

AG^{UW} NEWS

VOLUME 20 • NUMBER 2 • SPRING 2011



Professor Larry Held
with his final graduate
student, Tanya Madden,
following graduation
ceremonies this spring.
SEE STORY PAGE 11



UNIVERSITY OF WYOMING

COLLEGE OF AGRICULTURE
AND NATURAL RESOURCES



Dean Frank Galey

“In matters of style, swim with the current; in matters of principle, stand like a rock.”

Thomas Jefferson

Dear Friends and Colleagues,

Within the important scientific and disciplinary education, providing tools for lifelong learning and leadership for our students and constituents is imperative for this college. Classroom and extension curricula have increasingly included various tools and encouragement for lifelong learning. We are now focused on enhancing educational opportunities to develop leadership skills for our stakeholders.

The UW Cooperative Extension Service has developed the Extension Volunteer Organization for Leadership, Vitality and Enterprise (EVOLVE) leadership training series for rural communities. This program helps communities develop a new generation of leaders providing participants with the tools needed to lead. Participants learn about their own styles, how to work with people, and how to organize and lead a project or program. This program is growing, and our extension specialists are investigating how different leadership cohorts can develop networks among each other and with other leadership programs to strengthen their skills and reach.

We have initiated efforts to provide for more leadership-learning opportunities on campus. Programs and curricula are being reviewed to determine if opportunities for personal development can be enhanced. Earlier this spring, we hosted a panel on leadership development for a group of our students.

The panel discussion is described in this issue (see page 14). This discussion involved invited leaders from a variety of backgrounds. Invitees included Doug Stark from Farm Credit Services of America in Omaha, Jim Magagna from the Wyoming Stock Growers Association, Nicole Ballenger, who is vice-provost for Academic Affairs at the University of Wyoming, and Bill Schilling from the Wyoming Business Alliance and Leadership Wyoming. The goal was to determine student interest and to begin to develop coursework about leadership development.

So, why are we bothering?

As Doug Stark (our featured guest speaker) put it, “Leadership is everyone’s business.” We must all be prepared to “take the point” when appropriate.

There are many definitions of leadership. My sense is a leader is able to articulate a vision and then motivate others to work together to achieve that goal. Often, the organization or task is something that will serve long after you and the current crop of stakeholders are long gone. Bill Schilling calls this “Trustee Leadership” in his Leadership Wyoming curriculum because leaders can be viewed as stewards of a group or organization that impacts people you may not know – perhaps way into the future.

Taking the point in a project or organization requires integration of many skills – perhaps the most important of which are people skills. These attributes include understanding yourself and how you relate to others, ability and willingness to communicate, energy, enthusiasm, integrity, motivation, management of change, and negotiation skills. Many of these tools can be learned through discussion, practice, and feedback.

Success in agriculture and the natural resource fields demands we graduate not only smart scientists and scholars but also people who can lead tasks and programs in the modern landscape. It is obvious top-down authoritarian approaches are no longer appropriate. Success in work and civic and volunteer activities requires a more collaborative approach to make a difference. As Thomas Jefferson’s quote suggests, leading requires sensitivity and willingness to deviate to meet new needs, but your, and your organization’s integrity, must remain solid. Stark is right. Leadership IS everyone’s business. My goal is we provide our students with leadership skills and opportunities to lead during their time attending the University of Wyoming.

In this issue, we have a feature on the pending retirement of **Professor Larry Held**. Larry has touched many people in the college and state. He has mentored countless undergraduate and graduate students who can cite Larry as having had a positive impact on their lives and careers. We also have features about **Assistant Professor Ben Rashford**’s work to keep land and young people in agriculture, **Temple Grandin**’s visit to UW in February, and the leadership forum mentioned earlier in this column. Among other stories, you will read about a couple of great internships available to our students.

Thank you for your continued support of your college! Have a great summer! We can be contacted at (307) 766-4133 or by e-mail at agrdean@uwyo.edu. Our Web site is www.uwyo.edu/UWag/.

Dean Frank Galey

College of Agriculture and Natural Resources

AES PRESENTS OUTSTANDING RESEARCH AWARD TO PROFESSOR K.J. REDDY

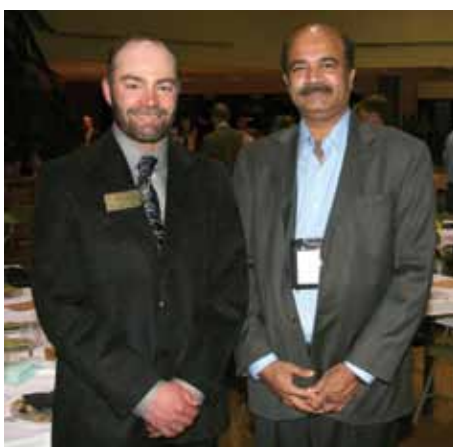
Professor K.J. Reddy in the Department of Renewable Resources was presented the Wyoming Agricultural Experiment Station Outstanding Research Award in February.

Reddy and Professor Don Jarvis in the Department of Molecular Biology had been nominated for the award, which was presented during the AES research and extension center planning conference in Laramie.

"It's a wonderful gratitude to be recognized by your peers," says Reddy. "I appreciate all the contributions made by my previous and current graduate students and the support from my colleagues."

Selecting between Jarvis and Reddy was difficult for the award committee, says Bret Hess, director of AES and associate dean of research for the college.

"Two exceptional faculty members were nominated," he says. "It was an honor to present the award to Dr. Reddy. His world-renowned research most certainly contributes to the discovery mission of the college. He researches issues relevant to Wyoming, and several of the resulting discoveries have led to technology that is



Bret Hess, associate dean and director of the Agricultural Experiment Station, presented the AES Outstanding Research Award to Professor K. J. Reddy.

transferred throughout the world. It was a pleasure to recognize Dr. Reddy for his exemplary research work."

Reddy joined the University of Wyoming in 1986 as a post-doctoral researcher, and then was a research scientist in the UW Water Research Center. He joined the Department of Renewable Resources in 2000 as an assistant professor and was promoted to full professor in 2005.

Reddy has developed innovative teaching, research, and outreach programs focused on energy, natural resources, and the environment. His research has attracted more than \$32 million in funding from state, federal, and industrial sources. He has written or co-authored more than 310 technical publications and delivered 300 professional presentations. Reddy also served as the associate director for the UW School of Energy Resources from 2008-2010.

"Professor Reddy has impressed me in all aspects of what it means to be a full professor," says John Tanaka, professor and head of the Department of Renewable Resources, in his nomination letter. "He is an excellent researcher and teacher as evidenced by his numerous awards, most recently the George Duke Humphrey Distinguished Faculty award."

The award is the highest UW honor given to a faculty member.

"While the focus of (the AES) award is on outstanding research, what makes Dr. Reddy's research truly outstanding is how he can bring it into the classroom," says Tanaka. "His ability to train the next



From left, Associate Professor Johnathan Fox, extension energy coordinator Milt Geiger, and Assistant Professor Matt Andersen.



Bret Hess presents Kathleen Bertone, senior office associate in the Agricultural Experiment Station, a gift for her help in organizing the banquet and other events during the AES planning conference.



From left, Charlie Jarvis, son of Professor Don Jarvis, Professor Steve Ford, and Associate Professor Pam Langer before the start of the banquet.



Members of the Food Science Club who prepared food for the banquet were, from left, Sydney Burek, Colleen Buck, Liz Sitzman, Emily Wotkyns, Kodee Schell, Wade Allnut, and Brogan Clay.

generation of managers and scientists is remarkable. His research is recognized locally, regionally, nationally, and internationally.”

Reddy’s research topics include mineralization of anthropogenic carbon dioxide, filtration of toxic arsenic from water, geochemistry and water quality of coalbed natural gas-produced water, removal of nitrate from groundwater, and speciation of toxic selenium in water. Reddy in the mid-1980s proposed the use of carbon dioxide to accelerate the mineral carbonation process, which lead to the development of a robust mineral carbonation research program at the global level.

Tanaka complimented Reddy on his research, academics, service to the university, and his cooperation among colleagues.

“His professional and personal collegiality with colleagues, staff, and students make him a role model for many,” notes Tanaka. “In the short time I have known and worked with him, I am continually impressed with how he interacts with everyone. He does not let ego or stature influence those interactions, other than his desire to see the best in everyone and to encourage those around him to work to their full potential.”

Laramie R&E Center director begins duties

The new director of the Laramie Research and Extension Center will bring administration of the livestock units, greenhouse complex and lab animal facilities under one administrative unit.

Doug Zalesky began March 15 in the new position that is in the Agricultural Experiment Station (AES). The position fit his background and experience, he says.

“The position offered me an opportunity to get more involved in an administrative role with a research and extension center,” says Zalesky. “Additionally, the Laramie R&E Center provides the facilities for teaching, research, and extension – the three arms of a land-grant institution. I feel very fortunate to have this opportunity and believed it was an opportunity to advance my career.”



Doug Zalesky

Bret Hess, associate dean and director of AES, says Zalesky’s academic background and professional experience were a near-perfect match for the position.

“The college is very fortunate to have somebody of Doug’s caliber serve as the first director of the Laramie R&E Center,” Hess notes.

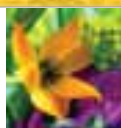
Zalesky received his bachelor’s and master’s degrees in animal science from the University of Nebraska, and his Ph.D. in physiology of reproduction from Texas A&M University.

He had served as the manager/research scientist for Colorado State University’s San Juan Basin Research Center in southwest Colorado prior to coming to UW.

He said he likes what he has seen at UW. “One of the first things that struck me is the positive attitude everyone has here,” he says. “That speaks well to the leadership of the institution and the environment that persists here.”

The friendliness and accommodation on campus has made him feel welcome.

“Also, I have always admired the quality of programs and people who make up the staff and faculty,” he says. “I am impressed with the connection UW has with the people of the state and with the other educational institutions in the state.”



Lecturer receives top UW teaching honor

An instructor in the College of Agriculture and Natural Resources whose nominations are peppered with “very best,” “wonderful,” “passion,” and “enthusiasm” has received the John P. Ellbogen Meritorious Classroom Teaching Award.

Rachel Watson, lecturer in the Department of Molecular Biology, was tapped for the award established in 1977 by businessman John P. “Jack” Ellbogen, to “foster, encourage, and reward excellence in classroom teaching at UW.” Other recipients this year are Susan Frye, a professor in the Department of English, and Margaret Flanigan, associate lecturer in the Department of Zoology and Physiology.

“I would rank Rachel as among the very best instructors at the University of Wyoming,” says Mark Stayton, associate professor and chair of the department.

Adds Jim Wangberg, associate dean and director of the Office of Academic and Student Programs in the college, “She is arguably the best classroom teacher and educator in the College of Agriculture and Natural Resources and among the university’s elite educators.”

Watson teaches primarily lower-division microbiology lecture and laboratory courses and online, upper division biochemistry courses in the summer.

“Her biochemistry class has proven so popular we have been forced to limit enrollment beginning next summer,” says Stayton.

She draws praise for her teaching style and dedication to students.

“Rachel inoculates them with an honest enthusiasm for science, and she demonstrates a true interest in the welfare of students,” notes Stayton.



Rachel Watson at one of her general microbiology labs in the College of Agriculture and Natural Resources.

Watson brings innovation to the classroom, noted one student.

“She uses contemporary technology combined with a flexible teaching style for a dynamic environment that is unlike any I have ever seen,” says James Caitlin Caines, a microbiology undergraduate student from Hyattville.

She provides a website from which all labs and lectures come, he says. She furnishes podcasts of each lecture, providing audio as well as a video of the notes and auxiliary drawings as she lectures.

Her interest in and caring for students was also noted.

“Rachel makes the special effort to truly get to know all of her students – no minor task given the large size of her classes,” says Wangberg.

Caines says Watson accomplished in three days what few previous instructors

could do in an entire semester – learn his name.

Her gift is not just enthusiasm and dedication, says Wangberg.

“It is also a high level of creativity and passion for improving,” he notes. “Rachel thrives on fresh approaches to learning and will investigate the literature, utilize the latest instructional technologies, interact with others, and take advantage of professional development opportunities for continued growth.”

A UW faculty member since 2001, Watson received five Mortar Board Top Prof awards; two of the college’s Lawrence Meeboer Outstanding Teacher Awards; and an RSO Outstanding Adviser award.

Watson earned a bachelor’s degree from Denver University in 1998 and her master’s in molecular biology from UW in 2001. She is working toward a doctor of education degree in instructional technology at UW.

FIRST CUTTING



Ryan Lermon receives the Outstanding Freshman Male Award from Dave Wilson.



Amanda O'Donnell receives the Outstanding Female Freshman Award from Dave Wilson.



Dave Wilson presents the Outstanding Sophomore Award to Perry Baptista.



Dave Wilson presents the Outstanding Junior Award to Ryder Simeniuk.



Lauren Schiermiester receives the Outstanding Senior Award from Dave Wilson.

Gamma Sigma Delta honors top students, agricultural

Top University of Wyoming agricultural students were honored by Gamma Sigma Delta and a Wheatland-area producer received its Outstanding Agriculturalist Award (see story page 7).

The March 26 program in Laramie was also the 50th anniversary of establishment of GSD at UW. The chapter received a Silver Chapter Award in 2010 designating it a Top 10 Chapter in the nation.

Receiving outstanding student awards and their majors are:

Outstanding Freshman Female – Amanda O'Donnell, Spring Creek, Nevada, renewable resources

Outstanding Freshman Male – Ryan Lermon, Faribault, Minnesota, renewable resources

Outstanding Sophomore – Perry Baptista, Elizabeth, Colorado, agricultural economics

Outstanding Junior – Ryder Simeniuk, Opheim, Montana, renewable resources

Outstanding Senior – Lauren Schiermiester, Buffalo, animal-veterinary sciences

Outstanding Master's Student – Jennifer Hess, Evans, Colorado, renewable resources

Outstanding Doctoral Student – Christoph Geisler, Heerlen, Netherlands, molecular biology

Rachel Watson, lecturer in the Department of Molecular Biology, received the Outstanding Faculty Award of Merit.

Receiving departmental honors were:

Agricultural and applied economics –

Tucker Hamilton, Osage, Western Agricultural Economics Association Outstanding Senior Award; Samuel Hansen, Lingle, Senior Honor Book; Devin Burton, Talmage, Utah, Outstanding Senior in Agribusiness Award

Agricultural Communications – Honor Book Award: Kaitlynn Glover, Casper; Megan Tanaka, Cove, Oregon; Kelsey Tramp, Lander

Animal Science – Lauren Schiermiester, Buffalo, Honor Book Award

Family and Consumer Sciences – Skye Murphy, Worland, Honor Book Award



Molecular biology lecturer Rachel Watson receives the Outstanding Faculty Award of Merit from Jim Wangberg.

Molecular biology

– Honor Book Award: Sarah Gregory, Gillette; Olivia Wolpert, Riverton

Plant sciences –

Agroecology Honor Book Award: Anna Daily, Bayard, Nebraska; Brandon Greet, Ten Sleep. Weed Science Achievement Award: Greet. Plant Pathology Achievement Award:

Michael Baldwin, Fairfax, Virginia. Horticulture Achievement Award: Benjamin Schaffer, Greeley, Colorado

Renewable resources – Graduate Student Award: Lisa Cox, Norway, Maine; Honor Book Award: Ticia Shelton, Laramie; Soil Science Honor Book Award: Taylor Close, Mead, Colorado; Entomology Honor Book Award: Selena Bree Hammer, Arvada, Colorado

Veterinary sciences – Honor Book Award: Claire Tousley, St. Anthony, Idaho.

New undergraduate members inducted are:



Dave Wilson presents the Outstanding Master's Student Award to Jennifer Hess.



Christoph Geisler receives the Outstanding Doctoral Student Award from Dave Wilson.

producer

Anna Daily, Bayard, Nebraska; Brandon Greet, Ten Sleep; Cara Noseworthy, Medford, New Jersey; Craig Luplow, Banner; Jennifer Einspahr, Arapahoe, Nebraska; Sara Oliver, Fort Collins, Colorado; Stephanie Schroeder, Douglas; Ticia Shelton, Laramie; Troy Neller-moe, Gillette; Saralyn Van Knapp Jennings, Burbank, California.

New graduate student members inducted are:

Alex Wann, Torrington; Amanda Jons, Cedar Park, Texas; Christoph Geisler, Heerlen, Netherlands; Daryl Domman, Cheyenne; Desiree Shasa, Rockaway, New Jersey; Holden Hergert, Lingle; Hui Wang, Nanjin, JianSu, China; Jerod Smith, Meeker, Colorado; Katherine Kessler, Lander; Kelly Thompson, Casper; Lane Gardiner, Heber City, Utah; Matthew Hayes, Laramie; Megan Taylor, Swainsboro, Georgia; Mina Hejazi, Tehran; Miranda Bryant, Laramie; Renee King, Sheridan; Sarena Olsen, Des Plaines, Illinois; Shaun Harris, St. Anthony, Idaho; Jared Unverzagt, Lingle.

New professional members are: Jay Norton, assistant professor, Department of Renewable Resources; Kelly Wiseman, staff assistant, Office of Academic and Student Programs.

WHEATLAND-AREA PRODUCER RECEIVES OUTSTANDING AGRICULTURALIST AWARD

A Wheatland producer with a long list of contributions to his community and industry received the 2011 Outstanding Agriculturalist Award from the Wyoming Chapter of Gamma Sigma Delta (GSD), the international honor society of agriculture.

Pat Cullen, who farms and ranches near Wheatland with his wife, Sherri, was presented the award during the GSD awards brunch.

"He is everything right about agriculture, Wyoming, and simply being a good citizen who gives back to his community and state," says Doug Hixon, head of the Department of Animal Science and who presented the award.

Texas natives, the couple came to Wyoming in 1970 after Pat was accepted into a master's program in ag engineering at UW. They decided to stay in Wyoming following his graduation. The couple has a commercial cow-calf operation in addition to raising alfalfa, corn, and small grains.

"They market most of these crops through their feedlot in association with their heifer development and custom backgrounding programs," says Hixon. They also develop and market commercial-bred heifers.

"Pat has also been involved in giving back to his community and state through leadership roles," notes Hixon.

Cullen serves on the Wyoming Livestock Board and is a committee vice-chair in the Wyoming Stock Growers Association. He has served on boards of the Platte County Conservation District and Farm Credit Services of America and is past president of the Laramie Peak Stock Growers Association. Cullen has been a 4-H leader for more than 10 years and also has served as president of the Platte County 4-H Leaders Council.



Pat Cullen, center, receives the Outstanding Agriculturalist Award from Gamma Sigma Delta president Dave Wilson, left, and Doug Hixon, head of the Department of Animal Science.

FIRST CUTTING



Members of the Undergraduate Range Management Examination team, which placed second, are, back, from left, Wade LaCount, Katie Schade, Katie Nelson, Tate Smith, Haily Lockwood, Ryder Simeniuk, Jordan Wambeke, Amanda Jones, John Wagner, Pat Toomey, and Assistant Professor Jeff Beck, coach. Front, Amanda O'Donnell, Sydney Burek, Travis Decker, and Amanda VanPelt. Not pictured, Tyler Gardner, Kellen Smith, Christopher Poglajen, Landon Smith, Sage Askin.

UW teams claim first, second at national range management competition

Teams from the University of Wyoming College of Agriculture and Natural Resources won first and second places and individuals placed in the top five during competition at the February Society for Range Management meeting in Billings, Montana.

Rangeland ecology and watershed management students in the Department of Renewable Resources were among 1,500 people from around the world attending the meeting. Undergraduate students competed in four events: the Rangeland Cup, Undergraduate Range Management Exam (URME), Extemporaneous Public Speaking, and Plant Identification.

UW's Rangeland Cup team of Sage Askin, Douglas, Emily Wotkins, Durango, Colorado, Sydney Burek, Elizabeth, Colorado, and Tate Smith, Rye, Colorado, placed first. The team was mentored by Jim Waggoner, professor in the department and an extension range specialist. The problem solving competition promotes critical thinking and cooperative, collaborative work on

current topics and/or topics of historical importance to rangeland ecology and management.

UW's URME team placed second out of 25. The competition provides an opportunity for students to demonstrate higher order learning skills and synthesize knowledge of the art and science of rangeland management. Katie Nelson, Philip, South Dakota, placed fifth, Sage Askin, Douglas, seventh, and Patrick Toomey, Gilbertsville, Pennsylvania, eighth, among the 180 contestants.

Team members were Jordan Wambeke, Cody, Tyler Gardner, Star Valley, Landon Smith, Holyoke, Colorado, Wade LaCount, Rifle, Colorado, Ryder Simeniuk, Opheim, Montana, Amanda VanPelt, Fernley, Nevada, John Wagner, Sterling, Colorado,

Sydney Burek, Amanda O'Donnell, Spring Creek, Nevada, Tate Smith, Amanda Jones, Casper, Katie Schade, Fort Sumner, New Mexico, Travis Decker, Craig, Colorado, Haley Lockwood, Big Piney, Kellen Smith, Gillette, and Christopher Poglajen, Dayton.

Amanda Jones placed fourth, and Tate Smith was fifth in the public speaking competition. Students draw topics and have a short time to develop and prepare a speech.

Justin Lauer of Pendleton, Oregon, received the SRM Scholarship, the second consecutive year a UW student has won the

award. Katie Schade was elected president of the Student Conclave. The International Student Conclave is the student organization of SRM and promotes student participation in SRM.



Members of the Rangeland Cup team, which won first place, are, from left, Emily Wotkins, Tate Smith, and Sydney Burek. Not pictured, Sage Askin.



Williams named Outreach School's Technology in Education faculty fellow

A passion ignited in the mid-1990s has led to Professor Karen Williams receiving the Technology in Education (TIE) faculty fellow position in the UW Outreach School's Division of Outreach Credit Programs.

Williams, in the Department of Family and Consumer Sciences (FCS), was one of the first online instructors at UW in the 1990s and sought to apply best practices in active teaching and learning strategies to distance learning. Now, she'll be responsible for highlighting the innovative, curricular, research, and training opportunities done through the outreach school.

She is the first such faculty fellow. Her duties begin this fall.

"I was completely taken by surprise and still feel incredibly honored to be asked," says Williams. "A big focus will be for me to help design a permanent TIE faculty fellows program for Outreach Credit Programs."

TIE is the research and development program that integrates with the distance education mission of the Outreach School and Division of Outreach Credit Programs, notes Reed Scull, director of Outreach Credit Programs and associate dean of the Outreach School.

"In Karen, we have someone with a solid track record of publications in distance education," he says. "She has a record of academic leadership at the university that is equally impressive. We cannot be more pleased with Karen's agreement to be the first TIE faculty fellow next fall."

Following Williams' immersion in distance learning in the 1990s, she cre-

ated the distance program in child development in FCS.

"I recognized that distance education was a way for Head Start teachers and others to be able to meet their career goals when they couldn't leave their families and jobs to come to campus," says Williams. "Equity and access are core values for me. Since then, I've been teaching online, directing distance programs, and doing research on pedagogy in online courses. It's a passion!"

The fellowship entails a 50-percent buyout of her time from FCS. Professor Donna Brown, head of the department, says she is delighted Williams' skills and interest in distance education and student learning have been recognized.

"Karen has been a true leader in the Department of Family and Consumer Sciences and on campus in creating distance learning opportunities for students and



Professor Karen Williams

also encouraging many of the faculty members to explore distance teaching experiences," Brown notes. "I'm sure she will be a great role model for others interested in distance education and for future TIE faculty fellows."

Christine Boggs, TIE program director, is excited to be working with Williams.

"Karen is amazing, and I feel honored to have the opportunity to work

with her so closely," says Boggs. "We have had more than 15 scholarly presentations and papers associated with TIE to date and, with Karen's amazing expertise, we hope to increase that number."

Williams was head of FCS from 2003 to 2010. She has served as director of the Bachelor of Applied Science program for the university since 2008. The bachelor of applied science degree is awarded by the College of Agriculture and Natural Resources.



WASHINGTON, D.C., VISIT

Dean Frank Galey, left, met with Sen. John Barrasso, center, during the Council for Agricultural Research, Extension and Teaching meeting in Washington, D.C. Joining Galey was Casper rancher Bob Kidd. Galey and Kidd visited with Sen. Barrasso about support for land-grant universities through funding programs such as extension and research.

What, Who, Where

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Frank Galey

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Note: All department and office websites can be accessed by going to www.uwyo.edu/uwag and clicking the Departments link on the left-hand side of the page.

AGRICULTURAL AND APPLIED ECONOMICS

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Steve Herbert

ANIMAL SCIENCE

Department head: Professor Doug Hixon
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Doug Hixon



John Tanaka

FAMILY AND CONSUMER SCIENCES

Department head: Professor Donna Brown
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Donna Brown



Don Montgomery

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Chair: Professor Ken Mills
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Bret Hess

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James Wangberg



Glen Whipple

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This code is for the home page of the College of Agriculture and Natural Resources.

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Website: www.uwyo.edu/plantsciences/
Department telephone: (307) 766-3103

RENEWABLE RESOURCES

Department head: Professor John Tanaka
Website: www.uwyo.edu/renewable/
Department telephone: (307) 766-2263

VETERINARY SCIENCES

Department head: Professor Don Montgomery
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Professor caps 34-year career in College of Agriculture and Natural Resources

LARRY HELD'S LIFE CHANGED IN 2002; WITH WIFE, VERA, AND MANY OTHERS HE'S LEARNED THERE ARE ALWAYS BETTER THINGS AWAITING

There's a photo of Larry and Vera Held taken when snow still blanketed the ground. Larry, in his leather University of Wyoming jacket, is holding on to a tree limb with his right hand, Vera is hugging her husband with her head near his heart.

Fitting.

This May's graduation was the last for Held, who started at UW in 1977. A stroke in 2002 left him partially paralyzed. Nine years later, he says it's time to retire. He and Vera will be moving to Fort Collins, for the climate and for the needed medical services.

But for now, interviewed during spring break at UW with graduation still weeks away, Held talked about teaching to his final class – advanced farm and ranch management.

"I have a really good class this semester. I almost feel that if they were a bunch of mean-spirited students it would be a lot easier to retire," he quips and then turns serious "It's one of the best classes I can recall in recent memory."

For example, his graduate student, Tanya Madden, has an unavoidable course conflict and can't help Held with operating his computers during class.

Instead, class members do.

"When I have trouble setting up a computer, I have a set of students who will set it up for me," says Held. "Or, if I'm stuck on an equation, someone will come up and kind of help me out without trying to be too obvious about it. They're very kind kids, so it's harder to let go when you have a class like that."

WHEN IT BEGAN

That Friday in August 2002 had been routine enough. Held had gone out for a

few beers to end the week, as he did most Friday evenings, then returned home and took a shower.

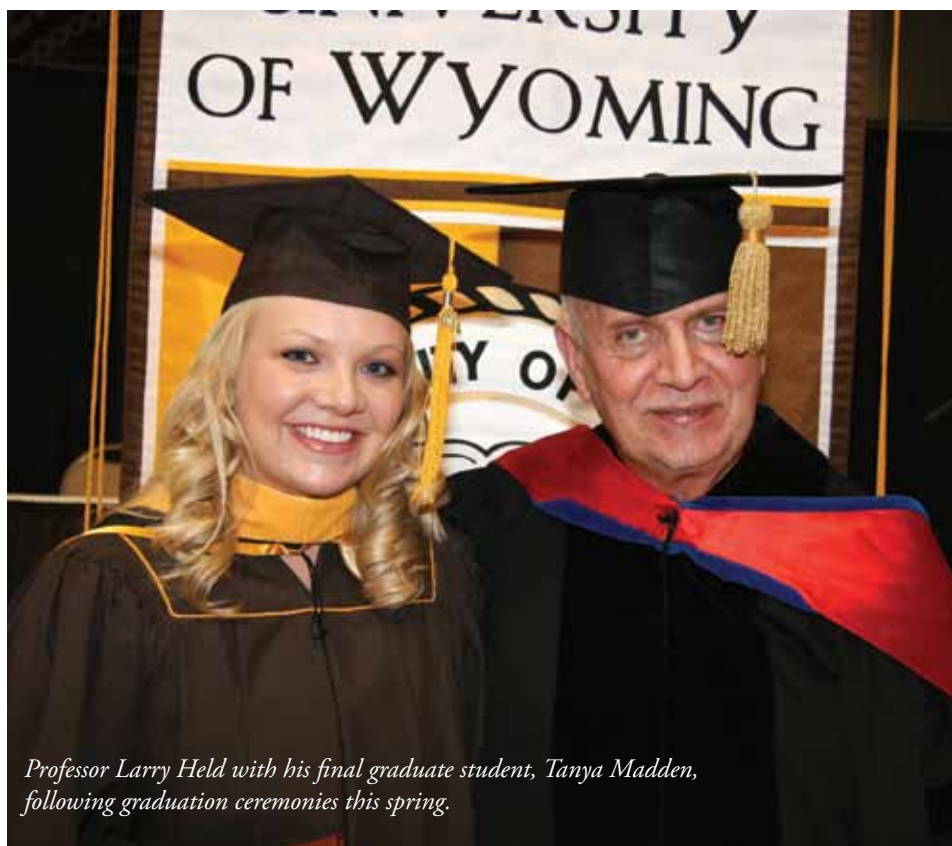
"It came out of nowhere, kind of like I was struck by lightning," he remembers. Held worked out every morning, had regular checkups, and was in good physi-

cal shape. He had no inkling anything was wrong.

"I fell on the floor and pulled the shower curtain down. My daughter, Monique, heard me thrashing around in the bathroom and thought maybe I was drunk," he says, smiling a little. "It was a Friday



Professor Larry Held and his wife, Vera.



Professor Larry Held with his final graduate student, Tanya Madden, following graduation ceremonies this spring.

night, which normally meant I'd go out and have a few beers. I thought I had had too many. I remember thinking Vera was really going to be mad at me, finding me on the floor. I couldn't understand why I couldn't get to my feet. My left arm and leg weren't working."

The stroke eventually took Held to Spaulding Rehabilitation Hospital in Aurora, Colorado, where he would spend most of the rest of that year. His last memory of that place was sitting in his car watching a patient walking down the street. Every time he had seen that man before, he was in a wheelchair. "I thought, 'My gosh, could that guy be walking down the sidewalk?' I said a short prayer asking God to help me walk," he says. "Well, it didn't come exactly that way. It came in small steps. I can hobble along with a cane. I now understand recovery is not on our terms but how God sees it. Small steps along the way."

RURAL ROOTS

Held grew up on hot North Dakota summers and cold winters. He decided to major in ag economics because he already knew, from experience on his family's farm, the animal science and plant science aspect. What he didn't know was the financial side. If he returned to the family farm, he would need to know.

Then came Vera.

"I wouldn't be here if not for her," he says matter-of-factly. "She's been with me

every miserable step of the way. She's undoubtedly the reason I made it through."

Vera entered his life when Held was only a fifth grader. She evidently made quite an impression.

"I remember the first day I saw her walk in the classroom," he recalls and smiles. "She had gone to a country school and transferred into town. I'm sitting there and in walks this cute girl in a blue dress with matching blue shoes."

But love was from afar. She never had anything to do with him.

"I teased her relentlessly through high school," he says. "Poor Vera."

She finally relented. They started dating when seniors, were engaged in 1969, and married in 1970. They have two children: Monique, who works in the UW Student Financial Aid Department, and Jonathan, an electrical hardware design engineer who lives in Denver, Colorado.

LIFE-CHANGING DECISION

"I tell my students there comes a time in life you make some decision with really big consequences and the most important," he says. "The most important decision I made in life was when – it was my wife's decision – to marry me. The thing was, although she grew up on a farm, she was not real fond of the farm environment. If I went back to the farm, I'd be going back by myself. She wasn't going to go back. I made a wise choice by choosing her. The best thing I ever did."

"Professor Held has been an invaluable friend and contributor to the faculty members and teaching and research programs in this department and college. Furthermore, Larry has been one of the most popular faculty members among both our undergraduate and graduate students. We wish him well, and he will be missed. But, we hope to see him as much as we can."

– Associate Professor Roger Coupal, head of the Department of Agricultural and Applied Economics



Professor Larry Held with Sterling and Bethany Zill, a Wyoming-based musician/singer. She performed numerous times in Held's classes.

Held obtained his Ph.D. in 1977 and became a lifelong Husker at the University of Nebraska. After 11 years of college, he was then faced with supporting his family, now with a son, Jonathan.

An opportunity came to interview for an assistant professor position at UW. Five schools had already rejected him, he says: his home state North Dakota State University, South Dakota State University, Montana State University, Kansas State University, and the University of Florida.

"When people ask why I chose the University of Wyoming, the answer is quite simple. It was the only university to offer me a job," he says and laughs, "and it certainly was the best fit of all the schools that interviewed me."

WAS NERVOUS FIRST DAY

Held was terrified that first day in Room 42 in the College of Agriculture Building. He had no teaching experience. "I thought to myself, 'Held, you don't know what the hell you are doing.'"

He hadn't been that terrified since overturning a truck full of wheat when he was 10 years old and then had to face his father.

The teaching, as it turns out, became a road back from recovery. Held has had about 30 graduate students over the years and taught probably hundreds of undergraduates. During his time in rehab he longed to return to teaching, saying he felt robbed missing the opportunity to meet new students and wanted to get back into

LEARNS BETTER THINGS ARE ALWAYS AHEAD

Professor Larry Held found himself the student and rehabilitation the teacher during his life since his stroke in 2002.

"I found I couldn't do things on my own anymore," he relates. "I'd been such an independent person. You have to understand, growing up on a farm as a boy, you did chores; going out and working on your own was expected. When paralyzed, you don't do anything without someone's help. That's what I've learned. I thought I was pretty independent and strong. I found out awfully quick I wasn't completely independent. I never had been, just thought I was. I realize I have not done anything in this life without other people's help."

Held also says he isn't responsible for any success he's had.

"Every good thing that happened in my life was God putting key people in my life who have helped me along," he notes. "In my recovery, people have said, 'Boy, you are doing good.' Good things are happening but not just because of me but my wife, my children, family, the incredible therapists who helped me. God has placed special people in my life to help me. When you are alone in the hospital, you get to figuring that out pretty quick. You are helpless."

Held laments that letting go has always been hard — letting go of life on the North Dakota farm, from his time at the University of Nebraska, from his independence.

Now, he knows there are always better things ahead.

"Look at that junk up on the wall," he says and points up in his office. Horse collars, other farm items beckon from his office walls. "Relics from the farm. I wouldn't be able to give those away. Those were the last things my dad gave me. I miss my dad a lot. We all miss our parents, but he was a big influence in my life. He was not what you called a pillar of the community or a community leader. He was very common; a man who had very strong values of honesty and hard work and did not tolerate laziness or dishonesty. So, those values he put in me carried into any success I had. He taught me not to doing anything half way. That's why I can't bear to continue to stay at this job. Perhaps my students aren't getting their money's worth because of my disability. And, it's not fair to them or to my colleagues who have to pick up part of my workload. They never complain; they are very gracious about it. If not for other people suffering the consequences around me, I could limp along but now is the time to let go. Don't do things in a halfway manner. That's what my dad would want."

that arena. When he had refused to do what a particular nurse had asked, she told him he didn't have what it took to get back to teaching.

Held says the incident is the best thing that could have happened. It boosted incentive to return to the classroom.

"I want to thank the college of agriculture for giving me the chance to come back to work so I could get a chance to taste life again," he says. "I am very grateful for that

opportunity and always will be."

His college experience has been amazing, he says. "These young people do so well in spite of us. They sometimes come to visit my office and bring their sons or daughters. I see my students as they were when students. They become my lifelong friends. That's the thing I will take with me after retiring. A lot of things can be taken from me, but you can't take away those friendships with my students."

Forum helps build leadership capacity of students

Thirty-four students attended the March leadership forum in the Wyoming Union sponsored by a gift from an alumnus and by the College of Agriculture and Natural Resources dean's office.

Each student was recommended by a faculty member and has shown leadership potential or is active in leadership roles either in the community or on campus, notes Anne Leonard, director of college affairs.

Doug Stark, CEO of Farm Credit Services of America (FCS), was featured presenter. Also on the panel were Bill Schilling, executive director of Leadership Wyoming, Jim Magagna, executive vice president of the Wyoming Stock Growers Association, and Nicole Ballenger, UW associate provost.

"Each panel member has had experience in leadership roles and also with different segments of American culture," says Leonard. "Experience represented by the panel included non-profits, education, government, community leadership, and private business."

Darlington Sabasi, a graduate student in the Department of Agricultural and Applied Economics from Zimbabwe, Africa, says meeting and listening to the leaders in the same industry he is in was wonderful.

"What I enjoyed the most was listening to how the presenters made it up the ladder," says Sabasi. "I learned how important it is when one becomes a leader to interact with all subordinates, help them achieve their potential, and provide an environment that will enable each and every one of the employees enjoy going to work."

Dean Frank Galey and Stark, who is a graduate of the College of Agriculture and



From left, Bryan Wilson, Darlington Sabasi, and Peter Burgess.



Sam Hansen and Carolyn Hageman visit just before the start of the leadership forum in the Wyoming Union.



From left, Bill Schilling, Jim Magagna, and Doug Stark. Nicole Ballenger, associate provost, Academic Affairs, was also on the panel.

Natural Resources, developed the forum. Galey is a member of the Leadership Wyoming board, and Stark has initiated a leadership program at FCS.

Attending were graduate students, ASUW senators for the college, an international student, students active in various student or community organizations, and members of the college's student ambassador groups.

Students were able to discuss a range of topics with forum participants, says Leonard.

"They received insights on working with volunteers, recognizing opportunities for both career and personal growth, development and other insights into leading organizations, and working successfully with other people," notes Leonard.

The speakers were transparent and communicated in such a way the attendees of the forum could really buy into, says Ryder Simeniuk, a student in renewable resources from Opheim, Montana, and a college Ag Ambassador. "Watching the way these individuals carried themselves as well as hearing the structure of their verbal communication and witnessing their active listening again provided an excellent example for individuals such as myself to consider in our ventures where leadership is needed," she says.

Sabasi says the forum was an eye-opener, especially hearing from Magagna, who is a former UW student and who worked with the same professor – Sabasi's committee chair Dale Menkhaus.

Sabasi says he used to read books about leadership but had stopped. He was

reminded of its importance and checked out from the library *Great Leaders See the Future First* right after the forum.

"The forum was very motivational, and it was encouraging to be reminded there are challenges that come with being a leader but, what is most important, is to keep pushing and know that at the end everything will fall into place," says Sabasi.

Simeniuk says she would like to see more leadership activities.

"The value of leadership is superbly underestimated," she notes. "It not only has monetary value but value in personal relationships. A leader doesn't have to be the one standing on stage instilling life into people but can also be the one who holds the door open for another individual or offers the shoulder for a friend to cry on."

Temple Grandin's advice for easier

Temple Grandin would later that afternoon speak to almost 2,000 people about animal science, sensory-based thinking, and autism.

But before that, the Colorado State University animal science professor, author, speaker, and subject of an Emmy-award winning HBO movie, spoke with Molly Messick of Wyoming Public Radio (see the interview at <http://bit.ly/lwUPdS>) and Kara Hammer from KGWN TV in Cheyenne. She also visited with staff members in the College of Agriculture and Natural Resources (see the interview at <http://bit.ly/lxPYsf>).

Grandin, who wrestles autism and who overcame bias in the male-dominated

livestock handling and facility design, offered her collective wisdom about how to ease livestock handling and how animals think in images.

"Animals have to think in pictures or sounds because there is no other way for the brain to store the information," says Grandin, who says she also thinks in images. Her life story is chronicled in the movie *Temple Grandin*. She's also written several books, including *Thinking in Pictures*.

Her life-long passion is informing livestock owners, handlers, feedlot workers – anyone working with animals – that handling livestock doesn't have to mean a lot of trouble, frustration, emotions, and, when spouses help spouses, threatened marriages.

"People are getting more and more interested," Grandin says. "The percentage of people I'd call good was maybe 10 or 15 percent 25 years ago. Now, that's probably 40 to 50 percent. There still is a bottom 10 percent that's really bad. But, I think the percentage of people who have gotten good has really increased."

STOP YELLING

Her quick tips?

"First thing we have to do is just get people to calm down," she advises. "There are still people out there screaming and yelling and whistling. The research is very clear. That's very stressful. Calm down. Stop waving your arms because, once cattle get scared and upset, it takes half an hour for

Sandy Root-Elledge, associate director for program development in the Wyoming INstitute for Disabilities, has a book signed by Grandin.



livestock handling? CALM DOWN!

them to calm down. The secret is to not get them excited in the first place.”

Her designs are almost exclusively used in meat plants throughout the U.S. and into many corners of the world, notes Professor Doug Hixon, head of the Department of Animal Science (see story at right). Instead of alleys with 90-degree angles and facilities that have alleyways and doorways with abrupt light contrasts, she advises using a cow’s natural tendencies to help ease handling.

“Use your crowd pen as a passing-through pen,” she notes. “Wait until there is space in the lead-up chute, then bring the cattle in and pass them through the crowd pen. That also works when loading a truck. Get the truck backed up, get all the gates in place, and then you just bring the cattle up. They’ll pass through the crowd pen and walk up the truck ramp. If you bring them up and let them stand, they are going to turn around on you.”

Grandin designs curved alleys and crowd pens to take advantage of cattle’s natural tendency to want to go back where they came from.

OTHER SUGGESTIONS

On other topics:

About bulls – Any bull that consistently and deliberately gives a broadside threat – to show how big he is – should probably be sold. Beef bulls are safer than dairy bulls. Most beef bulls are raised by their mothers and with other cattle. When the time comes to prove he’s the number-one bull, he’ll do so with cattle rather than people. “It’s not a tameness issue but a mistaken identity issue,” Grandin says. “A dairy bull is separated from its mother and isolated from other cattle. Dairy calves are more dangerous because they are hand-reared. One way to make a dairy calf safer is to raise them in a group of calves.”

HEAD OF ANIMAL SCIENCE KNOWS OBSTACLES GRANDIN HAS BEATEN

Few have accomplished what Professor Temple Grandin has in the area of livestock facility design.

Professor Doug Hixon, head of the Department of Animal Science, has known her more than 30 years.

He’s a fan.

“She’s certainly deserves all the acclaim and recognition she is currently receiving,” he says. “She’s carved out a niche for herself as an expert in animal handling and facility design and has been amazingly successful.”

He knows the obstacles she’s had to overcome. “First, she was a pioneering woman in a man’s world of livestock handling and facility design, and then she also overcame her challenges related to autism,” Hixon notes. “There have been a few others who have entered into the animal handling arena, but not many who have entered the area of facility design.”

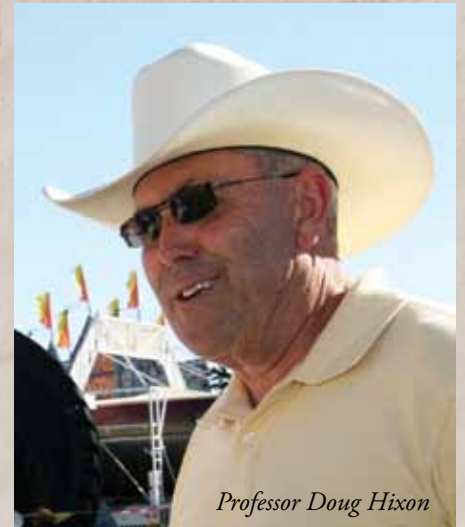
Grandin’s facility designs are used almost exclusively in U.S. meat plants and in many parts of the world, and larger feedlots are more apt to use her designs since they do more processing. Cow-calf producers more often have to try and renovate existing facilities based upon existing structure limitations associated with older facilities.

“That being said, even smaller cow-calf operators will use her concepts related to solid sides to the chute, avoidance of trying to move animals from light areas abruptly into dark areas, and, if at all possible, use a curved alleyway since the animals tend to want to return the direction from which they came,” says Hixon.

A feedlot operator Hixon visited said Grandin had not designed his facilities, but he had consulted her books before building the handling facilities. Hixon also saw that the feedyard employees had been schooled in how to handle livestock – they handled the animals quietly. “Hotshots were not used, and there were no dogs in sight,” he notes.

During Grandin’s presentation, Hixon visited with a local producer interested in what she had to say about general cattle handling techniques, and a former student brought his community college students to attend both presentations.

“He thought it was important for students to hear Professor Grandin speak and recognize that much of what she discusses related to animal handling is common-sense information that should be the norm,” says Hixon.



Professor Doug Hixon

On changing livestock behavior – If a producer wants to change how his or her cows react to handling, it's not too late. "Let's say your handling has been terrible and you want to change your handling. Can you change your cows?" she asks. "Yes, you can. You can definitely change your cows. It's going to take some effort. You are going to have to walk out in the pasture with them, quietly walking with them and gradually training them to come into the corrals. They can be changed, but it will take effort."

Upton FFA members visit with the Japanese public television film crew that was putting together their story about Temple Grandin. The FFA members are, from left, Bethany Materi, chapter president, and Brynna Sadler. Upton chapter members had just completed a two-week unit on Grandin and her programs.



TORRINGTON WOMAN RELATES TO GRANDIN'S LIFE

Temple Grandin's visit to UW was sponsored by Wyoming AgrAbility with support from the College of Agriculture and Natural Resources and the Wyoming INstitute for Disabilities.

"For those who came to listen to Dr. Grandin, especially parents, teachers, and young people, she is an inspiration," says Professor Randy Weigel, director of Wyoming AgrAbility, part of the University of Wyoming Cooperative Extension Service.

Tanae Stall, 19, of Torrington had wanted to meet Grandin since her therapist first talked about her. Autistic, Tanae graduated from Torrington High School in 2009 and attended Eastern Wyoming College for two semesters and plans to return this fall. She is the daughter of Lori and Doug Stall and has a brother, Donavon.

"Tanae said Temple made an impact on her in a good way," says Doug. "The visit made her realize she can succeed despite having a disorder."

Tanae says, like Grandin, she also thinks visually.

"Grandin said during her presentation to think of a church steeple and then said that non-autistic people think of a generic steeple, but people like me and her think of steeples they've seen," says Tanae. "I had pictured a steeple on a red brick church, and there's

a red brick church in Torrington. That amazed me and showed me how much I and she really have in common. It was also amazing to find out that autistic people and animals think the

same way. Maybe that's why I love animals so much."

Grandin, signing a book for Tanae, asked what she liked to do. "I told her I liked to play video games, read, and draw," says Tanae. "She said I needed to play a lot less video games. I admit that that almost offended me, but I know that the comment wasn't meant to be hurtful."

The Stalls thanked the college for bringing Grandin on campus.

"She's certainly a good role model for young people like me," says Tanae. "She shows me I can do anything despite my disability."

Weigel notes Grandin graciously signed numerous books (the UW Bookstore ran out of some of her books) and posed for photographs with several attendees.

Kelley Dees, AgrAbility project coordinator, helped plan and coordinate the visit.

"We are grateful for the tremendous turnout to listen to Dr. Grandin," Weigel says.



Tanae Stall of Torrington asks Grandin to autograph a book. Stall, who is autistic, thanked the college for inviting Grandin to speak.



Kelley Dees



Professor Randy Weigel

Looking for greener pastures

AG ECON ASSISTANT PROFESSOR MEMBER OF STOCK GROWERS LAND TRUST STEERING COMMITTEE
SEARCHING FOR SOLUTIONS TO EASE FARM, RANCH SUCCESSION FROM OLDER GENERATION TO NEW

A Department of Agricultural and Applied Economics assistant professor is helping find ways to put Wyoming producers out to pasture – in a good way – and usher in a new generation of farmers and ranchers.

Ben Rashford was invited to join the steering committee put together by the Wyoming Stock Growers Agricultural Land Trust studying ways to facilitate farm and ranch succession. The Wyoming Stock Growers Agricultural Land Trust seeks ways to keep ag land in production and help young people begin farming or ranching.

“The transition of ag land between generations is a concern across the country, no less so in Wyoming,” says Rashford. “We are seeing more and more the average age of farmers and ranchers getting older. A higher and higher proportion of those don’t have children who want to go back to the ranch.

“That opens up all kinds of concerns of conversions to golf courses, condos, the loss of open space, and the loss of the ag heritage.”

At the same time, there are young people who would like to farm and ranch but for many reasons – lack of knowledge, expertise, finances – are unable.

“For retiring ranchers, the land is their retirement, so they need to sell it at market value, but the young people wanting to get into farming and ranching need to come to the table with millions of dollars,” notes Rashford. “There is a disconnect and no way to bring these two together. You have interested sellers and interested buyers but a disconnect in expertise, financing, and tax implications.”

INTEREST HIGH FROM PRODUCERS

Wyoming farmers and ranchers have shown interest in the program throughout the land trust’s 11-year history, says Pamela

Dewell, executive director of the Wyoming Stock Growers Agricultural Land Trust (<http://www.wsgalt.org/>).

“The land trust is hearing from an increasing number of landowners interested in retiring from their ranching operations and in search of tools to facilitate their retirement income, easing estate tax burdens, and/or finding someone to pass the place along to – sometimes with a life estate built into the equation,” she notes.

Some have chosen to use conservation easements to keep family places intact, she says, particularly when who will end up owning and managing the properties is unclear. Rashford says he was invited to join the steering committee because of the conservation easement tool – one of his areas of expertise.

Conservation easements extinguish the development rights from properties and reduce the fair market value of a property to reflect only the value associated with agricultural production, “Thus making the purchase of a farm or ranch more realistic for the next generation of ag producers,” says Graham McGaffin.

ECONOMICS BASED ON AG PRODUCTION

McGaffin, a 2009 master’s graduate of the agricultural and applied economics department, is conservation coordinator for the land trust. The ranchland succession program is committed to identifying opportunities for young farmers and ranchers to return to an economics arena based on agricultural production, he notes.

Free market economics is perverted by the high property values for farms and

ranches associated with the amenities provided rather than agricultural production. Without mechanisms to assist the transfer of ag properties to a new generation, the properties will go up for sale on the open market as current farm and ranch owners retire, says McGaffin.

“It is then reasonable to assume a significant number of Wyoming’s farms and ranches would be purchased with the intent of subdividing the property into a number of smaller tracts of land,” he notes.

That could pose obstacles for wildlife and viewsheds and change the large and open agricultural lands that provide Wyoming’s cultural landscape.

EASEMENTS NOT THE ONLY WAY

Easements are only one tool. “The Land Trust’s Ranchland Succession Program feasibility study is committed to identifying tools that have worked elsewhere and to thoroughly researching the appropriate mechanism(s) for Wyoming,” says McGaffin.

EnCana Oil and Gas Inc. provided funding to start the program, and McGaffin praised the company for realizing a need for a statewide program to address land succession.

“EnCana’s foresight and generosity is allowing the land trust to commit an appropriate amount of time to research what types of programs have worked in other states,” he notes, “and to recruit a diverse and talented steering committee that is guiding the potential implementation of a program appropriate for Wyoming.”



Assistant Professor Ben Rashford

Students praise benefits of internships

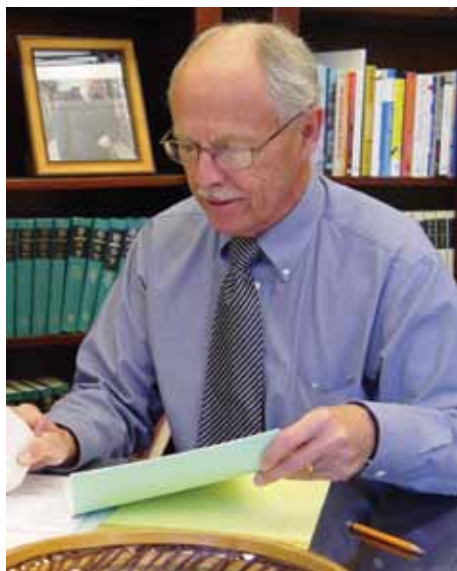
The College of Agriculture and Natural Resources has had strong and diverse student internship opportunities for many years, notes Jim Wangberg, associate dean and director of the Office of Academic and Student Programs.

"They come in all shapes and sizes, but each is designed to enhance the student's overall education and provide them with real-world, hands-on experiences," he notes.

The following are just a few examples of what students have done and about their internships.

The bachelor's of science degree program in animal science and veterinary sciences offers numerous internships each year.

- **Rebecca Vraspir** of Emerson, Nebraska, interned with the Beef Improvement Center, Saratoga, assisting with calving, recordkeeping of all first-calf heifers and mature cows, and helping with the yearling heifer development program. She also assisted with pulmonary arterial pressures (PAP) testing of bulls prior to the annual bull sale and worked with facility maintenance and repair.
- **Sydney Horwitz** of Laramie interned with SOPRIS Therapy Services, Carbondale, Colorado, as a volunteer with a non-profit organization focusing on using equine therapy for children and adults with a variety of challenges including at-risk youth and wounded veterans (Horses for Heroes).
- **Cody Lane** of Riverton assisted veterinarians at the Kentucky Equine Sports Medicine and Rehabilitation Center, Versailles, Kentucky, working with race horses undergoing rehabilitation from injury. Lane worked with several horses that competed at Churchill Downs, Keeneland, and other regional racetracks.



Associate Dean Jim Wangberg

"Student interns are virtually unanimous in their praise for internships."

- **Claire Tousley** of St. Anthony, Idaho, completed a multiple ovulation and embryo transfer internship program, with Genex Cooperative Inc., Shawano, Wisconsin. This included feeding and care of calves, donor and recipient females, and active and young sires, as well as estrus detection, pregnancy diagnosis, artificial insemination, and the observation and assistance with embryo transfer biosecurity tasks.
- The Department of Family and Consumer Sciences is another program with a diversity of internships.
- **Whitney Taylor**, a senior in textiles and merchandising from Phoenix, Arizona, interned with the Hoffman Challenge, a premiere traveling quilt, clothing, and doll collection. Whitney's responsibilities during her intern-

ship included working with various computer software programs, receiving and cataloging entries to the competition, and preparing trunk shows for travel throughout the U.S. and Canada. She described her experiences as being eye-opening, particularly learning how to distinguish between "great work versus good work." "Everything I have done here will be valuable skills that I will use in the future," she says.

- **Miranda Jarrard** of Laramie completed her internship this spring at Hospice of Laramie. She chose this internship because she is interested in learning more about the day-to-day operations of working and managing a non-profit agency. While at the internship, Jarrard had the opportunity to attend board meetings, assist with grant writing, and participate in presentations regarding Hospice in a variety of forums. Through these experiences, and through supervision, Jarrard is becoming more confident in her abilities to someday work in a non-profit setting and has increased her understanding of professionalism in the workplace.

The Department of Agricultural and Applied Economics oversaw an interesting internship that made connections across the disciplines of agricultural business and animal science.

- **Colleen Buck** of Stevensville, Montana, had an internship with the Eastern Montana Division of Cenex Harvest States (CHS) in Circle and Glendive, Montana. She ran daily reports for the Glendive Elevator, entered accounts receivable information, did secretarial work, bought and sold grain on the futures market, and many other business tasks. She said, "It was an awesome experience, and I would recommend anyone who has

an interest in agriculture to contact CHS if they want to really see how an agricultural business operates.”

- **Garrett Horton** of Riverton interned with Farm Credit Services and now is employed by the firm. He states, “If you measure college success or failure on being able to find a job utilizing your skills you obtained in your time in school, I could not have been more successful. Thanks to everything

through the years, I was offered a job a semester before I even graduated.”

Department of Renewable Resources student **Andrew Allgeier** of Casper secured the John David Love scholarship for an internship at the Teton Science School (TSS) Graduate program. He took nearly a year to complete the program, which included teaching in its undergraduate program, taking courses himself, living at TSS, and being involved in much activity

addressing the interface between science and management.

“Student interns are virtually unanimous in their praise for internships,” says Wangberg. “Many discover a field of study they love; some discover their career goals are not what they wanted, and it is not uncommon for student interns to find permanent jobs after graduation resulting from the internship experience.”

College student enrollment sets record

Enrollment topped 1,000 for the first time in the College of Agriculture and Natural Resources.

The college recorded 1,005 students in the fall, the time the university officially recognizes enrollment numbers. Total enrollment, which included 833 undergraduates and 172 graduate students, increased from 938 last year. There were 784 undergraduates and 154 graduate students last year.

“It was just two years ago the college wondered how long it might take to reach the 900 threshold, a record total enrollment, and now we have surpassed 1,000, with record enrollments at the undergraduate and graduate levels,” says Jim Wangberg, associate dean and director of the Office of Academic and Student Programs. “Quality academic programs, excellence in teaching and advising, and a faculty and staff member commitment to student success have contributed to this growth.”

The most undergraduate students were in animal and veterinary sciences (209) followed by family and consumer sciences (178). The most graduate students were also in animal and veterinary sciences (25) followed by molecular and cellular life sciences (24) and molecular biology and rangeland ecology and watershed management (both 23).



Microbiology student graduate Quyen Bui is joined by, from left, Yen Yen, Huong Nguyen, and Julie Hayaska following spring commencement ceremonies.

COLLEGE, EXTENSION PUBLICATIONS RECEIVE AWARDS

Publications produced by the University of Wyoming Cooperative Extension Service (UW CES) received awards during the Wyoming Press Association (WPA) convention in Cheyenne in January.

Ag News, published three times a year, received second place in news-related publications. *Ag News* highlights the research, educational and outreach programs conducted by University of Wyoming College of Agriculture and Natural Resources faculty and staff members.

Barnyards & Backyards, a quarterly magazine of the Small

Acreage Issue Team of the UW CES, received second place in general information publications. *Barnyards & Backyards* is part of a larger project that includes workshops, a website, and other educational opportunities to provide Wyoming landowners (often small-acreage or new-to-the-land landowners) with information to manage their land in a sustainable manner.

The awards were received in the WPA's Associate's Group Communication Contest. Tana Stith, manager of the Office of Communications and Technology, is the graphic designer of the publications, and Steve Miller is editor.

PROGRAM NOTES



Laurie Bonini

ACADEMIC AND STUDENT PROGRAMS

The office participates in the resource fair, academic sessions, and interactive tours during Discovery Days on the University of Wyoming campus. About 200 students attend each Discovery Days – held November, February, and April, notes **Laurie Bonini**, senior office associate. High school juniors, seniors, and their parents/families attend. “It’s an opportunity for them to learn about what we (UW and the College of Agriculture and Natural Resources) offer,” she notes.

The office has a booth during the resource fair that offers general college information and answers general questions from students and families. Bonini and members of the student Ag Ambassadors staff the table.

Students can select one college’s academic session. Bonini moderates the college’s session

with a panel of five to seven Ag Ambassadors. “We talk about the programs we offer, our facilities, research and internship opportunities, scholarships, clubs and organizations, and services offered by the academic and student programs office,” she says. “The ambassadors really do a great job at this session. I think the students and families find it really useful to hear about our college directly from our current students.”

About 20 students attend each of the sessions.

The interactive tours are new to Discovery Days. “The idea is to get students into the areas of campus where their learning will occur – facilities and labs and also museums,” she says. “We coordinate these tours with our departments, but it is really faculty members who put on the show! We have offered a different combination of tours at the last three Discovery Days and will continue to highlight different areas of the college at future sessions.”

Past tours included the Wyoming State Veterinary Laboratory, Meats Lab, Family and Consumer Sciences nutrition and textiles labs, the Early Care and Education Center, the UW Soils Lab, the Environmental Simulation Facility, and the Department of Agricultural and Applied Economics Simulation Laboratory.

AGRICULTURAL EXPERIMENT STATION

Just as many farmers and ranchers anxiously await the promises of the upcoming production year with the onset of spring, the Wyoming Agricultural Experiment Station prepares for yet another productive year.

Many researchers have recently received notice about being awarded research grants while others are anxious to hear the verdict on the tens of millions worth of grants still pending, notes Professor **Bret Hess**, associate dean and director of research. New and existing grant awards, along with the college’s federal capacity funds, will ensure our college research enterprise continues to prosper, says Hess.

Several of the projects will be conducted at the research and extension (R&E) centers in Laramie, Lingle, Powell, and Sheridan. Similar to many agricultural operations, the centers have been through calving and lambing season and are eager to begin implementing plans for the next crop and field season. Fruits of some of our efforts become evident as spring progresses into summer, notes Hess.

Coincident with summer is the interest in sharing progress on research projects. A series of field days to highlight the work at the R&E centers begins with the **Powell R&E Center (PREC)** field day July 14. “Watch closely for announcements and updates on the PREC field day because



Professor Bret Hess

the center will be trying something new this year; the program will be late in the day, and the center will be serving supper rather than lunch,” says Hess.

On July 21, the **James C. Hageman Sustainable Agriculture R&E Center** near Lingle will kick off its field day with a breakfast. The **Laramie R&E Center** Greenhouse Open House will begin at 5:30 p.m. August 11.

“Everybody is welcome to bring a friend, colleague, and neighbor along with your family to all of the field days,” says Hess. “We look forward to seeing you, and have a fantastic summer.”

AGRICULTURAL AND APPLIED ECONOMICS

Research by **Assistant Professor Matt Andersen** is garnering national and international attention in the world of agricultural and natural resource economics.

The book *Persistence Pays: U.S. Agricultural Productivity*

and the Benefits from Public R&D Spending co-written by Matt Andersen, an assistant professor in the Department of Agricultural and Applied Economics, has received the Quality of Research Discovery Award from the Agricultural and Applied Economics Association – the largest and most prestigious organization in agricultural and natural resource economics.

The book, which examines agricultural productivity and its returns to research, has also received the Quality of Research Discovery Award (2010) from the Australian Agricultural and Resource Economics Society and the Outstanding Published Research Award (2010) from the Western Agricultural Economics Association.

Co-authors are Professor Julian Alston, University of California, Davis, Associate Professor Jennifer James at California Polytechnic State University, and Professor Philip Pardey at the University of Minnesota.

The book examines the path of U.S. agriculture in the 20th century and the role of public research and development. The authors found new evidence linking state-specific agricultural productivity measures to federal and state government investments in agricultural research and extension.

They show that the time lag between research and development and the impact on productivity is longer than commonly found or assumed in prior research. The authors also



Assistant Professor Matt Andersen

note that the spillover effects of research and development among states are important; the national net benefits from a state's agricultural research investments are much greater than own-state net benefits.

The co-authors are also credited for receiving another award. The book *The Shifting Patterns of Agricultural Production and Productivity Worldwide*, for which Andersen and his fellow authors wrote a chapter, received the Quality of Research Communication Award (2010) from the Australian Agricultural and Resource Economics Society.

ANIMAL SCIENCE

Lauren Schiermiester of Buffalo received the 2011 Animal Science Honor Book Award presented at the Gamma Sigma Delta Awards Brunch March 26. Lauren has earned a flawless academic record since she arrived at UW in the fall of 2008, says **Professor Doug Hixon**, head of the department. She is an



Lauren Schiermiester

animal and veterinary science (ANVS), business option major. In addition to her academic excellence, she has held leadership positions in youth industry groups and serves as president of the Wyoming Junior Hereford Association. She also serves as a College of Agriculture and Natural Resources Ambassador and is treasurer of the UW Collegiate Cattle Women's Association. She also received the 2010-2011 National Western Stock Show's Livestock Leadership Internship.

Three ANVS majors were selected for their academic excellence and inducted into the Mortar Board Honorary Society for 2011-2012. They included **Callie Rulli** from Cheyenne; **Amanda Thomas** from Upper-ville, Virginia; and **Saralyn van Knapp Jennings** from Burbank, California.

Animal Science Meat and Livestock judging teams have completed a busy spring season as they traveled to contests throughout the U.S. Our equine team competed in one spring

contest in mid-April but is preparing for a busy fall semester.

The Meat Judging Team started with the National Western Stock Show (NWSS) contest in Greeley, Colorado, January 16. They placed ninth out of 12 teams. **Sarah Weliever**, an agricultural business major from Riverton, placed 21st. Other team members were all ANVS majors and included **Cameron Irons** from Laytonville, Maryland; **Stephanie Schroeder** from Douglas; **Hazy Nielson** from Ellsworth, Nebraska; and **Christina Appel** from Hayden, Colorado. On January 29, the team had its most successful outing at the Southwestern Contest in association with the Fort Worth Stock Show and Rodeo. The team placed fourth out of 12 teams. Weliever placed 11th overall, Irons 14th, and Schroeder 22nd. They wrapped up their semester March 5 at the Houston Livestock Show and Rodeo Contest where they placed 10th out of 16 teams. As a team, they placed sixth in Lamb Judging, and eighth in both Beef Judging and Specifications. The team was coached by **Lander Nicodemus**, animal science graduate student from Cheyenne.

The Livestock Judging Team started off its spring semester at the NWSS in Denver. Unfortunately, they had one member of their team unable to compete and only tallied four out of the necessary five scores. Team members included **Clancy Anderson** and **Dexter Tomczak** from

PROGRAM NOTES

Longmont, Colorado; **Matt Neal** from Sydney, Nebraska; and **Brooke Thornock** from Kemmerer. At the Sioux Empire Farm Show January 29, the group was joined by **Austin Buzanowski**, an ANVS major from Pompeys Pillar, Montana. They placed 11th out of 13 teams and were led by Neal, who was ninth-high individual overall. The team placed 12th out of 16 teams at the Iowa Beef Expo February 13 and finished spring competition at the Houston Livestock Show Contest March 15. The team was coached by **Lance Miller**.

COOPERATIVE EXTENSION SERVICE

Jennifer Cheney began January 3 as the 4-H extension educator based in Hot Springs County. Cheney is a 2009 University of Wyoming graduate with a bachelor's degree in family and consumer sciences. A Utah native, she has an associate's degree in general studies. Her family and consumer sciences education provides an excellent background for understanding youth development.

Gretchen Gasvoda-Kelso assumed the 4-H youth educator position March 14 after 10 successful years as the Cent\$ible Nutrition Program (CNP) educator in Big Horn County. A 1998 graduate of Utah State University, Gasvoda-Kelso has a bachelor's degree in animal science. She has an associate's



Jennifer Cheney



Kelsey Roop

degree in animal science from Northwest Community College in Powell. She brings a breadth of 4-H experience from livestock to forestry to cooking. In addition, she has experience working in Big Horn County, where she developed partnerships with organizations, schools, and other agencies through her work with CNP, which will be a valuable asset to the 4-H program.

Kelsey Roop began as the 4-H educator in Park County March 28. Roop grew up in Cody and was a 4-H member for six years in Park County before moving to Colorado in 2002 where she continued her 4-H membership in Morgan County



Gretchen Gasvoda-Kelso



Tansey Sussex

(Fort Morgan). Roop was also a member of the state 4-H officer team in Colorado for two years and served as state 4-H president her final year. She attended Montana State University in Bozeman and graduated in 2008 with a bachelor's degree in modern languages and literature and Spanish. She studied in Spain for a semester and enjoyed learning and immersing herself in a different culture. She returned to Colorado and brings experience working for an event planning company for the past two years including the planning of several statewide Colorado 4-H events.

Tansey Sussex joined the Laramie County office of CES

March 14. Sussex moved to this position after four successful years as the 4-H youth educator in Converse County. A graduate of the University of Wyoming in 2005, Sussex has a bachelor's degree in animal and veterinary sciences with a production option. She has an associate's degree in general agriculture from Casper College awarded in 2003

COLLEGE RELATIONS

As director of College Relations, I have weekly and often daily contact with students in the college. I am always impressed by their abilities, thoughtfulness, and vision. I am also one of the coordinators for the College of Agriculture and Natural Resources Student Ambassadors. Each April, the college welcomes a new crop of ambassadors. This group of 25 students meet with prospective students and their parents, help staff the college display at events such as Campus Pass and Discovery Days, help host college special events such as the recent seminar by Professor Temple Grandin, the ribbon-cutting ceremony for the new biosafety level-3 laboratory, and meet with alumni during homecoming and Ag Appreciation Weekend.

Interested students are interviewed by a panel of current ambassadors, and faculty and staff members. This spring, we welcomed 12 new ambassadors and, as always, I am overwhelmed by the quality of the applicants.



*Director of College Relations
Anne Leonard*

They are a diverse and enthusiastic group of young people. Some hail from Wyoming, and others from states within the western region including Nevada, New Mexico, and Montana. Others came to Wyoming from big cities, such as Los Angeles, or different regions of the United States, including the Midwest and the South. All are passionate about their experiences in the college, their academic programs, and their future careers.

If you have an opportunity to meet an ambassador, please take a minute to talk with them. They enjoy meeting our alumni and friends, sharing information about their college experiences, and their views on the future of the agricultural industry.

This year's class of College of Agriculture and Natural Resources Student Ambassadors include:

Kati Stoll, family and consumer sciences, Casper

Noah Hull, molecular biology, Los Angeles, California

Kayley Schulmeyer, molecular biology and microbiology, Laramie

Jasper Rose Fitzgerald, agriculture communications, Red Lodge, Montana

Mandy O'Donnell, rangeland ecology and watershed management, Spring Creek, Nevada

Tyler Harran, agroecology, Jamestown, North Carolina

Liz Meier, family and consumer sciences, Cheyenne

Tyrell Perry, rangeland ecology and watershed management, Clearmont

Ethan Oberst, animal science, Findley, Ohio

Richard Tennant, family and consumer sciences, human nutrition and food, Cheyenne

Kailey Barlow, agricultural business, Big Piney

Katie Schade, rangeland ecology and watershed management, Fort Sumner, New Mexico

DEPARTMENT OF FAMILY AND CONSUMER SCIENCES

Sophie Pettipiece, an undergraduate student in the dietetics option, received the Sports Cardiovascular and Wellness Nutrition (SCAN) Undergraduate Poster Award at the 27th Annual SCAN Symposium March 10-13 in Chicago for her poster entitled "Relation Between Fast-ing Ghrelin and Bone Density in Young, Healthy, Pre-menopausal Women." Poster awards were based on visual presentation of the poster, oral presentation skills, and the ability to answer the judges' questions, says **Pro-**

fessor Donna Brown, head of the department.

Temple Grandin, world-renowned livestock handling expert, spoke on the UW campus February 28 in the Arts and Sciences Auditorium. Five hundred forty people attended the first session, at which Grandin discussed innovations in the field of animal sciences. Approximately 1,310 attended the second presentation where she discussed her career and how animals and autism have influenced her life.

Therese Willkomm from the University of New Hampshire, the "MacGyver" of assistive technology, presented a Beyond Duct Tape and Velcro workshop that created assistive technology solutions in minutes. Forty occupational therapists, disability specialists, and occupational therapy students attended this workshop. Both Grandin and Willkomm were sponsored and hosted by **Wyoming AgrAbility**, a program of the Department of Family and Consumer Sciences and the UW Cooperative Extension Service.

Assistant Professor Christine Wade was selected and initiated as an honorary member of the University of Wyoming Cap and Gown Chapter of Mortar Board on Friday, March 25. Mortar Board is a national honor society that recognizes college seniors for excellence in the areas of scholarship, leadership, and service. Mortar Board seeks to provide opportunities for continued leadership development,



*Assistant Professor
Christine Wade*

promote service to colleges and universities, and encourage life-long contributions to the global community. Wade has been serving as one of the Cap and Gown chapter advisers since fall 2010.

The Human Development and Family Sciences program unit within the department has merged its two on-campus degree options (professional child development and family and community services) into one degree option, human development and family sciences.

"We are excited to offer this new program option to students," says Brown. "Students who choose this option will have a strong foundation in the core principles of human development and family relationships across their lifespan while developing an area of concentration and completing an internship that complements their interests and personal goals."

If desired, students can work with their advisers to complete the necessary coursework for a minor or create an area of focus or concentration that

PROGRAM NOTES

is unique to their interests, she notes. The distance-only professional child development degree is still available through the Outreach School.

MOLECULAR BIOLOGY

The National Science Foundation (NSF) has renewed funding for a collaborative corn genomics project co-directed by **Professor Anne Sylvester**. The initial five-year grant generated fluorescent marker corn lines, which are being distributed throughout the United States and internationally. The renewed grant from NSF's Plant Genome Research Program will provide an additional \$5.6 million to the prior \$5 million, totaling \$4.3 million to UW. Collaborators include principal investigator Dave Jackson from the Cold Spring Harbor Laboratory in New York, and Agnes Chan from the J. Craig Venter Institute in Rockville, Maryland.

In addition, Sylvester serves as principal investigator on a newly awarded \$800,000, three-year grant from NSF's Molecular Cellular Biosciences to study control of cell division and expansion during leaf development.

More than 100 corn lines have been developed by the group over the past five years. "We distribute seeds to researchers in the public and private sector," notes Sylvester. "Project information, including how to



Professor Anne Sylvester

request seeds, is available on our website (<http://maize.jcvi.org/cellgenomics/index.shtml>), in keeping with the public resource funding from NSF."

The project requires advanced imaging techniques using confocal microscopy to visualize the tagged proteins. The renewed funding will generate so-called trans-activation lines, further exploiting information from the recently sequenced maize genome, Sylvester explains.

"This new experimental system will allow researchers to test the function of specific proteins during growth and development," she says.

The Sylvester lab specifically studies proteins that control cell expansion, so the resource benefits her research program plus provides tools for the community.

The project continues to support UW undergraduate and graduate students and post-doctoral researchers, including lead post-doc **Anding Luo**, who is credited with significant advances in the project.

The new three-year project was awarded this year to study the genetic and molecular control of leaf angle. "By designing plants with more upright blades, it may be possible to grow more plants in a given area," says Sylvester. "But, this requires understanding the basic mechanisms of cellular growth that underlie leaf angle."

Sylvester points out that corn plants have been highly modified for optimal growth but further redesigning is possible. "We need to first understand the molecular genetic controls of leaf shape before translating basic discovery to the field. Any improved crop plant must balance the expression of a new trait with impacts on yield. As basic researchers, we aim to understand underlying mechanisms and then consider how to move traits into the crop."

DEPARTMENT OF PLANT SCIENCES

Graduate student **Nate Storey** received one of two first-place prizes in the annual University of Wyoming College of Business \$10K Entrepreneurship Competition. Storey's winning business idea was for marketing hydroponically grown leafy vegetables and herbs produced in vertical hydroponic systems, which use a minimum of floor space in the production area. Storey's idea, already in progress, is to install the vertical hydroponic systems in retail grocery outlets so cus-



Assistant Professor Axel Garcia y Garcia

tomers can harvest the freshest possible produce themselves while doing their regular shopping. Vertical hydroponics may also be adapted to grow food fish in the sump of the hydroponic system, a technique known as aquaponics. In aquaponic systems, the fish produce nutrients for plant growth, and the plants purify the fish water as they grow. Storey was also a winner of the Edward and Susan Lloyd Graduate Research Award in the summer of 2010. The Lloyd award is intended to support agricultural research leading to marketable products and small business establishment.

Assistant professor Axel Garcia y Garcia has developed an irrigated agriculture course, PLNT 3000, for distance delivery around the state. Garcia y Garcia is based at the UW Research and Extension Center in Powell, but his students this spring semester participated in the class from many locations, including the main UW campus in Laramie. Other distance classes offered by our faculty members

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include horticulture, AECL/PLNT 2025, and the ecology of plant protection, AECL 3030. Additional classes will be redeveloped for distance delivery.

RENEWABLE RESOURCES

The last few months have been busy with lots of comings and goings, awards, and activities, notes **Professor John Tanaka**, head of the department.

Many faculty members and students have been traveling to professional meetings. Students and their awards received from Gamma Sigma Delta were **Ryan Lerman** (Outstanding Freshman Male), **Mandy O'Donnell** (Outstanding Freshman Female), **Ryder Simeniuk** (Outstanding Junior), and **Jennifer Hess** (Outstanding Master's Student). **Taylor Close** (soil science), **Selena Hammer** (entomology), **Ticia Shelton** (rangeland ecology and watershed management), and

Lisa Cox (graduate student) were recognized by the department with honor books. **Professor Scott Shaw** was recognized by the college with its Outstanding Educator Award. **Professor K.J. Reddy** was recognized by the Agricultural Experiment Station with the Outstanding Research Award. **Professors Ann Hild** (in Boise, Idaho), **David Williams** (in Australia), and **Steve Williams** (in Mongolia and New Zealand) are on sabbatical.

The Wyoming Reclamation and Restoration Center has been conducting Reclamation 101 workshops at locales in and outside Wyoming. These sessions were designed to provide basic information on factors to consider in restoration projects, notes Tanaka. They will be followed with field sessions in the 201 workshops. The first Shrub Reestablishment Workshop was in Casper April 26.

Renewable resources students participated in the Society



Professor John Tanaka

for Range Management annual meeting in Billings, Montana, in February. Besides networking and learning, the students placed first in the Rangeland Cup and second in the Undergraduate Range Management Exam. They also competed in the Plant Identification Contest and the Public Speaking Contest.

RenUW, the graduate student organization, brought **Rick Relyea** from the University of Pittsburgh to speak on "Pesticides in aquatic communities:

Connections to global amphibian declines?" The Reclamation Outreach and Research (ROaR) student organization hosted a film festival and panel discussions on different energy sources in cooperation with the Energy Club. A group of students is in the process of starting a Soil and Water Conservation Society Student Chapter, and the Entomology Club held an "Insects as Food" event with samples for tasting.

DEPARTMENT OF VETERINARY SCIENCES

The Department of Veterinary Sciences and the Wyoming State Veterinary Laboratory hosted the Laramie High School Ag Issues Team to help them prepare for a statewide competition, says **Professor Don Montgomery**, head of the department.



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1000 E. University Ave.

Laramie, WY 82071

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Senior Editor: Steve Miller • Layout and Design: Tana Stith • The University of Wyoming is an equal opportunity/affirmative action institution



Playing the roles of various notable federal animal and public health officials and representatives of various public interest groups, six Laramie High School students debated and presented the pros and cons of relocating the USDA Foreign Animal Disease Laboratory from Plum Island off the coast of New York to the campus of Kansas State University, Manhattan, Kansas.

“Faculty and staff members and graduate students from veterinary sciences and others from the College of Agriculture and Natural Resources packed the conference room to hear



Professor Don Montgomery

this lively, entertaining, and well-prepared presentation,” notes Montgomery. “An interactive question-and-answer session followed the presenta-

tion, hopefully of help to the students as they prepared for the competition. It was obvious the students had done a lot of research to inform themselves of the issues surrounding the relocation of this high-security diagnostic and research laboratory. There is concern, and rightly so, that relocation of a foreign animal disease laboratory to the mainland might lead to severe animal health consequences if a foreign infectious organism were to accidentally escape from the laboratory. It is great to see high school students who are involved and interested in agriculture-related issues.”

The Ag Issues Team toured the newly completed biosafety level-3 (BSL-3) addition to the Wyoming State Veterinary Laboratory. This laboratory is similar to but on a smaller scale compared to the proposed USDA Foreign Animal Disease Laboratory in Kansas. The tour, however, gave the students an insight into the workings of a secure BSL-3 laboratory.

The timing of their presentation and tour were fortuitous, says Montgomery. “Once the state laboratory’s BSL-3 addition is approved and in operation, there will be only limited opportunities for tours such as this,” he notes.