The study's findings are important, too, because overwhelming scientific evidence shows that rising levels of greenhouse gases are causing Earth's climate to change. The study specifically found methane and nitrous oxide among the gases released by erosion. Both are much stronger than the most common greenhouse gas, carbon dioxide. **KURT KNEBUSCH**



Lal said getting published in *Nature* isn't easy. He said he's proud of the achievement. "It has to be very high-quality work," he said. "For a young faculty member, and I consider myself young at 75, a publication in *Nature* is considered a special prize."

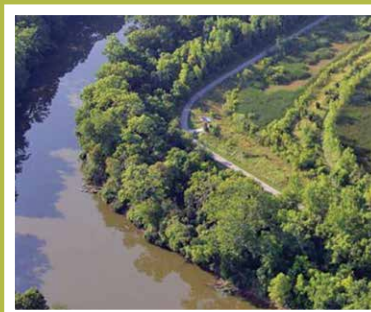
1983



The Gwynne Conservation Area is established at the college's Molly Caren Agricultural Center in London, Ohio. Bill Cowen begins planting pine trees there in 1984. A pond is built later that year. The center, including the Gwynne Conservation Area, now hosts the annual Farm Science Review.

1991

The Environmental Sciences Graduate Program is established. It draws on multiple Ohio State colleges, including CFAES. Its first director is Terry Logan from SNR. Its current director is Nick Basta, who's also from the school.



1992

A groundbreaking is held for the Wilma H. Schiermeier Olentangy River Wetland Research Park (ORWRP) near the Columbus campus. Two experimental wetlands are completed in 1993. Water starts flowing in from the adjacent Olentangy River in spring 1994.

» Want real-time information about what's going on at CFAES? Check out our Twitter feed at [@CFAES_OSU](#).

CFAES COMMUNITY NEWS

CFAES faculty and staff engage Ohioans statewide, putting knowledge to practical use for communities across the Buckeye state.

FoodS.U.R.E.

A new initiative in the CFAES Department of Food Science and Technology is providing undergraduate students the opportunity to engage in research firsthand. FoodS.U.R.E. (Food Science Undergraduate Research Experience) is proving to be a popular program. Students decide on a research area of interest, and then they work with a faculty member on their project. They present their findings at a forum of their choice and gain skills in basic research techniques, research poster development, and presentation. Additional benefits include eligibility for a departmental scholarship award and graduating with research distinction. Karli Van Simaey, a senior FoodS.U.R.E. participant, now has two research honors on her resume. She was a finalist in an Institute of Food Technologists research forum, and she won first place in the food science category of the CFAES annual research forum. The Sylvania, Ohio, native graduated in May. **SHERRIE WHALEY**

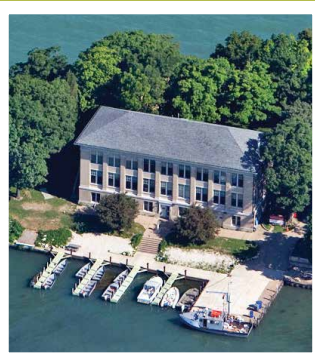


WATER QUALITY ISSUES MET THEIR MATCH AT THE CFAES ANNUAL RESEARCH CONFERENCE IN APRIL. "MEETING THE WATER QUALITY CHALLENGE" FEATURED UNIVERSITY OF ARKANSAS' ANDREW SHARPLEY, WHO DISCUSSED AGRICULTURE, PHOSPHORUS, AND WATER QUALITY. IN ADDITION TO OTHER SPEAKERS, THE EVENT INCLUDED UPDATES ON OHIO STATE RESEARCH, A RESEARCH POSTER COMPETITION FOR GRADUATE STUDENTS, AND AN AWARDS CEREMONY. **SUZANNE STEEL**

1994

The college's Soil Science functions, programs, and faculty are merged with SNR.

Administrative responsibility for The Ohio State University Stone Laboratory, Ohio State's island campus on Lake Erie, is moved from Ohio State's Office of Academic Affairs to SNR.



1994

2000

Doctoral programs in natural resources are initiated.

2000

The new Natural Resources Interpretive Center opens in the Gwynne Conservation Area.



The Ohio Woodland Stewards Program is launched, offering public workshops throughout Ohio on forestry and wildlife management. It expands on landowner workshops taught in the 1980s and on the Master Tree Farmer Program.

2001



Elizabeth Dayton.

Revised phosphorus index can help curb agricultural runoff

Ohio farmers will soon have access to a newly revised tool that can help them quickly determine the risk of their operation's agricultural phosphorus runoff, which could move into Ohio waterways, including Lake Erie. The revised Ohio Phosphorus Risk Index is a program developed by the U.S. Department of Agriculture Natural Resource Conservation Service. The index helps farmers use farm-specific data to assess the risk of their operation's phosphorus runoff. The revised index is the result of soil scientist Elizabeth Dayton's multiyear On-Field Ohio project. The index has significant water quality implications statewide, as misapplied phosphorus has a high likelihood of degrading Ohio's surface water and is a major contributor to harmful algal blooms, experts say. The need to reduce phosphorus is significant because harmful algal blooms are dangerous to the Lake Erie ecosystem and human health. In 2014, toxins produced by a severe bloom in western Lake Erie shut down Toledo's drinking water supply for two days. **TRACY TURNER**

Planning underway for CFAES Water Quality Initiative

CFAES Dean Cathann A. Kress in February announced the start of a yearlong process to develop a new Water Quality Initiative (WQI). When ready, experts will tackle Ohio's water issues, will coordinate CFAES' efforts regarding these issues, and will position CFAES as a statewide leader on the issues. Leading the process is CFAES' Water Quality Task Force. Appointed by Dean Kress last summer, the eight members of the task force come from multiple units within the college. For starters, their focus is to talk with and get input from two key groups: CFAES faculty and staff, and stakeholders and government decision-makers. **KURT KNEBUSCH**

Watch for updates

at cfaes.osu.edu.

Homecoming weekend 2018

Hold the date for CFAES Homecoming: Oct. 5–7, 2018. Prepare for an opportunity to reconnect with the rest of the CFAES community. Learn about



college happenings, see old friends, and meet new ones. The annual CFAES Fallfest Tailgate will be held rain or shine on Saturday, Oct. 6,

at the Nationwide & Ohio Farm Bureau 4-H Center prior to Big Ten Conference action when the Buckeyes face the Hoosiers of Indiana University in the 'Shoe. Hope to see you there! Learn more at go.osu.edu/fallfest2018.

MATTHEW MARX

Why are some mushrooms “magic”?

Psychedelic mushrooms likely developed their “magical” properties to trip up fungi-munching insects, suggests new research. The work helps explain a biological mystery and could open scientific doors to studies of novel treatments for neurological diseases, said Jason Slot, an assistant professor of fungal evolutionary genomics in the CFAES Department of Plant Pathology. Slot and his co-authors found an evolutionary clue to why the mushrooms gained the ability to send human users into a state of altered consciousness. The genes responsible for making psilocybin appear to have been exchanged in an environment with a lot of fungi-eating insects, namely animal manure. Psilocybin allows fungi to interfere with a neurotransmitter in humans and in insects, which are probably their bigger foe. In flies, suppression of this neurotransmitter is known to decrease appetite. “We speculate that mushrooms evolved to be hallucinogenic because it lowered the chances of the fungi getting eaten by insects,” Slot said. The study appears online in the journal *Evolution Letters*. **MISTI CRANE**



2003

2003

The Heffner Wetland Research and Education Building is built at the ORWRP.



The Terrestrial Wildlife Ecology Laboratory is established in SNR in collaboration with the Ohio Department of Natural Resources Division of Wildlife.

2004

The renovation of Hayden Hall on the Wooster campus is completed, providing space for SNR's Soil Microbial Ecology Program.



2005



The University Honors and Scholars Center approves the Environment and Natural Resources Scholars Program.

2005

By action of Ohio State's Board of Trustees, SNR's name is changed to School of Environment and Natural Resources.



SWEET!

BUSINESS BUZZES AND BLOOMS FOR THESE OHIO STATE ATI GRADUATES

FRANCES WHITED

Almost every Ohio State ATI major includes business courses, so it's no surprise that there are many entrepreneurs among ATI's graduates. Business ventures range from carrying on a family business to startups—or a combination of both.

BEE-LINE TO NEW BUSINESS

Business partners Andy Mondello ('18, AAS, Business Management) and Jessica Skidmore ('18, BS, Agronomy) have teamed up to build on an established business, Skidmore Apiaries of Rushsylvania, Ohio. While beekeeping is in Skidmore's blood, Mondello had no experience with bees prior to taking a beekeeping class at ATI.

Mondello got his first taste of commercial beekeeping through an internship with Real FarmVille, an urban farm operated on the Huntington Convention Center of Cleveland's grounds. The purpose of the farm is to provide fresh

ingredients for the center's kitchens. In addition to 14 beehives, Mondello tended 26 chickens, a hydroponic vegetable system, and three hogs. "I learned a lot about the business of farming," Mondello said.

With their combined experience and the knowledge gained from ATI's business classes, Mondello and Skidmore plan to open a meadery. Mead, an ancient winelike beverage made from fermented honey, is experiencing a resurgence. "I think it's a good time to be in the business," Skidmore said, noting that mead has a higher profit margin than other bee products.

2008

The ORWRP is designated as the United States' 24th Ramsar Wetland of International Importance.

2009

The Professional Master's in Environment and Natural Resources (MENR) is approved.

2010

The college's Rural Sociology faculty are merged into SENR.



2012

The Environmental Professionals Network (EPN), a statewide professional group organized by SENR, is established. Today, it has nearly 2,000 members and hosts monthly breakfast programs and annual signature events. The signature events, featuring big-name speakers such as Jack Hanna, have drawn up to 1,400 people (go.osu.edu/top5EPN).

2012

The Environment, Economy, Development, and Sustainability (EEDS) major is established in partnership with the CFAES Department of Agricultural, Environmental, and Development Economics.

BLOOMING IN NEW LOCATION

Tara Beaire ('94, AAS, Floral Design and Marketing) used to drive by the old Stuhldreher's building in downtown Mansfield and think, "Man, I wish somebody would do something with that building!" That somebody turned out to be her.

Beaire, who established Tara's Floral Expressions in 1999, joined in Mansfield's downtown revival. She purchased the 1916 building, which had been built as a floral shop, and moved her business there in January 2017. Along with the floral shop came an adjacent ice cream parlor, which Beaire reopened in June 2017. And business is blooming, providing Beaire with a full slate of floral projects every day.

ATI's business classes gave Beaire a good start. "But you also need exposure to a business setting—the volume, the turnaround time," she said. Remembering her own challenges with finding an internship, Beaire regularly hosts ATI interns.

And while there is no guaranteed road to success in business, Skidmore, Mondello, and Beaire agree that their ATI experiences gave them their first steps along the right path. **O**

For the business-minded, Ohio State ATI offers two options: an Associate of Applied Science degree in business management and an Associate of Science degree in agribusiness. Check them out at go.osu.edu/bizmgt and go.osu.edu/agribiz.



Ohio State ATI prepared Tara Beaire to open her own flower shop in downtown Mansfield.



2012

The first Environmental Science Student Symposium, "Investigating Earth's Environmental Challenges," takes place in the Ohio Union on the Columbus campus. It features projects by hundreds of Ohio State students taking SENR's ENR 2100, an introductory environmental science course. The annual event is still going strong.

2014

The School of Natural Resources Alumni Society changes its name to the Environment and Natural Resources Alumni Society.

2014

Kottman Hall is renovated. The \$12 million investment upgrades the building's heating, cooling, and exhaust systems; replaces its windows and roof; and upgrades its elevators (go.osu.edu/kottmanrenovation).

2018

The ORWRP celebrates 25 years of integrating teaching, research, and outreach on aquatic ecosystems and water quality.

SENR is home to 40 tenured or tenure-track faculty; two professional practice faculty; 750 undergraduates; 110 graduate students; and nearly 100 academic, research, Extension, and business operations staff. Together, they provide leadership for engaging and impactful research, teaching, and Extension and outreach programs in environment and natural resource areas of critical importance. Those areas are water, fisheries and aquatics, soils, forestry, wildlife, and human dimensions.

TODAY



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Continuum

Summer 2018

The Ohio State University Alumni Association, Inc.

College of Food, Agricultural, and Environmental Sciences Alumni Society
364 W. Lane Ave.
Suite B100
Columbus, OH 43201

ADDRESS SERVICE REQUESTED



FARM SCIENCE REVIEW SET FOR SEPT. 18–20

The 56th annual Farm Science Review, a three-day agricultural show, will offer the latest in farm technology, production practices, and conservation methods to help farmers solve challenges and increase profits. The event at the Molly Caren Agricultural Center in London, Ohio, includes more than 600 exhibitors, 4,000 product lines, and advice from industry experts. Staff from OSU Extension and Purdue University Extension provide research-based advice on issues from pest management to water quality. Field demonstrations feature the most current technology and techniques to help farmers be productive. For tickets or more information, visit fsr.osu.edu. ALAYNA DEMARTINI

Continuum is produced by the College of Food, Agricultural, and Environmental Sciences at The Ohio State University. View *Continuum* online at cfaes.osu.edu/about/continuum.

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