

# Linked to Agriculture

## Agricultural **Globetrotters**

MSU learners follow global agriculture markets to South America, Eastern Europe and all the way back home again.

### **Inside:**

**New facilities** now in use

**Pine Beetle** researcher goes to Austria

**Welcome** Paine, Smith

**Congratulations, Ag Grads!**



## Is There Any Wrapping Paper on that Gift?

I recently attended a conference where the blend of faculty encompassed all of the traditional disciplines with responsibilities in teaching, research and educational outreach programs. These willing participants were predominantly part of a cohort of emerging leaders from land grant universities and some other key institutions in the nationwide system. They made the commitment to aggressively explore how they

conduct themselves in many different capacities and how others perceive and react to this interaction. The ultimate outcome is to experience growth, learning, development and performance in their current roles at their host institution and/or as they aspire to other positions. Over the course of the week, the participants were stretched intellectually, emotionally and physically as individuals and in groups, small and large. This is not unlike the challenges that we face back home at our respective institutions, yet the positive framing of the issues was different.

One frame that resonated with me was the feedback that participants received from back home as well as from their new classmates following activities throughout each day. Whether spoken or in writing, the feedback was to be received as a ‘gift’, sometimes wrapped with sugar and spice, most times to the professional point (maybe with an edge), and communicated as a gift. At times, the gift did not appear as a traditional package, wrapped up with cheer and promise, but as a rock hard fruitcake that my grandmother used to make and no one consumed, unless she watched us until we did! Nevertheless,

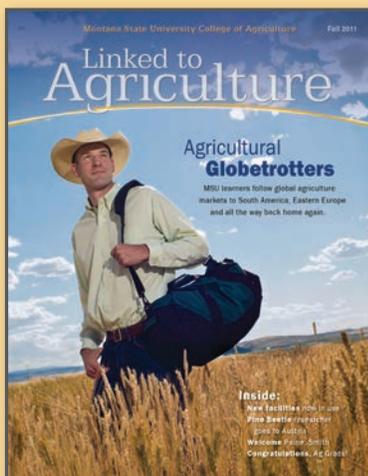
we were continually reminded that these are gifts.

When we return back home to encounter the opinions, conflicts, situations, resource challenges and forces of change that rudely jar us from an uplifting conference, it can be hard to remember this key lesson. We are receiving many gifts of diverse opinions, ideas, competing or conflicting messages – most with an action timeline of *now*.

With some discipline and focus, and maybe by pushing the pause button to put some wrapping paper on the gift, we can graciously accept the gift, unwrap it and use it to our best ability.

We, in the College of Agriculture and Montana Agricultural Experiment Station, have many gifts; the biggest and best is serving, in so many ways, in the teaching and research community in Montana agriculture.

Jeff Jacobsen  
Dean and Director  
College of Agriculture  
Montana Agricultural Experiment Station



## What's in a name?

We have a fresh look and we've changed the name of the *AgLink* publication to *Linked to Agriculture*. It seemed to make sense, since every one of our readers has some link to the world of agriculture, and when it comes down to it, *everybody* does. We look forward to keeping you in touch with who's who and what's happening here at Montana State University College of Agriculture and with the Montana Agricultural Experiment Station.

If you have any questions, comments, or ideas for the next issue of *Linked to Agriculture*, please contact us at [agdean@montana.edu](mailto:agdean@montana.edu). You can also find us on the Internet at <http://ag.montana.edu> or on Facebook (see the information on the back page). We look forward to hearing from you!

**ON THE COVER:** Assistant Professor Tim Fitzgerald was among those who traveled to Chile last May as part of the Follow the Grain course. See "Agricultural Globetrotters," p.4



# Room to Grow

New facilities boost research and education statewide

**C**reativity and improvisation will always be a part of life in agriculture. But now MSU scientists can channel more of it into their passions – research and teaching – and less of it into making do with aging facilities.

Several million dollars from the State and private donors have come together with years of planning to benefit agricultural research and education across the state. Through Legislative Assembly appropriations in 2007 and 2009, the College of Agriculture and MAES were able to address long standing infrastructure needs, including the repair and renovation of older facilities and the building of new ones.

Cutting-edge research is now conducted in renovated facilities at Central Ag Research Center (ARC) in Moccasin and new facilities at Eastern ARC in Sidney, Northern ARC in Havre, Northwestern ARC in Creston, Western Triangle ARC in Conrad, at two farms and a ranch in the Bozeman area, and on the MSU campus in Bozeman. Better facilities also attract and retain quality students, staff and faculty and help secure grant funding based on our newly competitive infrastructure.

## Big jobs, big impacts

The new laboratory/office facilities at Northern ARC and Eastern ARC and the Animal Bioscience Building on campus are three examples of huge impacts. New ARC structures provide offices for research center faculty and staff as well as state-of-the-art laboratory and greenhouse space for crop research. Staff moved into the Northern ARC in March 2011 and into the new facility at Eastern ARC in August 2011.

The Animal Bioscience Building on campus provided the Department of Animal and Range Sciences with new offices, classrooms, laboratories and an unmatched technological infrastructure. The building opened for business in August 2010 and students began taking classes there last fall.

## Small projects, big impacts

After decades of creative maintenance, repair and improvised facilities, even the smaller facilities projects have vastly improved research efforts and working conditions across the state. At Northwestern ARC in Creston, a combined head house and dry lab consolidates

all “dirt generating” activities under one roof. The head house supports the station’s greenhouse research, makes space for preparatory work and affords storage for soil and greenhouse supplies. The dry lab offers space for processing plant samples and grain cleaning equipment, and includes a drying room, a plant tissue and soil grinding room, a clean room for analytical equipment, and storage areas.

At Western Triangle ARC, a new building provides space to process and store plant, grain and forage samples, moving these activities out of the shop.

New shops at the Red Bluff Research Ranch and the Bozeman Area Research and Teaching (BART) Farm replace old Quonset huts, improving safety and efficiency for staff maintaining equipment.

These new facilities create an energetic, positive environment for the people dedicated to agricultural research, education and outreach in Bozeman and at Research Centers across the state. ■

**ABOVE:** The Animal Bioscience Building.  
**BELOW, L-R:** NARC office and lab; EARC office and lab; NARC cattle handling barn.





# MSU's Agricultural Globetrotters

In our line of work, “field trip” has always meant something much more involved than a day at the park. But the term takes on a whole new meaning for students and staff who travel 6,000 miles from campus for a first-hand learning experience. In “Follow the Grain” and “Follow the Beef” courses, MSU students travel the world to get a complete

view of the interactions between science, technology, economics, politics and the complexity of a major agricultural industry.

## MSU's Ag Odyssey

The Department of Agricultural Economics and Economics has offered multi-disciplinary courses with a heavy emphasis on field trip experiences since 1999. In these “Follow the Grain” and “Follow the Beef” courses, international trips focused on global agricultural

production and markets. The courses draw upon a wide variety of presenters and visits to laboratories, farms, and processing facilities.

## Following the Grain to Chile

In the spring of 2010, the Follow the Grain course (the fourth offered since 1999) began by examining the roles of genetic research, plant breeding, and field trials in developing economically viable plant varieties. Next, the course examined grain farm production issues (pest management, drought resistance,

fertilizer use) with market and agricultural policy conditions. It also investigated grain handling, processing, and marketing channels beyond the farm. Finally, it delved into end user issues in both domestic and overseas markets. The class made a trip to Great Falls in February to visit facilities that process Montana wheat and barley. (The visit was simulcast in Plentywood to interested producers.)

The international field experience for this class was Chile, a South American country that purchases wheat and barley from the U.S. The trip was scheduled for March, but was delayed after Chile suffered the seventh most-powerful earthquake in human-recorded history. In late May, 14 students, four current or retired faculty members, one county agent, and one other traveler arrived in Chile.

The group observed limited winter wheat planting and received a briefing from researchers on their most recent field season. Students visited a malt plant, a flour mill, a fruit orchard, export packing plant, a potato research center, a winery, and Valparaiso, an important agricultural port. Southern Chile is one of two native regions for potatoes.

Universidad Austral de Chile in Valdivia hosted the group for a day of academic presentations on Chilean agriculture and wheat research. Assistant Professor Tim Fitzgerald noted, “Chilean agriculture has a long and varied history. Our trip helped us understand how changing market forces have reshaped agricultural enterprises.”

The group also visited Chilean cultural attractions including the Volcán Villarrica and the National Cathedral in Santiago and took a walking tour of Valparaiso.

## Beef and Grain in Ukraine

In the spring of 2011, a course that combined key elements of both the Follow the Beef and Follow the Grain

courses gave students an integrated view of the science, technology, production practices, product handling, product marketing system, and end uses for cattle, beef, grain and other agricultural enterprises in Ukraine.

The course used faculty lecturers, guests from the agricultural and transportation sectors, and student presentations to provide an overview of the dynamics between science, technology, and economics required to understand the impact of an evolution from a command and control economy to a market economy on agriculture. The students prepared presentations on the overall Ukraine economy, its culture, politics and, most especially its agriculture.

As part of the course, a group of thirteen students, three MSU faculty members, and three other travelers packed their bags for Eastern Europe in May. The trip began with a series of presentations by Ukrainian policy experts, economists, and agronomists on Ukrainian agriculture, and included an extended visit to the Ukraine National Agricultural University in Kiev.

“Students were able to openly discuss and share their experiences with those of individuals in Ukraine’s agricultural sector, helping both sides improve their understanding of economic and production issues in the United States and the Ukraine” said Assistant Professor Anton Bekkerman, after the trip.

In-country site visits focused on the farm to consumer food chain for wheat, barley, and other grains as well as sugar beets, cattle, dairy products and horticultural products through extensive visits to commercial farms, processing operations, farm machinery production facilities, and grain handling facilities. One highlight of the trip was a breakfast, presentation, and extensive tour of CHS’s large-scale grain handling facilities at the port of Odessa on the Black Sea. ■



**LEFT:** The May 2011 group visited the Umanfermats factory in Uman, Ukraine. This producer of agricultural machinery is one of the few factories that survived the transition from government ownership to emerge as a successful, privately owned business.

**ABOVE:** Students walk through an apple orchard in bloom during a tour of a large fruit and berry orchard near Vinnitsia, Ukraine. Apples, cherries, raspberries and other fruits grown in the orchard are sold fresh and canned for sale in the Ukraine.

**BOTTOM:** Ukraine is still an emerging democracy shaking off shackles imposed by the former Soviet Union on its economy and politics. One of the travelers took a photo of this Soviet-era painting outside the economics department in Kiev’s National University of Life and Environmental Science in Ukraine.

The faculty and students are grateful for the financial support of CHS Foundation, Montana Wheat & Barley Committee, Montana Grain Growers’ Association, Barkley Ag, Westbred, and Leonard Schock. An endowment has been established at the MSU Foundation to provide long-term, permanent assistance for global studies in agriculture. Additional contributions in support of global studies in agriculture are welcomed!



## Kaiser Presents Mountain Pine Beetle Research in Austria

I grew up in Wilson, North Carolina and transferred to Montana State from Penn State in 2007. In addition to double majoring in Soil & Water Science and Environmental Biology, I have spent much of my time kayaking and skiing in the area. I am currently finishing an Undergraduate Scholars Program project in Brian McGlynn's hydrology lab.

My research has been on the dynamic relationship between the mountain pine beetle outbreak, water availability and vegetation patterns. Large areas of the Rocky Mountain west have been affected by the mountain pine beetle. By investigating how landscape variables interact to change the susceptibility of infestation, we gain a better understanding of the system, which will hopefully lead to more informed management decisions.

This spring I was given the opportunity to present my research at the European Geosciences Union's

annual meeting which was held in Vienna, Austria. Attending sessions geared toward topics that I am interested in and being able to talk to experts in the field about my own research was an amazing experience. Presenting my poster gave me the unique opportunity to work on explaining my research in a clear and concise manner and to receive immediate feedback and questions. My plan is to finish this research, apply to a graduate program in Hydrology this fall, and continue exploring mountains and rivers everywhere. ■

For information on the Undergraduate Scholars Program, go to [www.montana.edu/usp/](http://www.montana.edu/usp/). To read Kendra's abstract from the MSU Student Research Celebration, go to [www.montana.edu/usp/pages/conference.html](http://www.montana.edu/usp/pages/conference.html), click on the Abstract Booklet and scroll to page 44.

To learn more about hydrology research conducted by Brian McGlynn's group, go to <http://watershed.montana.edu/hydrology/Home.html>.

## More Cowbell! Grads ring in the 2011 commencement in true College of Agriculture style

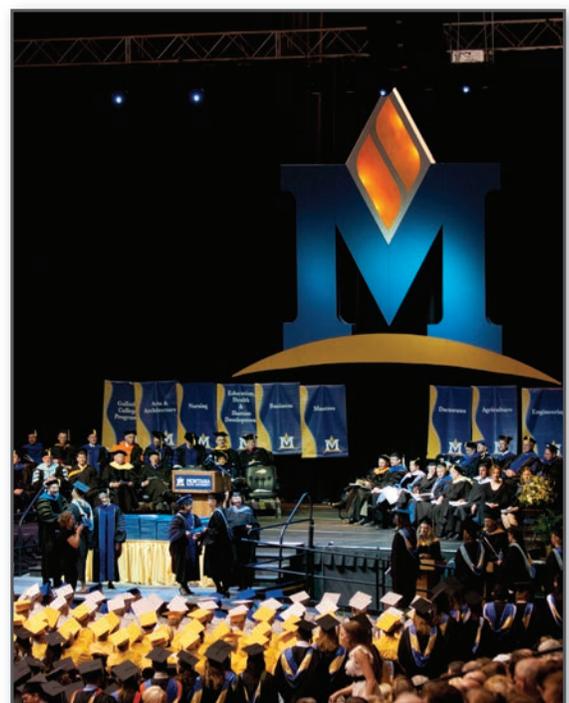
Cool temperatures didn't dampen the celebratory atmosphere during MSU 118th Commencement, Saturday, May 7, 2011.

Nearly 100 College of Agriculture graduates received degrees during the morning ceremony, an event that featured each graduate walking across the stage to shake hands with Dean Jacobsen and President Cruzado.

Families and friends cheered as their loved ones' names were read, and cow bells rang throughout the Brick Breeden Fieldhouse as each College of Ag bachelor's, master's and doctoral degree was awarded. Graduate degrees were presented by Provost

Potvin and Graduate Dean Carl Fox. Individual departments celebrated on Friday, May 6th to recognize the graduates in a more intimate setting and recognize all of the CoA Outstanding Senior nominees. Nick Peretti, a biotechnology major from Butte, garnered top honors as the College's Outstanding Senior. His next step is dental school!

Alumni from the classes of 1941, 1951 and 1961 were also honored during the weekend's festivities, which included campus tours, a banquet, and a tree planting near Hoseus H & PE complex. ■





## Tales of giving back inspire new Director of Development

Darin Paine came to MSU in March 2011 to become the Director of Development for the College of Agriculture.

He received his undergraduate degree from Oregon State University – a land grant institution with an agricultural background that has much in common with MSU.

Most recently he was at the University of Florida, another land grant institution, where he earned his Master’s degree.

“My transfer to Montana was made official by two events,” said Paine, “First, I am in the Air Force and transferred into the Montana Air National Guard upon moving here. And second, my second daughter was born in Bozeman in June. So, we have an official Montanan in the family!”

“It’s an honor and a privilege to serve in the College of Agriculture at MSU,” he said.

Since March, Paine has been traveling the state, meeting with friends and alumni who share incredible stories and experiences. He recalls one man telling about the gratitude of a scholarship recipient:

“She came up to me with tears in her eyes, gave me a

big hug and said ‘I could not have done this without your help.’ That makes you feel pretty good.”

Paine said that as he listened to this anonymous donor’s story, he knew this was exactly the impact the man wanted.

“He and his wife do not have any children of their own.

They met at MSU and went on to successful careers. They decided to give back so they established a scholarship, among a few other initiatives they support, within the College of Agriculture.”

The mother of three who tearfully thanked that donor and his wife at the scholarship banquet went back to school to create a better professional life and thus, a better life for herself and her children, Paine said.

Some may feel their donation is a small thing, he said, “but the impact is as big as the mountains that surround Bozeman. And it sure feels good to be helping out those who are just like you once were—struggling students working to build their own future.”

As he continues to make friends in Montana’s agriculture community, he’d love to hear your story, too.

“How has the College of Agriculture positively impacted your life? If you have questions about how you can give back and make a positive impact, please give me a call!” said Paine. “I’m happy to come see you in person, too. We love to hear how our friends and alumni are doing!”



## Smith joins us as Assistant Dean

After working at Montana State University as an adjunct instructor, program director, and academic advisor, Nora Smith joined the staff in the Office of the Dean and Director December 2010. As the Assistant Dean, her primary responsibilities include academic programming, student services, and campus outreach for the College of Agriculture.

Smith earned degrees in history and religious studies from MSU (B.A. ’88) and Harvard Divinity School (M.T.S. ’94) before pursuing her doctorate at the University of Wisconsin-Madison. While her doctoral research focused on American Indian postsecondary persistence and attainment, Smith completed a minor in History and Philosophy during her coursework on the Madison campus.

“I’ve always been really interested in the way universities function in and contribute to society,” Smith explained, “and I figured out while I was still an undergraduate that I love studying campuses and systems.”

Her current research interests

include postsecondary access and financial aid policies, and particularly, funding structures within land-grant institutions. Before coming to the College of Ag, Smith worked in MSU’s University College and Honors Program, the Harvard Library System, and the Division of Athletics at Wisconsin. She also served for two terms as a Montana State Library Commissioner.

Smith moved to Bozeman in the 1970s after spending part of her childhood on a farm in South Dakota. As a ten-year-old, she brought home her first farm “project” after winning a piglet in a greased pig catching contest at the Butte County Fair. During her undergraduate career at MSU, Smith played basketball for the Bobcats, was the sports editor at the *Exponent*, and began working at KGLT, where she still volunteers for the on-air staff.

“I had a lot of amazing teachers and mentors here at MSU, so I spend a lot of time talking with students about those profound effects—typically immeasurable—that our faculty have,” Smith said. “It’s such an exciting time to be working at my alma mater.”

Smith’s duties as Assistant Dean include coordinating Orientation sessions, assisting with curricular programming and projects, spearheading student services within the College, and acting as faculty advisor for College student organizations. She will also teach the single-credit introductory course on agricultural and environmental sciences.

Darin Paine can be reached at [darin.paine@montana.edu](mailto:darin.paine@montana.edu) or (406) 994-7671; Nora Smith can be reached at [norasmith@montana.edu](mailto:norasmith@montana.edu) or (406) 994-3681

## Fall Events

- August 29** Classes begin for Fall Semester 2011
- September 10** Bobcat Football vs. UC-Davis – 1<sup>st</sup> game in the new Stadium
- September 30** October 1 – Homecoming Weekend
- October 7-9** Young Ag Leaders Conference in Lewistown
- October 14-15** Montana Farmers Union Convention in Great Falls
- October 14-15** Parent Family Weekend
- October 14** College of Agriculture Scholarship Banquet
- October 28-29** Ag Appreciation Weekend
- November 6-9** Montana Farm Bureau Federation Convention in Missoula
- November 19** Cat-Griz Football Weekend
- November 29** December 2 – Montana Grain Growers Association Convention in Great Falls
- December 2-3** Montana Wool Growers Association Convention in Billings
- December 9-10** Montana Organic Association Convention in Billings
- December 12-16** Finals Week
- December 15-17** Montana Stockgrowers Association Convention in Billings

## Agriculture Appreciation Weekend: Oct. 28-29

Agriculture Appreciation Weekend 2011 begins on Friday, Oct. 28 with the **Economic Outlook Conference**. Hosted by the Department of Agricultural Economics and Economics and sponsored by Northwest Farm Credit Services, Inc., the conference will center on the theme of *Volatility in Agriculture*. Friday afternoon, we'll introduce a new event to AAW: **MSU Ag Fair**. Ag Fair will feature booths, information sessions, and interactive demonstrations from all of the College's departments and some of the agricultural organizations in the state in a fun, county fair-like atmosphere. The **Celebrating Agriculture Social** will be held Friday evening. Join us at the **Blue and Gold Breakfast** on Saturday morning. The weekend concludes as the MSU Bobcats play their second to last home football game against Idaho State on Oct. 29. The Outstanding Ag Leaders will be recognized throughout the weekend.

### Facebook

Keep up with all the happenings in the College of Agriculture by liking us on Facebook. Search for "College of Agriculture" or "MSU College of Agriculture."

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