

AgLink



Winter 2003

Linking the MSU College of Agriculture with its Alumni and Friends

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Rancher and MSU grad Sam Phares of Bozeman works a hydraulic cattle chute while his cattle are fitted with electronic ear tags. The radio-frequency ID tags allow him to track and receive data on individual cattle using an electronic wand and computer. Similar to supermarket bar codes, each tag has a unique 15-digit number.

MSU photo by Carol Flaherty.

MSU program offers electronic ID tags

Canada has a national livestock ID system. So do Australia, Japan and Brazil. Like Social Security numbers, individual animals are assigned a unique number, so each animal's origins are traceable, even at the grocery store.

If the U.S. ever adopts such a system, Montana producers who are already using electronic ID tags will be one step ahead. Meanwhile, those producers are using another feature of the system, a database of easily trackable individual data.

They are working through the Montana Beef Network, an MSU/Montana Stockgrowers Association program that helps add value to cattle. MBN workers, including several MSU ag students, tagged 18,000 Montana cattle with electronic tags this year. Like supermarket bar codes, the tiny tags hold information about each animal, which is then stored in the CattleLog database run by eMerge Interactive. Bill Mies, an MSU animal science graduate, is a vice president at the Florida-based company.

MBN Project Coordinator Lisa Duffey said the database is extremely secure and offers

instant access to data that formerly required time-consuming record-keeping.

"It's an attempt to manage data in a way that's helpful to producers," said Duffey.

"Ranchers can download the information in five minutes," said John Paterson, Extension beef specialist. "It helps a rancher know: Do you have good cattle or poor cattle?" Paterson said the data—like any good record-keeping system—helps producers select for certain quality traits. And, he says, "If the federal government ever says, 'What did you do to that calf?' we will know."

Producers and MBN representatives are hopeful that the unique tags will also help them gain carcass data, rates of gain after weaning, and quality grade after the cattle have gone through the feedlot and to the packing plant.

The ease of use and access to data is what attracted Sam Phares, an MSU grad who runs cow/calf pairs at Battle Ridge Ranch near Bozeman.

"I've got enough other

continued on page 2

From the Dean

There is nothing like the start of the new year...students back on campus for their next semester of courses, and faculty and staff preparing for teaching, research and outreach activities on campus and throughout Montana. The new year is also a time to reflect on our past year's accomplishments. The College of Agriculture and Montana Agricultural Experiment Station are on the move. Why? The world is rapidly changing and we have to be on the leading edge and a major player through our teaching and research activities. I take great pride in the drive and the many accomplishments of our faculty, staff



and students.

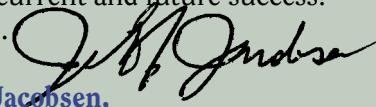
Undergraduate and graduate student numbers are at the same level as last year, which, in light of current events, is truly a positive! We graduated a large class in the spring, and, like most higher education institutions, we had tuition increases in Fall 2003. This could have been a real negative, but with on-going recruiting and retention efforts, and our excellent curricula and growing stature in a competitive marketplace, we are positioning ourselves for future growth while continually improving the quality of the educational experience.

Research expenditures continue to increase, and our highly competitive faculty and staff helped us bring in over \$20 million for the College this year. The College accounted for 25 percent of MSU's total grants and contracts expenditures, making us the university's second-highest

College for grant receipts. I believe we have the potential to be #1. Our research programs are some of the best in the region, if not the nation. Most importantly, the research infrastructure we are building greatly enhances our teaching efforts by integrating new knowledge into the classroom and offering unique opportunities for students to experience research. We have the best of both worlds.

Special thanks go to all of you who have financially supported our development activities this year—Ag Appreciation Weekend, Steer-A-Year, the Animal Biosciences Facility, the Million-Dollar Match for Research Centers, and student scholarships. Your financial engagement is critical to our current and future success!

Thanks.


Jeff Jacobsen,
Interim Dean and Director

MAES Board names new members

The Montana Agricultural Experiment Station state advisory council elected new officers at its Oct. 31 meeting. The new chair is Dave Broberg of Cut Bank, vice chair is Lance Juedeman of Geraldine, and **Dan Lake** of Ronan is secretary.

Other members are: Don Fast of Glasgow, **Kent Wasson** of Whitewater, **Steve Simonson** of Thompson Falls, Terral Balzer of Worden, **Waine Milmine** of Sanders, **William P. Jones** of Harlowton, Grant Zerbe of Frazer and Scott Wiley of Musselshell.

Alternates are Curtis Hershberger, Denton; Delbert Schweigert, Baker; Mark Peterson, Havre; **Ron Skinner**, Hall; **Joe Broesder**, Ovando; Mike Greytak, Billings; Tony Zinne, Ryegate; **Mark Grubb**, Conrad; **Ryan Jones**, Miles City; and **Jon Stoner**, Havre. Each of Montana's research centers appoints one member and one alternate for a three-year term.

Members are also appointed from the Montana Stockgrowers and Grain Growers Associations, and the MSU president's advisory committee.

College Development Board

Members are: **Tim Rask**, student; Dave Buschena, MSU Ag Economics; **Taylor Brown**, Northern Ag Network, Billings; **Gary Broyles**, National Assoc. of Wheat Growers, Rapelje; **Ross Fitzgerald**, Columbia Grain International, Great Falls; **Tim Gill**, Montana Livestock Ag Credit, Helena; **Bruce Glennie**, Wells Fargo Bank, Glasgow; **Caren Coffee**, Stockman Bank, Miles City; **Dave McClure**, MT Farm Bureau Federation, Bozeman; Jay Meyer, Stevensville; **Ken Slezak**, Conrad; **Ron Ueland**, Bozeman; **Jim Peterson**, Buffalo; and Jeff Jacobsen and **Sandra Ger-mann**, College of Agriculture.

Italicized names are MSU graduates; bold italic are MSU College of Agriculture alumni.



Electronic tags, cont. from p. 1

things to think about," said Phares, who said the program will help him analyze carcass data and form a cull list. "I'll have more information. I want to take the calf crop from a big, wide bell curve to a small one."

Once cattle are fitted with the tags, an electronic wand uploads data such as vaccination records, weight and genetics. Producers can access their files via the Internet. The Network pays \$7.25 per animal for the data collection and analysis, while producers pay \$2 for each tag.

For more information, contact Lisa Duffey at (406) 994-4323.

Ag Appreciation art show draws appreciative crowd

Artists from Montana, South Dakota, Washington, Wyoming and California were featured in the Ag Appreciation Days Art Show in October at MSU's Exit Gallery.

Gallery directors have said that, overall, the Ag Appreciation Days Art Show drew people—and appreciative comments—steadily over the two weeks it was viewed.

This year's winners in the six categories were:

Black and white photography

Honorable mention: "Farm house" by Alicia Harris, Yakima, Washington

Color photography

First Place: "Horses" by Gordon Donohoe, Rapid City, South Dakota.

Second Place: "Red bell peppers" by Jared Miller, Santa Ana, California.

Third Place:

"Artichokes a Dollar Each" by Jared Miller, Santa Ana, California

Honorable mention: "Potato seed plot" by Gabrielle Holt, Manhattan

Oil painting

First Place: "Feeding lambs with Grandma" by Charles Hackett, Stevensville

Second Place: "Apple Pig" by Katy Houseman, Bozeman

Third Place: "Jack Hahn" by Charles Hackett, Stevensville

Watercolor

First Place: "Montana Midnight" by Mary Keefer, Bozeman

Second Place: "Friendly Tiff" by Molly Baxter, Belgrade

Third Place: "Flowers" by Thomas Petit, Three Forks



Watercolor "Montana Midnight" by Mary Keefer of Bozeman

Multimedia

First Place: "Copia" by Patty Rambo, Helena

Second Place: "Verbascum thapsus: Roadside Attraction" by Valerie Cox, Polebridge

Third Place: "Dactylis glomerata and hopper, drought companions" by Valerie Cox, Polebridge

Sculpture

First Place: "Drifting" (cows, calves in snow) by Cathy Kuzma, Riverton, Wyoming

Second Place: "Fall Festival" (raccoon) by Cathy Kuzma, Riverton, Wyoming

Scholarship deadline is Feb. 1

Remember: Feb. 1 is the deadline for College of Agriculture student scholarship applications.

Students can apply for all scholarships by filling out a single one-page application.

The forms are available from all Montana high school guidance counselors. Application forms for current students, incoming students and transfer students are also on the Web.

Go to <http://ag.montana.edu/students/scholar-intern.htm> for a list of scholarships and on-line forms, or call Lynn Speakman at (406) 994-5744.

MSU names Outstanding Ag Leaders

Two Montana farming families and an ag-industry proponent were named outstanding agricultural leaders by the College of Agriculture at Montana State University-Bozeman.

MSU gives these awards annually to people who have provided outstanding leadership in either production agriculture or agribusiness.

The families being honored as agricultural leaders this year are Robert, Ann and Earl Boettcher of **Big Sandy**, and Harlin and Jodi Steiger of **Forsyth**.

The service to Montana agriculture award goes to Jim Christianson of **Great Falls**, executive vice president of the Montana Wheat and Barley Committee.

The ag leaders were honored during MSU's Ag Appreciation Weekend in November.



MSU's 2003 Outstanding Ag Leaders (left to right): Robert, Ann and Earl Boettcher of Big Sandy; Harlin and Jodi Steiger of Forsyth; Jim Christianson of Great Falls.

Teacher Feature: Clayton Marlow focuses on people

Clayton Marlow is not just “outstanding in his field” as it is sometimes described. He’s also very often outstanding in the muck of some small Montana stream bed, trying to devise a way for it to reveal its secrets.

Where many range managers end with “We’re in a drought, so the creek dried up,” that’s where Marlow begins.

Why isn’t the creek flowing? Is it simple over-use of the resource? Is it that our cracked geology is taking what little water we have for a dive? Or could it be increasing evergreens soaking up more than their traditional share of water? Marlow knows that finding the answers to these questions determine your options. If the creek dried up because of the geology and drought, you can’t do anything about it, but if it’s due to increasing numbers of evergreens and drought, you have options.

Whether it’s ecology, geology, archaeology, history or a dozen more subjects, Marlow likes to know. And when it comes to range and stream-



Clayton Marlow monitors a research project on a riparian area near Whitehall.



Professor Clayton Marlow explains range monitoring techniques to MSU students near Rocky Creek east of Bozeman.

side ecology, he wants his students to discover answers, too.

Clayton Marlow has taught at MSU for 23 years. For about nine years, he was Associate Dean for Resident Instruction in the College of Agriculture plus maintained a research program in range management, especially focusing on the streambed or “riparian” areas.

He doesn’t take kindly to federal regulations that generalize from Mississippi “bottom land” to Montana’s high and rocky alpine meadows. So he eats away at the unknowns while teaching MSU students how to tell the difference between science and opinion. He also teaches students how to measure range use in ways that allow them to use the land to the optimum while also maintaining a healthy landscape.

But it’s not all work with his students, who say there is “something else” there when interacting with Marlow.

“He’s my boss, but there’s a friendship there too, not a dictatorship,” says Travis Miller, a first year graduate student at MSU from Oregon.

“He’s a good guy, very fair and easy to talk with.”

“He’s good to be around. He makes it fun and he gets to know each kid. He’s very helpful,” says Jonathan Haynie, a senior from **Circle**.

“I really enjoy the (range monitoring) class, and I know I’ll use it later,” says Jody Fossum of **Opheim**, a junior in animal science. “He remembers your face. He makes a point to get your name and know what you’re interested in.”

“He isn’t stuffy. He has a way of approaching the field and making it understandable,” says Bev Copithorn, Marlow’s teaching assistant in the fall of 2003 and a junior from **Alberta, Canada**.

Marlow has been an advisor for the College’s student Ag Ambassadors, and he has been chosen five times as primary mentor for the outstanding students named during the Alumni Association’s Awards of Excellence.

A native of Laramie, Wyo., Marlow is one of 21 teachers in MSU’s Department of Animal and Range Sciences.

*Story and photos by
Carol Flaherty, MSU News Services*

New equine science program is growing quickly

MSU's new equine science program is growing quickly. The program, approved for the Department of Animal and Range Sciences in Fall 2002, already has 45 students majoring in it, says Sandy Gagnon, MSU associate professor of animal science and head of the program.

Forty-five students is an especially impressive growth when "this is the first true freshman year that's had any publicity of the program," adds Gagnon.

"It's a science-based program rather than simply a riding or equestrian program," he says. Before students graduate in this program, they will have taken 13 new courses designed for them, in addition to classes of general importance for animal sci-

ence, such as livestock nutrition.

Kristy Ruckdaschel, a junior from Whitehall, said she transferred to the program from another within MSU.

"I have ridden since I was about five years old, but I've already learned a lot about conformation that I didn't know," says Ruckdaschel. She is also showing horses as part of MSU's Intercollegiate Horse Show Association Equestrian Team.

In addition to Gagnon, the department has hired four adjunct professors to teach: Erin Porter, Lance Barney and Andi Shockley in equestrian classes, and Shannon Moreaux, a veterinarian, to teach equine reproduction, equine lameness, equine diseases and clinical equine reproduction.



Claire Bigelow, an equine science student from Chehalis, Wash.

Teaching

Following is a sampling of some of the new classes offered by the College this year:

Fall

- ARNR 125:** Nature of Yellowstone, Bok Sowell
- ARNR 202:** Today's Equine Industry, Sandy Gagnon
- ARNR 327:** Equine Lameness, Shannon Moreaux
- ARNR 347:** Equine Form to Function, Sandy Gagnon
- ARNR 415:** Equine Reproduction, Shannon Moreaux
- ARNR 416:** Meat Processing, Jane Ann Boles (alternate years)
- PS 545:** Ag and Medical Biotechnology, William Dyer

Spring

- AGED 480:** Communicating Agriculture to the Public, Suzi Taylor
- ARNR 215:** Calving Management, Ray Ansotegui
- ARNR 236:** Small Pasture Management, Clayton Marlow
- ARNR 337:** Diseases of Domestic Livestock, Shannon Moreaux
- ARNR 353:** Grazing Ecology and Management, Bok Sowell
- ARNR 423:** Equine Nutrition, Jan Bowman
- ARNR 441:** Clinical Equine Reproduction, Shannon Moreaux
- ARNR 544:** Advanced Grazing Management and Ecology, Bok Sowell (alternate years)
- ECON 480:** Economic Development, John Antle
- ENTO 580-03:** Veterinary Entomology, Greg Johnson
- LRES 480:** Water Quality in the Environment, Kristen Keith
- LRES 580:** Terrain Analysis, David Brown/Brian McGlynn

Spring/Fall

- AG ECON 210:** The Economics of Agricultural Business, Gary Brester
- ARNR 114:** Beginning English Equitation, Sandy Gagnon
- ARNR 207:** Intermediate English Equitation, Sandy Gagnon
- ECON 132:** Economics and the Environment, Richard Stroup

Twin Bridges rancher donates Angus seedstock operation to MSU



A **Twin Bridges** rancher has arranged to donate her registered Angus seed stock operation, the Talon Ranch, to the College of Agriculture.

Cam Cooper, owner and operator of the Talon Ranch, will bequeath her estate, including the ranch lands, registered Angus cattle, buildings, equipment and liquid assets to the College in order to offer hands-

on experience to MSU students interested in the Angus seedstock business.

The Talon Ranch, which bills itself as “small but special,” is a niche provider of quality Angus blood lines. Mike Tess, department head of Animal and Range Sciences, said the ranch includes native rangelands, irrigated hay

and pasture production, wildlife habitat and exceptionally managed riparian areas. The ranch, which is located on the Big Hole River north of Twin Bridges, is also under a conservation easement.

Tess said that Cooper’s vision in donating the property to the College is to offer “an educational resource for students in agriculture. She wants to help students learn the seedstock business, and she is dedicated to the Angus breed.”

“The Talon Ranch is a special place that I would like to see used by the College of Agriculture well into the future for teaching students about the value of the seedstock industry,” said Cooper.

Jim Peterson, the College’s interim associate dean for development and external relations, said MSU students may begin working as interns on the ranch as soon as Summer 2004. “This gift of a future estate will provide excellent teaching and research opportunities for our students,” he said.

“Cam is in love with Montana, and she’s in love with ranching—especially the seedstock business,” said Tess. “She wants to share what she’s learned with students and provide them the opportunity to learn in a working environment.”

MSU project pits sheep vs. sawflies for economical control

Animal and Range Sciences professor Pat Hatfield and an MSU team are researching whether grazing sheep on wheat stubble could reduce the number of wheat stem sawfly larvae that overwinter in the fields. WSS is Montana’s worst insect pest, costing producers \$30 million in damage every year. The insects can be battled with pesticides, burning, resident wheat varieties and tillage, but such tactics can be costly, ineffective or may reduce crop yield.

Working with producers across Montana, the researchers grazed sheep on the stubble in wheat fields, where sawfly larvae overwinter. They found that fall grazing disrupted the sawflies’ life cycle and resulted in a 67% mortality, while grazing in both spring and fall resulted in

a 74% mortality. Mortality in tilled plots was only 46%. “It’s potentially a mutually beneficial partnership between sheep and crop producers,” Hatfield said. He also said, as an added bonus, the sheep help control volunteer wheat and weeds but don’t compact the soil with their hooves.

Terri Spezzano, an animal science graduate student from California, worked on the project. “It’s a win-win situation,” she said. “It’s helping sheep producers by providing a nutrition source, and helping wheat growers reduce sawfly. It’s a true integrated pest management project.” The project’s success earned it an entry in the 2003 annual report of the Sustainable



A group of Targhee sheep graze stubble at MSU’s Fort Ellis research station near Bozeman. MSU photo by Linda Keddington.

Agriculture Research and Education program (SARE), which funded the project along with USDA-NRI. Entomologist Sue Blodgett and Research Associate Hayes Goosey were also part of the project, as were Extension Sheep Specialist Rodney Kott and Agronomist Andy Lenssen.

Grieco Foundation Fund gives \$200,000 to College of Ag projects

Two \$100,000 gifts from the Grieco Foundation Fund will help the proposed MSU Animal BioSciences Facility become a reality and will fund improvements at the Northern Agricultural Research Center at **Havre**.

Paul and Barbara Grieco, who own a cow-calf operation near **Lonepine**, administer the fund. Paul Grieco is head of MSU's Department of Chemistry and Biochemistry, and Barbara Grieco works at Aspen Pointe in Bozeman, an independent living community for senior citizens.

The gift for the Animal BioSciences Facility will support the infrastructure for a program that will be unique in the region and perhaps in the country, said Jeff Jacobsen, interim dean of the MSU College of Agriculture.

Jim Peterson, interim associate dean for development and external relations, said the gift will help the facility become a major center for molecular genetic research and value-added economic development for Montana. The facility is still in the early stages, but the gift brings it much closer, said Peterson.

Grieco said the gift to the research center was because "Montana's Agricultural Experimental Stations are in serious need of repair and improved infrastructure. Our family's long standing commitment to agriculture, coupled with the State of Montana's one-to-one matching program, led us to contribute to the building project at the Northern Agricultural Research Center in Havre."

The "Million Dollar Match" campaign for the research cen-



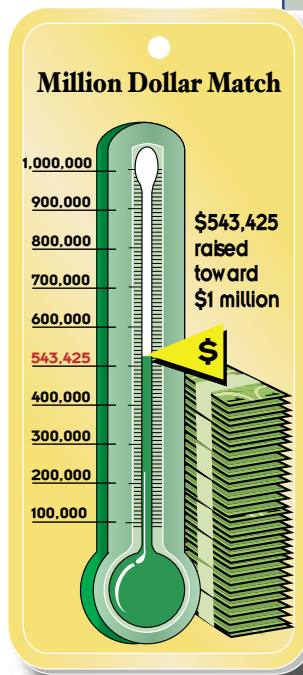
Barbara and Paul Grieco

ters will raise \$1 million in private donations in order to match \$1 million designated by the 2001 Montana Legislature. As the campaign progresses with the one-to-one match, \$2 million will go toward infrastructure improvements at six of the state's MAES research centers.

The Grieco Foundation Fund donation will go toward a new machinery and equipment building, which will be named after the Grieco family.

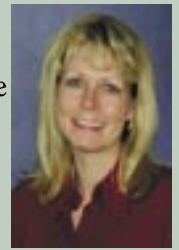
Paul and Barbara Grieco moved to Montana in 1997 from Indiana where he had worked at Indiana University.

For more information on the Animal BioSciences Facility or the Million Dollar Match campaign, contact Jim Peterson at (406) 994-7271.



We're getting there! We have \$543,425 in pledges toward the \$1 million we need to ensure that we receive the matching funds from the Legislature!

As we ring in 2004, we look back on another great year for the College of Agriculture!



Sandra Germann,
Development Director

- November's Ag Appreciation Weekend honored many fine ag leaders and organizations, and hundreds braved the cold for our annual tailgate party. Over 300 people came to the Boots & Bow Ties banquet, and the Weekend raised over \$12,000 for agriculture student activities. Thanks to all who participated to make this event a continued success!

- If you are interested in making a planned gift to the College of Agriculture, or for information about planned giving, check out MSU's new planned giving web page. Go to http://www.montana.edu/foundation/support_msu.htm and click on the planned giving button.

- The College's top three fundraising priorities are 1) Animal BioSciences Facility, 2) Montana Ag Research Center legislative match (see more at left), and 3) student scholarships. I would be happy to answer any questions about these or any other areas of interest.

- **THANK YOU** to all who have given or will give this year to the annual fund, which includes pledges from the phonathon and some direct mailings. As of November, alumni and friends had sent in over \$27,000 for the College. Donations go to the area indicated by the donor, with most going to ag general support, student scholarships or student activities.

I hope our paths cross in 2004, and I wish you a happy, healthy and prosperous New Year!

Sandra Germann

**Class of '89 (BS),
'91 (MS) AgEd/Extension**

Student designs help shape Story Mansion's future

The Story Mansion Task Force has reviewed designs for Bozeman's historic Story Mansion grounds submitted by 19 MSU students studying landscape design. The mansion is on Willson Avenue.

The designs, through a part of the "capstone course" for MSU seniors in landscape design, received serious attention by the task force, which is empow-



Josh Aylesworth

ered by the City of Bozeman to research and recommend options for the property. The city bought the property in April 2003 and recently received \$500,000 in federal money on the condition that citizens match the \$500,000 with contributions.

Dick Pohl, associate professor of

landscape architecture, said he proposed the Story Mansion as the senior capstone project because of its potential to aid the community as well as its educational value.

The task force rated the design by Josh Aylesworth of **Ronan** highest. Aylesworth's plan provided ample multiple-use open spaces plus about 30 parking spaces. Task force members also complimented the designs by Kalan Murano of **Bozeman** and Josh Oakleaf of Lander, Wyo.

Other students who submitted designs are: Kellee Anderson, **Butte**; John Cox, Dunlap, Ill.; Jamison Hould, **Miles City**; Beau Michiels, Mississippi; Timothy Roddy, Edina,



Minn.; Lucas Nicholas, **Gallatin Gateway**; Kari Ganje, **Great Falls**; Linda Johns, **Highwood**; Sarita Cantu, **Winifred**; Aaron Paz, Portland, Ore.; Tyler Trevillyan, Hot Springs, S.D.; Gabrielle Schmid, Tacoma, Wash.; and, all from **Bozeman**: Jordan Davis, Galena Gleason, Frances Grunow and Brenda Van Dyke.

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