

Extension Connection

In this issue

November 2003 • University of Wyoming

Stella McKinstry relishes working with people through extension	2
4-H background leads to a career in food science research	4
Persistence leads to sharing of ideas for one county educator	6
Extension means providing help no matter what the need	7
Pulse crops, medics, new perennial forages offer alternatives to producers	8
Awards presented for CES service	9
State initiative teams carry out strategic plan	10
Future veterinarian cites roots in 4-H	12
Weed control research shared with growers	14
Range tours highlight agricultural issues	16
Seedling tree program promotes low-cost natural windbreaks	17
Individual success stories bolster CES efforts	18
4-H shooting sports competitors win trip	19



Glen Whipple

I am excited to see this issue of *Extension Connection* in your hands. While the last issue focused on Wyoming's youths, this issue contains a variety of articles spanning the Cooperative Extension Service program initiatives. Many of these articles highlight the role UW CES plays in the everyday lives of the people of Wyoming. I hope you enjoy reading these stories.

The year 2003 has been a wonderful one for CES. We have had a number of educational triumphs. Some are featured here, and others have been outlined in a variety of College of Agriculture publications. Everyone within

CES has worked very hard to implement the organizational change begun in the last couple of years. The challenge of 2003 for all in CES and for many we serve has been to explore and to exploit the opportunities for excellence offered by our new organizational structure and our approaches to our work. It has been gratifying to me to see the effects of this hard work pay off, providing excellent programs to Wyoming's citizens and bringing recognition to our educators and specialists. I recently attended a meeting of the Wyoming County Commissioners Association, and many commissioners commented to me that they observed the Cooperative Extension Service program to be going very well.

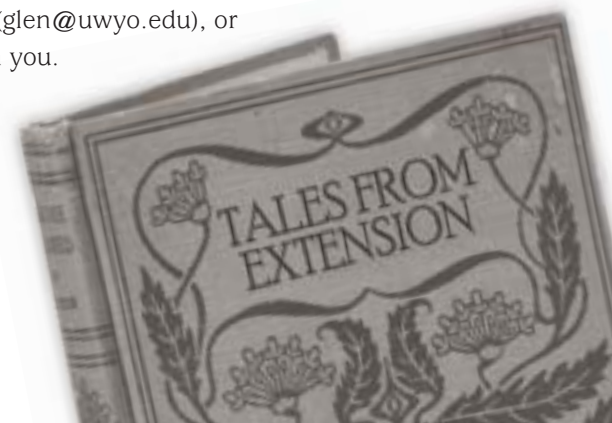
The university and College of Agriculture are in the midst of academic planning. The CES academic plan is complete and is available on the College of Agriculture Web site along with the college and departments' academic plans at www.uwyo.edu/AgCollege/Strategic_Issues_files/Strategic_Issues_Main.htm.

We prepare *Extension Connection* to keep our friends and partners up to date on CES activities and issues. If you have any questions or comments regarding this issue of *Extension Connection* or CES in general, please write (P.O. Box 3354, Laramie, WY 82071), e-mail (glen@uwyo.edu), or call (307) 766-5124. I hope to hear from you.

Enjoy *Extension Connection*!

Sincerely,

Glen Whipple
Associate Dean and CES Director



Stella McKinstry relishes working with

By Vicki Hamende, Senior Editor
Office of Communications and Technology

Stella McKinstry remembers the first Cooperative Extension Service demonstration program she presented on how to buy a dress. “The women informed me after the meeting that they didn’t even own dresses – they didn’t need them. They probably just came without knowing what the topic would be,” she laughs.

Her sense of humor and her belief in the importance of reaching out to people have carried McKinstry through 55 years of extension work and 80 years of life.

Although she enjoys talking about the days when telephones and television sets were luxuries and people came to CES meetings “because they didn’t have anything else to do,” McKinstry also recognizes the way change has

affected the delivery of extension but not the values promoted by the organization.

“It was different then; people weren’t so busy,” she recalls. “It wasn’t the same world as it is today. People were pretty much rural, and most of the women were home all day. It was not only an

educational event but also a social event to attend CES programs.”

People were thirsty for knowledge, McKinstry says, and they appreciated any information or newsletters that came from CES and the University of Wyoming. To spread the word, leaders were often trained at meetings so that they could in turn present educational programs to others in outlying areas.

Now McKinstry says she enjoys utilizing the Internet, videos, newspaper columns, and other mass communication resources to offer helpful information to her constituents. Programs today are often coordinated with other organizations in an effort to reach the widest audience.

Part of the new extension role, she says, is “to help recognize what’s reliable information and what’s not.”

McKinstry has had a hand in learning and teaching a good share of that information through her experiences working in Laramie, Niobrara, Natrona, Lincoln, Fremont, Goshen, Albany, and Platte counties over the years, finally settling in at the Sublette County office some four decades ago.

“I had a degree in home economics, and I didn’t want to teach. Extension seemed like the best alternative,” she says. A Wyoming native, McKinstry grew up in Colorado, completed her undergraduate work at Colorado State University, and traveled to Washington State University for her master’s degree.

Her career back in her home state has led her to many day-to-day interactions with appreciative community members. For example, McKinstry remembers making a mother who was worried about her children’s dislike of breakfast happier by suggesting that the woman try serving peanut butter and jelly sandwiches and milk in the mornings. “That’s just as nutritious as breakfast foods, especially if you throw in a little OJ on top of it,” she explains.

The CES educator has also received positive feedback from programs dealing with money management. She helped one participant recoup the 24 percent interest she had been paying for a credit card that was supposed to be charging 6 percent interest. “I’ve also helped people understand that possessing a Power of Attorney



Stella McKinstry, left, works with Becky Marinic, center, and Margie Braun of the Daniel Dandies 4-H Club to plan a youth presentation day.

people through extension

doesn't entitle them to pay the bills after somebody dies. Only an executor can do that. This is a real misconception. The Power of Attorney dies when the individual dies unless you are the executor or guardian," she explains. "Several people I've talked to have been able to do something about this before it's too late."

McKinstry recalls a "heartwarming" story about a mentally handicapped girl who learned to save money by putting change into a quart jar. "She was so excited that she had saved some money on her own," she says.

"I've also been working with the volunteers in a hospice group here. They have been worried about picking up diseases when they stay with people who are sick," she explains. "I gave them a program on hand washing and some other safety measures, and they've been so pleased with that."

The extension educator devotes half of her time to 4-H activities. "It's important work. It has been real great to watch some of these kids grow up and go on to bigger and better things," she says.

McKinstry has helped organize demonstration days during which 4-H members give presentations and demonstrations in areas that interest them.

She also plans field days for youngsters involved with things like leather crafts and photography as opposed to livestock projects. "We always have some kind of a craft and an educational program that they all take part in so that they can learn to work together," McKinstry explains.

In one activity, participants are given 10 individual pieces of a 100-piece jigsaw puzzle. "They have to put their part together and then work together to assemble the whole puzzle. The group that finishes a puzzle first has done the best job. The kids learn that it is necessary to work together to get things done. That's what's important."

McKinstry especially enjoys "Skillathons" in which participants focus on topics like the six pillars of integrity. "They work and learn together and share information as opposed to competing with each other," she says.

In one discussion, the 4-H youths talked about what to do if a coach insisted that team members knock down opposing players during a game. A group of them is now trying to develop a PowerPoint program for classroom teachers that would counteract such a philosophy.

McKinstry says she has argued for years with those who have a "win, win, win" attitude. "Learn, learn, learn is what I believe in," she adds. Noting that some students who move from grade school through high school with the same group of youths may never have a chance to share the spotlight with the consistently successful ones, McKinstry says that 4-H offers a chance to meet other young people and to become leaders, too.

"There are a lot of avenues open to youth groups. I think 4-H is a good one," she says. "The same holds true for adults. 4-H leaders grow a lot. Homemakers can become state officers. If you take the time to work with people, there's a lot of personal growth."

It is this human connection that keeps McKinstry on the job. "It's so nice to work with people, to share ideas with them and have them share ideas with me," she says. "It's kind of interesting the little things that come up. There's something different every day."



true stories

4-H background leads to a career

By Vicki Hamende, Senior Editor
Office of Communications and Technology

Hannah Barnes used to bake cookies, cakes, and breads for 4-H fairs. Now she is a food scientist researching the benefits of dietary supplements and functional foods.

The road from a 4-H membership in Big Piney to a Ph.D. and a position with a leading national company was actually a direct one for Barnes. “I was one of the few people in my major who pursued it from the very first day of college,” she says.

In addition to her 4-H cooking experiences, she had given demonstrations at the state fair, served as a Teen Beef Ambassador, and immersed herself in a combination of 4-H

nutrition-based activities and molecular biology studies. “I was always interested in the science behind human nutrition,” Barnes explains.

Then came a trip to national 4-H headquarters in Washington, D.C., for a week-long food science program that featured representatives of the industry. “After that I was completely sold

and searched for a college with that major,” she says.

After earning a bachelor’s degree in Food Science and Human Nutrition at the University of Maine, Barnes received her doctorate in Food Science and Technology at the University of Georgia, where she worked with a professor who is well known for his research on olestra. Her dissertation discussed the creation and application of structured lipids, which are fats and oils that have been altered on the molecular level.

“I worked on a rapidly absorbed oil designed specifically for hospitalized patients or people like athletes who need a quick source of energy,” Barnes explains. She also devised a meal-replacement beverage that was tested on people, conducted structured lipid shelf-life studies, and completed an internship in which she used her knowledge of lipids to help a major food company with the chocolate coating on its products.

In Barnes’s current position she is an Applications Research and Technical Services Manager for Kemin Foods in Des Moines, Iowa. She primarily investigates the use of lutein, a patented ingredient manufactured by Kemin for dietary supplements and functional foods.

A carotenoid found naturally in green, leafy vegetables, lutein is deposited in the macula of the eye and is known to reduce the risk of developing age-related macular degeneration, the leading cause of blindness in the U.S. “Additionally it’s a powerful antioxidant that benefits the skin and the heart as well,” Barnes says.

“My job involves adding lutein to a wide variety of foods such as cereals, beverages, cookies, breads, yogurts, and dairy drinks. We then study how lutein affects the properties of the food,” she says. The product is marketed to a

Barnes tests the positive applications of lutein as a functional food additive.

real benefits



true stories

in food science research



Hannah Barnes combines her knowledge of food science and microbiology in her research into dietary supplements for Kemin Foods.

wide variety of customers, and Barnes helps the buyers with their specific questions. “Every company has a different food application. It keeps my job fresh and interesting,” Barnes adds.

“The demand for functional foods continues to grow, and there are a lot of ingredient manufacturers out there,” Barnes notes. “I came here because Kemin is extremely scientifically based. We don’t do anything without having a sound backing for it.” She also cites the fact that it is an international company “helping people around the world.”

In addition to crediting 4-H with opening scientific avenues to her, Barnes says the youth organization also gave her an “absolutely invaluable” background in public speaking, which is beneficial in her career and in her involvement with professional organizations. “4-H also teaches people how to work hard and how to finish a job. I learned to love that good feeling that comes from accomplishment and achievement.”

Barnes recently married another 4-H alum, Brian, who is similarly employed by an Iowa-based ingredient company that supplies the sports nutrition and functional food industries. Hannah is the daughter of Casey and Sue Osborn, formerly of Big Piney and now of Sheridan. Also in the family are brothers Casey and Dawson. Sue served as Barnes’s 4-H leader for many years, introducing her daughter to the joys of cooking and the importance of balanced nutrition.

Although Barnes says she is excited about her current position, she hopes one day to open her own business in the area of functional foods.

“From the beginning, I wanted to use my food science knowledge to help people from a nutritional standpoint rather than just making safe food that lasts a long time in a box,” she says. “I want to continue to use science to achieve the ultimate goal of benefiting as many people as possible.”



Persistence leads to sharing of ideas for one county educator

*By Vicki Hamende, Senior Editor
Office of Communications and Technology*

Troy Cooper has experienced the full circle of extension. He has shared some ideas with producers, helped a naysayer think twice, and realized the important role the Cooperative Extension Service can play in linking the land with the people who live on it.

A CES educator in Big Horn County for the past two years, Cooper was an agriculture extension agent in Ohio for more than three years before coming to Basin. A native of Idaho, he has bachelor's and master's degrees in animal science from Utah State University.

His first focus in Wyoming was on forage, and he also conducted activities like horticulture pruning schools, bulb sales, and record management courses for farmers.

Now his responsibility has shifted so that he is specializing in livestock and forage management with a particular interest in intensive grazing.

"I put on one school and several field days through extension and in cooperation with the soil and conservation service in our county," Cooper says. "I also wrote articles in newsletters and conducted some small on-farm research projects dealing with intensive grazing," he adds.

"It's a work in progress. Since I have been here I have tried to evaluate what the resources are and identify people who are interested in the management of intensive grazing. I think it's starting to catch on and that people are discovering the validity in it," Cooper explains.

Intensive grazing is an organic approach to grazing systems that some agriculturalists believe

offers the potential to grow more forage, improve rangeland, produce higher stocking rates, manage cattle better, extend the grazing season, provide higher quality forage, and save on expensive feed bills.

It is characterized by the creation of pasture and water plans and the development of paddocks for controlled grazing.

One particular producer came to Cooper's first grazing school and tried to punch holes in all of the information presented. "He came and listened, but he had kind of a negative attitude," Cooper recalls. The two crossed paths at other gatherings, and he says the gentleman continued to quiz him. "As I got to know him, I realized that it was just his way of being nice."

Not too long after that, the producer called Cooper. "He said, 'You know, I have been thinking about this, and it makes total sense to me.'" The two then spent a day together at the producer's ranch sharing ideas. "He told me he wishes he had known about the system 25 years ago," Cooper says. The producer has since shifted his calving season and is pursuing intensive grazing.

"He was hesitant and critical, but now he's very much a supporter and proponent of what extension is trying to do," Cooper says. "Our idea is to provide good information to help producers reduce their labor and develop something that is going to be sustainable for them on their own lands."

People in the county have told Cooper that they are glad to have an agricultural agent serving them. "It's nice to know that they recognize extension as providing an important resource. We really feel like we are needed here."

Extension means providing help no matter what the need

By Vicki Hamende, Senior Editor
Office of Communications and Technology

One day it was a request for help in finding bees for a school project.

Another time a rancher with a clay-soiled barn floor needed a suggestion for how to make the surface more practical for riding horses, calving, and changing tractor oil.

“A lady from another state who moved to a rural area here wanted to know if it was safe to let her children play outside in the evening. She thought she had landed in the wild, wild West and was worried about coyotes and wolves.”

It’s all in a day’s work for Tanya Daniels, a Gillette native and Montana State University alum who has been an educator with the Campbell County Cooperative Extension Service since 2001. She thrives on the variety and on the opportunity to help people.

“It gives you a chance to get out and talk to people and see what’s really going on around the county,” Daniels says of her work. “If you can offer advice on something, that’s when you are really doing your job.”

She was recently asked to serve as a certifier in the state’s wild horse adoption program. “I had to check the identification papers to make sure that the people involved had the correct horse,” Daniels says. “I also had to approve their facilities to make sure that the horse had shelter, water, food, and was being properly taken care of. It is kind of interesting and certainly something I never thought I’d be asked to do,” she says.

The CES educator chuckles a bit about the inquiries she often receives from people new to area who have purchased land and want to know how many cows per acre they can run. “I have to explain to them that it’s actually acres per cow here. They buy 100 acres and think they are going to have a big ranch, but they really only have enough pasture for a few cows,” Daniels notes.

She finds that she spends more and more of her days helping people who are living on their

own small acreages for the first time. “They need help doing things like putting up fences, spraying weeds, drilling a water well, and caring for animals,” Daniels says.

“It’s like starting over from scratch. We’re teaching things we take for granted over and over again to people who have never owned land. They sometimes need to learn how to be a good neighbor to other landowners,” she explains. “It’s almost like two cultures with different mindsets are meshing together.”

Daniels is proud of a program she initiated in her county a couple of years ago to help producers test their drought-stricken grain to make sure that harmful nitrate levels were not threatening their livestock. Using a nitrate testing kit from Montana State University, she traveled around the area and helped people avoid livestock losses as well as the expense of harvesting hay that could not be used for feed.

“It gave me a good opportunity to talk to producers on a one-on-one level, and I helped a lot of them throughout the county,” she says.

“I think a lot of people know about extension, but I’m not sure if they know how big it is and how much information is available through extension offices,”

Daniels says. “We’ve tried to promote the idea that there are many different services we provide.”

Extension, she adds, means just that – spreading the word and in a helpful way. “If people have a problem and need to find a solution, they know there’s someone to come to who might have some ideas and options they hadn’t thought about before. That’s us.”

diverse needs



Campbell County CES Educator Tanya Daniels leads a group of youngsters in an “Ag in the Classroom” activity.



Pulse crops, medics, new perennial forages offer alternatives

By Vicki Hamende, Senior Editor
Office of Communications and Technology

Mention pulse crops, medics, and ley farming to Jim Krall and he is likely to start talking. He has a connection with all of them, and he enjoys explaining it to producers.

Should they listen? Yes, if they are interested in economical, alternative crops that will survive the winter, feed them, and nourish their livestock.

“What we are finding out is encouraging. It’s exciting,” says Krall, a professor with the Department of Plant Sciences who is headquartered at the Torrington Research and Extension Center. “I think we have some potentially good choices for people in agriculture to look at.”

First, some definitions: Pulse crops are legumes like chickpeas, peas, lentils, beans, and edible lupins. They have the capacity to capture atmospheric nitrogen and transform it into useable plant nitrogen in the form of amino acids and protein.

Medics are self-generating, low-growing legumes popular in Australia that also have nitrogen-fixing benefits. They can stabilize organic matter, control post-harvest weeds, and allow for early-season grazing.

Ley farming, also popular in Australia, involves growing crops such as wheat in rotation with annual legume (medic) pastures. In the pasture phase, the legumes provide forage for livestock. In the cereal phase, they may briefly furnish forage before seeding the cereal crop. They re-establish from the soil seed bank year after year but are not competitive in wheat.

See why Krall is excited?

An extension researcher in Torrington since 1984, Krall is in his third year of looking at pulse legumes as spring crops and his first year of

experimenting with them for winter hardiness. “I was surprised that the peas and lentils overwintered so well,” he says. “They could be alternative crops that producers could use primarily in dryland agriculture, possibly in rotation with winter wheat,” he explains.

The peas can be used for human consumption as well as for stock feed, and lentils, which are primarily for human consumption and are generally grown in the Pacific Northwest, have the potential for growing in southeastern Wyoming, Krall says. He is currently working with Associate Professor Bret Hess of the Department of Animal Science to evaluate the use of protein-rich pulse crops in feeding trials with livestock.

Collaborative efforts with researchers in Nebraska, Washington, and Kansas as well as with agriculturalists he met during a 1993 sabbatical to Australia have helped to fuel many of Krall’s projects, particularly his interest in edible lupins.

“The reason I like the lupins is that they are upright and should be easy to harvest with conventional combines on dry land,” he says.

“Wild lupins grow in Wyoming, but they are poisonous. Through plant breeding, scientists have been able to remove the toxins to create edible, sweet lupins that can be fed to livestock,” Krall explains. “I feel very fortunate to be able to work with people from Australia who are helping us adapt them to our area. There are some new species that fit our soil type.”

He is following the use of chicory in Australia and New Zealand as a sweetener and as a source of forage greens and has just established some chicory to see if it will prove to be winter hardy in Wyoming. Krall is also testing the pasture system potential of Kura (Caucasian) clover, a robust, perennial legume known for its massive underground stem system that helps it spread and multiply, its high-forage quality, its persistence,

Krall is testing chicory to see how it survives Wyoming winters.

research



to producers

and its support of the nitrogen needs of other plants.

“The New Zealanders say that it can take a lot of grazing, and it will come back. Some of the other clovers tend to dry out,” Krall says. “There’s a lot of interest in perennial pastures, and Caucasian clover, if adapted, should produce some pretty good quality feed.”

If a niche can be established for ley farming, new pulse crops, and perennial forages in some parts of Wyoming, Krall predicts that producers will have new options for growing cold-weather or drought-tolerant crops that can be used for human consumption and also to benefit livestock.

Meanwhile, he is excited about his research and anxious to talk more about the connections he is discovering.

Jim Krall points out some flowering lupins. They produce high-protein grain, are popular in Australia as stock feed, and are well adapted to dry growing conditions.



Awards presented for CES service

Four University of Wyoming Cooperative Extension Service employees were honored for their work during the 2003 Extension Professional Improvement Conference (EPIC) in Kemmerer.

Chris Pasley of Platte County and Wayne Tatman of Goshen County each received the Jim DeBree Excellence in Cooperative Extension Award.

Pasley is involved with the Wyoming Food Safety Coalition, WIN Wyoming, and the Wyoming Department of Agriculture Consumer Health Division. She is also the chairperson for the Nutrition and Food Safety Initiative Team.

“Chris Pasley has an excellent approach to making learning fun for children as well as adults,” according to Glen Whipple, CES director. “She is always right there, inspiring young people to grow, excel, and succeed. Chris is a tireless educator who provides outstanding programming in a range of FCS subject matter areas to lay and professional audiences.”

Whipple noted that Tatman “has a very large following of youths, and his ability to teach them is evident in the success these individuals have attained at the county, state, and national levels. His congenial personality and caring nature sparks the enthusiasm of young people. Individuals like Wayne Tatman make extension a viable program for our clientele.” He was responsible for organizing the junior 4-H vegetable-judging contest and is active with the state 4-H meats, wool, and livestock education programs.

The creative excellence award was given to Fremont County’s Ron Cunningham, who is responsible for the Farm and Ranch Days event there. “Quality education, extension marketing, and community networking are accolades that come to mind when talking about Ron’s accomplishments with this program. It’s simply the best,” Whipple said. “Ron should be awarded the Creative Excellence Award for his intuitive thinking and foresight in providing an exceptional learning atmosphere and format.”

New employee recognition was given to Campbell County’s Rindy West for her rapport with both leaders and youths in her county and throughout the state. “It would seem that Rindy is a walking marketing tool for 4-H and extension,” Whipple said. “In 2002, Campbell County 4-H enrollment increased by 123 new members. She is a role model for other 4-H agents to emulate. Rindy exemplifies the mission of extension in everything she does in her career.”



State initiative teams carry

By Vicki Hamende,
Senior Editor
Office of
Communications and
Technology

The University of Wyoming Cooperative Extension Service's five state initiative teams have been working for the past couple of years to promote the CES strategic plan, engaging in a renewed focus on agriculture and the roots of rural Wyoming against a backdrop of societal, economic, and technological changes.

As they continue reaching out to constituents, the teams have offered new leadership in everything from horticulture to small acreage management to 4-H Web projects to nutrition for special needs kids to an EVOLVE leadership training program.

The Profitable and Sustainable Agricultural Systems Initiative Team has expanded its young beef female educational program and added a sustainable cropping systems component focusing on extension projects like irrigated pasture management and alfalfa production.

Chaired by CES Educator Jim Gill of Washakie County, the team is also pursuing a future direction for statewide horticulture programs and small-acreage workshops.

Continuing the development of its Range College educational offerings has remained on the agenda of the Sustainable Management of Rangeland Resources Initiative Team chaired by Eric Peterson of Sublette County. Its Web site offers ready-made programs on such topics as drought, small-acreage residential issues, general range education, range-grazing management, irrigated pastures, water quality, and hydrology.

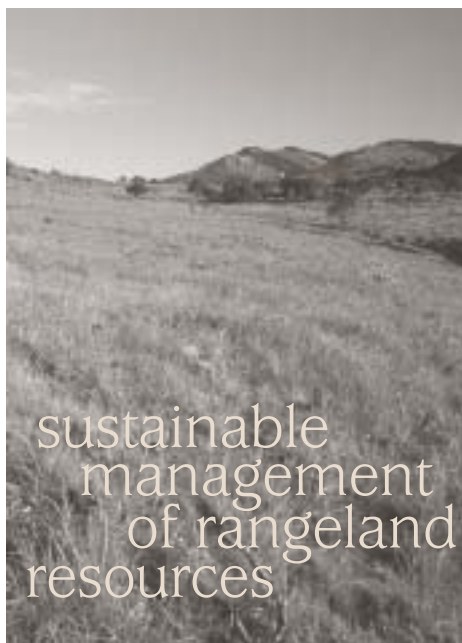
The group has also conducted a series of range tours aimed at showing producers innovative management ideas. The team has increased its involvement in the annual Old West Regional Range Judging Contest in Douglas and is developing hands-on, youth-oriented natural resource materials.

Meanwhile, team members are continuing to produce TV spots highlighting issues relating to Wyoming's natural resources for KTWO television in Casper. They hope to extend coverage of their series to other areas of the state.

Evaluating 4-H programs to promote more leadership development in youths aged 14 to 19 is one of the efforts of the 4-H Youth Development Team chaired by Warren Crawford of Carbon County. The group is also updating the current training program for new leaders as well as resources for all 4-H volunteers.

Another goal is to make more project materials and activities as well as tutorials and educational components available online for 4-H members with access to computers.

true stories



sustainable
management
of rangeland
resources

out strategic plan

The Nutrition and Food Safety Initiative Team chaired by Chris Pasley of Platte County is focusing on five main areas, particularly highlighting nutrition for special needs kids and low-birth-weight babies and programs tackling diabetes, osteoporosis, heart disease, and hypertension. The team is also offering outreach help through healthy eating and walking programs.

Food preservation, security, and safety are being taught by team members, with topics



covering canner testing, food banks, chemical contamination, and handling wild game. In the area of basic health education, the group is encouraging Wyoming residents to become acquainted with a "Clean Team" project that offers them the chance to see how bacteria spread through touch.

An Extension Volunteer Organization for Leadership, Vitality, and Enterprise (EVOLVE) has been developed by the Enhancing Wyoming Communities and Households Initiative Team led by Rhonda Shipp of Park County. The goals of the community-based leadership program are to promote personal growth, a stronger community

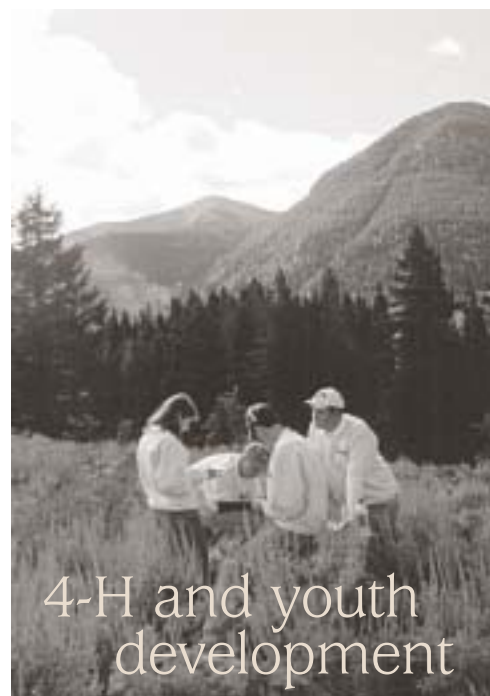


commitment, a shared community vision and purpose, a better-informed community, and increased engagement in community decision making.

Hoping to build a critical mass of informed and capable leaders throughout Wyoming, the group is seeking community organizers from such places as churches, schools, neighborhoods, civic organizations, and government agencies.

Team members received mediation training during a Jackson institute and will be traveling to Nevada in February for a community vitality initiative extension gathering. The group's online course for rural family business owners has been promoted to partners in Australia and is being made more flexible in terms of registration and course length to better accommodate people's needs. In addition, financial management training is available on the team's Web site.

As the five state initiative teams continue to seek ways to spread extension education throughout a changing Wyoming, their constituents will continue to benefit from the CES strategic plan.



Future veterinarian cites roots in 4-H

By Vicki Hamende, Senior Editor
Office of Communications and Technology

Kimberly (Vickrey) Brewster says the goal of becoming a veterinarian has always been at the center of her life.

The 21-year-old from La Barge remembers running into her second grade teacher not too long ago and having him ask, “So are you in vet school yet?”

Should she talk to her elementary instructor again, Brewster will be able to answer with a definite “yes.” She received word on August 22 that she was accepted into Colorado State University’s veterinary school, was married on August 23, enjoyed a short honeymoon, and began her classes “two days late with both feet first.”

Brewster credits her family, 4-H, her love of animals, and her own tenacity with helping her dream come true.

As a new 4-H member when she was 8, Brewster pursued both the market steer and horse projects despite the fact that “everybody told me I couldn’t do both in my first year.” She proved them wrong.

During the next 11 years Brewster continued to work with horses and livestock and to pursue other 4-H activities, particularly veterinary science. She performed a cow heart dissection at a 4-H meeting, created a clay project explaining the different parasites that plague dogs, and completed an extensive journal chronicling her five-year collaboration with Bob Beiermann, a veterinarian in Big Piney. Her college application was full.

The daughter of Alan and Donna Vickrey, Brewster earned an undergraduate degree at CSU in equine science, working at the veterinary teaching hospital in Fort Collins for three years and participating in surgeries and human orthopedic research on sheep models.

Although she was one of only nine American students accepted at the prestigious Glasgow Veterinary School in Scotland, Brewster opted for continuing in what she views as an excellent, hands-on research program at CSU. Since horses are of particular interest to her, she hopes to pursue equine medicine and to specialize in large animal emergencies.

“When you work with animals, patience is a virtue,” Brewster says, recalling her 4-H livestock experiences. “It takes hard work and dedication.” She adds, “I learned those skills along with being

dreams



setting goals

prepared, leadership, sportsmanship, and the humility to realize that every judge is different and has his own opinions.”

Brewster says the presentations she made every year in 4-H “definitely improved my public speaking skills and my comfort level in crowds, especially those with unfamiliar faces.” She notes that she was often complimented in college about how well she presented herself. “I think 4-H made me kind of a ham, too,” she jokes.

She marvels at how much better prepared she was than her undergraduate classmates to speak and write. “If they had been involved in 4-H, they would have known how to better adjust to each different circumstance. 4-H prepares you to get over the fear long enough to stand up and make your presentation in a professional way,” Brewster says.

The same experiences helped her become an ag ambassador, traveling throughout the nation and “rubbing shoulders with very important people.” She adds, “It all helped me with my Scotland interview, too. I definitely know how to stand out from the crowd.”

Brewster remembers that she first became interested in veterinary science when she was 6 and her mare suffered a laceration on its leg. To complete her thesis in a college honors program, she focused on developing a handbook for 4-Hers explaining first aid for horses and what to do about injuries until a veterinarian arrives. She is currently working with the Cooperative Extension Service in Colorado to print the publication.

“Even after so many years at a university I still went back to my 4-H roots to finish my degree,” she says.



Brewster explained an emergency water-belly surgery she observed in a 1996 4-H veterinary science presentation on “Rescue DVM.”

“When you work with animals, patience is a virtue,” Brewster says, recalling her 4-H livestock experiences.

Mesbah checks some of the wild oats in malt barley that he is treating with a mixture of herbicides.



*By Vicki Hamende, Senior Editor
Office of Communications and Technology*

Abdel Mesbah moves easily between his roles in research and extension.

As a scientist, he focuses on weed control in malt barley, sugar beets, dry beans, and alfalfa for seed. As an extension specialist, he shares his knowledge with county agents, farmers, industry representatives, and state and federal agencies. He also works collaboratively with them to explore future projects.

A native of Morocco where he earned a bachelor's degree from the National School of Agriculture and worked with the government for five years as a farm manager for a seed production station, Mesbah joined the staff of the Powell Research and Extension Center in 1998 after receiving master's and doctoral degrees from the University of Wyoming.

Now he conducts variety and herbicide studies aimed at helping farmers better control weeds without damaging their crops. Mesbah's research trials in malt barley include testing for new herbicides, ALS-resistant kochia, and wild oat control. He is also investigating the effect of tank mixing broadleaf and grass herbicides. "We are trying to find the right combination that will give the best control and be the most environmentally friendly on one hand and save growers time and money on the other hand," he says

Weed control

"We are continually testing," Mesbah adds. "We go one at a time with something, and then check the results. Let's mix them with this; let's mix them with that. It's a slow, careful process."

Mesbah usually conducts between six and ten weed-control trials involving sugar beets each year to compare such things as the results of preplant versus postemergence herbicides, the use of varied formulations, and the effect of full-rate versus micro-rate combinations geared to reduce herbicide use by at least 60 percent. Different herbicides, rates, time of applications, and sugarbeet leaf stage are investigated at replicated trials at various sites.

For example, some sugarbeet herbicides give greater weed control but might cause different degrees of injuries when applied mid day versus morning or evening, at two-leaf sugarbeet versus cotyledon, and at a high rate versus a low rate, he says. All of these injuries translate to root yield and sucrose loss.

"Here is a good example comparing high and low-herbicide rates," Mesbah offers. "By using micro rates we reduce the amount of herbicides by at least 60 percent, and we achieve the same weed control as using full rate. At harvest, root yield from micro rate is two to four tons per acre higher than that from full rate. We're reducing the cost of herbicides and increasing yield at the same time. That's what farmers are looking for."

His research also involves dry bean and sugarbeet variety trials. "Every year I test several varieties from other states, and, based on their performance, I decide which one or ones can be grown in our area. I also investigate other alternative crops that can be successfully grown in this area. For example, this year I have some canola and turnip for seed-production trials."

Each year the Powell Research and Extension Center invites producers to visit its research plots

true stories

sustainability

research shared with growers



Using the back of his truck as a portable office, Abdel Mesbah of the Powell Research and Extension Center records information pertaining to crop stage, weed stage, soil temperature, humidity, wind, and pressure each time he sprays herbicides in experimental crop plots.

to see first hand what options might work for them. “We’ll have things like station field day, barley day, or sugar-beet day. They’re usually planned to work around farmers’ busy schedules,” he says.

When Mesbah is not tending to research plots, he is often meeting with growers in their fields to try to answer questions about weeds and herbicide use. “I like to go to their places and learn myself,” he says. He prepares free progress reports for his constituents and also compiles information about specific crops and crop combinations when asked.

As another part of his extension work, Mesbah has taught seed production classes for a third-year agroecology program involving the University of Wyoming and Powell’s Northwest College.

“In the future I am hoping to work on bringing some alternative crops like peas, chickpeas, lentils, etc., to this area,” Mesbah says. “It’s exciting when you feel that you are contributing something to this community. That’s what we’re here for,” he adds.



Mesbah applies an herbicide to a sugar beet test plot.

Range tours highlight agricultural issues

By Vicki Hamende, Senior Editor
Office of Communications and Technology

For more than 25 years the northwestern Wyoming Cooperative Extension Service agricultural agents have been getting together for annual range tours. While camaraderie and camp cooking characterize the gatherings, they also provide unique educational opportunities.

"It gives all of us a chance to see different parts of the state and also gives us a better appreciation of the kinds of issues our compatriots are dealing with," says Blaine Horn of Johnson County.

This year's tour, which included about a dozen CES agents, was headquartered 25 miles west of Buffalo near the heart of the Big Horn Mountains and the center of the coalbed methane industry.

"We wanted to look at some range management and monitoring issues involving wildlife," says Scott Hininger of Sheridan County, who assisted Horn and others in planning the 2003 tour. "We also talked about the economics of grazing livestock on public lands."

A highlight of the trip was a tour of the Jacob's Ranch Coal Mine and a sharing of information about the work the University of Wyoming has done in connection with land reclamation and with the use of water produced from extracting coalbed methane from coal seams.

"Most of the agents in the other parts of the state aren't familiar with coalbed methane and the mines," Hininger notes. "This was an opportunity to see the pros and cons of using the water to irrigate forage to provide winter feed for livestock."

Horn points out the importance of researching how vegetation responds to the water. "We looked at western wheat grass forage irrigated by CBM water," he says. "It's a way of getting rid of the water, but we want to make sure that they tie up some of the sodium in it so that it doesn't cause problems. Ranchers should come in the fall when they shoot the water off and be able to graze it. They'll have to do some supplementing, but it will provide quite a bit of feed for their cattle."

He adds, "Coalbed methane is an important industry, and its effects on water are going to hit some other parts of the state as well as the Powder River Basin."

Hininger concurs. "We wanted to bring the agents up to speed on the issue since coalbed methane can go all the way down through other counties and have a huge impact in the state."

CES's contribution to the effort to tackle such regional issues is an example of extension at its best, Hininger says.

"Our involvement shows the depth of programming and different organization and business connections that we have had with agencies like the forest service and game and fish and permit holders on the mountain with their grazing," Hininger says. "We're working with ranchers and with coal companies on reclamation and other concerns. We have collaborative efforts underway with several different issues."

Next year's Northwest Range Tour participants will travel to the Green Mountain area to continue the educational goal of keeping each other informed about Wyoming's diverse agricultural interests.



A study of the use of coalbed methane water to irrigate forage was included on the 2003 Northwest Agent Range Tour. Looking at one field are, from left, Blaine Horn, Quentin Skinner, and Jerry Langbehn.



Trees provide a windbreak at the Sheridan Research and Extension Center.

Seedling tree program promotes low-cost natural windbreaks

Thanks to the Cooperative Extension Service, some rural and urban landowners in Wyoming are able to purchase low-cost tree seedlings to use to plant effective windbreaks that can save energy, control erosion, offer habitats for wildlife, and protect buildings, crops, and livestock.

The seedling tree service is active in Sheridan County, where CES Educator Scott Hininger administers the program along with the local conservation district.

“Trees and shrubs provide cooling effects in the summer and reduce wind chill effects in the winter,” Hininger says. “An effective windbreak on three sides of a building can reduce annual fuel costs by as much as 30 percent. Summer air temperatures in tree shade can be as much as 25 degrees Fahrenheit cooler than in direct sun.”

He also explains that properly located windbreaks and shelterbelts can act as snow fences by preventing drifts from accumulating on roads and near buildings. “Tree barriers also provide cover and food for deer, small mammals, pheasants, and grouse and provide nesting places for small, insect-eating birds,” Hininger adds.

Sheridan County residents can order trees at a nominal cost from November through April, with delivery the first week in May. Bare-root seedling trees approximately 6 to 30 inches high come in lots of 50 trees of one species, and potted trees are in lots of 30 trees per species. Wildlife packages are also available that offer five different species.

“Most nurseries don’t carry seedling stock, so this is a cheap way to get started,” says Hininger, adding that the plants come from Fort Collins, Colorado. “We’re trying to work with the highway department to encourage the use of natural planting for wind and snow fences,” he says.

Trees typically available include Caragana, Cotoneaster, Honeysuckle, Chokecherry, Lilac, Native Plum, Sumac, Nanking Cherry, European Sage, Wild Rose, Fourwing Saltbush, Golden Current, Serviceberry, Mountain Mahogany, Redosier Dogwood, N.M. Forestiera, Green Ash, Hybrid Cottonwood, Golden Willow, Native Willow Mix, Hackberry, Honeylocust, Lacebark Elm, Bur Oak, Black Locust, Coyote Willow, Peachleaf Willow, Kremmling Cottonwood, Aspen, Austrian Pine, Colorado Blue Spruce, Eastern Red Cedar, Lodgepole Pine, Pinion Pine, Ponderosa Pine, Rocky Mountain Juniper, Scotch Pine, White Fir, Bristlecone Pine, Limber Pine, Narrowleaf Cottonwood, and Subalpine Fir.

Orders have waned in the past few years, perhaps because some people have more money to spend and want larger materials, Hininger speculates.

“I have always found it to be a worthwhile program that provides a good connection with rural people,” he says. “We’re one of the few extension offices that still handles it. It’s a good example of natural resource conservation and interagency cooperation.”

effective

success stories

Individual success stories bolster CES

By Vicki Hamende, Senior Editor
Office of Communications and Technology

Since Cooperative Extension Service educators are part of the communities they serve, feedback about their efforts can sometimes come when they are off duty.

Chris Pasley of Platte County recalls the time she was grocery shopping and ran into a former participant in one of her “A New You – Health for Every Body” classes.

“She told me that people don’t need medicines and doctors to lose weight,” Pasley says. “She had lost 15 pounds walking and following the ‘A New You’ non-diet approach. She had lost several sizes and looked great.”

Another time Pasley learned from a program

participant that the idea of “journaling” her healthy lifestyle changes was such a help that the woman was teaching a youth group how to keep similar journals.

Such stories energize and inspire her, Pasley says, as she works to promote nutrition and food safety throughout

Platte, Laramie, and Goshen counties.

A part of CES since 1979 when she started as a secretary in the University of Wyoming 4-H office, Pasley has bachelor’s and master’s degrees from UW in home economics communication and adult education. After stints in agriculture and

community research development, she started as a CES educator in Washakie and Hot Springs counties, transferring to Platte County in 1995 and now coordinating southeast area Wyoming CES efforts in nutrition and food safety.

No day is the same, Pasley reports. She meets with various agencies to discuss consumer health on a monthly basis and offers frequent nutrition and food-safety programs. She works with senior citizen centers to provide extension activities and also meets with school teachers to provide food safety classes for middle and senior high schools. Pasley also helps students present programs to preschoolers, using activities like puppet shows to demonstrate the importance of hand washing.

She remembers one session during which special education students served as the teachers for the preschoolers. “It was wonderful! They got to be the role models and the heroes for the little ones.”

Pasley believes in personally spreading the word in order to promote nutrition and health education throughout the counties. “I’m not shy about just charging right in and introducing myself,” she says.

After visiting the Guernsey Senior Center one night, Pasley stopped in at TOPS meeting. “I stuck my head in and said, ‘Excuse me, may I share something with you?’ She introduced the participants to the Wellness IN (WIN) Wyoming step program. The group has since invited her back more than once to lead step, nutrition, and health activities.

The CES educator will soon be involved in offering WIN the Rockies healthy lifestyle programs to residents of Torrington, which has been serving as a comparator community to



Chris Pasley conducts a management class for interested community members.

efforts

others in the state and region that have been piloting intervention activities aimed at fighting obesity through healthy eating, active living, and positive self image.

She and the local Wyoming Food and Safety Coalition also support middle and high school curricula that use commercial kitchens to teach students how to successfully work in food service and operate a catering business. Pasley has appeared on television in connection with the Cent\$ible Nutrition Cooking Show and was also featured in a U.S. Department of Agriculture food safety inspection video made during Cheyenne Frontier Days.

Such community outreach work aside, Pasley says her finest moments often come when she is talking one on one with people about their concerns and successes.

She recalls a particular conversation with a participant in “A New You” who was struggling with the idea of belonging to a weight-loss group and having to weigh herself at the meetings. Pasley worked with her to help her determine whether the group was benefiting her.

Other class participants have reported to her that they have been adding more exercise and walking to their lives. “One built up to walking 30 minutes a day, one has aerobics twice a week and fills in with other exercise, and one eats better and exercises so that she has been able to get off her high blood pressure medicine,” Pasley says.

“People are really neat, and we are so connected in Wyoming,” she adds. “It’s not hard to get together when we’re all interested in promoting the philosophy of extension.”



Wyoming 4-H shooting sports enthusiasts gather at the world class Whittington Center in New Mexico.

4-H shooting sports competitors win trip

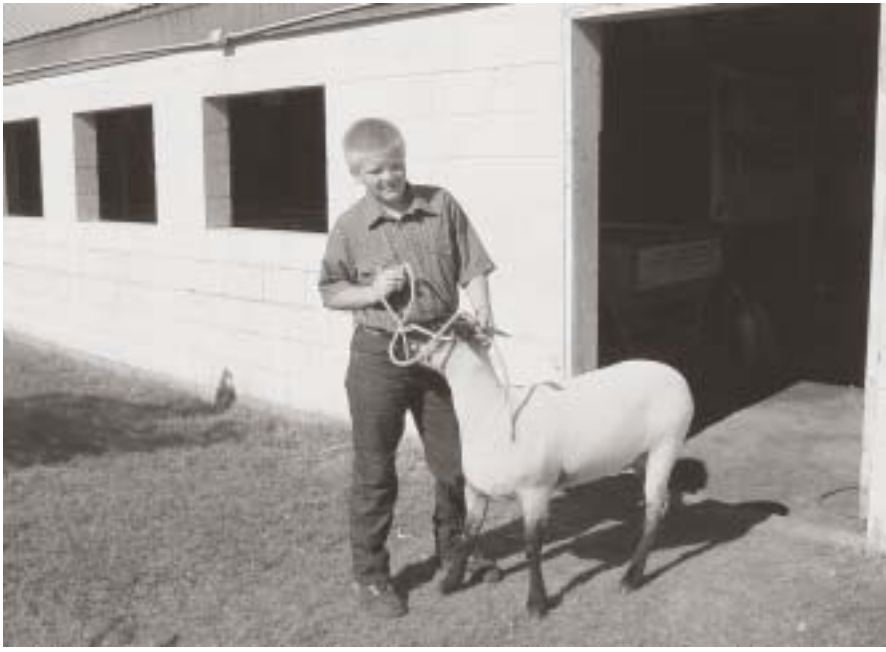
A group of 4-H members from throughout the state who excel in shooting sports were treated to a five-day trip to the National Rifle Association’s world class Whittington Shooting Center in Raton, New Mexico.

Accompanied by leaders, parents, and representatives of the state 4-H office at the University of Wyoming, the group included Chase Woirhaye and Rex Slaughter of Albany County; Brennan Bahnson and Terry Southworth of Campbell County; Dane Pearson and Nikolai Deininger of Converse County; Mary Ellen Parks of Lincoln County; Stacey Craig, Joseph Desson, Kalee Craig, and Corey Young of Park County; Tyson Budd and Brian Russell of Platte County; Jake Holland of Sheridan County, and Joshua Drake of Washakie County.

The schedule provided for dawn-to-dusk shooting opportunities guided by 4-H leaders involving pistols, rifles, shotguns, muzzleloaders, and archery equipment.

Activities included long-range shooting at targets from 600 to 1,000 meters away, setting targets and radioing results to the firing line, and playing several clay target games.

To qualify for the annual trip, 4-H members must be one of the top 12 senior individual all-around shooters at the 4-H State Shoot or must be one of the top two recordkeeping winners.



Nick Moline of Laramie congratulates Spotty, his Dorset Hampshire cross champion commercial ewe, at the state fair. The 10-year-old member of the Howell Hootowls 4-H Club, Moline is a fifth grader at Thayer Elementary School. He is also the son of Albany County Cooperative Extension Service Educator Brett Moline.

University of Wyoming
Cooperative Extension Service
Dept. 3354
1000 E. University Avenue
Laramie, WY 82071

Extension Connection

November 2003

Editor

Vicki Hamende

Layout and Design

Tana Stith

Send comments or
suggestions to:
Glen Whipple
P.O. Box 3354
Laramie, WY
82071-3354
(307) 766-5124
glen@uwyo.edu

UNIVERSITY
OF WYOMING



Printed on recycled paper

*The University of Wyoming
is an equal opportunity/
affirmative action institution.*

Non-Profit Organization
U.S. POSTAGE PAID
LARAMIE, WY 82072
PERMIT No. 1