

# IN THE FIELD



## **The Well Pollinated Rufus Isaacs**

And his unlikely path  
to study pollinators at  
Michigan State University.



## IN THE FIELD

For alumni, donors and friends of the Michigan State University College of Agriculture and Natural Resources.

*In the Field*, published once a year, is devoted to bringing to light the stories of the College of Agriculture and Natural Resources and its people.

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Douglas D. Buhler

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## CHANGES AND INNOVATIONS

If nothing else, 2016 will bring changes to the Michigan State University (MSU) College of Agriculture and Natural Resources (CANR). Quite honestly, though, every year brings changes to our college.

It's the nature of our business. For more than a century and a half, we've been changing. Whether it's applying what's been learned in the lab to the field or bringing new voices into our ranks, change has been our constant.

You see change in this magazine. It's a departure from anything we've done in the past. We want you to engage in this piece—there's more to this magazine than meets the eye. When you visit the links, you'll see that we are developing a podcast, videos, and more stories about our students, faculty and staff members, and you, our alumni and friends.

We chose to name this piece "In the Field" because we think it does the work of rooting us in our tradition, but we will show that the

fields are changing. While the fields where we grow food, biofuels and feedstock remain, many of the fields we work in are across the globe. They are laboratories on campus and around the state. They are homes and doctors' offices where people learn about nutrition. And they are virtual—phone calls and video chats with colleagues around the country. The places we work—our fields—are changing because the people we serve are everywhere.

As you read these stories and learn more about what's going on in CANR, I hope that you will be inspired to connect with us in some way. Send an email, like us on Facebook, follow us on Twitter, join us for an event in your area, or come to one on campus.

This year will find CANR with a new dean, a new crop of students, new faculty members, and research and innovation across the globe. We are truly at an exciting time in food, energy and the environment. I can barely remember a

time when so many of the issues we research and teach about have been so important to so many people.

In many respects, we are all in the same place right now ... experiencing the anticipation of what comes next, what does the future hold now? The future of CANR is undoubtedly bright—with the people in place to get this important work done, there's nothing standing in the way.



**Douglas D. Buhler**

Interim Dean,  
College of Agriculture  
and Natural Resources





**WANT TO LEARN MORE ABOUT  
OUR COVER AND HOW WE  
PULLED IT OFF?**

Check out *In the Field* online at [inthefield.canr.msu.edu](http://inthefield.canr.msu.edu) for a more photos, a video and a podcast with the participants.

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## Michigan Fresh

MSU Extension's Michigan Fresh program puts information on the growing, storing and preparing of nearly 100 Michigan fruits, vegetables, meats and more into the hands of the people who need it, whether they are at the farmers' market or in their home gardens.

"When people are passionate about food, they are passionate about where it comes from and more interested in eating well," said Kendra Wills, the MSU Extension educator leading the Michigan Fresh initiative. "We want to capitalize on this interest to promote a major Michigan industry, support local growers and local businesses, and make Michiganders healthier."

MSU Extension educators and volunteers at farmers' markets throughout Michigan work with vendors and growers to hand out fact sheets and recipe cards featuring popular local foods. The Michigan Fresh website brings the information to thousands more.

**LEARN MORE**  
michiganfresh.msue.msu.edu

## Making Farm to Fork a Reality

Whether you call it farm to fork or the local food movement, MSU Extension helps develop sustainable local food systems by connecting farmers directly to consumers. As communities strengthen ties between local growers and organizations interested in adding more Michigan-made products to the menus in schools, hospitals, cafeterias and restaurants, the real winners are Michigan residents whose lives are enriched by having greater access to fresh, locally produced food.

Local food programs reach Michigan residents in many forms by bringing people together to help increase profitability for small farms and food businesses while providing access to fresh, local food to low-income families.

"The work of Community Food Systems is focused on helping our Michigan communities create solutions to improve food access for low-income families, support new and beginning farmers to be

productive and profitable, and connect farms with the distribution channels to serve local food at schools, hospitals, universities and other institutions," said Julia Darnton, MSU Extension community food systems educator. "We can do this best when we collaborate and work to advance common goals such as those outlined in the Michigan Good Food Charter."

**LEARN MORE**  
msue.anr.msu.edu/topic/info/community\_food\_systems

## Feed the Future

CANR is home to two USAID-funded innovation labs—the Feed the Future Innovation Lab for Collaborative Research on Grain Legumes and the Feed the Future Innovation Lab for Food Security Policy.

The Feed the Future Innovation Lab for Collaborative Research on Grain Legumes (Legume Innovation Lab) focuses on edible grain legumes, including common bean, cowpea, pigeon pea and lima bean. The



program builds on the scientific advances and technological achievements of the Bean/Cowpea and Dry Grain Pulses CRSPs while responding to the agricultural development priorities and objectives set forth in USAID's Feed the Future (FTF) Presidential Initiative in FTF focus countries and regions. Learn more at [legumelab.msu.edu](http://legumelab.msu.edu)

The Feed the Future Innovation Lab for Food Security Policy focuses on helping USAID-supported countries in Africa, Asia and Latin America to fight hunger, reduce poverty and improve nutritional outcomes through better food policy. The MSU Food Security Group is leading the implementation, partnering with the International Food Policy Research Institute in Washington, D.C., and the University of Pretoria in South Africa.

The Innovation Lab for Food Security Policy seeks to build capacity, policy formulation and implementation that is transparent, inclusive and evidence-based. Collaboration with host country researcher organizations, advocacy networks, the private sector, farmers' groups, media and policymakers is therefore crucial. Awareness of how policies improve or hinder opportunities for women and the interaction between climate change and resilience are key cross-cutting concerns addressed by the lab.

**LEARN MORE**  
fsg.afre.msu.edu

## A Spartan Returns Home as Dean of the College



Ronald L. Hendrick was named dean of MSU CANR by the MSU Board of Trustees. His appointment will be effective July 1, 2016.

Hendrick, a Spartan alumnus, who currently serves as interim vice president for agricultural administration and interim dean for the College of Food, Agricultural, and Environmental Science at The Ohio State University.

"I am very excited to welcome Dr. Hendrick back to MSU as the next dean of our College of Agriculture and Natural Resources," said MSU Provost June Pierce Youatt. "His strong leadership experience and ambitions for the future of CANR will benefit not only the college, but the entire university."

Hendrick has served OSU since 2013 in a variety of roles, including as senior associate dean and director of the School of Environment and Natural Resources. Prior to that, he was associate dean for academic affairs in the D.B. Warnell School of Forestry and Natural Resources at the University of Georgia. He was also graduate program coordinator for UGA's School of Forestry.

"I'm honored to serve the college and university that provided the foundation for so much of my personal and professional success," said Hendrick. "The College of Agriculture and Natural Resources is an outstanding organization, and I'm thrilled to be coming back to MSU in a leadership role."

Hendrick earned his bachelor and doctoral degrees from MSU in forestry and forest ecology, in 1986 and 1992, respectively. He was a National Science Foundation Postdoctoral Fellow in the Institute of Arctic Biology at the University of Alaska-Fairbanks from 1992-1993.

His research program has focused on forest ecosystem productivity and element cycling, especially below ground, and various aspects of ecosystem restoration and reclamation. His teaching experience includes leading a number of study abroad programs in the South Pacific, including New Zealand, Australia, Fiji and Antarctica.

At OSU, Hendrick led the creation of a comprehensive master plan for college facilities that totaled \$350 million and had encompassed more than 300 physical structures, two campuses and nearly a dozen outlying research and outreach stations. He has also led successful fundraising efforts to raise \$14 million in capital funds to improve facilities, and an \$80 million multi-stakeholder effort to re-envision the college's animal populations is underway.

Hendrick succeeds Fred L. Poston, who retired in December. Currently, Doug Buhler is serving as interim dean for the CANR.

## Save these Dates

**March 3-12**  
ANR Week Campuswide

**March 8**  
ANR Week luncheon  
Kellogg Hotel & Conference Center

**June 7**  
Golfing for Scholarships  
Forest Akers

**June 28**  
FFA Masters Tournament  
Eldorado Golf Course, Mason

**May 5-7**  
Commencements  
Campuswide

**Aug. 31**  
Classes begin (Fall 2017)  
Campuswide

**Oct. 4-5**  
Women in STEM  
Campuswide

**Aug. 24**  
MSU Agriculture Innovations:  
Focus on Soils  
Saginaw Valley Research and Extension Center

**Nov. 12**  
AutumnFest  
MSU Pavilion for Agriculture and Livestock Education



# Students and Supporters Save CANR's Polar Bear Through Online Fundraising

MINDY TAPE

A polar bear has guarded the Natural Resources Building at MSU for almost 50 years, watching over and welcoming students as they navigate their way through the halls.

During that time, the well-loved bear was considerably damaged by daily wear and tear, as well as some unfortunate mishaps that resulted in holes in its chest and missing claws and pads on its feet.

"The bear was in really bad shape—we either had to get rid of it or refurbish it," said Scott Winterstein, professor and chairperson in the MSU Department of Fisheries and Wildlife. "When I discussed this with people, they were aghast at the thought of getting rid of it. I told them what it would cost to refurbish it—about \$6,000—and they would say, 'I'd put in \$25 toward that.'"

Those responses have prompted Winterstein to informally survey others, where he kept getting the same response: "You can't get rid of the bear—I'll donate."

Winterstein went to Samantha Adler, development officer, to raise the amount needed to refurbish the bear. Adler suggested using MSU's Crowdpower, an online giving site.

"Online funding works better when you can tell your story visually and create impact with few words," Adler said. Since the polar bear's story was compelling, CANR decided to use it as the college's first try at online fundraising.

"People donated and shared their memories of seeing the bear when they took classes there," Winterstein said. "Someone sent us a photo of

himself with the bear when he was a little boy. It has always been a popular spot for kids to see."

Adler said that the outpouring of support came from unexpected places. "We ended up touching all these people who weren't involved in fisheries and wildlife, natural resources or agriculture but who knew the polar bear just from having classes the Natural Resources Building," Adler said. "This was a great campaign. It brought in new donors, created excitement, had great marketing and was picked up by many news outlets."

"We created so many connections and were able to raise the funds in a shorter period of time than we thought," Winterstein said. "Once word got out, it just rolled—this was definitely the way to do it."

The smallest individual donation was \$1 and the largest \$500, with nearly 160 people donating to the campaign. One of the biggest donors, however, learned of the Save our Polar Bear campaign through more traditional means—The State News. Not long afterward, Winterstein got a visit from an MSU alumna who had read about the bear in the State News.

She said that, "she loved polar bears and asked how much more we need for the polar bear," Winterstein said. "I explained that the money was going just for that one polar bear, and she told me she understood and that it needed to look dignified. She ended up donating \$500."

Using multiple platforms to promote the online fundraising

campaign inspired younger people to give what they could as well as promoting the effort.

The student-run undergraduate Fisheries and Wildlife Club donated \$2,200 through sales of "Save the Spartan Polar Bear" T-shirts and donations. Both of the undergraduate and graduate clubs worked together to spread the word about the restoration campaign.

***"Someone sent us a photo of himself with the bear when he was a little boy. It has always been a popular spot for kids to see."***

"This whole campaign was student-driven," Adler said. "And our students were the ones who asked MSU President LouAnna K. Simon to take a selfie with the polar bear."

Thanks to their commitment and the donations of supporters far and wide, MSU's beloved polar bear is home again and will continue to welcome students and the public into the next century.

Photo by ANR Communications

## PRESERVING THE POLAR BEAR

Want to see how the polar bear was restored? How about our 'Selfie with the polar bear' social media campaign? MSU President Simon took her picture with the polar bear—and there was a polar bear cake! Maybe you just want to learn more about this guy and what he means to the Department of Fisheries and Wildlife.

## LEARN MORE

[fw.msu.edu/save\\_our\\_polar\\_bear](http://fw.msu.edu/save_our_polar_bear)



# Piquing Interest Early in Agriculture, Food and Natural Resources

CAMERON RUDOLPH



For Randy Showerman, getting students interested in a career in agriculture, food and natural resources doesn't start when they get to Michigan State University. "That work starts early," he said.

Through a recent agreement between MSU and the Michigan Department of Education, he hopes to continue get high school students excited about agriculture, food and natural resources (AFNR), and give them the chance to earn six college credits.

Entering MSU with six credits saves nearly \$3,000 in tuition.

Requirements to earn the credits include completing a state-approved agriculture, food and natural resources program, receiving the State FFA Degree and being accepted to MSU. Once the criteria are met, credits can be applied to the student's major or used as electives with the approval of academic advisors. They may not be used to fulfill general education requirements.

The initiative has attracted significant attention. In Michigan, 456 students received the State FFA Degree in 2015, and 150 of them are attending MSU. Showerman, who is also the Michigan FFA advisor, believes that getting students interested in agriculture at a young age can increase workforce quality. That means agriculture, food and natural resources education has to become a greater priority in high schools.

Michigan FFA membership is currently just shy of 7,000 with 110 chapters and 126 high school agriscience teachers.

For a veteran teacher, Mark Forbush, one of roughly 11,000 middle and high school agriculture educators in the United States, promoting the importance of agriculture is why he got into education. The allure of helping young people develop confidence and skills while training the next group of professionals has kept him in the classroom for 30 years.

As an agriculture teacher at Corunna High School, Forbush leads a 150- to 200-member FFA chapter with students in eighth to 12th grade.

"We learn by doing—evaluating seed types, public speaking, career skill contests and a lot more," Forbush said. "My students have gone on to be farmers, veterinarians, fisheries and wildlife professionals, and any number of other things. We help kids become passionate about agriculture and what they can contribute to it."

Parents of students as young as ninth grade are already asking about earning college credit, Forbush said.

"MSU is on the cutting edge in agriculture education," Forbush said. "To have the chance to save money on college classes is a huge benefit. It's already working as a draw in my program."

For students already studying agriculture, the future is bright.

Agcareers.com, which is a leading online job board for agriculture professionals, shows that more than 56,000 jobs available in 2013 but just 29,000 trained college graduates. Less than 1 percent of college students are pursuing degrees in agriculture, food and natural resources.

"Graduates in agriculture and natural resources are getting hired into meaningful careers," said Kelly Millenbah, associate dean in CANR. "Students with experience in these programs—such as FFA—are in high demand. Providing this opportunity will go a long way toward encouraging the best and brightest students who have a good understanding of agriculture and natural resources to study at MSU."

**LEARN MORE**  
canr.msu.edu/ffastatecompleter

# Raising the Food Stakes

JAMES DAU

## Research Center Network Equips Michigan Farmers with Competitive Edge

What do Red Haven peaches, baked beans, cold milk, potato chips have in common? Sure, they're the makings of a tasty summer barbecue, but that's not it. Hint: Think your favorite college mascot. That's right, Sparty.

These are a few of the nearly 100 agricultural commodities studied at MSU AgBioResearch centers located throughout Michigan. They focus on discovering advancements to keep food safe and nutritious, keep costs affordable to the consumer, help growers stay profitable, and protect the environment.

In 1899, the original research center in Michigan was created in Chatham now called the Upper Peninsula Research and Extension

Center. Since then, more facilities have been constructed in locations around the state to meet nearby agricultural needs.

"The facilities have long played a key role in pioneering agricultural techniques that have become essential tools in most fields," said Douglas Buhler, AgBioResearch director. "Whether testing the efficacy of a new biological pest control, evaluating the productivity of multiple crops or testing novel livestock management techniques, researchers at the centers have the freedom and resources to shoulder the risks inherent in pursuing the next agricultural breakthrough."

Providing cutting-edge and relevant research to meet the evolving needs of each of these commodity groups would be impossible without the special relationship between industry and the university. Feedback from growers and producers played a crucial role in ensuring that research remains focused on the issues that they face daily in the field, and financial contributions made by commodity groups have helped further the programs.

For instance, the Michigan Potato Industry Commission partnered with MSU in 1999 to construct a permanent facility at the Montcalm Research Center in Lakeview where new techniques for potato storage could be tested before being adopted by growers. Dedicated in 2000 to the memory of CANR professor B.F. Cargill, the storage facility remains in operation today as not only an effective research tool but a symbol of the long-standing partnership between MSU and the agricultural community.

And this year, a new education and conference center was built at the Saginaw Valley Research and Extension Center (SVREC) in Frankenmuth, MI thanks to a \$1 million-plus contribution from numerous agriculture industry groups and Michigan businesses.

The facility will enable the center to expand its outreach efforts, particularly as they relate to Michigan's economically important dry bean and sugar beet industries.

"SVREC has served an important role in the Michigan sugar beet industry," said Ray VanDriessche, director of community and government relations for Michigan Sugar Company. "The cooperative working relationship between MSU and groups like Michigan Sugar Company and the Michigan Bean Commission has produced research that has allowed Michigan growers to be national leaders in a variety of commodities, and the new facility will allow us to strengthen that leadership."

Joe Cramer, who is the executive director of the Michigan Bean Commission, concurred.

"Michigan's bean growers are known as the leaders when it comes to producing and supplying domestic and international markets with the highest quality, safest beans," Cramer said. "Research and education are fundamental to maintaining and improving on the good work that has put us in the market-leading position. The addition of an education center to the ideally located Saginaw Valley research facility will pay dividends for years to come."

**LEARN MORE**  
agbioresearch.msu.edu/centers

Michigan State University AgBioResearch Centers





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# FOOD & INNOVATION

MSU alumni on the cutting edge of the food industry reflect on how their time at Michigan State shaped their future and helped them create a positive change in the world around them.



**NAME**

Deb Spehar

**DEGREE**Glen Oaks  
Community College  
Associate of Science,  
1970-1972Michigan State University  
Bachelor of Arts in Business,  
1972-1975Michigan State University  
Master of Business  
Administration,  
1975-1976**POSITIONS**Started career and spent 19  
years at Ford Motor Company.  
Retired as director of global  
purchasing with GST Auto  
Leather in 2013.**FAMILY**Late husband Timothy Sr.  
and two stepchildren, both  
MSU graduates.**WHY GIVE TO CANR?**Agriculture is what Michigan  
State is known for. If I had gone  
to a college that didn't have  
much at stake in terms of ag  
and natural resources, it may  
have been different. But it really  
boiled down to leaving a little  
more of a legacy and doing  
some good for the world,  
instead of just me."

## DRIVING TOWARD A FOOD-SECURE FUTURE

**HOLLY M. WHETSTONE**Retired automotive purchasing  
executive Deb Spehar wants to help  
feed the world, and she is confident  
that MSU will steer that charge  
down the road. So much so that she  
has included the MSU Department  
of Biosystems and Agricultural  
Engineering (BAE) in her estate plans.She established a student  
scholarship within BAE, a depart-  
ment split between the colleges of  
Agriculture and Natural Resourcesand Engineering, which did raise  
a few eyebrows at first given that  
Spehar's graduate degrees are both  
in business."I knew I wanted to give to MSU,  
but decided on BAE because science  
and engineering prompt innovation,"  
she said. "With the charge to feed  
the world and do a lot more with  
less resources—whether it's human  
capital, machinery and/or land  
resources to grow food—we need  
science and technology to move us  
ahead. Business pulls it all together,  
but it doesn't make those things  
happen. Science, technology and  
engineering do."Spehar has contributed annually  
to MSU for a number of years, but  
wanted to do something more  
substantial with an inheritance  
her father left her in 2014. It was  
then she recalled how her maternal  
grandparents had started a collegescholarship at their tiny Baptist  
church in the country. Neither  
her parents nor grandparents  
attended college."My grandfather and grand-  
mother didn't have a lot of money,  
but they managed to set aside  
a couple hundred dollars here  
and there," she said. "It wasn't  
much—\$500 to \$1,000 a year—but  
it helped. I thought if they could  
do something, then I could, too."When paired with James Obear,  
then in the MSU Office of Planned  
Giving, to talk about the scholar-  
ship, Spehar realized something  
special was happening. Spehar's  
late husband, Timothy Sr., a Rutgers  
graduate, had been good friends and  
golfing buddies with Obear."It was serendipitous," she said.  
"When we met, James and I talked  
a lot about how education really  
is the key to everything. That'swhy Thomas Jefferson built the  
University of Virginia. Before that,  
all the schools were for the rich...  
You need to educate the masses.  
Then maybe one kid will help two  
kids, and so on."Despite little experience with  
agriculture other than spending time  
on her great-aunt and great-uncle's  
sheep and chicken farm as a child,  
Spehar knows MSU will continue  
in the driver's seat when it comes to  
finding solutions to feed the future.Learn more at:  
[canr.msu.edu/inthefield](http://canr.msu.edu/inthefield)Kelly Swette has been working  
her whole life to get the job she  
has now."I've been working around some  
aspect of food for years. All the  
functional disciplines, marketing,  
engineering, sales—the other jobs I've  
had—have made me the right person  
for the job I have now."Swette, owner and CEO at Sweet  
Earth Foods, based in Moss Landing,  
California, says she and her husband,  
Brian, did not foresee creating a nation-  
ally recognized company so quickly.The company produces plant-  
based, locally sourced, convenient  
foods, including lines of burritos,  
veggie burgers and a product called  
seitan, a high-protein meat substitute  
made from wheat."A big part of what we're doing  
is creating sustainable food for a  
sustainable planet," she says. "We're  
creating delicious, nutritious food for  
modern lifestyles."It's not easy, though, Swette says.  
"You have to change a mindset to one  
that acknowledges that protein  
comes from plants, too. We're trying  
to change diets in America—so  
people eat more vegetable-diverse,  
healthy, organic foods." And they're  
being noticed."From the first year we hit the  
shelves, we were recognized as one  
of 51 companies shaping the future  
of natural and organic foods."My husband and I both had  
successful careers in corporate  
environments.We realized, through our own  
work in supporting sustainability  
causes, one of the biggest impacts we  
could have would be to improve what  
we as Americans eat. I felt that we had  
the right backgrounds and the

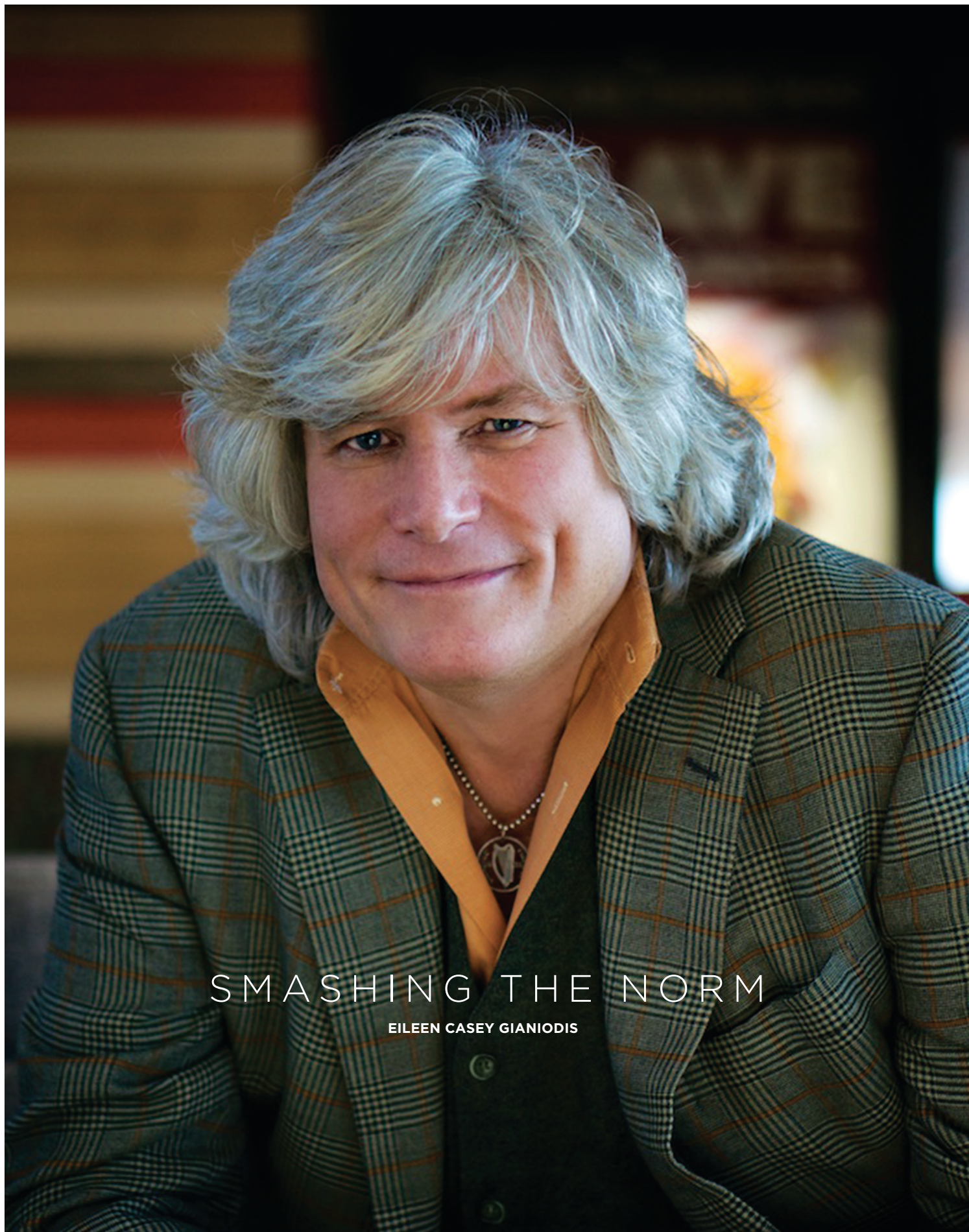
## THE SWETTE LIFE

**EILEEN CASEY GIANIODIS**opportunity to make a difference. So  
we created the company you see now."It's exciting being on the fore-  
front of the way America eats, and  
it's changing really quickly. If you  
look at the food pyramid, it has been  
toppled. People are recognizing the  
need for more plant-based foods not  
only for their own health but for the  
environment as well. They see the  
connection between what they eat  
and the kind of environment we make  
for ourselves."Their business is surrounded by  
the farms from which they source  
many of the foods they produce."We know the farmers, and we  
feel very connected to the food and  
the land. Hopefully, the consumers  
who buy our food care about that  
and about transparency in their food  
systems," she says.That's a long way from where she  
started her career. A Williamston,  
Michigan, native, Swette grew up  
at MSU."My dad went to MSU; I never even  
imagined going anywhere else," she  
says. "I didn't even apply anywhere  
else. We grew up going to basketball,  
hockey and football games. I knew I  
had this incredible opportunity with  
this great school in my backyard.""The wonderful thing is that MSU  
had so much to offer, and had such a  
broad spectrum of opportunities for  
us growing up. I remember skating at  
Munn Arena and attending summer  
camps. Those things were a vital part  
of our enrichment growing up."A young Swette worked in East  
Lansing at a bank the summer before  
her enrollment at MSU and spent her  
lunch hours in the career placement  
center investigating career options."When I graduated in 1980, the  
employment market was tight, and  
I would need a job after graduation,  
so I looked at majors that MSU was  
well-known for and where I could  
find a job," she says.Those criteria landed her at the  
School of Packaging."In packaging, you were able to take  
business classes and more science-  
oriented classes. I was technically  
competent in math and science,  
and I also enjoyed business and  
marketing, design, basic law," she says.  
"I took all of these business classes  
because they were interesting, but  
they were very important for the  
career that I ended up in."Swette says her most important  
lessons from professors were from  
those who had spent time in industry."They told us that it was important  
to know what tools to use and to  
focus on doing our work right, to  
approach it with excellence," she says.That's important, Swette says,  
because "it's hard to imagine how a  
career unfolds down the road. That is  
something that sticks with me ... you  
have to figure things out. You don't  
need to know it all, you just need to  
have a process and mindset to get  
things done."It is that skill set that has served  
Swette well in her career in the  
corporate world. One of her first jobs  
was at Baxter Labs in Illinois, where  
she and Kathy Gallagher (MSU  
graduate) were two of only three  
female engineers in the R&D group.And though she didn't end her  
corporate career in engineering,  
Swette says that seeing opportunities  
when they present themselves and  
having a good foundation in business  
helped her understand what she did  
well and how to apply her problem-  
solving skills in other areas."One of the lessons I've learned  
that I'd like to pass on to young  
people is that you never end up where  
you started. Keep your mind open to  
different opportunities. I've had the  
advantage of living a rich business  
career as a result."Learn more at:  
[canr.msu.edu/inthefield](http://canr.msu.edu/inthefield)**NAME**

Kelly Swette

**DEGREE**Michigan State University  
B.S. in packaging,  
1980**POSITIONS**Packaging engineer,  
Baxter LabsCommercial development,  
Pepsi ColaBrand management,  
Pepsi ColaHead of licensing/  
marketing, Calvin KleinGlobal head of marketing,  
Calvin KleinOwner/CEO,  
Sweet Earth Foods**FAMILY**Five kids, two at home;  
also have a dog and six  
chickens and live a very  
active outdoor lifestyle  
in California.**WHAT DO YOU LOVE  
ABOUT YOUR JOB?**"I love the creativity—  
I love cooking. It's my  
biggest hobby. I'm also  
a gardener. Working with  
herbs and vegetables  
is something I love  
doing. I also love seeing  
the response people  
have to our food. It is  
very rewarding to  
create products that  
people love."





## SMASHING THE NORM

EILEEN CASEY GIANIODIS

### NAME

Tom Ryan

### DEGREES

Michigan State University  
B.S. in lipid toxicology,  
1979

Michigan State University  
M.S. in flavor and  
fragrance chemistry,  
1982

Michigan State University  
Ph.D. in flavor and  
fragrance chemistry,  
1985

### POSITIONS

Technical Brand Manager,  
Proctor & Gamble

Senior Vice President Business  
Development, Pizza Hut

Menu Development, McDonald's  
CMO, McDonald's

Worldwide Chief Concept Officer,  
McDonalds

Chief Branding Officer, Quiznos

Co-Founder & Chief Concept  
Officer, Smashburger

Founder, Tom's Urban

### FAMILY

Three kids, wife, Jody, of 26 years.  
Live in Denver and Minneapolis.

### WHY FOOD SCIENCE?

"I started as a generalist with an emphasis in biology and chemistry—I knew that eventually I would have to choose a major. I didn't really know what I wanted to do but medical school became less and less interesting, because it was less focused on people and the consumer experience.

Food science caught my attention. I was surprised there was a whole technical discipline around something we take for granted. A few weeks into my first food science class, I was smitten."

Food has never been cooler. And Tom Ryan should know. The three-time MSU graduate (bachelor's, master's and Ph.D.) has pioneered some of food's best concepts over the past 20 years, including Pizza Hut's Stuffed Crust Pizza, Breadsticks and Chicken Wings, and McDonald's McGriddles, McFlurries and the Dollar Menu.

Ryan's degrees are all in food science. "As an undergrad, I didn't really know what I wanted to do. I took a food science class, after finding it in the course catalog. I was surprised that there was a whole technical discipline for something we take for granted. Two or three weeks in, I was smitten," he said.

After finishing his undergraduate degree, Ryan said he knew he would continue.

Dr. Ian Gray was Ryan's mentor through his advanced degrees. Gray is a nationally recognized food scientist who served as director of MSU AgBioResearch and as MSU vice president of research and graduate studies. He is now an adviser to MSU President LouAnna K. Simon.

"The master's program was rigorous, and I knew that I wanted a doctoral program that would be competitive and dynamic. I also knew I didn't want to work in a lab," Ryan said. "Ian was great about finding ways for me to take courses outside of my field—business, management and marketing. He was a champion for me in making that happen. I credit his ability to help me do that with where I am today."

Where is Ryan today? He is building "new, disruptive concepts [in food] focused on the next generation of consumers."

As one of the founders and the creative genius behind Smashburger, Ryan says, "There's nothing better than a singular idea done well." And that's the way he feels about Smashburger.

The fast, fresh, national restaurant concept that specializes in local burgers has grown to 200 franchises nationwide since 2007. It's become an icon of quality, growth and business acumen, Ryan said.

"There's a big C change going on in food," he said. "The last generational concepts are no longer relevant to this generation. One of the hallmarks now is that our food needs a story, and that story needs to make people feel good about what they're eating. It has to have good quality, vibe, service, people, policies and philanthropic elements."

Being in a constantly changing environment is one of the things that keeps Ryan young, he said. And he leans on his applied science training to do so.

"Food science is interdisciplinary because it's an applied science," he says. "Applied sciences aren't perfect, though, so anyone with a career in applied sciences has to be able to use complementary skills.

"The food agenda has changed so much from the time when I was studying food science," he said. "Then it was all about how to process more ... and recently a more culinary approach took off."

Ryan said his business training, food science training and his need to set the trend, rather than chase it, work together.

"I've had the good fortune to be comprehensively trained in food science and the karma of knowing that I don't have all the answers. Coming from a technical food background and understanding the trend toward the culinary story gives me an ability to guide now. People who can live with a foot in both worlds make it best."

He credits MSU and Gray for allowing him the flexibility to pursue his own path.

"There's not a curriculum that anyone can take that ends you up here," Ryan says. "It's an individualized path."

And, for Ryan, it leads to balance.

"My family is so important to me, and I've never lost sight of that," he says. "When I look back at my experiences, I've done a lot of things that I never thought I'd be able to do. My one personal drive is to leave whatever I touch better than I found it."

Learn more and view the podcast at:  
[canr.msu.edu/inthefield](http://canr.msu.edu/inthefield)



400



MSU extension faculty and staff members work in food production, education and research in Michigan.

29

1 BANGLADESH

Agriculture Biotechnology Project: Developing a late blight resistant potato

24 RWANDA

Scaling up Sweet Potato through Agriculture and Nutrition Project; Rwanda Coffee Project; Rwanda Women's Agriculture Development Project

12 GUATEMALA

Increasing bean productivity by resource poor smallholder farmers in the agro-ecologies of the Western Highlands of Guatemala

9 COSTA RICA

Anaerobic digester to create heat or electricity, as well as partially decomposed organic matter, water and nutrients that can be applied to crop fields as fertilizer

4 BURMA/MYANMAR

Improving Food Security Research and Analysis Capacity in Myanmar: <http://fsg.afre.msu.edu/Myanmar/index.htm>

16 KENYA

Improving Food Security Research and Analysis Capacity in Myanmar: <http://fsg.afre.msu.edu/Myanmar/index.htm>

26 TANZANIA

Guiding policy efforts to expand the use of farming methods that meet agricultural needs and improve environmental quality in Kenya, Malawi, Mali, Nigeria, Burkina Faso, Zambia, Ethiopia and Tanzania. MSU researchers are working with universities, institutes and government ministries to promote strategies to help farmers become more productive and food secure. These strategies are designed to build the capacity of national policy institutes to support their own agriculture ministries and compete for and manage international grants.

# FOOD ACROSS THE GLOBE

Our impact on food—food safety and security, improved crop yields and new crop varieties that reduce the need for pesticides and herbicides, improved health and nutrition, development of food policy—stretches around the world. Our faculty members, researchers, students and staff strive to find ways to use the world's resources to the best and most sustainable benefit of Earth and its people.

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CANR researchers are working around the world on projects relating to food.

- |                 |              |              |               |             |                  |
|-----------------|--------------|--------------|---------------|-------------|------------------|
| 1 Bangladesh    | 7 China      | 12 Guatemala | 17 Malawi     | 22 Nigeria  | 27 Thailand      |
| 2 Benin         | 8 Columbia   | 13 Honduras  | 18 Mali       | 23 Pakistan | 28 Uganda        |
| 3 Burkina Faso  | 9 Costa Rica | 14 India     | 19 Mozambique | 24 Rwanda   | 29 United States |
| 4 Burma/Myanmar | 10 Ethiopia  | 15 Indonesia | 20 Nepal      | 25 Senegal  | 30 Vietnam       |
| 5 Burundi       | 11 Ghana     | 16 Kenya     | 21 Nicaragua  | 26 Tanzania | 31 Zambia        |
| 6 Cambodia      |              |              |               |             |                  |

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# RECOVERING ENERGY: NOTHING WASTED, EVERYTHING GAINED

When the iconic MSC smokestack came down in 2011, it sparked a mourning period among the Spartan faithful. Built in 1948 and abandoned in 1975, the smokestack that rose above the shadow of Spartan Stadium was an important part of the campus skyline. As the mortar that held the beloved landmark together weakened, it became clear that the smokestack had to go.

Photo by Matt Katzenberger [www.photo.katzmatt.com](http://www.photo.katzmatt.com)

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“A little piece of me dies inside with every brick they remove,” one tweet read.

But with the end of every era, a new one begins. Energy production had been shifted to the T.B. Simon Power Plant, where up to 250,000 tons of coal were burned annually to power the needs of a growing campus population.

In April 2015, President LouAnna K. Simon announced the beginning of yet another era when she declared that MSU would be coal-free by the end of 2016—the first university president to make such a bold declaration.

“Sustainability is one of our guiding institutional principles,” she said. “This represents a great opportunity for MSU to further reduce its environmental impact.”

While the Simon Power Plant moves to natural gas, thereby reducing emissions, another energy transformation is taking place in the heart of the south campus farms. There, an anaerobic digester eats more than 8,000 tons of dairy manure and 750 tons of postconsumer waste from campus dining halls as well as waste from a nearby Meijer distribution center a year.

Anaerobic digestion is a biological process that converts organic materials in the absence of oxygen (anaerobic conditions) into biogas. Methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>) are the primary gaseous components of biogas. Biogas can be burned to generate electricity and heat (steam) or purified and compressed for use as natural gas.

“Adding food waste boosts the energy production in the digester and helps us manage our footprint,” said Ann Erhardt, MSU director of sustainability. “Before, all that food waste was going to a landfill. That’s not sustainable.”



## FROM POOP TO PROGRESS

Dana Kirk, assistant professor in the MSU Department of Biosystems and Agricultural Engineering, said that anaerobic digestion also marries the needs of the campus farms with the university's energy transition goals.

"When the campus sustainability plan was updated in 2011, it focused on reducing our energy footprint through recycling," he said. "But there was no solution for organic waste. That's why anaerobic digestion is so important."

The south campus anaerobic digester has been producing about 400 kilowatts of energy per hour since October 2013. That's enough to power one residence hall or 250 single-family homes. But energy production is only part of the goal.

"We wanted to help reduce the environmental concerns with odor and manure management in livestock," Kirk explained.

Now the digester treats all of the manure from the 180-cow Dairy Teaching and Research Center. Once the energy is pulled from the manure, it is stored, composted and eventually spread on nearby farm fields where it is used as a soil fertility amendment. The process retains the rich fertilizer value of the manure and reduces the odor.

"Having a farm on the outskirts of a city the size of Lansing is tough," explained Rob West, manager of the dairy center. "We used to get odor complaints on a pretty regular basis, but we get far fewer now that we're using treated manure."

## MULTIPLE BENEFITS

Steve Safferman, an associate professor in the Department of Biosystems and Agricultural Engineering, isn't surprised. He helps farmers and others find ways to change their energy footprint while lessening their impact on the environment.

"The motivation to put in a digester is not just pure energy production—it's often other issues, such as waste management and odor reduction," he said. "If we're going to be truly sustainable, we have to stop thinking of things as waste and start thinking of them as resources."

Safferman believes this challenge will best be met by ensuring that alternative energies are not only environmentally friendly but profitable.

"If we want this industry to survive and thrive, the cost of producing energy from alternative sources has to come down," Safferman said. "Everybody was really excited about alternative energy in the 1970s when energy prices were

high, but when prices fell, interest dwindled. If we're going to really focus on reducing waste by turning it into energy, it has to be economical for the energy producers."

Safferman and his team are creating screening tools that utility companies, water treatment plants, policymakers and private businesses can use to determine if it is feasible to produce energy from resources formerly thought of as waste.

"Keeping things out of the landfill isn't enough to facilitate change methods have to be profitable," he said.

Safferman's research looks at taking high-strength waste—such as fats, oils and grease—out of sewer systems and finding a low-cost way to use them in power-hungry situations such as water treatment plants. This generates power from the waste itself. The same can be done on farms, where energy can be squeezed out of manure and used to light barns and milking parlors and meet other farm needs.

"Even if businesses want to follow their instincts and protect the environment, they still need to remain competitive," Safferman said. "If we can do both, we can make

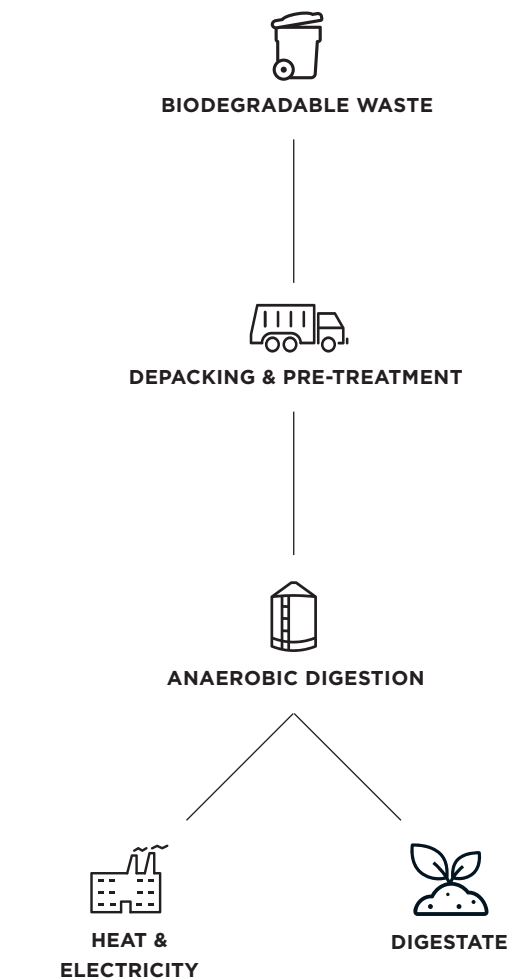
BETH STUEVER

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***"But there was no solution for organic waste. That's why anaerobic digestion is so important."***

## THE ANAEROBIC DIGESTION PROCESS







## RIGHT PLACE, RIGHT TIME FOR ISAACS AND MSU



If you had asked a young Rufus Isaacs what he thought he would be when he was grown up, he might have said, "a doctor."

And he wouldn't have been wrong. But, technically, he wouldn't be right, either.

"I thought I would be a doctor—I was always interested in biology and medicine—but when I got to the point of thinking about actually practicing medicine, I couldn't see myself doing that," he said.

Isaacs, who grew up in St. Ives in the rural western part of England near the ocean, attributes some of his interest in science to that environment, but he stops short of describing himself as a kid who knew he was headed toward studying bugs for a living.

Photo by Tom Gennara





*“Working on farms and helping farmers solve serious insect-related challenges made me realize how much goes into growing and delivering safe and profitable food. Those experiences laid the foundation for my research projects at MSU.”*

*Photo by Tom Gennara*



But if he's learned one thing, Isaacs said, he's learned "Never say never." Fast-forward to Isaacs' undergraduate experiences at Imperial College in London, where he learned biology and ecology from professors who were entomologists. His undergraduate program also included paid internships in the agricultural sector studying daffodil insect pests and weed control in field crops.

"My early training taught me that insects were fascinating but could also be devastating. I learned the theory of insect ecology and also its practical application through development of IPM techniques," he said.

An ocean away and 20-plus years later, Isaacs leads one of this country's largest studies of native pollinators. But getting there wasn't necessarily a straightforward path.

"I wasn't working on bees when I started at Michigan State," he said. Isaacs' work is focused on the ecology and behavior of insects in perennial fruit crops. He studies insects that are pests, natural enemies and pollinators within Michigan's agricultural systems and surrounding landscapes.

It wasn't until a graduate student from Colombia, Natalia Botero-Garcés, came to campus and began telling Isaacs about the beauty and importance of bees that he started to think about adding research on pollinators to his program.

Then, another graduate student, Julianna Wilson, started working on pollinators in Michigan blueberry fields right before colony

collapse disorder (CCD) started to make the news. (Colony collapse disorder: the phenomenon that occurs when the majority of worker bees in a colony disappear. Colony collapse disorder causes significant economic losses because many agricultural crops worldwide are pollinated by western honeybees.)

"I would credit those two students for really opening my eyes to how interesting and important bees are as pollinators for Michigan crops. They wanted to work in that area, and blueberry growers were very interested in making sure their crops were well-pollinated, and so we started counting, collecting and identifying bees," Isaacs said. "I was fortunate to be in the right place at the right time."

Isaacs credits "right place, right time" for most of the success in his work. And, Michigan growers are benefitting from Isaacs' being at MSU right now.

"The return on investment for getting flowers well-pollinated is compelling to fruit farmers," he said, "Solving problems with them through my research and extension job is very rewarding," he said. "It allows me to collaborate with people from all different walks of life—and makes every day different."

When asked what he loves about his work, Isaacs consistently points to his MSU Extension appointment as a way to interact with Michigan's berry growers and other farmers.

He's also noticed a big uptick in interest from gardeners. "They are interested in what they can do to help support bees—they want to learn

about ways to improve habitats for pollinators," he said.

He thinks students are starting to hear this, too, and choosing to study pollinators.

"Students are interested in the work that's going on here," Isaacs said. "They come to MSU and find an encouraging place to do applied research, and it's great to see those students succeed. It's one of the most satisfying aspects of being here."

Those students likely find a leader who is consistently willing to listen to their ideas and direct them toward finding their niche in the world of entomology.

"People say you have to make your own luck," Isaacs said. "But I have been lucky to work with berry crops that are so important in people's diet, and there is worldwide interest in conserving pollinators right now."

EILEEN CASEY GIANIODIS

Learn more and view the podcast at:  
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Photo by ANR Communications





## CANR STUDENT MISSION: **CHANGE THE WORLD**

Students in the CANR aren't just preparing for future jobs or even successful careers—they're preparing to change the world.

MSU Agribusiness management senior Rosalyn Brummette dreams of moving to Washington, D.C., after graduation to be at the forefront of agriculture policy.

"I want to do all I can do to put agriculture on the agenda with policymakers. I want to ask people, 'What are you, as an elected official, going to do for this industry?' Because if we don't ask, who will?"

Life on Capitol Hill will not be new to Brummette, who spent her summer there interning with the National Association of Conservation Districts as part of the CANR's William A. Demmer Scholars Program for elite students in the field of natural resources. Working on conservation agriculture policy and stewardship education was a perfect fit for Brummette, who is minoring in environmental economics and policy.

"I want to be the intermediary between farmers and the environmental community when it comes to policy," Brummette said. "I didn't grow up on a large-scale farming operation and I'm not a farmer now, but through my experiences growing up, I've grown to really love the industry and the people in it. I think this unique perspective and passion will help me bridge the gap with policymakers and even consumers."

Brummette developed a deep love for agriculture at a young age, thanks to her involvement with 4-H. Operated by MSU Extension, Michigan 4-H was also what introduced Brummette to her interest in policy and Washington, D.C.

"My primary exposure to agriculture and policymaking was through 4-H, and I just fell in love."

An early passion for food, energy and the environment is somewhat a characteristic of CANR students—and also what sets CANR scholars apart.

Featured photos by Kurt Stepnitz



***“What are you, as an elected official, going to do for this industry? Because if we don't ask, who will?”***

**NAME**  
Rosalyn Brummette

**YEAR**  
Senior

**MAJOR**  
Agribusiness Management

**PLANS FOR THE FUTURE**  
Work on agriculture policy in Washington, D.C..



***“My experience has been nothing short of incredible. On top of all that, the faculty and staff have been so supportive, and my mentor has been amazing.”***



**NAME**

Eric Brunk

**YEAR**

Junior

**MAJOR**

Packaging

**PLANS FOR THE FUTURE**

Complete a master's degree in packaging at MSU, before heading to industry where eventually I'd like work for Google or Apple in their packaging divisions.

“We have a lot of students who know early on that they want to come into the field of agriculture and natural resources,” said Kelly Millenbah, associate dean of the CANR. “They may not have known what discipline they would pursue exactly, but they knew they had an interest in this area.”

This attraction to agriculture and natural resources may in part be due to the millennial generation's growing interest in making more than just money—they want to make a difference, she said.

“Our students are interested in being in careers, not just jobs. They want to be in places where they can make a difference in spaces where they are passionate,” Millenbah said. “Within the CANR, we are on the cutting edge of so many things that make a difference to so many people—an adequate food supply, safe water and access to energy—which means our graduates have limitless opportunities to do good in the world.”

For packaging junior Eric Brunk, the chance to make a difference may start this year as he begins his undergraduate research project which will be focusing on front-of-package labeling. In addition to other components, Brunk's labels will be color-coded, providing an easy indicator of whether a food product is healthy or not.

“It's aimed at offering people a better understanding about their food choices,” Brunk explained. “My research could provide an alternative to current labeling systems and, ultimately, influence change in the eating habits of children, adults and senior citizens.”

Brunk's research project and Brummette's Demmer Scholars experience are just a few of the unique ways that CANR students begin to chart their own way, even before graduation.

“We recognize how important it is for scholars to experience more than just the classroom,” Millenbah said. “That's why we offer them a host of opportunities: research, internships, study abroad, volunteering. There are so many hands-on opportunities in which students can engage.”

The numerous experiences available are part of what has made Brunk's CANR undergraduate years so rewarding.

“I've had so many opportunities,” said Brunk, who has assisted graduate students with research, written parts of a paper under review for publication, studied abroad in five countries and obtained a paid professorial assistantship. “My experience has been nothing short of incredible. On top of all that, the faculty and staff have been so supportive, and my mentor has been amazing.”

Millenbah agreed that MSU CANR faculty and staff members are top-notch.

“We're the flagship college of this institution, and we have the absolute best people working here. Our students have the benefit of being influenced by these individuals every day.”

The faculty may influence students today, but ultimately it will be CANR students influencing the world.

“Packaging plays such a critical role in sustainability and safety in today's world,” Brunk said. “I'm very interested in research and finding alternative solutions. I don't know exactly what that means for me yet, but I want to do something innovative.”

Filled with innovative ideas and unbridled passion—coupled with the world-class education and experiences provided by the CANR—surely MSU's agriculture and natural resources Spartans will accomplish what they set out to do: make a difference and change the world.

JAMIE WILSON

Learn more and view the podcast at: [canr.msu.edu/inthefield](http://canr.msu.edu/inthefield)





## INSPIRED **BY HOME**

In the early 1980s, a flood wiped out a bridge in Santa Catarina Mita, a small village in Guatemala on the edge of El Salvador. The rebuilding of it was led by Kenneth, a Peace Corps volunteer serving in the village, who also owned the first mountain bike that anyone in that village had ever seen.



We don't know much else about Kenneth, except that he is Luis Flores' hero.

Luis Flores is a faculty member in the MSU School of Planning, Design and Construction. He works in the Feed the Future Innovation Lab for Collaborative Research on Grain Legumes project housed in the MSU CANR.

Santa Catarina Mita is Flores' home village. Every time he visits, he crosses that bridge and is reminded of Kenneth's commitment to volunteerism. That memory inspired Flores' own commitment to give back, locally and globally.

Flores manages the MASFRIJOL project, a USAID-funded program that focuses on substantially increasing bean production among smallholder farmers in the western highlands of Guatemala and improving the nutritional quality of family diets there by increasing bean consumption. His journey to MSU has been very unique.

As one of eight children whose parents were farmers, Flores swore he would never become a farmer himself. That he would one day come to the United States for college, however, seemed highly unlikely. Fortunately, his parents thought ahead and were able to send him to boarding school at age 12. This opened many doors for Flores and set him on a path that no one, including himself, could have predicted.

First, he had an opportunity to participate in an English immersion program in Modesto, Calif. His teacher told him to listen to "Prairie Home Companion" to help improve his English, which he still does while traveling for work.

After his graduation from the English immersion program, he took a volunteer job in Haiti working with coffee farmers. He had picked up French while living with French-speaking

classmates in Modesto. After six months in Haiti, Flores returned to Guatemala and started working for an association of agricultural exporters in Guatemala City. The company moved horticultural crops out of the country into the United States and European markets.

While he was working at this association, Thomas Reardon, a faculty member at MSU, started working on a grant proposal. On Reardon's final day of the visit, Flores was asked to spend the day with him finishing up the grant proposal.

They were able to finish it out in about four hours. Reardon was very impressed. He encouraged Flores to get in touch with other MSU faculty members and explore opportunities for continuing his education. Soon afterward, Flores did just that. He started a master's degree in the Department of Agricultural, Food and Resource Economics and later completed his doctorate in Resource Development (now Community Sustainability).

Flores learned a variety of skills while growing up—he is a cobbler, a painter and a woodworker. But those aren't the things that make him effective in his job.

What makes him effective in his work with smallholder farmers is the combination of his love for the work and his desire to make a difference and teach his daughter the importance of contributing to the world around them. To this he brings the ability to reach people who haven't been reached before and bring them the things that have worked in other places.

He lives by his favorite quote, found in a most unlikely place—a fortune cookie: "You are able to do what others say you cannot do." He spends a lot of time telling his daughter this because, as Garrison Keillor said, "Nothing you do for children is ever wasted."

This also explains the non-profit that he set up in his home village in Guatemala to create vision and hearing clinics. Both have aided in creating scholarships for students from his village to study nursing.

Flores doesn't know what his future holds. He takes each project as it comes and gives it his all.

What he does know is that he feels forever indebted to faculty members at MSU and the CANR for taking a chance on a young kid from Guatemala. Flores opened the doors to the world himself. MSU and people across the globe continue to benefit.

ABBY RUBLEY

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# MSU's Next Generation of World Changers

CATHY BACILE CUNNINGHAM



## Fellowship Program Aims to Impact Earth's Most Pressing Challenges

Growing up in Ann Arbor, Laura Schmitt Olabisi never imagined that she might one day become a Spartan.

"When I took this job, my father jokingly threatened to disown me because he and my mother are both U-M grads and passionate Wolverines," she says with a laugh. "He's eased over the years."

One thing she was always sure of, however, is that she wanted a career in science.

"Ever since I was a little kid, I've wanted to be a scientist," she says, giving a nod for that inspiration to her grandfather, who was a physicist. "He made science seem so fascinating, and I loved talking to him about science."

Schmitt Olabisi, an assistant professor in the CANR Department of Community Sustainability, is a

systems modeler researching issues of food security in West Africa.

"I look at things like agriculture and climate change in terms of systems," she says in her small, wood-paneled office in the Natural Resources Building. "Rather than looking at pieces of a system in isolation, we try to look at the whole picture."

"I believe that one of the biggest challenges we have is how we are going to feed nine billion people without wrecking the planet that we're depending on to provide food. In whatever small way I can help respond to that or help guide some of the decisions that are made around that, I feel like that is a really important challenge."

In West Africa, the booming population, rapid urbanization and the increased demand for land,

combined with the effects of climate change, make the region a natural destination for Schmitt Olabisi.

Schmitt Olabisi received a bachelor's degree in environmental science from Brown University and a Ph.D. in systems ecology from the State University of New York College of Environmental Science and Forestry. She continued her postdoctoral work at the University of Minnesota Ecosystem Science and Sustainability Initiative before coming to MSU in 2009.

In 2014, Schmitt Olabisi got the opportunity to take her international research to the next level when she was chosen as one of nine faculty members to comprise the inaugural cohort of the Academy for Global Engagement (AGE) Fellowship Program.

The AGE was launched when the CANR teamed with the College of Engineering to create this one-of-a-kind fellowship program on campus. It's a yearlong intensive training that offers early and mid-career faculty members an innovative opportunity to expand their scholarship on a global level while building networks across the globe and forming problem-solving relationships with international partners.

The AGE has an ambitious goal: Create a new generation of international research experts to support Michigan State University's global mission.

Schmitt Olabisi's participation in AGE led her to focus on the region where she currently has three large projects under way.

"I'm really excited to be working in West Africa because it's an important and dynamic region," she says. "It's the story of the coming



century, just like India and China were the growth stories of the past few decades."

The insight and experience she gained from AGE helped bring her international work into focus.

"It forced me to think about my international research as a program, as opposed to, 'Oh, here's a grant, I'll apply for that... oh, here's a grant, I'll apply for that.' I've learned to be more deliberate about where I am doing work, how I am going to build a program, what topics I choose."

At every step, AGE is designed to help boost fellows' capacity to launch large-scale, high-impact international research programs.

"I only wish that I had been able to do it a little bit earlier in my time at MSU," Schmitt Olabisi says. "I spent a little bit of my time floundering around, as I think

probably many assistant professors do. This program gave me a lot of good momentum."

Fellows are able to receive mentoring, training, and exposure to national and international stakeholders. They learn best practices for pitching scientific ideas to potential funders, how to give skillful presentations, and the importance of leveraging resources to create new partnerships and expand networks. Fellows have the opportunity to put these skills into action during meetings, networking events and conferences with representatives of several federal agencies, NGOs and other entities that can provide essential funding and access to other funding sources.

"I applied to a lot of jobs at places where I asked about interdisciplinary research, and was told,

'Just forget about it.' At MSU, it's the opposite. They said, 'You should do it! In fact, there is a program where we're going to encourage you and show you how to do it.' I loved that."

Schmitt Olabisi often thinks of an African proverb to underscore the need for collaboration: "If you want to go fast, go alone; if you want to go far, go with others."

"Yes, you can maybe just spring out there ahead and do things on your own, and you might get things done faster, but you're not going to go as far, and you're not going to achieve as much, and you're not going to learn as much as if you're going with a group of other people."

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**"Rather than looking at pieces of a system in isolation, we try to look at the whole picture."**



# DETROIT: A PLACE TO CALL HOME

SEAN CORP

Southeast Michigan is full of people, not statistics. Detroit is a city full of families, not case studies.

Still, Beth Martinez knows the stats and knows the challenges—unemployment, under-employment, lack of resources—facing the residents of Detroit.

Some might view this challenge as very daunting, but it's what most excited her about joining MSU Extension as a foreclosure counselor and homeownership educator. The Detroit native says she wants nothing more than to return to her hometown and be a part of a great city's resurgence.

For Martinez, who came to MSU Extension armed with nearly 30 years of working for big banks in Chicago and elsewhere, it was about fighting for people on the other side of the table. "At one point, I was working in a position where I was recommending whether to foreclose or not," Martinez says. "I didn't want to do that anymore."

The collapse of the housing bubble affected not only her clients—eventually she was laid off from her job at a large financial institution. Afterwards, she looked around and asked herself a simple question.

What's next?

She knew she wanted to leave banking behind, and teach people.

"I was selling people things they didn't need, and I was good at it. But there wasn't a lot of satisfaction."

She made the choice then to take her decades of experience and use it to fight to keep people in their homes. She wanted to do some good.

Since 2012, more than 11,000 people have received education and counseling from MSU Extension, with more than 66 percent of those who completed counseling able to keep their homes. Now MSU Extension is looking to have an even bigger impact in the Detroit area.

Martinez was hired in January 2015 and quickly learned how good a fit she was with the organization. She took the same tenacious attitude from her banking career and used it in a new role on behalf of those facing foreclosure. "They used to call me Bulldog in my banking days," Martinez says with a laugh while sitting in her Southgate offices preparing for a homebuyer education class.

The moniker fits better than ever as she uses the same mentality to represent her clients against bureaucracy, forms and a myriad other obstacles. Martinez, a Detroit native, says she is excited by the opportunity to make her mark in her native city, and be a part of Detroit's resurgence.

At one point in 2008, Detroit's foreclosure rate was the highest in the nation. Though things have improved markedly, there are still challenges.

"There are 60,000 people past due on their property taxes," she says. "What I see in my classes is average income of below \$20,000 per year. These people aren't looking for a McMansion, they just want a place to call their own."

"The truth is, homeownership isn't for everybody, but it's for a lot of people."

Unfortunately, a lot of people in and around Detroit just don't know about the help that is out there for them. Often, Martinez says, they just think that there is nobody out there that cares for them.

Fabienne Ratkov, of Shelby Township in southwestern Michigan, knew there had to be help out there.

There just had to be.

Ratkov lost her husband, George, in 2013. He had a massive heart attack on the way to the hospital and by the time they arrived, doctors told Fabienne that he wasn't going to make it. Two days later he was dead.

"I did more crying than I did living," Ratkov, 64, says, recalling the day as fresh in her mind today as it was two years ago. She spent all of her money in making house payments to keep the house her family had lived in for 29 years.

By October 2014, she was out of money and started falling behind on payments. At its worst, she was \$18,500 with more than half of her income needing to go toward mortgage payments.

"I felt like I was absolutely doomed," she says, thinking back to the darkest moments. "I not only lost my husband, I lost my best friend of 43 years. I lost my everything, and now I was about to lose my house."

Even worse, Ratkov says, her mortgage was sold to a new lender that she says had a greater than 90 percent foreclosure rate. Then, when it was discovered that the house was only in her husband's name, the lender wouldn't accept her payments.

"They want my house, that's all they want," Ratkov says. "They don't want to help me."

If the lender wasn't going to help her, she needed to find somebody who would. That's

when she met Rob Weber, another MSU Extension foreclosure counselor.

Like Martinez, Weber knew that Ratkov needed an advocate who knew her options and how to navigate the process.

"In this job, persistence is key," Weber says.

"When they realized they weren't just dealing with this lonely old lady who had lost her husband, then, with Rob's backing, things became a lot more hopeful," Ratkov says.

Still, it took until the eleventh hour for things to turn around.

The foreclosure sale date had been set for June 26. As of June 25, the sale was still on. Ratkov and Weber were on the phone back and forth with the bank all day.

"I was already looking at apartments. We'd been here almost 29 years and just to walk away from this," Ratkov says. "I've got three generations of stuff here. Now I've got to sell all this stuff just to be able to downsize into an apartment. I sold almost all of my husband's tools. One of his toolboxes is still in my living room. That's where he kept it and I just haven't had the heart to pick it up and move it into the garage. These things are valuable to me, but they are trash to everyone else."

Then, at the last minute, the bank relented and cancelled the planned sale.

Weber, with the help of Step Forward Michigan, a hardship assistance program designed to keep people in their homes, was able to put Ratkov on a path to making her payments manageable and keep her in her house long term.

"Eventually, I could see light at the end of the tunnel instead of a freight train," Ratkov says. "It couldn't have been done without Rob. Every time I talk to him he puts a smile on my face because I know he was there to help me when I needed him most."

That desire to give back to their community and help people in need is the fuel that drives MSU Extension educators such as Weber and Martinez.

"Every day on the drive home, I ask myself, 'Did I do something good today? Did I help somebody today?'" Martinez says.

"When I know I've helped someone keep their home, that's everything. It stopped being about the money for me a long time ago, and it became about fighting for somebody else."

***"When I know I've helped someone keep their home, that's everything. It stopped being about the money for me a long time ago, and it became about fighting for somebody else."***

Learn more and view the podcast at: [canr.msu.edu/inthefield](http://canr.msu.edu/inthefield)



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