



AgLink

Linking the
College of Agriculture
with its Alumni and Friends

Spring 2006

Ag students visit Taiwan

The following is a first-hand account of the "Follow the Grain" trip to Taiwan, written by Mary Anne Anderson, a senior in Ag Education from Big Timber. A journal by Alex Wheatcroft, a senior from Luther, is on the next page. Follow the Grain is offered jointly by Ag Econ and Plant Sciences and Plant Pathology. Students study the science, production, marketing and international markets for grain, and the class culminates with a trip to facilities in Portland and Taiwan, and visits to millers, bakers and buyers. Economist Dave Buschena and Wheat Breeder Phil Bruckner lead the class. The journals here have been edited for space, but the entire journals plus more photos are on the Web.

March 9

Our trek to Taiwan begins. We are traveling east toward Portland on a charter bus. The trees are blooming, pink blossoms in a green landscape.

March 10—Portland

We check into security so we can enter the Columbia Grain (CG) Shipping Terminal. The river is not deep enough to load the largest of the ships. The capacity at CG is about 1.2 million metric tons. They turn inventory two to three times a month. Most of the grain is delivered on barges or shuttle trains.

We went to CG's marketing division in downtown Portland. Ron Williams, one of their grain marketers, said "If I can't sell it, then I won't buy it." This was the first time I really have attached

the supplier/buyer relationship to grain commodities.

Thanks to the Montana Wheat and Barley Committee for lunch.

We headed to the Wheat Marketing Center.

After three tours, we had reviewed the milling and baking testing process—the bubble blowing alveograph was by far the coolest. We watched a sheet of noodles being made—think fold and press and fold and press—just like a sword is created. The folds give it strength. Then the sheet is cut, steamed and deep fat fried. The woman demonstrating the process encouraged us to touch and play with the cut noodles. Being from Montana, it was only a matter of minutes before one of the guys had fashioned a lariat.

March 12

Overnight we crossed the date line, which makes today Sunday. We are flying between Japan and Taiwan. The sun is just about to rise above the clouds.

On a bus, en route to visit a temple.



MSU Follow the Grain students in the Wheat Marketing Center's teaching lab in Portland.

The sky is grey and overcast. The medians are full of trees and flowering shrubs—all in bloom now.

First stop the CKS (Chiang Kai-shek) memorial. It was colossal and beautiful.

Went to an outdoor market before lunch. Food vendors were everywhere. The market was filled with people, scooters, and one random car trying to navigate the chaos.

Lunch—think Mongolian Grill, boil-your-own-style. I had noodles, mussels, dumplings, and one or two other things. Tye Bailey and Rick McCosh each ate a tiny squid. Rick also ate a de-boned chicken's foot. Only comment was that it was better than squid.

continued next page

One of the perks of my position is the opportunity to meet some truly amazing people. This past year, I have met many individuals who were never students in the College of Agriculture, nor were their family members, yet they became friends of the College, believers in the College, supporters of the College and, often, financial donors to the many areas of need. It has been such a positive experience to witness the impact that this ever-expanding group has on our resources, and it is rewarding to be connected to this teaching and research partnership. Every day I encounter people who recognize that the MSU College of Agriculture is good and constantly trying to get better. They truly want to be part of this future.



Our undergraduate and graduate students can always use your support. You help fund scholarships; international and national travel; student group and club activities; internships; special projects; research experiences; and improvements to our teaching and research facilities. Without a doubt, if we did not have such strong support from you, we would not be able to brag about the excellence of our programs. Even the smallest gift helps.

With graduation upon us, I always think about the people behind the scenes. While the event is certainly about the students and their well-earned walk across the stage in front of family and friends, it is also about the individuals and groups that supported us and are helping to shape an even brighter future.

As I brag about the quality of our students, I am also proud to tell you about another goal of the College. Many of you have had the opportunity to view the excellent teaching and research programs connected with the plant bioscience facilities. This addition has helped to transform our plant-based programs. Our dream is do as much for animal biosciences! Our entire federal delegation, state officials, ag groups and many businesses and individuals have committed time and resources to move us towards excellence in animal sciences teaching and research. (See the update later in this newsletter.) How does this happen? We describe what we are doing, what we want to do, its potential impact on our students and the Montana economy, and then watch the light bulbs go on.

These are the kinds of changes that the College of Agriculture is embarking upon. Thanks for all of your support and continued interest. The future is BRIGHT!



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

Taiwan, cont. from p. 1

March 13

Woke up at 4:30. I hate jet lag. Breakfast—there is nothing as good as fresh pineapple in the morning.

First stop: Chinese Flour Miller's Association.

Here we were joined by millers and a representative from the Foreign Agricultural Service and U.S. Wheat Associates. The Taiwanese are very gracious people bursting with hospitality. They would like to see more white wheat grown as well as more consistent protein levels. Interestingly enough, they are not willing to pay a premium for the white wheat.

We have seen the same equipment in nearly every milling and baking testing lab we have visited (at MSU, Portland, Taiwan). It was really cool to see that Montana Wheat and Barley donated to make the Chinese Grain Product Research and Development Institute possible. The acting director is a 92-year-old woman.

March 14

In Taichung, had a press conference at the Orange Market. They loved it when some of us put on cowboy hats! Much cheering from the reporters.

Went to the port facilities. I got to see the ocean! They were unloading a vessel from Australia.

March 15

Visited the Isabelle Bakery and a wheat field. The bakery is a top-end facility providing many wafer-like cookies.

The wheat field was the size of a farmer's market producer garden. It was in the dough stage...

Memories of Taiwan

By Alex Wheatcroft

Visiting Taiwan with the Follow the Grain delegation provided me with many new experiences. First off, the decision to go with fellow college students was great. I may never get a chance to do anything like that again. Taiwan had more people in the city of Taipei than I knew existed in the world. Everybody was hustling and bustling around on scooters.

Things were different—for instance, we don't need to worry about going bald from acid rain like they do. We don't have the smog and the smell. Being from Montana with the wide open spaces, the close confinement with other humans was an awakening. It made me realize how lucky we are to live where we do.

I find it amazing that the wheat my dad grows travels halfway around the world and is made into products I have never heard of nor seen before.

While visiting the Isabelle Bakery I observed that the process has more human workers than automation...

For the conclusions of these journals and more student accounts of the journey to Taiwan, visit <http://ag.montana.edu>. Click on "AgLink newsletter."

Students, faculty lauded for excellence

Three students from the College of Agriculture were honored Feb. 21 with an MSU Award for Excellence. The MSU Alumni Association and Bozeman Chamber of Commerce sponsor the awards. Students are nominated by faculty in their college or department. Qualified seniors must have a 3.5 grade point average on a 4.0 scale as well as demonstrated campus leadership and community service. Each student picks an MSU mentor to be honored along with them at the event.

Dan Bergstrom of Buffalo, range science, chose Bret Olson, animal and range sciences. Bergstrom is a member of the Society for Range Management and president of the MSU Range Club.

Leah Grunzke, horticulture, chose Tracy Dougher, plant sciences and plant pathology. Grunzke, of Brainerd, Minn., has participated in numerous horticulture-related jobs and research projects, and organized a horticulture fundraiser for Hurricane Katrina victims.

Jennifer Janitell, animal science, chose Rebecca Mattix, veterinary molecular biology. Janitell, of Miles City, is involved in the preveterinary club and is also a member of the MSU cheer squad.



Jennifer Janitell



Dan Bergstrom



Leah Grunzke

College of Agriculture selects new Ag Ambassadors for 2006-07

Fifteen students are new Ag Ambassadors: Kyle Richert, Big Timber; Stephanie Garvey, Billings; Chris Sundquist, Bozeman; Gilmen Gasper, Circle; Justin Lofing, Columbus; Erin Gernaat, Conrad; Kelly Sylvester, Corvallis; Torey Shledewitz, Culbertson; Jeff Olson, Cut Bank; Ashley Horvat, Eureka; James Brown, Helena; Leslie Dyer, Kalispell; Elise Anderson, Kalispell; Katlyn Nagel, Hettinger, ND, and Meaghan Huffman, Williams Lake, British Columbia

Ambassadors travel throughout Montana and neighboring states to promote careers in agriculture, the importance of continuing education, and the MSU College of Agriculture.

"Ambassadors visit many of the areas' high schools as well as talking with other groups who may have questions about MSU or agriculture," says their adviser Lynn Speakman.

To schedule an ambassador visit, call (406) 994-5744 or e-mail: agambassadors@montana.edu

“Economic sense” to be hallmark of Southern’s weed work

In his first year at the Southern Ag Research Center at Huntley, Steve King had research projects in a variety of crops, and he says he’ll be adding to that in the coming year.

“My responsibilities are to develop an applied field-oriented research program that focuses on weed management in the crops in my area,” King says. With his 90 percent research and 10 percent outreach mandate, his projects in 2005 included work in spring wheat, winter wheat, malt barley, sugar beets, field corn, alfalfa, pinto beans and some fallow and noncrop work.

“I’m looking for things that might save growers a few dollars per acre and/or result in slight yield increases,” King said. “That can be a big



Steve King

deal if you farm thousands of acres.”

He said he tries to come up with options where there aren’t any now, like testing chemical compounds that might be listed for crops in the future if resistance becomes a problem for a certain crop. “The use might not be

registered now, but there may be a potential for it in the future.”

King came to the Montana Agricultural Experiment Station after getting his master’s and doctoral degrees from Virginia Polytechnic Institute in Blacksburg, Va.

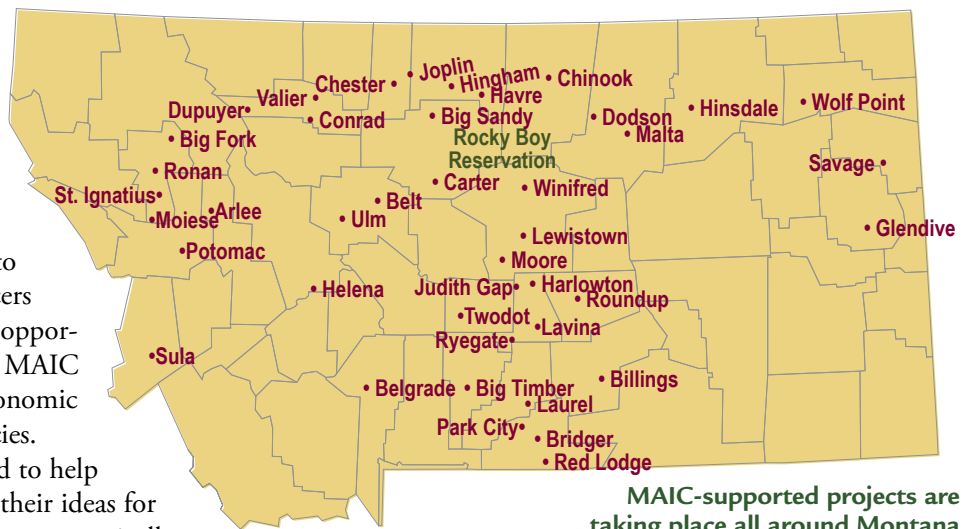
Montana Ag Innovation Center supports projects around the state

Montana Ag Innovation Centers are Montana producers’ “gateway to resources in Montana,” says Ralph Peck, program director of the centers and interim assistant dean for special projects in the College of Agriculture.

MAIC works through the College with USDA Rural Development funding to provide technical help to Montana producers who wish to develop and expand business opportunities by adding value to their products. MAIC networks with many groups, from local economic development boards to grant-funded agencies.

“We try to find the expertise people need to help develop value-added enterprises and see if their ideas for adding value to agriculture commodities are economically feasible,” says Peck.

The centers have helped or are helping more than 70 ag-related projects, which are as diverse as linen paper from flax, wool carding, ethanol, biodiesel, hydroponic vegetables, puffed wheat, poultry and popcorn. Within that broad



MAIC-supported projects are taking place all around Montana

scope, they can help assist with business plans, feasibility studies, or patenting and packaging issues.

To see the list of MAIC regional offices go to www.maic.montana.edu/contact.asp or contact Perri Walborn at 406 322-9876 or perri@montana.edu.

New MSU facility designed to handle livestock more peacefully

A new livestock handling facility with curved chutes, round pens and other stress-reducing innovations will be built this year at the Northern Agricultural Research Center near Havre, said Superintendent Gregg Carlson.

Based on recommendations of an international expert whose autism gives her insight into handling livestock more peacefully, the facility will give producers a chance to evaluate technologies to benefit their operations, Carlson said.

“It would be probably one of the most state-of-the-art facilities in northern Montana,” he said.

Darrin Boss, animal science research associate at the center, said, “It is an exciting time in the beef industry. The technology being used world wide in other industries is becoming commercially and economically available to agricultural producers.”

Cattle will be weighed and their ear tags read automatically as they walk through the chutes. Radio frequency technology and computers will open and close gates and send cattle in one of five directions to the proper corral. Hydraulic gates and chutes will decrease noise.

The new facility replaces one built in the 1940s and 1950s. It will be about 250 feet by 100 feet with continuous fences of steel pipe instead of wood. Construction could begin about June 1 and be completed by Oct. 1. Two hundred to 300 calves go through the facility every 28 days during their growth or finishing phases.

John Paterson, MSU Extension Beef Specialist, said, “It will be less stress on the animals, plus allow us to try some new technology. It will be just a great demonstration facility for producers to

come out and look at new technology and see how they re-design chutes.”

Funding was approved by the 2005 Montana Legislature.

The design will also be evaluated by Temple Grandin, who has autism and

people and activity at the end of the chute. Grandin says cattle should be able to see at least two body lengths in front of them as they’re walking through the chute.

“There are usually three basic causes of problems in crowd pens and chutes,” Grandin says on her web site at www.grandin.com. “Distractions, such as a chain hanging down in the chute entrance that cause balking; poor handling methods like overloading the crowd pen with too many cattle; and layout mistakes in the crowd pen and chute.”

Paterson said research shows that relaxed animals gain weight faster than cattle that are stressed, he said.

Paterson said he’ll use the new facility to compare the effectiveness of electronic ID technology. His past studies have shown that metal fences interfere with readings, but he said the problem has been addressed at Havre.

Boss said the new facility will use thick plastic walls instead of steel in areas where the ear tags will be read.



The new facility will become a showcase for producers to view and interact with advancing technology.

—Darrin Boss, NARC

is one of the foremost authorities on cattle movement and livestock facilities, Carlson said. Grandin, an associate professor of animal science at Colorado State University, recommends that chutes incorporate 180-degree curves to use cattle’s natural tendencies and to keep cattle from being distracted by



Cattle like these at the Northern Agricultural Research Center will benefit from a new facility that is designed to minimize stress on livestock. Studies show relaxed animals gain weight faster than those under stress.

Spring is here!

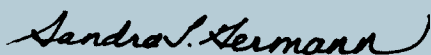
At least we've seen glimpses of it. April showers do, after all, bring May flowers, which should arrive in time for a colorful graduation!

It was great to see all the blue jackets on campus for the Montana State FFA Convention March 29-April 1. As always, I was so impressed with the young people I saw and I was proud to know that these young people will be many of the agriculture leaders of the future. Thank you, Montana FFA Association, for holding your state convention at MSU in Bozeman this year. Please come back soon!

Graduation is approaching quickly and it is often a happy/sad time, because it is difficult saying good-bye to many of these amazing students, even though saying good-bye means that they are making their way out into the world in the career area of their choice. To all you who are graduating, I wish you all the best as you venture forth. I ask that you stay in touch with us at MSU. We love to hear from you and may even involve you on a volunteer board or ask you to help with an event in your home area in the future. Soon a new group of freshman will arrive on campus to fulfill their college and career dreams. Welcome to all new students!

I am happy to report that about \$250,000 was given out by the College of Ag and its departments at our annual Agriculture Scholarship Banquet April 28. This included \$25,000 to incoming freshman, \$8,800 to students transferring from other colleges and \$15,000 to MSU students now attending veterinary schools. The remaining awards were given to students currently attending the MSU College of Agriculture. All current students who applied for scholarship awards and who had a 3.0 GPA or better received at least one scholarship. If you are in a position and have the desire to create an annual scholarship, or something more permanent, please give me a call. It is quite easy to do and the investment in these fine young people will reap many benefits.

Happy Spring to all!



Sandra Germann
Class of '89 (BS), '91 (MA) AgEd/Extension
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New site selected for Animal Bioscience Complex

Plans for the new \$34 million Animal Bioscience Complex continue to take shape. Two buildings will anchor the complex, which will be located across 11th Avenue near MSU's Plant Bioscience Building. One building is the USDA-ARS Research Facility, which will focus on bovine functional genomics research in partnership with the MSU College of Agriculture, USDA-ARS in Miles City and the U.S. Meat Animal Research Facility at Clay Center, Neb. The second building will be a state-of-the-art teaching/outreach facility for the College of Agriculture, to be built with \$12 million of private money.

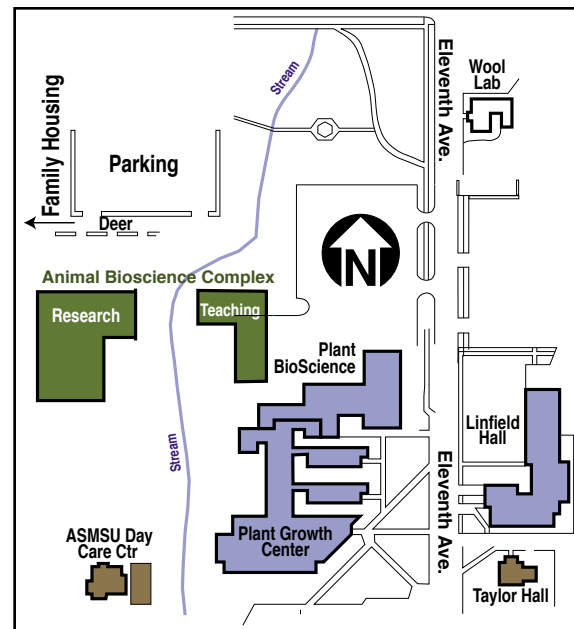
Congress appropriated \$4 million for the USDA-ARS building, in addition to \$2 million that was budgeted for planning in 2004.

"This is great news that continues our excellent progress towards completing a transformational project," said Dr. Jeff Jacobsen, Dean of the College of Agriculture.

In January, the Montana Board of Regents authorized MSU to enter into lease negotiations for the USDA-ARS Research Facility. Pre-design has already begun, and ARS will begin construction as soon as all federal appropriations are completed.

Gifts

Nearly \$5.4 million in pledges have been secured from private sources for the teaching facility in the Complex, including major pledges and gifts to-date from: MSU Foundation: \$3 million; The Dan Scott Family Foundation:



\$500,000; Anonymous: \$600,000; Montana Livestock Ag Credit, Inc.: \$250,000; Northwest Farm Credit Services: \$200,000; Montana Beef Council: \$200,000; Stockman Bank: \$150,000; Browning Kimball Foundation: \$150,000; The Paul Grieco Fund: \$100,000; The Wayne Stevenson Family: \$50,000; Elise Donohue: \$50,000; Montana Stockgrowers Association: \$25,000; JB Grierson Ranch: \$25,000; Dufresne Foundation: \$20,000; Sitz Angus Ranch /Donna Sitz: \$10,000; Montana Angus Association: \$10,000.

"Cattle prices are at record levels and this is the time to help us reach our goal," said Taylor Brown, chairman of the fundraising committee of the MSU Animal BioScience Complex. "This is for future generations in the beef industry and to bring our industry up to a new plateau."

If you know of someone or a business or foundation that should be part of this effort, call Jim Peterson, Sandra Germann or Dr. Jeff Jacobsen at 406-994-3681 and we will be happy to follow up.

Ag authors honored

Several College of Agriculture authors were honored April 14 at an MSU Friends of the Libraries reception.

Randal R. Rucker, professor in the Department of Agricultural Economics and Economics, wrote *Plowshares & Pork Barrels: The Political Economy of Agriculture* along with E.C. Pasour Jr.

Cheryl Moore-Gough, Extension horticulture specialist, and Robert Gough, professor of horticulture and associate dean for academic programs, wrote *Best Garden Plants for Montana* with Laura Peters.

Watts earns econ award

Myles J. Watts was awarded the 2006 Western Agricultural Economics Association Distinguished Scholar Award. Watts, a native of Miles City, joined the MSU Department of Agricultural Economics and Economics faculty in 1978. His publications focus on such subjects as agriculture and resources, land resource management in the Western states, finance and asset replacement issues and risk management. Watts teaches a variety of undergraduate and graduate



Cliff Montagne and Ric Roche in Italy

courses at MSU. He has served as department head for 15 of his 25 years at MSU and as officer in several state, regional and national professional organizations. The Distinguished Scholar Award is the highest award given by the WAEA.

Range papers are on-line

The papers of August "Gus" Hormay are available on-line through the MSU Library. Born and raised in San Francisco, Hormay is often known as the father of "rest-rotation" grazing principles. Hormay used to visit and work at a ranch in Montana's Lake County. After his death, the Hormay Memorial Range Award was created to support

MSU grad students involved in rest-rotation grazing research.

To view the collection, go to www.lib.montana.edu/collect/spcoll/findaid/. Click on Montana Agriculture and Ranching. The link to the Hormay papers is at the bottom of the list. Many other ag collections of interest are also on-line.

Ag Career Fair held

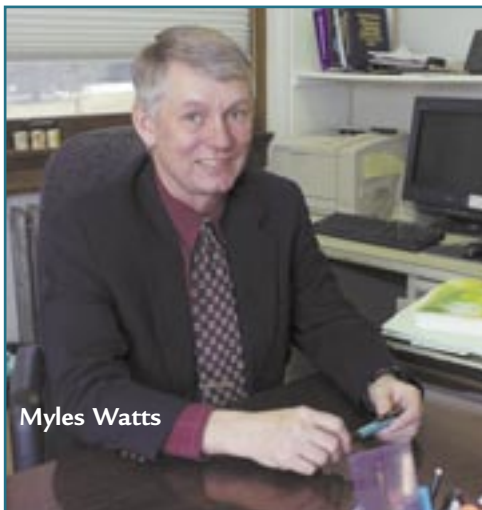
In February, 25 companies and about 500 MSU students interacted at the 2006 Ag Career Fair, a major increase in participants, noted Bob Gough, associate dean for academic programs.

"The Career Fair is coming of age," Gough said. "We went from about 15 companies and 150 students in the first year of the event to 25 and 500 this year. Comments from nearly all the students and vendors were very positive. The vendors I spoke to said they would definitely come back next year."

To participate, contact Elaine Matlow: 994-5744 or elmatlow@montana.edu

MSU staff ski race in Italy

In February, MSU fielded four skiers in master's international races just west of the Olympics in Italy. Ginny Heimann, Cliff Montagne and Ric and Carolyn Roche competed in classic and skate-ski events. Montagne is a soil scientist in LRES and Ric Roche a software engineer for the Experiment Station. Ric's wife Carolyn works in information technology at MSU. Heimann is in graduate studies.



Myles Watts

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- Jeff Jacobsen, Dean, MSU CofA and Director, MAES
 - Jim Peterson, MSU interim Associate Dean for Development, MSU
 - Sandra Germann, Director of Development, MSU CofA

* = New members

Range Science program revamped

The undergraduate Range Science program has been re-titled and course offerings re-organized into two curriculums of study. The degree title is now Natural Resources and Rangeland Ecology and provides a more contemporary and complete description of the integrative and multi-disciplinary program. As before, the program offers a holistic approach to understanding inter-relationships among rangeland and wildland ecosystem components and how to apply that knowledge to the management of natural resources in those systems. The two options are:

Rangeland Ecology and Management, which emphasizes the interactions between natural resource ecology and utilizing rangelands for livestock production. It prepares

students for careers in production, allied industries and agencies related to the management of rangelands for livestock. The **Wildlife Habitat Ecology and Management Option** offers a multidisciplinary approach to wildlife, livestock and the habitats they occupy. Job opportunities in the federal agencies for bachelor's students with habitat training are at an all-time high.

"These changes more accurately reflect the range science program within the department and will better inform potential students—those from 'traditional' backgrounds as well as those from urban and non-agricultural backgrounds, of the exciting and multi-dimensional opportunities available," said Wayne Gipp, interim department head.

2006 Research Center Field Days Calendar

All are welcome to attend the annual field days at the Montana Agricultural Experiment Station's research centers.

June 22 9:30am to 3pm	Central Ag Research Center, Moccasin. Special focus on hay and forage, hosted lunch available. Specialty crops, varieties, fertilizers and cropping systems.
July 6 10am- 3pm	Southern Ag Research Center, Huntley
July 12 2:30pm	Northwestern Ag Research Center, Kalispell. Includes hosted dinner
July 14 9am - 3pm	Northern Ag Research Center, Havre. Free BBQ lunch, dedication of new machinery and equipment storage facility.
July 20 8:30am - Noon	Eastern Ag Research Center, Sidney 8:30 coffee and rolls; 9-noon tour followed by a sponsored lunch

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