

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

AG NEWS

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Peter Thorsness
boosts everyday
yeast into
ethanol-making
marvels ...
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UNIVERSITY OF WYOMING



Dean Frank Galey

“I am not afraid
of storms for
I am learning
how to sail my
ship.”

“Amy” in the
novel *Little Women* by
Louisa May Alcott

Dear Friends and Colleagues,

Our annual spring commencement is always upbeat. Students celebrate reaching their educational goals, family and friends cheer and acknowledge each graduate's work and accomplishments, and faculty members personally congratulate graduates as they walk off the stage. This is in keeping with our college's unofficial motto *Students – the reason we're here*.

This year marked the 12th consecutive year of enrollment growth in the college. Our enrollment is now 1,083 and includes 880 undergraduates and 203 graduate students. Our enrollment was 813 in 2000, so in the past 14 years the college has grown 33 percent. I like to think this growth is because our programs provide a solid education in areas of interest to today's young adults and in areas where there are career opportunities. Our graduates get jobs. This is certainly something to boast about in today's economy.

Tyler Harran, a graduating senior majoring in agroecology and one of our commencement speakers, highlighted three other important student-centered qualities of the college. He talked about the caring and supportive relationships between students and faculty/staff; he cited the generous student scholarship program that helped make his educational dreams affordable and the hands-on learning opportunities he experienced.

Tyler was one of 214 students to receive a scholarship this year from the College of Agriculture and Natural Resources. The impact of our scholarship program cannot be overstated. Education is expensive. In our favor is the fact that Wyoming has one of the lowest proportions of bachelor's degree recipients graduating with student loan debt (47 percent). Even so, attending UW is still a financial hurdle for many students and their families. Each year, the college awards approximately \$350,000 in scholarships. Many of these awards were established by alumni and friends of the college as a way to help the next generation succeed. What a wonderful legacy. These awards reduce the financial burden of education and may replace the need for a student to work part-time while attending college.

Spring is also the season for student field trips, presentations, and study-abroad experiences. Each of these activities is part of a comprehensive education. Students in the microbiology program capstone course working with two community partners (Agricultural Community Resources for Everyday Sustainability [ACRES] student farm and the Laramie Downtown Clinic) used

their microbiology expertise to help ACRES members better manage their compost piles and the Laramie Downtown Clinic to evaluate the effectiveness of a probiotic supplement for patients taking antibiotics.

International study and extended field trips are other ways to enrich a student's education. Two of this year's offerings include a study-abroad opportunity in France and a multi-state field trip focusing on range-land ecology. **Dannele Peck**, faculty member in the Department of Agricultural and Applied Economics, escorted 11 students on a four-week exchange program with the agricultural college in Angers, France. Students will discover how European and American agricultural practices differ and gain a deeper appreciation for the global nature of today's economy. Also this summer, the ecosystem science and management department will lead a 10-day shrub ecology field trip that includes stops in Colorado, Arizona, and Utah to explore high desert ecosystems. They will visit with range management professionals and learn how each implements range management principles.

Educational opportunities for our students are not limited to the Laramie campus. Earlier this year, members of the Range Club attended the national Society for Range Management meetings in Florida, dietetic students participated in the American Dietetic Association's Food and Nutrition Conference in Chicago, and still others attended the Block and Bridle national convention in Missouri. Sometimes, students contact my office afterward and share how the trip or conference enriched their lives. These types of opportunities make academic concepts relevant to our students. As dean, I continue to work with donors and use other resources to support international study through the Beyond the Classroom program and participation in our program to help students connect with prospective employers and other professionals in a chosen field.

Students are the reason we are here. The college will host our **Ag Appreciation Weekend** September 20. Part of the festivities includes the Ag Day Barbecue. Our student groups staff this event, and I hope if you are in town you take a minute to talk with them. It will be time well spent.

Dean Frank Galey
College of Agriculture and Natural Resources

UW HONORS LATCHININSKY WITH INTERNATIONALIZATION AWARD

Grab a world map – then draw lines arcing across the globe from Alex Latchininsky’s first floor office in the College of Agriculture and Natural Resources to Niger, another to Kazakhstan, to Uzbekistan, and so on to Russia, Australia, Morocco, and Mauritania.

Then, connect lines from his office to 17 western states and join another with the United Nations in New York.

Latchininsky’s grasshopper and locust control efforts embraces them all and prompted his receiving the UW Award for Faculty Achievement in Internationalization.

World-wide Nominations

He received the award from the UW International Board of Advisors in Laramie in April. Anne Alexander, associate dean of the Outreach School and director of International Programs, made the announcement.

“It’s very rare that our winner has received 11 support letters from people in Wyoming, Wisconsin, Texas, Australia, Uzbekistan, Mauritania, Russia, and organizations like the UN, USDA, and Fulbright,” says Alexander about Latchininsky, an associate professor in the Department of Ecosystem Science and Management (ESM) and UW Extension entomologist.

“Nor is it common for them to have significantly improved agricultural sustainability on nearly every continent on the globe and quite literally helped save millions of people from starvation.”

UW leads the world in developing biologically sound, economically viable and environmentally acceptable methods of

grasshopper and locust control in large part because of Latchininsky, says Alexander.

Among Latchininsky’s efforts:

- Conducted research, training, and given presentations in 21 countries on six continents.
- Taught courses with significant international components, mentored international graduate and undergraduate students, and served on foreign institution graduate student committees/juries.
- Hosted visiting scientists from China, Uzbekistan, Kazakhstan, Russia, Australia, Morocco, and Mauritania.
- His grasshopper control methods developed at UW saved Wyoming producers \$13 million in just one year during an outbreak in 2010.
- His team created a system of public education and technology transfer that trained producers in efficient grasshopper control methods.

International Impact

“Alex is world-renowned for his work with grasshoppers and locusts as attested to by the letters from international colleagues, numerous awards, and invitations to speak,” says John Tanaka, professor and head of the ESM department

“Besides this work, what is most impressive is the impact he has had around the world. His colleagues attest to the positive impact his work has had in their countries in terms of food security and the impact on the environment.”

During an upsurge of the desert locust in 2003-2005, the UN Food and Agriculture Organization selected UW to develop a



Extension entomologist Alex Latchininsky, left, helps a participant during an entomology short course at UW.

training program in French for desert locust control specialists in West Africa. Latchininsky delivered the course to national trainers in Niamey, Niger, and subsequently on the “train-the-trainers” basis to more than 600 specialists in 21 countries.

The Food and Agriculture Organization of the United Nations is working with Latchininsky to develop “Practical Guidelines for Locust Control” in Russian for 10 countries of the Caucasus and Central Asia.

Latchininsky is also working to develop an International Locust and Grasshopper Professional Certification Center at UW, says Alexander.

The center would be instrumental in educating locust field specialists from around the nation and around the globe on the most cutting-edge strategies and methods of locust and grasshopper management.

UW BIOMECHANICS RESEARCH DRAWS SCIENTIST EARLY

Work in the biomechanics of cell division and the cell biology of cancer earned Assistant Professor Jay Gatlin in the Department of Molecular Biology the Early Career Achievement Award from the Wyoming Agricultural Experiment Station (AES).

He received the honor in February during the AES honors banquet in Laramie.

“Jay Gatlin’s research accomplishments are absolutely amazing for a scientist at this stage of his career,” notes Bret Hess, associate dean of research in the college and AES director. “Having received a perfect score on a National Institutes of Health (NIH) grant and publishing results of his research from UW in *Science* are testaments to the quality of his work. The college is blessed to have a scientist of Jay’s caliber.”

University of Wyoming president Dick McGinity spoke to the audience and acknowledged the importance of the land-grant university’s mission of boosting the state’s economy and the general well-being of its citizens.

Gatlin joined UW in 2010. In 2012, Gatlin received two NIH grants totaling more than \$1.6 million. In 2013, he received a research award from the Marine Biological Laboratory. The grant paid for Gatlin and doctoral student James Hazel to conduct research at the Woods Hole Oceanographic Institute laboratories in Massachusetts. Last November, Gatlin and his laboratory published a paper in *Science* – the most prestigious scientific journal in the United States.

“Although these remarkable accomplishments should command the utmost respect, Jay doesn’t let them influence his attitude and demeanor,” says Hess. “He is the same kind,



Jay Gatlin accepts the Early Career Research Award with, from left, dean Frank Galey, Dorothy Yates, associate vice president, and Bill Gern, vice president, of the UW Office of Research and Economic Development.

likable person everyone has come to know.”

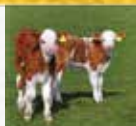
Other award nominees were Anowar Islam and Urszula Norton, who are assistant professors in the Department of Plant Sciences.

Islam began as an assistant professor in 2008. He is author on 27 peer-reviewed articles in scientific journals with eight additional research articles in various stages of preparation. In addition, he is an author on 73 extension publications from UW since 2009.

Islam has been principal investigator or co-PI for research funding of nearly \$2 million. He has achieved international recognition for his work, having received a

BRIDGE Fellowship from the Japan Society for the Promotion of Science. He has also been recognized at UW with an Early Career Service Award for Professional Excellence in Extension and Research

Norton joined UW in 2009 and has received more than \$7.5 million in grants. Projects range from local, applied research to increase the sustainability of Wyoming agricultural land to research to increase conservation program adoption in Africa. Norton’s publication record includes 14 peer-reviewed publications with six more in the submission process. She has also produced 14 field-day bulletins in the last three years.



CAREER AWARD

“Having received a perfect score on a National Institutes of Health (NIH) grant and publishing results of his research from UW in Science are testaments to the quality of his work. The college is blessed to have a scientist of Jay’s caliber.”

*Bret Hess, Director
Agricultural Experiment Station*

Her impact extends beyond grant dollars and manuscript placement: she engages students, community members, and fellow scholars through her research program, her nomination notes. Findings from her soil and trace gas monitoring in the Medicine Bow Forest helped area residents understand the short- and long-term effects of pine bark beetle on forest ecology, both above and below the surface. Globally, she and her collaborators have built important relationships with local scholars, community members, small-holder farmers, and students to build agricultural productivity in low-resource areas.



Joining Kelly Wiseman from the Office of Academic and Student Programs are, from left, McCall Linke, Kerry Casper, and Donna Brown, associate dean and director.

WISEMAN RECEIVES ADMINISTRATIVE PROFESSIONAL OF YEAR HONOR

Kelly Wiseman in the in the Office of Academic and Student Programs received the Administrative Professional of the Year Award in April sponsored by the University Store in the Wyoming Union.

Wiseman, staff assistant in the office, was selected by University Store staff members.

“Kelly is a truly exceptional employee, and without her I absolutely would not be able to operate in my position effectively,” says Donna Brown, associate dean and director of the office, in her nomination.

Brown has taken on multiple administrative roles and says that has added to Wiseman’s workload.

“Yet, she has maintained her ever-present positive and supportive attitude,” says Brown. “I am well aware how blessed I am, as is the College of Agriculture and Natural Resources, to have such an exceptional employee in our midst.”

Brown cited Wiseman’s event planning and coordination skills and pointed to her efforts for the Brand of Excellence Scholarship banquet, the Community College Articulation Conference, and the college’s spring commencement ceremony.

Wiseman serves on several committees across campus, including Advising Conversations, Career Conversations, Family Weekend Committee, Transfer Student Initiatives Committee, Classroom Scheduling Committee, and she is president of the Wyoming Chapter of Gamma Sigma Delta, the international honor society of agriculture.

“She always has been, and will continue to be, recognized as an exceptional ambassador for this office, the students, and the College of Agriculture and Natural Resources,” says Brown.

FIRST CUTTING

Bergman receives outstanding graduate teaching award



Presenting the North American Colleges and Teachers of Agriculture Outstanding Graduate Teaching Award to Dylan Bergman are Donna Brown, director of the Office of Academic and Student Programs, and John Tanaka, head of the Department of Ecosystem Science and Management.

Dylan Bergman in the Department of Ecosystem Science and Management received the North American Colleges and Teachers of Agriculture Outstanding graduate teaching award.

Donna Brown, director of the Office of Academic and Student Programs, and Professor John Tanaka, head of the Department of Ecosystem Science and Management, presented the award in April.

"Students have commented on this graduate assistant's willingness to help, to always ensure they understood concepts before moving on, enthusiasm, and caring attitude in addition to his knowledge," according to his nomination.

Bergman has been a teaching assistant the last two years in soils, rangeland ecology and watershed management and in extension programming.

WATSON RECEIVES AWARD FOR DEDICATION TO STUDENT SUCCESS

Rachel Watson, an associate lecturer in the Department of Molecular Biology, was named one of two recipients of the University of Wyoming's James C. Hurst Each Student-A-Person Award.

Charles Angevine, associate professor in the Department of Mathematics, also received the honor.

UW's parent organization, Cowboy Parents, established the award to recognize members of UW's faculty or staff who "go above and beyond their normal responsibilities to personalize the student experience and who create a warm and caring environment for students."

The award honors James C. Hurst, UW's vice president for student affairs from 1981-2000, who is remembered for his warm and caring demeanor, his wisdom, and his dedication to student success.

A first-year student described how Watson "goes above and beyond the call of duty to personalize the classroom experience for every student."

"On the first day of class, she asks every student to put their names and the things they love on a note card. By the next week, she has everything memorized and uses each student's individual interests to relate to microbiology and current research topics in the field and in the classroom," the student wrote. "She inspires me to not only learn the material, but to also apply it to everything in the world around me."

Other nominees from the college were Jeff Beck, Department of Ecosystem Science and Management; Dannele Peck, Department of Agricultural and Applied

Economics, and Axel Garcia, Department of Plant Sciences.

To learn more about Cowboy Parents, visit www.uwyo.edu/cowboyparents.



Rachel Watson has been a UW faculty member since 2001.



AGROECOLOGY AT UW 20 YEARS AND GROWING

Twenty years ago the then College of Agriculture rolled out a new interdisciplinary undergraduate major and put a new idea on the forefront – agroecology.

The program combines agronomy and ecology and focuses on the dynamic picture of today's agriculture including plant and crop production, soil science, and the link between agriculture and society.

"We were the first land-grant university to institute an agroecology undergraduate major," notes Robin Goose, associate professor in the Department of Plant Sciences. "Idaho, Penn State, and West Virginia have followed. Florida, LSU, Minnesota, and Wisconsin have followed with graduate majors in agroecology."

Goose estimates 34 of the 50 land-grant universities now have agroecology as a major or minor or program.

UW's goal was to graduate independent thinkers who could recognize and solve real problems facing agriculture and successfully refute what Goose calls bogus challenges.

The then-Department of Plant, Soil, and Insect Sciences (PSIS) in 1993 had eight students spread across crop science, soil science, and entomology.

"Almost overnight, in 1993, enrollment doubled as we created a single, integrated major in agroecology," says Goose. "I remember, in the early 1990s, one of my advisees was the only new freshman in PSIS the year he came to Laramie from Lovell. He joked, 'Gosh, everybody is so nice to me.'"

Agroecology enrollment is now 45.

He said agroecology has continued adaptation to agricultural concerns and issues using the combination of the plant sciences department and Department of Ecosystem Science and Management.



Plant sciences Professor Emeritus Steve Miller, center, fields a question during a panel question-and-answer session with students about the origins of the college's agroecology program. Also helping start the program were retired associate dean Jim Wangberg, left, and former College of Agriculture and Natural Resources Professor Jeff Lockwood, right. Lockwood is now a member of the Department of Philosophy.

Goose gives much credit to the program's required experiential learning, which frequently lays the groundwork for employment after graduation, he says. Students complete internships during summer and follow up hands-on experiences with a written paper and departmental presentation the following semester.

Department of Plant Sciences Assistant Professor Brian Mealar has overseen student internships the past two and half years.

"The internship program is an opportunity to gain experience in their chosen field," says Mealar. "These experiences can be positive or negative, but the students acquire first-hand insight into the challenges and opportunities associated with agroecology."

The Department of Plant Sciences commemorated the program's 20 years with presentations during its spring semester Friday seminars.



Plant science's Associate Professor Andrew Kniss is a graduate of the agroecology program.

FIRST CUTTING

UW MEAT JUDGING TEAM NOTES FIRST-EVER CONSECUTIVE WINS

University of Wyoming's Meat Judging Team finished the spring season with two consecutive contest wins and a number of individual honors.

This was the first time UW team won the Iowa State or Houston Livestock Show contests, and the first time a team from UW has won two contests in a single year.

Fresh off their first-place victory at the Iowa State Meat Evaluation Contest, the eight-member team competed in its final spring season contest March 8 at the Houston Livestock Show and Rodeo. UW earned first-place honors among 16 teams for its second consecutive win.

Team members are Scott Anderson, McKinnon, Mackenzie Fuller, Wright, John Lacey, Highlands Ranch, Colorado, Brandt Mortensen, Sanford, Colorado, Cassidy Smith, Carpenter, Danielle Stravino, Northridge, California, Jennifer Sauers, Big Springs, Nebraska, and Laura Strohecker, Casper.

Mortensen earned high individual honors while capturing first place in overall beef. Smith was the high individual in placings, and Strohecker earned first in beef judging; together they led the team to top honors in both divisions.

"The University of Wyoming should be very proud of these students' commitment and excellent representation on a national stage."

*Zeb Gray
UW meats judging coach*



From left, coach Zeb Gray, Mackenzie Fuller, Scott Anderson, Danielle Stravino, Laura Strohecker, Cassidy Smith, Jennifer Sauers, Brandt Mortensen, John Lacey

"It's a real privilege to see a group of students with no prior judging experience dedicate themselves so fervently," says coach Zeb Gray. "The University of Wyoming should be very proud of these students' commitment and excellent representation on a national stage."

The season kicked off in January at The National Western Stock Show in Denver. The team finished fifth out of 12 teams while tying first in beef judging.

Mortensen led the team finishing fourth overall and earning top honors in the specifications division. Strohecker broke the UW pork judging record earning the division first place and capturing tenth-place individual honors. Anderson, garnered seventh place in the alternate's division.

The team competed twice in February: at the Fort Worth Stock Show at the Southwestern Contest and then in the Iowa State Meat Evaluation Contest in Ames.

UW earned fourth place out of 11 teams at the Fort Worth competition while finishing third in the beef grading, specifications, and pork judging divisions.

Mortensen led the team posting a score that was the fourth highest in UW history earning him third-place honors. Strohecker finished as the specifications division high individual and captured the fourth highest individual honors. Stravino took fifth in the alternate's division.

The team took first overall in Iowa and placed first in the reasons, specifications, and summer sausage divisions. Anderson led the team earning first in specifications en route to a second-place overall finish. Teammates Lacey, Strohecker, and Mortensen followed closely with third-, fourth-, and sixth-place overall finishes. Strohecker was the top individual in the reasons divisions.

For more information, contact Gray at zgray2@uwyo.edu.



SHEEP, CATTLE PRODUCER RECEIVES GAMMA SIGMA DELTA OUTSTANDING AGRICULTURIST AWARD

Wyoming native and University of Wyoming alum Brad Boner received the Gamma Sigma Delta Outstanding Agriculturalist Award during this year's brunch and award ceremony.

He was presented the award April 12 in the Wyoming Union by Cole Ehmke, GSD president, and Doug Zalesky, Laramie Research and Extension Center director, who nominated Boner.

Boner, in partnership with his two brothers and father, runs their operation in Converse County. One-third of their stock is Angus cattle while the rest are Rambouillet and Targhee sheep. Aside from livestock, the operation also offers guided hunts for antelope and mule deer.

"Since I was 9 or 10 years old, that's all I ever wanted to do, and I've been fortunate enough to work in something I'm very passionate about," says Boner.

He says he is proud to receive recognition from fellow Wyoming producers and industry members.

"It's the highest honor to be recognized by your peers and that's pretty special," he says. "People in ag are a unique bunch, and a lot of great people work in this industry. I can't think of a better honor than to be recognized by those people."

Boner serves on six statewide and national agricultural associations and has been a member of four UW organizations. He serves as a producer member on the Laramie Research and Extension Center Sheep Unit Advisory Committee.

Involvement in the agricultural community is a way to stay connected to com-

munity and industry issues, he says.

"I think those associations make us more aware of what the challenges are in front of us and also it gives us a better message to approach the non-ag public with," explains Boner.

His youngest son is majoring in livestock business management at UW and has aspirations of returning to the family ranch. Boner says he's strived to teach all three of his children to sincerely enjoy what they're doing.

"I think you should be passionate about what you do and work hard at it, and if you put those two things together success usually follows," he says.

"People in ag are a unique bunch, and a lot of great people work in this industry. I can't think of a better honor than to be recognized by those people."

Brad Boner



Brad Stoner receives the Gamma Sigma Delta Outstanding Agriculturalist Award from nominator Doug Zalesky, left, director of the Laramie Research and Extension Center, and Cole Ehmke, president of Gamma Sigma Delta.

FIRST CUTTING

STUDENTS RECEIVE GAMMA SIGMA DELTA HONORS

More than 115 attended the Gamma Sigma Delta 2014 Honors Brunch April 12 in the Wyoming Union.

Gamma Sigma Delta is the international honor society of agriculture. Receiving outstanding student awards were:

Outstanding Sophomore – Rael Otuya, agroecology

Outstanding Junior – Heidi Hanekamp, molecular biology

Outstanding Senior – Perry Baptista, agricultural business; Kristi Bear, ecosystem science and management; Emily Schroeder, family and consumer sciences

Outstanding Masters – Anna Scofield, agricultural economics

Outstanding Doctoral – Judith Odhiambo, agronomy

Department awards

Agricultural and applied economics

Western Agricultural Economics Association Outstanding Senior – Perry Baptista

Outstanding Agricultural Business Senior – Jenny Beiermann

Agricultural communications

Outstanding senior – Sami Jo Heitsch; Carolyn Hageman

Animal science

Honor Book – Trevor Strauch.

American Society of Animal Science: Sophomores – Gina Byrd, Katelyn

Newman, Hannah Shoults, Laura Strohecker. Juniors – Emilee Brinton, McKensie Harris, Marley Mardock, Eilise Patrick, Brittney Rodgers. Seniors – Jayce Calhoon, McKenzi Digby, Tyler Gardner, Sarah Notti, Trevor Strauch, Payton Vigil

Ecosystem science and management

Outstanding Senior – Entomology (ENTO) – Tyler Haran; Catherine-Jane Angwin, renewable resources watershed management (REWM); Ryan Lermon (Soil)

Graduate Student of Merit – Megan Wilson, ENTO; Clay Buchanan, Soil; Renee King, REWM.

Family and consumer sciences

Honor Book – Anna Harrower

Microbiology

Honor Book – Amanda Kinley

Molecular biology

Honor Book – Michael Dee Alley

Irene Rosenfeld Scientific Achievement Award – Tricia Jensen

Plant sciences

Honor Books – Prakriti Bista, Nick Gompert, Bailey Hallwachs

Veterinary sciences

Honor Book – Amanda Payne

Outstanding Agriculturalist Award

Brad Boner of Cole Creek Ranch



Agricultural and applied economics student Perry Baptista receives the Outstanding Senior Award. With Perry are Associate Professor Dannele Peck and Cole Ehmke, Gamma Sigma Delta president.



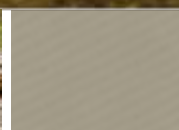
Veterinary sciences Associate Professor Brant Schumaker, left, joined Gamma Sigma Delta. With Brant is Cole Ehmke, president of Gamma Sigma Delta.



Judith Odhiambo was named Outstanding Doctoral Student. With Judith is Cole Ehmke, president of Gamma Sigma Delta, and Urszula Norton, assistant professor in plant sciences.



Receiving ecosystem science and management awards from John Tanaka, head of the department, are, from left, Megan Wilson, Graduate Student of Merit (entomology); Clay Buchanan, Graduate Student Of Merit (soil); Tyler Haran, Outstanding Senior (entomology); Ryan Lermon, Outstanding Senior (soil); and Catherine-Jane Angwin, Outstanding Senior (rangeland ecology and watershed management).



Ecosystem science and management student Kristi Bear receives the Outstanding Senior Award from Associate Professor Jay Norton, left, and Cole Ehmke, president of Gamma Sigma Delta.

Jenny Beiermann, left, was named the Outstanding Agricultural Business Senior and Perry Baptista received the Western Agricultural Economics Association Outstanding Senior Award. Associate Professor Dannele Peck presented the honors.

Anna Schofield, agricultural and applied economics, was named the Outstanding Masters Student. Professor Don McLeod, left, and Cole Ehmke, president of Gamma Sigma Delta, presented the honor.

Brad Stoner receives the Gamma Sigma Delta Outstanding Agriculturalist Award from nominator Doug Zalesky, director of the Laramie Research and Extension Center, and Cole Ehmke, president of Gamma Sigma Delta.



New undergraduate Gamma Sigma Delta members are Ryan Lermom and Catherine-Jane Angwin with Cole Ehmke, GSD president.

Molecular biology student Heidi Hanekamp was named the Outstanding Junior. Cole Ehmke, president of Gamma Sigma Delta, presents the honor.

Pakriti Bista, left, and Bailey Hallwachs receive plant sciences Honor Books from Bill Stump, research scientist in the Department of Plant Sciences.

Associate Professor Warrie Means, interim head of the Department of Animal Science, presents the Honor Book award to Trevor Strauch.



Microbiology student Amanda Kinley was presented the microbiology program Honor Book by Associate Professor Gerry Andrews, director of the program.

Sami Jo Heitsch received the Outstanding Senior Award in agricultural communications from Donna Brown, associate dean and director of the Office of Academic and Student Affairs.

Molecular biology student Tricia Jensen receives the Outstanding Senior Award. With Tricia are Associate Professor Pam Langer and Cole Ehmke, Gamma Sigma Delta president.

Anna Harrower was presented the Honor Book in family and consumer sciences by Professor Mike Liebman.



Emily Schroeder was named an Outstanding Senior Award recipient. With Emily are Cole Ehmke, left, president of Gamma Sigma Delta, and Associate Professor Bruce Cameron, head of the Department of Family and Consumer Sciences.

From left, students Heidi Hanekamp, Tricia Jensen, and Michael Alley received Department of Molecular Biology awards. Heide and Michael were Honor Book recipients and Tricia is the Irene Rosenfield Scientific Achievement Award recipient. They are joined by department head Associate Professor Mark Stayton and Associate Professor Pam Langer.

Associate Professor Warrie Means with students inducted into the American Society of Animal Science. From left, sophomores Laura Strohecker, Gina Byrd, Hannah Shoults; junior, Marley Mardock; sophomore, Katie Newman; senior, Trevor Strauch; junior, Emilee Brinton; seniors Jayce Calhoun and Tyler Gardner.

Rael Otuya, an agroecology major, was presented the Outstanding Sophomore Award. With Rael are Assistant Professor Urszula Norton, Emmanuel Omondi, and Cole Ehmke, Gamma Sigma Delta president.



Professor's turbocharged yeast zip past slower counterparts' ethanol production

Steve Miller

Courtesy *Wyoming Business Report and Research Wyoming*

His racecars would be zipping around the track 25 percent faster than the others Professor Peter Thorsness were a NASCAR crew chief.

If you won \$100,000 in a lottery, he'd make it \$125,000.

Closer to his field, Thorsness turbocharges mitochondria – the engines in cells

– by changing their function of producing adenosine triphosphate (ATP) to supporting more ethanol production. And produce ethanol they do – happily churning out 25 percent more ethanol than yeast without his tinkering.

“I have a unique experimental tool – I'm pretty much the only one in the world who uses it – that led me to some unique

insights into mitochondrial function and organization,” says Thorsness in the Department of Molecular Biology.

Mitochondria are the power plants of cells that process foodstuffs – sugar – into the most amount of energy the cell is going to get.

More Ethanol, Please

Thorsness says if you destroy the ability of mitochondria to contribute to the production of cellular energy, yeast respond by making more ethanol per gram of sugar.

“You put in the same amount of feedstock, whether corn meal or straight sugar, they make a certain amount of ethanol. When you get rid of the mitochondrial function that makes ATP, they make more ethanol,” he says.

When that happens, the yeast become weak and doesn’t grow well in a commercial setting.

“So what we found in our lab were mutations or alterations to the nuclear genes that allow the yeast that couldn’t make ATP in mitochondria to grow faster and better,” he notes.

The process seems like something in which the ethanol fuel industry might be interested.

“The idea is we have souped up yeast that are used for fermentation to make fuel ethanol so that it takes less feedstock to make the same amount of ethanol,” he says. “That’s a huge efficiency gain.”

Live-in Mitochondria

Three billion or so years ago, mitochondria lived independently of other cells then decided a more intimate relationship was beneficial. They moved into cells for a symbiotic relationship with organisms.

“They still have this yin-yang thing with the rest of the cells,” says Thorsness.

“They provide energy, and the rest of the cell provides support. They have their own DNA, which encodes several of the proteins required for making ATP.”

Thorsness formed Rho Zero Genetics LLC last year, and, working through the UW Office of Research and Economic Development, has provisional patents pending and letters of interest from two companies. While he is company president, his wife, Mary, is chief scientist.

Swapping DNA

Turns out, modifying chromosomes or replacing genes with desired genes is a matter of chemistry. Yeast has the machinery to swap DNA through a process still not completely understood.

“The cool thing about yeast is if you put 10 million yeast in a test tube, and you treat them with chemicals that make them porous, some DNA gets into the cells,” Thorsness says.

If there are 10 million yeast, maybe 1 million will have the DNA, then maybe 20,000 will actually have the recombinant. “Our goal then is to find the 20,000 in the 10 million,” he says.

Thorsness has given the added DNA a new property, such as a drug resistance gene. All the yeast that do not have the drug resistance die when exposed to the drug.

Turning on Light Bulbs

He says his motivation for research is the same now as when in grade school – he’s after light bulbs.

“I can remember the light bulbs that come on when you figure out multiplication and fractions,” he says. “You get the light bulbs continuing that give you a rush when you realize you probably have the answer at some level to a problem. It’s that illumination

“The idea is we have souped up yeast that are used for fermentation to make fuel ethanol so that it takes less feedstock to make the same amount of ethanol,” he says. “That’s a huge efficiency gain.”

UW Professor Peter Thorsness

that happens when you connect the dots.”

That continues with interaction with other scientists who are enthused when finding answers to problems or leaping past barriers.

Thorsness says he was never tempted to leave academia for private business. He gets to share students’ light bulbs, too.

“Dealing with students is too much fun,” he says. “I really enjoy lecturing and teaching classes. There would be few, if anyone, in our department who would say dealing with students is a pain.”

And for those who might think so, “There are places for people like that,” he says. “They’re called research institutes. Everybody here is by choice. It is a coveted job to become a faculty member at a research university, so you don’t typically find people who aren’t interested in the teaching aspect and interaction with students.”

Extension helps bolster preparation for, response to disasters

By Scott Cotton
UW Extension Educator

Cooperative Extension divisions since their inception in 1914 at land-grant universities have had active roles in helping communities prepare for, respond to, recover from, and mitigate the impacts of disasters.

As community-based educators and facilitators, extension staff members have channeled research-based practices and information to communities when they needed them most. Often, the incidents required both information and facilitation on community development, food safety, health care, animal health, and landscape recovery.

The Extension Disaster Education Network (EDEN) was created in 1996. Fremont County educator Ron Cunningham serves as the Wyoming EDEN contact and is supported by EDEN delegates Hot Springs County educator Barton Stam and Natrona County extension educator Scott Cotton, and other extension educators across Wyoming.

The Wyoming Extension Disaster Education Team members (several of which have been active in development and delivery of the national programs) are working with state and federal partners on:

- Launching the **Animal Health Network** (a program that quickly disseminates animal and livestock health risks to vendors and owners) in several counties.
- Working with local emergency managers to conduct one or more **Strengthening Community Agro-Security Preparedness** courses this year in Wyoming.
- Working with local and state officials to conduct one or more of the **Department of Homeland Security courses such as “Preparing Communities for Animal, Plant, and Food Incidents: An Introduction”**
- **Man-tracking:** Effective Focused Searches for search and rescue and law enforcement.

Wyoming EDEN Team members have levels of experience and expertise in Incident Command system/National Incident Management System, animal-livestock evacuation, animal-livestock sheltering, foreign animal disease detection, wildfire response and mitigation, flooding response, blizzard and winter storm response, mass livestock mortality, drought mitigation, and bio-ag terrorism mitigation.

For more information, see:

Wyoming EDEN Web page: <http://www.uwyo.edu/ces/wyo-disaster/index.html>

National EDEN Web page: <http://eden.lsu.edu/Pages/default.aspx>



Scott Cotton
UW Extension Educator



Floods prompted 1993 development of Extension Disaster Education Network

Rural county disaster plans (including Wyoming) from the 1920s-1970s often identified the county sheriff and the county extension agent as the primary positions to coordinate recovery efforts.

The county sheriff provided law enforcement and order while the county agent provided information for recovery and coordinated meetings and plans. As counties grew and developed, county commissioners, county planners, and eventually county emergency managers began to take many of the disaster response roles, but the provision of research-based information still falls to extension.

In early 1993, a group of extension professionals who had helped communities deal with severe flooding along the Mississippi and Missouri rivers addressed food safety, public safety, and health issues, and helped coordinate the physical movement of two towns AND coordinated keeping public schools running as well as devising a way for residents to draw lots for new property above flood waters.

These extension professionals reached out to other North Central Region Extension subject-matter experts and found a great list of resources available. This

stimulated the development of a USDA-supported concept called the Extension Disaster Education Network, which would have each state provide a Point of Contact (POC) who could channel expertise to other states when help was needed.

Beginning with the 12 North Central area states in 1996, the network grew to include Colorado and Oregon in 1997 and has evolved to include representatives from all 50 states, three territories, and two foreign countries in 2013.

EDEN was recognized by the USDA and the Federal Emergency Management Agency for contributions during 28 national disasters and over 200 state or regionally based disasters as well as reaching out to over 1,800 counties with educational programs.

EDEN was identified in 2013 by the under-secretary of agriculture at the national eXtension conference as the “first” and most effective national Extension Community of Practice with ties to 27 other Communities of Practice. The USDA specifically noted the Strengthening Community Agro-security Preparedness program, which has reached over 22 million people in more than 300 counties since 2000.

This national pool of expertise has developed a number of disaster mitigation curriculum including:

- Plant Bio-Security Management Course,
- On Guard: Protecting America’s Food System,
- Ready Business: Preparing a Disaster Business Plan,
- Pandemic Preparedness for Business,
- Pandemic Influenza Preparedness for Faith-Based Organizations,
- Family Preparedness,
- Animal Agro-Security for Emergency Management,
- Strengthening Community Agro-Security Preparedness
- The Agricultural Disaster Impact Assessment Guideline

EDEN POCs and delegates have provided information, expertise, guidance and usually physical response to hurricanes, wildfires, floods, droughts, ice storms, blizzards, disease outbreaks, and tsunami incidents for the last 18 years with a goal of providing timely, research-based information and material to help locally based extension staff members mitigate disaster effects on communities.

Kenyan native reaping rewards of hard work,

Strong values, determined work ethic, enthusiastic, and outspoken with an ever-brightening smile are a few descriptions given to Kenyan native Rael Otuya.

The agroecology student, and this year's Outstanding Gamma Sigma Delta Sophomore, has impressed advisers, mentors, and peers with her community involvement and dedication to learning.

During the summer of 2010, plant sciences Assistant Professor Urszula Norton and former senior lecturer David Wilson took three UW students to Kenya during a field course on sustainable agriculture. The program partnered with Manor House Agricultural Center in Kitale, where Rael was working as a field technician training small-scale farmers on sustainable and organic agriculture.

"I think when you have a problem, it opens your mind to things beyond," Rael says. "I grew up and was brought up by my grandmother, and I would see how they would toil in the red soil that was not producing enough. It had low organic matter, and mostly it was women working in the gardens when men don't care. And it just came to my mind that one day I either have to be a lawyer and fight for women's rights and children or an agriculturalist and help improve the farmer's life."

Pays Her Way

By scraping together contributions of family members and her own savings, Rael managed to pay for not only secondary, or high school, but also a certificate in sustainable agriculture from Manor House. She never lost sight of her goal to help people, even when forced to halt studies for years at a time before raising enough money to continue her education.

"She's just an amazing presence in the community, very active in clubs, she's the vice president of ACRES right now, and also instrumental in the Agroecology Club."

*Urszula Norton
Assistant Professor*

"I actually sold used clothes to help raise funds for college. Then I went to college and Manor House and I just loved what I was learning about – compost, integrated management of pests, and how you can produce more using a minimum amount of resources," says Rael.

She wasted little time in spreading the word of sustainable agriculture through volunteer positions after finishing the certificate program. "I went and started to offer volunteer work to different organizations that were training small-scale farmers," she explains. "Gaining experience and learning from them as I taught them what they didn't know, and I learned from them what I didn't know because farmers are living libraries."

A paid position became available in neighboring Uganda, and Rael became an educator of integrated organic agriculture at St. Jude's Family Project. She worked there, adding to her knowledge base and helping farmers, until she was afforded the opportunity to return to Kenya.

"There was this opening at Manor House that needed somebody – and I felt like I could offer my services back in my country – then I went back home," says Rael. "Manor House had now upgraded from a certificate to instead offering a diploma. So while at Manor House, I applied for a scholarship.... So they gave me leave

to study at Manor House while I was a staff member. As soon as I graduated in 2010 with a diploma, I met Dave Wilson and the students from UW."

Finds Way to Attend UW

Wilson approached Rael for a recommendation for another Kenyan student who showed interest in attending UW as part of the exchange program.

"I recommended that student positively and then told him 'I'd also like to come!'" remembers Rael.

Wilson began fundraising after returning to Wyoming. Money was acquired to support two Kenyan students for a year each to complete an agri-biology certificate. During the paperwork process, the second student was unable to meet all of the requirements, allowing funding to be rolled over to support Rael's ambitions. She began her first semester at UW in January 2013 and made it clear she wanted to stay as long as possible to study agroecology.

Now her academic adviser, Norton says Rael is constantly looking for opportunities and has used her time at UW to become a very active and hardworking student.

"She's been able to spend an extra year taking 3000 and 4000 level classes," Norton explains. "She's just an amazing presence in the community, very active in clubs, she's the vice president of ACRES right now, and also instrumental in the Agroecology Club, and I think she's an intern at ASUW."

ACRES Involvement

Rael spent her first Wyoming summer completing an internship at ACRES, the student-run, vegetable farm in Laramie. While practicing and learning sustainable farming techniques, she was able to meet and work

persistence

with people from the community, experience an American farmers market, and help host a variety of events on the farm. Norton says her hard work set an example for others and brought diversity onto the farm.

“Rael was teaching us how to grow crops from Africa, what to do with them, how the ladies eat cowpea, and when you harvest nightshade and what do you cook with it,” Norton says. “She really worked hard with this big smile and showed and taught students how to farm in the African way. She’s really a very important contribution.”

Rael returned to ACRES this summer in a paid management position, and is working with the Office of International Programs to encourage international students to plant ethnic gardens at the farm.

Brings International Presence to Classmates

In class, Norton says Rael speaks her mind and shares her experiences, spreading the word about what’s happening to Africa’s small stakeholder farmers.

“She brings up the whole concept of internationalization and makes students from Wyoming aware of issues other than Wyoming issues,” says Norton. “Learning about Africa, or learning about different agricultures by the books, is one thing but talking to people, trying to understand what they say, being curious about how they verse different concepts in the language that they’re using and their perceptions is very critical.”

Although the original funding for Rael’s UW education will soon run out, Wilson, to whom she now refers to as “Dad,” and other advisers and mentors



Rael Otuya during a panel discussing the 20th anniversary of the agroecology program in the college.

are diligently looking for fundraising opportunities to allow her to complete her agroecology bachelor’s degree. Remaining determined, Rael is now interested in graduate education.

“My career objective, or my goal, is to go to grad school, and my priority is international agriculture, which my fear is that it’s not offered here, and I don’t know how hard it is to secure a chance at another university,” she says.

Rael says entomology is another option for graduate study because most of Kenya’s produce is lost to “poor post-harvest handling and insect attack.” Although international agriculture is her number-one choice, she has one objective in mind.

“I’m really interested in grad school with the aim of helping people in developing countries – my heart is at home,” says Rael. “Because I already have the basics in

science, the simple farmers may not need the big scientific (explanation). I can be the perfect go-between to interpret the science that I’ve learned and then be able to interpret other scientific findings ... and with my social skills be able to transform people’s lives.”

Rael has managed to open the eyes of UW students to plights of another country and encourage international students to take an active role in their educational experiences. Norton warrants Rael’s determination and demeanor as an exceptional asset to the College of Agriculture and Natural Resources and to the university as a whole.

“She’s a very special person by traits,” says Norton. “It’s good to have a person like this be so inspired by beliefs that she has and what she wants to do, and just being such a go-getter and extremely pleasant and happy.”

First-Year Seminar seeks faculty members

Kari Morgan was animated, smiling, concentrating. She had clearly entered the zone.

The associate professor in the Department of Family and Consumer Sciences had been describing First-Year Seminar (FYS) nuts and bolts for 40 minutes. She alternated through its origins, its workshops to introduce instructors to concepts, the hopes of its creators, the path proposed courses may trek through before being accepted for the program, and instructors interested in shepherding first-year students not only through courses but navigating the nuances of campus life.

“We have amazing faculty interested in teaching our First-Year Seminars,” says Morgan, FYS coordinator. “I believe these classes are going to be truly transformative for our first-year students—I can’t wait to see these faculty in action—they are real rock stars.”

FYS is one element in the revamp of the University Studies Program. Three task forces revised USP since the process started in 2013. New courses will roll out fall 2015.

Morgan will coordinate FYS among all the colleges. First-Year Seminar details are here <http://bit.ly/uwyofys>.

She gets calls each week from faculty members interested in teaching a course.

“Hearing their stories is really heartwarming,” she says. “Some were first generation college students and their transition to college was particularly challenging and would like to help support students in transition. Others are passionate about first-year students for other reasons.”

FYS course enrollment is limited, and classes will emphasize creative and critical



Associate Professor Kari Morgan

thinking. Student information is available here <http://bit.ly/studentfys>.

“Class enrollment will be capped at 24 and taught by highly motivated and experienced instructors,” Morgan says. “We are particularly looking for faculty truly passionate about engaging with first-year students.”

FYS is a way to engage learners, help students feel connected to the community, and provide skills to be successful in the classroom.

“I’m really excited that all first-year students will be in a class where someone not only knows their name but wants to know their name,” Morgan says.

She hopes faculty members then go one more step taking note, for example, if students are missing class, if students talk about not doing well on a test in another class, or if a student is upset.

Faculty members can help the student connect to resources on campus such as

tutoring, meeting an adviser, and learning how to talk to the teaching assistants or faculty members.

“We’d like to encourage the FYS faculty to address the whole person and not just their academic needs,” she says.

FYS emphasizes a smooth transition to campus but also helping retain students. Morgan says FYS has been shown to increase retention.

“But it can’t happen in isolation,” says Morgan. “It’s one tool, and yet I think an exciting part of FYS is that if done well, it addresses needs of learners across the spectrum – from kids coming to college prepared at a high level to students who may come to college without all the tools they are going to need.”

WILLIAMS ONE



Professor Karen Williams

with passion for teaching new students



OF TWO USP ASSESSMENT SCHOLARS

Professor Karen Williams in the Department of Family and Consumer Sciences is one of two assessment scholars in the new University Studies Program.

She and Patricia Colberg in the College of Engineering were chosen after interviews, and she participated in USP Task Forces 1, 2, and 3.

Williams sees their roles evolving.

“Right now, we are making ourselves available to individual faculty members, departments, and colleges to help anyone who would like to work on developing a course with a USP designation,” says Williams, who also directs the university’s Bachelor of Applied Science program.

She and others have presented workshops on course approval and student outcomes starting in March, and the last – on student outcomes – is in August.

They try to anticipate and answer questions such as:

- *What is a student-learning outcome?

- * How do I choose the best USP designation for my outcome?

- * Will I need to make major course revisions?

- * How do I choose the best USP designation for my course?

- * How can rubrics help design the assignments and activities in my course?

“We want the workshops to be very

relevant and faculty-centered,” she says.

Williams has experience in a variety of assessment strategies and says she wants to see the new USP succeed for students and faculty members.

Becoming involved was a way she can give back to the university, she says, and believes the USP changes are positive.

“I do see the changes giving students more flexibility, providing more opportunity for students to do minors, working better for transfer students and students who change their majors, and getting strong skills their freshmen year to help them be more successful throughout their degree program,” she notes.

Research examines evolutionary changes in proteins that cause divergence of species

By Steve Miller

Courtesy *Wyoming Business Report* and *Research Wyoming*

It's not that David Liberles is speaking a foreign language – he's not.

The molecular biologist just says things that could send many to reference books or the Internet to understand, like, "There are a number of differences, from changes in gene concept, protein functions, changes in expression levels of proteins that make up the molecular genetic basis of species differentiations."

Thank goodness for most of us not involved in the study of why species diverge he'll also use more common terms to explain why he runs and trains for marathons.

"It helps me relax and clear my mind," the veteran of several marathons and ultramarathons says, "but it also feels good to be in that kind of shape."

Not that he has time to train – he says he struggles making the time – the associate professor in the Department of Molecular Biology and his laboratory researchers explore forces that cause evolutionary changes in proteins and thus genomes and the divergence among species.

"We really don't understand at a fundamental process level what the selective constraints on protein evolution are," says Liberles. "To have good models that can make this prediction of when proteins have changed function, we need to have a good understanding of what the constraints on proteins are and how to describe them mathematically."

An area, he says, that needs more emphasis.

"We need conceptual breakthroughs as a field, and so when I say as a field, there are a handful of people around the world



Liberles says part of his job is to train skilled Ph.D. students so they can move on to post-doctoral positions at top universities.

who think about these problems, but they are in the double digits."

He uses humans and chimpanzees as examples of what his lab explores, although they – we – are not the focus of his lab.

Over millennia, proteins have been selected for most of the same particular functions in chimpanzees and humans.

"But you are not a chimpanzee," he says. "And some of the reasons you are not a chimpanzee are genetic. There have been things that have changed functions between you and the chimpanzee even though most have not. How do we uncover from comparative sequences which have changed functions that have caused differential evolution in humans and chimpanzees from their last common ancestor?"

His methods are long-term and not necessarily immediately commercial.

If successful, offshoots could be numerous, he says, such as in personalized

genomics in predicting/addressing human diseases. Genetic diseases in humans, he says, are caused by amino acid changes, or a subset of them are caused by amino acid changes that change protein function.

With cutting-edge technology, anyone's genome can be put on a thumb drive, and in the not-that-distant future your genome will be used by your doctor in your health care.

He has his own view about the government having everybody's genome through insurance companies.

"I am an advocate of privacy," he says. "As it now stands, the federal government is going to have everybody's genome, and what it is going to do with the information I don't know, but it's not a prospect that is necessarily a good one."

But there are also numerous positives, he says, such as treating diseases and combatting infectious agents.

PROGRAM NOTES



Associate Professor
Dannele Peck

Agricultural and Applied Economics

Associate Professor **Dannele Peck** has received the Early Career Teaching Award from the Western Agricultural Economics Association. Peck joined the department in 2006.

A paper from the department has received the Western Agricultural Economics Association's Outstanding Published Research Award. The paper, "Committed Procurement in Privately Negotiated Markets: Evidence from Laboratory Markets," was published in the *American Journal of Agricultural Economics*.

Authors are former graduate assistant **Darlington Sabasi**, Associate Professor **Christopher Bastian**, Professor **Dale Menkhaus**, all in the department, and Professor Owen Phillips in the Department of Economics and Finance.

The department sent 11 students on its annual month-long International Food and

Agricultural Systems study-abroad program in France. The trip was led by Peck and research scientist **Tom Foulke**.

Ecosystem Science and Management

Professor **Larry Munn** has announced his intent to retire this August after 33 years. Munn has been instrumental in teaching the introductory soils and soil morphology, pedology, and classification courses.

"As any student who has come through those classes can attest, his knowledge of Wyoming soils and the Snowy Range geomorphology will be sorely missed," says ESM department head Professor **John Tanaka**.

Tanaka also says "Professor Michael Smith retired on March 30 as our rangeland extension specialist. We have been searching for his replacement and are pleased to announce that **J. Derek Scasta** has accepted our offer."

Derek is completing his Ph.D. at Oklahoma State University. Derek, his wife, Angie, and their soon-to-be three daughters will be moving to Laramie in August. **Rachel Meador**, the other rangeland extension specialist, and **Brian Meador** (Department of Plant Sciences) recently welcomed their newest family member, Bracken.

Charlotte Gabrielsen, Ph.D. student with Assistant Professor **Melanie Murphy**, was awarded second place by the American Society of Pho-

togrammetry and Remote Sensing – Rocky Mountain Region. **Blake Osborn**, master's student with Professor **David Williams**, and Gabrielsen were awarded Wyoming NASA Space Grant Research Fellowships. **Leticia Varelas**, Ph.D. student with Tanaka, was awarded second in the Society for Range Management Ph.D. Student Poster competition with a poster titled "Using the human footprint to measure ecological and socioeconomic impacts of wind energy development."

The department recognized six students at the recent Gamma Sigma Delta agriculture honorary brunch with outstanding undergraduate and graduate awards. Outstanding undergraduate students were **Katy-Jane Angwin** (rangeland ecology and watershed management), **Ryan Lermom** (soil science), and **Tyler Harran** (entomology). Outstanding graduate students were **Clay Buchanan** (rangeland ecology and watershed management), **Renée Gebault King** (soil science), and **Megan Wilson** (entomology).

The Range Club, student chapter of the Society for Range Management, held a panel discussion on professionalism with **Brenda Schladweiler** (BKS Environmental Consulting), **Arlen Lancaster** (The Nature Conservancy and former chief of the Natural Resources Conservation Service), **Ralph Brokaw** (rancher), and **Frank Galey** (dean of the UW College of Agriculture and Natural



Professor Larry Munn

Resources), as panelists. They followed that with an awards banquet and auction at which the keynote speaker was Wyoming State Treasurer Mark Gordon.

Family and Consumer Sciences

Kristin McTigue is a new assistant lecturer and Margaret S. Boyd Director of the Didactic Program in Nutrition and Dietetics. She began in March. Kristin is originally from Michigan. She completed her undergraduate degree in psychology from Northwestern University in 1996 and her master's degree in Clinical Nutrition and Dietetics from New York University in 2009. She worked for several years in film and theater casting before changing careers to become a Registered Dietitian and completed her dietetic internship at New York University Medical Center and then worked as a clinical dietitian at Mount Sinai Medical Center in New York. She worked with a diverse patient

PROGRAM NOTES



*Assistant Lecturer
Kristin McTigue*

mineral density of breastfeeding mothers. Erin says she received positive feedback from her presentation that she will be able to incorporate into her project. While in England, Erin and Enette had the opportunity to brush shoulders with well-known researchers in the field of sports nutrition and meet a former Olympic gold medalist. In their spare time, they attended a professional English soccer match, and ran the beaches of the North Sea.



Chance Marshall



Scott Cotton

population with various medical conditions including diabetes, heart disease, gastrointestinal disorders, kidney disease, liver disease, and psychiatric conditions in the inpatient setting.

Kristin's career interests include wellness, eating behavior, eating disorders, and nutrition counseling. She moved to Laramie in 2010 when her husband became an assistant professor in the UW English Department. She has been teaching community nutrition and team-teaching therapeutic nutrition (lab, lecture, practicum) since she moved to Laramie. Her passions are travelling and eating good food.

Erin Kyle, a master's student in the department, travelled with Associate Professor **Enette Larson-Meyer** to Newcastle, England, for the International Sport and Exercise Nutrition Conference in December 2013 where she presented a poster depicting the preliminary results of her thesis research on bone

UW Extension

Chance Marshall joined UW Extension in January as Northeast Area educator for livestock systems based in Campbell County. As an area educator, he provides educational programming in Campbell, Crook, Weston, Johnson, and Sheridan counties. Marshall completed his master's degree in December 2013 in animal and veterinary sciences at UW. A native of Teton County, he also is a 4-H alumnus.

Joining the team in the Converse, Natrona, and Niobrara (CNN) Area is **Scott Cotton**. Cotton began in January. A Wyoming native, Cotton holds a master's degree in range ecology from UW. He began his career at UW prior to assignments in Colorado and most recently Nebraska. His focus is working with small acreage and livestock producers in the three-county area.

Sharon Reiter assumed the 4-H youth educator position in Sweetwater County in February. Reiter holds a bachelor's degree in environmental policy with a concentration in outdoor recreation from Bowling Green State University in Bowling Green, Ohio. She brings experience working for cooperative extension in Florida as resident director of a state 4-H camp. She also brings school classroom teaching and program development experience as a program developer and teacher at the Denver Museum of Science and History.

Joddee Jacobsen joined UW Extension in May as the 4-H educator in Natrona County. Jacobsen holds a bachelor's degree in secondary history: secondary education from Idaho State University in Pocatello, Idaho, and a master's degree in elementary education from the University of Northern Colorado in Greeley. She brings experience



Sharon Reiter

as a program coordinator for the Cowboy Ethics Character Education Program and Wyoming Youth Initiative with the Boys & Girls Club of Central Wyoming.

Agricultural Experiment Station

The Wyoming Agricultural Experiment Station (WAES) administered several competitive grant programs again this past year. "Research projects funded by the WAES competitive grants programs are mostly allocated by setting aside a portion of federal dollars to support the college's research capacity," notes Bret Hess, associate dean of research in the College of Agriculture and Natural Resources and director of the WAES. Projects addressing the Production Agriculture Research Priorities (<http://bit.ly/wyoresearch>) identified by Wyoming stakeholders are given special consideration. Hess says he is proud WAES provided over \$500,000 in federal funds to support producer-oriented projects, including \$308,000 through the WAES competitive grants program



*Associate Dean
Bret Hess*

and approximately \$172,000 in matching funds for Wyoming Agricultural Producer Research Grant Program projects.

Progress on these and many other projects are presented in the 2014 WAES Field Days Bulletin, he says. Hardcopies of the bulletin will be available at the Research and Extension (R&E)

Center field days. For those who miss an opportunity to pick up a hardcopy, the bulletin will also be available online at <http://www.uwyo.edu/uwexpstn/publications>. This year's R&E center field day schedule is: Saturday, June 14, in Sheridan; Thursday, July 17, in Powell; Thursday, August 21, at the James C. Hageman Sustainable Agriculture R&E Center (SAREC) in Lingle; and Thursday, August 28, in Laramie.

College Relations

Director Anne Leonard says she had the pleasure of interviewing candidates in April and selecting new College of Agriculture and Natural Resources student ambassadors. "Many of our ambassadors were graduating seniors, so we needed some new blood. All five members of the

selection committee were blown away by the quality of applicants, and we were hard-pressed to make a selection," says Leonard.

This year there are 26 student ambassadors. They are a diverse group with at least one representative from each degree program, some from Wyoming, some from the Rocky Mountain region, and some from other parts of the county. **Jacob Zumo**, a new ambassador from Cheyenne, is majoring in molecular biology, hopes to enter medical school after graduation, and bakes awesome Greek pastries, notes Leonard. **John Lacey** is from Highlands Ranch, Colorado, has a passion for the beef cattle industry, and is a member of the meat judging team. **Rachel Purdy** calls Pine Bluffs home and is an agricultural business major who remembers receiving a "welcome to UW" email from an ag ambassador when she was

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first accepted to UW. She wants to give other incoming students that same type of welcome. No stranger to public speaking, Rachel has won numerous state and national speaking awards and served as Wyoming's junior beef ambassador.

"I could go on and on," says Leonard. "These are amazing young people who have a passion for the college and for the agriculture industry. I encourage you to read more about their background and interests on our website at <http://www.wyomingextension.org/agambassadors>."

Summer is also the season for field days, open houses, and fairs. Each year, the Agricultural Experiment Station hosts open

house/field days at the research and extension centers during which the public can learn more about the centers, meet some of our faculty members, and learn about current station research projects. The dates for this year's field days are:

- Sheridan R&E Center: Saturday, June 14;
- Powell R&E Center: Thursday, July 17;
- James C Hageman Sustainable Agriculture R&E Center, Lingle, Thursday, August 21; and
- Laramie R&E Center, Thursday, August 28.

"The public is welcome, and I encourage you to stop by any of the centers to learn more about our applied research programs," says Leonard.

Again this year the college will have a display booth at the Wyoming State Fair and Rodeo August 9-16. Each year, interactive activities highlighting programs, information on current research projects, and helpful materials from UW Extension are featured. Past exhibits include measuring the pH of soils, gardening in Wyoming, ruminant nutrition research at UW, and an update on chronic wasting disease research. If planning to attend the fair, please stop by the booth in the Ag & Natural Resources Center at the west end of the midway.

"Ag Appreciation weekend is another event that marks the end of summer and the start of another academic year," says



Anne Leonard

Leonard. "Ag Appreciation Weekend is September 19-20. Please call our office or check our website (<http://www.uwyo.edu/uwag>) for schedules and updates."