Big Horn Basin producer Brian Duyck responded succinctly when asked what he wanted from University of Wyoming’s research and extension (R&E) centers.

“Show me how to save money or make extra money,” noted the native seed producer and member of the Powell R&E Center (PREC) advisory board at the center’s field day Tuesday, July 17.

About 110 toured sub-surface and surface drip irrigation plots, research into phosphate rates on sugar beets, strip tillage and other weed-management methods in dry beans, and the effect of limited irrigation on sunflower growth.

Center director Abdel Mesbah said there are 39 research projects at the center that can be applied by producers in the Big Horn Basin. He says he had heard comments this spring UW was not conducting agricultural research in areas pertinent to Wyoming producers.

“I’m sorry to hear that,” he said. “Maybe they are misinformed. Since I took this job, as director and researcher, every year I put more than 20 applied research projects for our producers to use here. If you check our progress reports, you’ll find all that there.”

Those attending the field day also heard from University of Wyoming administrators how the university connects with Wyoming citizens and how citizens can connect with UW resources.

“Ships,” advised producer Kelly Spiering, chairman of the PREC advisory board, about how to do that.

“I’d like you to think about ships – that means friendships, relationships, and partnerships,” he told those gathered to hear UW president Tom Buchanan, Frank Galey, dean of the College of Agriculture and Natural Resources, and Bret Hess, director of the Agricultural Experiment Station.

“That’s what I think is lacking in this nation and that’s what is lacking in what we are talking about with the university,” said Spiering.

The facilities and research at the center came about because of people working with researchers, corporations, and producers, he said.

“This building, seed lab, greenhouse, hoop houses, the sprinkler irrigation system – all came from relationships,” he noted. “All the projects out there took a lot of time and effort.”

He then challenged those in attendance to develop friendships and relationships.

“Talk to other producers, talk to those from the university and remember them and continue that relationship and you can do an almost unlimited number of things.”

Buchanan, who had met with Governor Matt Mead earlier that day in Cheyenne before flying to Powell and who had another commitment that evening, noted changes at the center over the last several years.

(continued on page 2)
“I was here some time ago, more than a couple years ago,” Buchanan told the crowd. “It’s pretty astonishing to see some of the changes that have taken place, the level of sophistication, and level of what that is going on today compared to three or four years ago. That’s a compliment to the people who work here. They are turning it into a showcase for the state, and we’re proud to have our name on it.”

He talked about the need for citizens to engage with UW and advised residents to pass along opinions to UW Board of Trustees members.

“They are my bosses and the ones who set policy and direction for the University of Wyoming,” Buchanan said. “They take their jobs very seriously. If you talk to them, we hear about it. They are a significant conduit to me and others at the university. When you see them or have the opportunity to invite them up here, do that. You will have a powerful advocate in your corner.”

Galey said the college asked advisory board members from the four research and extension centers to reach out to more producers for input. He said UW Extension would become more engaged with the centers, and that an economic analyst has been hired, based at the James C. Hageman Sustainable Agriculture Research and Extension Center near Lingle, available to all the centers to study crop and production budgets.

“If you are interested in any type of economics related to crop production, let us know,” said Hess. “We have the person in place who can assist in that area.”

 Powell research center showcases studies to Big Horn Basin producers (continued from page 1)
Andrea Pierson at desk with Colbee Craig and Lee Craig.

Powell R&E Center director Abdel Mesbah with Heart Mountain in background.

Sheridan R&E Center director Valtcho Jeliazkov, left, and Gary Moss, interim research leader for the Wyoming Agricultural Experiment Station.

Kelly Spiering, chair of the Powell R&E Center advisory board, urged producers to get to know the staff members, researchers, and administrators at the center and at UW.

Randy Weigel, right, extension human development specialist, is director of the Wyoming AgrAbility Project.

Agricultural Experiment Station director Bret Hess

Mike Moore, manager of the State Seed Certification Service, left, and Jerry Nachtman, research associate at the James C. Hageman Sustainable Agriculture Research and Extension Center.

Bret Hess and Bill Gern, vice president, UW Research and Economic Development Office. Powell R&E Center farm manager Mike Killen is at right.

Kelly Spiering, left, and Bret Hess at the conclusion of the field tour. Spiering is chair of the Powell R&E Center advisory board.

Mike Moore, right, and Larry Yonts

Mike Killen is the Powell R&E Center farm manager.
Anowar Islam, left, discusses a research poster during the meet and greet in the seed cleaning facility.

Gary Moss, left, and producer Phil Boreen.

From left, Larry Yonts, Katie Krstky, and UW Extension educator Sandy Frost.

From left, Megan Moore greets Shilo Jo Christman and Jennifer Jones.

Axel Garcia y Garcia explains drip irrigation research.

Gil Waibel, director of the Wyoming Seed Laboratory at the Powell R&E Center, left, and Jerry Langbehn, former UW Extension educator.
Researching the state’s hydrological systems and how they respond to changes, including pine beetles and climate variability, has drawn the largest grant in the history of the University of Wyoming.

The $20 million, five-year grant from the National Science Foundation to Wyoming’s EPSCoR (Experimental Program to Stimulate Competitive Research) office, will also establish the Wyoming Center for Hydrology and Geophysics at UW.

Two faculty members in the college – molecular biology Professor Anne Sylvester and Scott Miller, an associate professor in Ecosystem Science and Management – will lead the research with Steve Holbrook, professor in geology and geophysics in the College of Arts and Sciences.

In addition to establishment of the hydrology and geophysics center, the grant provides for four new faculty positions, two facility managers, two information technology positions, and a variety of graduate and undergraduate research opportunities.

This interdisciplinary award brings together researchers and educators from four UW colleges and 11 departments.

The grant will pay for acquisition of scientific equipment, including streamflow and groundwater measurement devices. Much of that equipment will be portable, allowing for temporary field installations around the state.

EPSCoR supports efforts to enhance research, science, and mathematics education, and workforce development.

Changes that can affect hydrological systems include pine beetle outbreaks, which could alter snowpack melt rates and affect late-season streamflows and groundwater recharge; climate variability, which has already been shown to have wide-ranging impacts on water resources; and shifts in land use, such as oil and gas development, says Miller, a hydrologist.

Wyoming community colleges are part of the effort, which will include collaboration with multiple state and federal agencies and the Wind River Tribal College. In addition, at least three private firms have agreed to provide summer internship opportunities for students in exchange for use of hydrology and geophysics center equipment.

“We’ll be building research infrastructure for the entire state and bringing new technology to the region,” says Sylvester, who heads Wyoming’s EPSCoR. “As the only research university in the state, we recognize and embrace our responsibility to conduct statewide research consistent with the state’s needs.”

Educational outreach also is a major component of the program and will include work with high school and community college teachers around the state. A series of townhall meetings is planned around the state to seek public input on water issues.
University of Wyoming graduate student Judith Odhiambo has won a 2012 Schlumberger Foundation Faculty for the Future Fellowship grant of up to $50,000 per year to continue her Ph.D. studies in conservation agricultural practices.

“This was the happiest moment in my life,” Odhiambo says. “I was so excited and felt honored by this award, which provides me with great opportunity to invest in my career development.”

Odhiambo was one of 63 out of more than 600 applicants to receive the grant, which funds women from 28 developing and emerging countries for advanced graduate studies in science and engineering disciplines at top universities worldwide, according to the Schlumberger Foundation.

“This is a great opportunity for UW to host one of the awardees,” says Urszula Norton, assistant professor of agroecology in the department of plant sciences, and Odhiambo’s adviser. “The main mission of the Faculty for the Future empowers women from developing countries to obtain their education and expertise and bring it back to their home countries.”

Odhiambo attained an undergraduate degree in agricultural education and extension at Kenya’s Egerton University in 2004 then earned a master’s in agronomy at Egerton in 2009; she arrived at UW in spring 2011.

“I did not know the University of Wyoming at first, but in one of my Internet searches for possible sources of scholarships, I came across an ad that the university was looking for a dedicated student to carry out research in East Africa for a Ph.D. degree,” Odhiambo says. “I did apply and got the chance. I have found the University of Wyoming to be conducive for learning with good staff ready to mentor one to greater heights.”

Norton, Odhiambo, and Jay Norton, associate professor in Ecosystem Science and Management, returned to UW in June from a trip to Kenya and Uganda where they conducted research with local farmers and assessed the importance of conservation agricultural practices on long-term sustainability of food production in Sub-Saharan Africa.

“One of the main goals was to test the adaptability and acceptance of a variety of low intensity tillage practices in conjunction with using legumes as cover and relay crops,” Norton says. “We assessed the effect of these practices on soil fertility renewal and improved crop production.”

Odhiambo assessed the impact that the transition to these practices has on greenhouse gas emissions, mainly carbon dioxide, nitrous oxide, and methane, which are climate-changing gases produced in response to soil management, according to Norton.

“She also evaluated a variety of other agronomic aspects of maize and beans production, such as crop performance, weed population, and field residue decomposition,” Norton says.

After completing her graduate studies at UW, Odhiambo says she plans to return to Kenya to teach, mentor, and continue her research.

“I have been promised a teaching position at one of our local universities, Egerton University,” she says.

More information about the Schlumberger Foundation Faculty for the Future Fellowship is available at http://www.facultyforthefuture.net/.
**Calendar**

**August 2**: Savvy Parent Webinar Series: Allowances and Earning Money, 12:10 p.m., online webinar

**August 2**: Home Canning – Water Bath Procedure, 5:30 p.m., multi-purpose kitchen at the fairgrounds, Powell

**August 4**: Local Producers Tour, 8:30 a.m. at the ACRES farm, 30th and Harney, Laramie

**August 8-9**: Structured Decision Making Methods for Natural Resource Management and Policy, UW Classroom Building, room 225, Laramie

**August 14**: Introduction to Collaborative Natural Resource Decision Making, Park County Library, Grizzly room, Cody

**August 15**: Home Canning – Pressure Canning, 5:30 p.m. at the Park County Courthouse, EOC room, Cody

**August 15-16**: Tear Down the Walls, James C. Hageman Sustainable Agriculture Research and Extension Center, Lingle

**August 16**: Wyoming Rangeland Management School: Assessing Your Range Forage Resource, Oedekoven South Ranch, Gillette

**August 16**: Home Canning – Pressure Canning, 5:30 p.m., multi-purpose kitchen at the fairgrounds, Powell

**August 23**: James C. Hageman Sustainable Agriculture Research and Extension Center Field Day, 4-7 p.m., Lingle

**August 27-30**: Basic Mediation Training, Cheyenne

**August 29**: Food Preservation 101, 5:30 p.m., at Fort Casper, Wyoming State Fair and Rodeo Fairgrounds, Douglas

**August 30**: Laramie Research and Extension Center Greenhouse Field Day, 5 p.m., Research Greenhouse Complex, 30th and Harney

**August 30**: Food Preservation 101, 5:30 p.m., Niobrara County Fairgrounds, Lusk

For a statewide calendar, please access the ag college website at [www.uwyo.edu/UWAG/](http://www.uwyo.edu/UWAG/)

**Monies Awarded**

**Baumgartner, Robert**: $8,000 from various sponsors for “Crop Research.”

**Ford, Stephen**: $654 from various sponsors for “Fetal Programming.”

**Fox, Jonathan**: $37,256 from National Institutes of Health for “Modulation of Protein Quality Control Pathways in Prion and Huntington’s Disease Mice.”

**Galey, Frank**: $6,600 from Wyoming Department of Agriculture for “Wyoming Potato Certification.”

**Galey, Frank, and Bret Hess**: $3,500,000 from Wyoming Department of Environmental Quality for “Sheridan Agricultural Education Program.”

**Lake, Scott**: $15,617 from various sponsors for “Research Laboratory Expenses.”

**Waibel, Gilbert**: $439,465 from WDA for “State Seed Lab Operations.”

**Department of Molecular Biology plans September research symposium**

A Molecular Life Sciences (MCLS) research symposium is being organized by Assistant Professors Jay Gatlin and Naomi Ward in the Department of Molecular Biology. The symposium is Saturday, September 8, in the foyer and main lecture hall of the Animal Science/Molecular Biology building. More information will be released later. “The hope is that this event will foster stronger cohesion amongst MCLS participants, spark collaboration at the intersections of scientific disciplines, and become an annual forum to simply share research interests and have fun,” says Associate Professor and department head Mark Stayton.

Everyone is invited, and there will be cash prizes for the best presentations and posters, says Stayton.
Proposals Submitted

Adamovicz, Jeffrey, and William Laegreid: $218,000 to Wyoming Livestock Board (WLB) for “Brucellosis Testing, Regulatory Serology and Other Brucellosis Related Services.”

Brown, Donna, and James Wangberg: $5,000 to U.S. Department of Agriculture (USDA) Natural Resources Conservation Service for “Student Engagement Networking Drive (SEND) Program to Fund Student Participation in Conferences, Institutes, and Other Off-campus Educational Activities.”


Miller, Myrna: $11,643 to WLB for “Comparison of a Killed Virus and a Modified Live Virus Vaccine for Blue-tongue Virus Serotype 17 in Sheep of Wyoming.”

Nachtman, Jerry: $9,850 to Crop Research Foundation of Wyoming for “FY2013 Wheat Variety Trials.”


Stahl, Peter, Ann Hild, Gary Beauvais, and Dorothy Tuthill: $120,000 to Bureau of Land Management for “Survey of Biotic Soil Crusts on BLM Lands in Wyoming.”

Yao, Chaoqun: $20,000 to WLB for “Trichomoniasis in Wyoming Beef Cattle.”

Presentations