Message from the University

Since 1914, University of Nevada Cooperative Extension has been empowering people through education. We invite you to see we are now more meeting the contemporary needs of Nevada citizens through the articles in this publication.

Throughout our 91-year history, Cooperative Extension faculty and staff have educated citizens from Nevada’s off-campus through the state. We have worked with people in the communities in which we live, and identified critical needs for helping citizens develop skills and acquire knowledge to improve their lives.

From the beginnings of 4-H and the early Boys and Girls Clubs to the resource challenges of the Depression to improving diet and health in today’s fast-paced society, Cooperative Extension has addressed the issues of high importance to our neighbors. The issues have changed over the years, and will continue to change in the future. To remain constant is the need to bring quality research-based information to Nevadans in formats that can be readily utilized to positively impact their lives.

Throughout our 91-year history, University of Nevada Cooperative Extension has been helping rural Nevadans. We have worked with people in the communities in which we live, and identified critical needs for helping citizens develop skills and acquire knowledge to improve their lives.

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We hope you enjoy reading about our programs and hearing about the ways that citizens are putting hope you enjoy reading about our programs and hearing about the ways that citizens are putting

Contents

1 Investing in Youth
2 Promoting Good Nutrition
3 Sustaining Agriculture
4 Fighting Wildfire
5 Starting up in Mineral County
6 Diagnosing Pets and Plants
7 Helping Rural Nevadans

2005 Highlights

Karen M. Birk, Area Director
John Hair, Administrative Assistant
John B. Line, Administrative Assistant
Alondra Lezama, Program Coordinator
Debra Dietz, Program Coordinator/Finance
Sustainable Agri. Research
Barbara J. Mattie, Director
Dale Mawson, Director
M. D. Davis, Director
L. A. Price, Director
K. A. Thompson, Director

Our purpose
University of Nevada Cooperative Extension extends knowledge from the University of Nevada to local communities to address important issues. More than 200 faculty and staff, along with the help of 3,000-plus volunteers, conduct informal educational programs in every Nevada county through 18 statewide offices.

Our program areas
• Agriculture
• Community Development
• Health and Nutrition
• Horticulture
• Human and Family Development
• Natural Resources

Our mission
To discover, develop, disseminate, preserve and use knowledge to strengthen the social, economic and environmental well being of people.

What is Cooperative Extension?

www.unce.unr.edu
Winemucca teen April Sellers did not get along with her parents. In fact, she blamed them for all her problems. She skipped school a lot, and then in 1997 she ran away from home. Her probation officer gave her the option of attending the University’s Cooperative Extension Project MAGIC classes or incarceration. She decided to participate in the intensive after-school, life skills training for first-time juvenile offenders.

“MAGIC changed my life,” said Sellers, now a 24-year-old Elko resident. “This program gave me the self worth I never thought I had. It also gave me the confidence to deal with issues and not blame others for my problems. I have a more positive outlook on life.”

Project MAGIC is a national award-winning intervention program that helps high-risk adolescents, aged 12-18, become productive citizens, and empowers their parents/guardians to provide support for positive change. The program builds healthy relationships and works on good decision making.

“Violence and crime among youth continue to be enormous problems for families and communities, with Nevada one of the leading states in per capita rates of youth incarceration,” said Marilyn Smith, Cooperative Extension youth development specialist, who created the program in Elko in 1989.

MAGIC has graduated more than 3,000 Nevada families, and programs are available now in eight communities, including an Indian Reservation and Las Vegas, which encounters 2,500 juvenile offenders in its court system every month. Smith was tapped by the University as the first recipient of its Distinguished Outreach Faculty Award in 2004. She also received one of the 2004 Department of Agriculture Secretary’s Honor Awards, the most prestigious award given by the USDA.

Today, Sellers uses the communication techniques she learned from MAGIC in her everyday life. She no longer needs to hide her feelings, and this helps her with her husband and children. She works full-time at an Elko car dealership, and plans to return to school in the future. When her family matures, she would like to be a volunteer MAGIC instructor to help other troubled youth turn their lives around.
Danny and Milo Guerrero were struggling in school and fighting when they first joined the University’s Cooperative Extension 4-H After School Club near their home five years ago.

“My sons were having problems with their school assignments, and they were fighting at that time,” reported their mom, María Teresa Cortez, through an interpreter. “But their behavior has improved and so have the school reports.”

The 16-year, award-winning program teaches life skills that build resiliency in young people at risk. Each year in Washoe County, 700 low-income and homeless youth, ages 6-12, learn math, science and reading skills, conflict resolution, communication, self-responsibility, decision making, social responsibility and good nutrition. Teachers help students with their homework, emphasizing literacy skills.

In evaluations conducted by Youth Development Specialist Jackie Reilly, kindergarten through second-grade students showed a significant improvement in reading grades; improvement in students’ social skills were noted by parents, teachers and staff.

Nevada’s 4-H After School Club was one of seven sites in the country chosen to pilot a new science curriculum in 2004, in partnership with the Department of Energy.

The “Science of Energy, Light and Lighting” curriculum consists of 10 hands-on lessons. Youth use tools such as glow sticks, solar beads and radiometers to perform experiments.

“The kids loved it. Everyone wanted to participate,” said Cooperative Extension’s Maureen O’Brien. By empowering the children to learn by doing, O’Brien said they were able to increase their knowledge 38%, based on a 10-question pre- and post-survey. “That’s huge,” she added. “That’s what we like to see in our programs — real, measurable impact.”

To date, more than 250 youth at six Washoe County elementary schools, one middle school and three Reno Housing Authority sites have participated in the program. With these successful results, O’Brien is hopeful for a program expansion in the future.
4-H lends a hand to military families

The University’s Cooperative Extension 4-H program expanded its reach to include youth in military families, thanks to funding from USDA and the military.

At Sierra Army Depot in Herlong north of Reno, Cooperative Extension’s Sarah Chvilicek provided staff training that reached more than 120 youth with life skills education. Youth also went on field trips, including 4-H Capital Days, where teens from around the state visited the Nevada State Legislature.

“Our youth absolutely loved that experience,” said Marsha Olsen, assistant facility director at the depot’s Child and Youth Services. “The partnership benefited the staff too because we’ve all had training through 4-H,” she added. Military youth and adults will also attend the 4-H Camp at Lake Tahoe during the summer.

Eric Killian, Nevada’s 4-H military liaison for Cooperative Extension, headed up the efforts at Nellis Air Force Base in Las Vegas where 120 school-aged youth participated in programs, such as sewing, photography, cooking and Health Rocks. More than 80 teens learned leadership, decision making and team-building skills in Project THUNDER: Teens Taking Charge! Many of these teams worked as camp counselors for THUNDER summer camps at Utah’s Ponderosa Ranch.

Killian, Chvilicek and State 4-H Youth Development Specialist Carol Benesh are expanding this partnership to include youth of National Guard and Reserve members for camp experiences in Summer 2005.

Mini-Society® makes business fun

Thomas Romo, a special needs student at C.C. Ronnow-Edison Elementary School in Las Vegas, has blossomed through his participation in Cooperative Extension’s Mini-Society®.

“I cannot begin to tell you how Mini-Society® has influenced Thomas’ education,” said Anita Chanilingok, his teacher’s assistant for five years. “Thomas was so receptive of the entrepreneurial aspect of the program that he and his ‘business partner’ created bracelets to sell.”

Mini-Society® helps students develop and recognize opportunities for commercial enterprises. “Not every student who graduates from high school plans to attend college,” explained Eric Killian, Cooperative Extension youth development specialist. “Mini-Society® is a wonderful way to integrate various subject areas in a fun and exciting way,” said Rebecca Lopez, academy director at Thomas’ school.

The program uses business principles to help students develop their reading, math, cooperative learning and social skills.

“Our students love the program — they learn so much about money and how to use it,” said Lopez. Cooperative Extension’s María Lopez-Harris added, “Participants design and develop their own society. They even create a flag and their own currency.”

The impact is amazing. Eighty-five percent of students who participated said Mini-Society® taught them how a business works and how to be a team member, and also helped them in their school work as well.

Fifth-graders Jonathan Haro, Thomas Romo and Freddy Barrios help Cooperative Extension Instructor María Lopez-Harris prepare items for sale in the Mini-Society® program. Photo by Marilyn Ming
In celebration of the 2005 Las Vegas Centennial, Cooperative Extension's Jo Anne Kock and Vicki Agao penned a children's book, Growing up in Las Vegas, for use in their child care provider training. The amply illustrated book, a fictional story based on historical facts and photos from 1905, stars five-year-old Ellie, her brother Billy and their family. They move from a tent into a real house, meet Paiute Indians near the Las Vegas Ranch, make all their food and clothes, and study next to the pot-bellied stove.

“Growing up in Las Vegas, circa 1905”

Dean Karen Hinton, President John Lilley and Congressman Jon Porter break ground for a new Cooperative Extension lifelong learning center in Las Vegas. Photo by Jean Dixon

“Growing up in Las Vegas”

This curriculum also has an activity book,” said Kock. “It contains 14 different activities that follow the year’s timeline as illustrated in the book.” Descriptions of Las Vegas history are interwoven into activities such as Ellie cutting paper dolls, a Paiute Indian boy playing with his pet lizard, and a lantern used to light the way to the outhouse. Each page contains a list of new vocabulary words for preschoolers. The activity book is a basis for interactive dialogue and hands-on projects between a caregiver and a child.

The project was supported by a grant from the Centennial Educational Committee.

Cooperative Extension broke ground in January 2005 for a new lifelong learning center in Clark County. This ceremony marked a beginning of the year-long construction phase for the 43,000-square-foot facility, the University’s first permanent home in this fast-growing community.

President John Lilley, Congressman Jon Porter and Dean Karen Hinton welcomed more than 80 people to the ceremony. “This new center will enable the University to expand on its 88-year history of helping southern Nevada citizens address important social, economic and environmental issues,” said Lilley.

Porter added, “You (Cooperative Extension) play a big role in the community and the state. This is a tremendous opportunity for the expansion of programs to help citizens and the environment. For all those kids, seniors, moms and dads, this is a tremendous tool.” Porter’s 3rd Nevada District includes the 175-acre parcel south of the airport at the intersection of I-215 and East Windmill Lane.

Hinton thanked the many employees and other individuals and organizations in Clark County who came together to make the new facility a reality. “This is a great example of the federal, state and county partnership that is our foundation,” she said.

Beginning in December 2005, Cooperative Extension’s 100 personnel, offices and classrooms will be consolidated from the current 31,500 square feet into one accessible location in the new high-tech building. Plans for the building include the use of solar energy and a demonstration garden that will show residents how to garden in a desert environment.

Other University programs to be based in the facility include communications, development, alumni relations and student services.
Chefs For Kids

Teaching children the importance of healthy food

“O”k, kids, now name two foods in the meat group that come from plants,” calls out the teacher, Robin Collins, to a second-grade class at Cortez Elementary School in North Las Vegas.

Six or eight hands shoot up…(how many adults could answer this question, we’re wondering)…

“Dried beans and peas”…“and nuts”…

“I like to bring the kids up to the curriculum,” explained Collins, an 11-year Cooperative Extension instructor, after the class. “I don’t ‘dumb down’ the material, because these kids are getting it, and so do many of their parents.”

“They do pretty well,” agrees the class’ regular teacher, Janice McGrew, who says the knowledge gained in Collins’ Chefs For Kids course carries over even to her science and math programs. “Robin is really good ‘being silly’ with the kids and telling stories — it’s a non-threatening situation where the children are not afraid to participate. I bounce ideas from the tasting and feeling of the foods and integrate those experiences into other subjects,” added McGrew.

Chefs For Kids, now in its 15th year, has expanded its weekly intensive nutrition education to second-graders at 12 high-needs schools in Clark County. The “Adventures With Chefs For Kids” puppet video program also reaches first-graders in 72 elementary schools for five weeks.

Through the years, more than 17,200 children have learned to begin good health practices — early.

The program is a joint venture of the University’s Cooperative Extension and the American Culinary Federation Chefs of Las Vegas.

IMPACTS

- Only 11% of students could choose three snacks rated “more healthful” before the course; this jumped to 52% afterwards;
- In a test, 86% of students were able to name all five of the food groups on the Food Guide Pyramid; and
- Eighty-five percent could name at least one food from each of the food groups.
“Coffee Shop is one of the most valuable resources for people of many professions.”
Rachel Buzzetti, Nevada Cattlemen’s Association executive director

e-Coffee Shop helps ranchers make money

The University’s Cooperative Extension email network is changing the way agriculture gets its information

“I read Coffee Shop email every night before I go to bed,” said Jerry Johnson, herd manager for University of California-Davis. “One day I put out a question about estrus synchronization, and bam, I got all kinds of information. I like it because you get people’s practical experience as well as technical information and research,” Johnson added.

Johnson is one of more than 130 producers in seven states and all Nevada counties and more than 50 veterinarians, university and agency experts who subscribe to a long-distance exchange of agricultural information that is helping sustain the livestock industry.

“Eighty-four percent of producers who responded to an online survey said that Coffee Shop helped their ranching operations make money,” reported Ron Torell, program founder and Cooperative Extension livestock specialist who conducted an evaluation of the program.

“The Extension Coffee Shop is one of the most valuable resources for people of many professions,” said Rachel Buzzetti, Nevada Cattlemen’s Association executive director.

“IT doesn’t cost a dime and your questions are always answered no matter what the subject. With all the subscribers, it has proven to be a highway of information in Nevada,” added Buzzetti.

IMPACTS

A 2004 survey found that:

- 96% of producers said Coffee Shop provides accurate research-based information;
- 94% said the program keeps them up to date on important issues;
- 88% said the exchange helps them make important decisions in their ranching operation; and
- 87% of ranchers improved their knowledge of herd health management practices. BSE (“Mad Cow”) disease and Hantavirus received the highest scores in knowledge gained.
New agriculture programs coming to Nevada!

Applied Reproductive Strategies in Beef Cattle
A two-day workshop — Oct. 27-28, 2005, at the El Dorado Casino Hotel in Reno — helps ranchers improve conception rates, learn estrous synchronization systems and costs, measure breeding soundness and semen quality, diagnose early pregnancy and devise strategies to improve reproduction.

For information, contact Ron Torell, (775) 738-1721, or torellr@unce.unr.edu

Range Management School
Based on a successful Colorado model, this program focuses on “how grass grows,” animal nutritional needs and the timing of grazing. The curriculum, which has been taught to more than 2,000 participants, takes an uncomplicated approach to complex ecological concepts. A Nevada group of ranchers, range managers and scientists is adapting the program to this state and will offer workshops to the public in Winter 2005.

For information, contact Kent McAdoo, (775) 738-7291, or mcadook@unce.unr.edu

Using Livestock Grazing as a Tool for Weed Control
Livestock grazing is a proven method to control noxious weeds; however, no single reference source is available that summarizes this state-of-the-art knowledge and experience. With funding from the Western Sustainable Agriculture Research and Education program (WSARE), Cooperative Extension is spearheading the production of a handbook, due out in Fall 2005, as well as a CD and Web site. A series of presentations on the manual will be held in nine western states in Winter 2005.

For information, contact Jay Davison, (775) 423-5121, davisonj@unce.unr.edu

MINIMIZING THE RISK OF AGRICULTURE
More than 60 livestock and forage producers took advantage of a series of two-day workshops throughout Nevada, sponsored by the colleges of Cooperative Extension and Agriculture, Biotechnology and Natural Resources, with funding by the USDA Risk Management Agency.

“The workshops helped producers make informed decisions on markets, pricing and production based on a strong financial analysis,” said Kynda Curtis, Cooperative Extension state specialist and Resource Economics assistant professor.

The Risk Management Education for Sustainable Agriculture program aims to enhance the quality of life for producers and rural communities.

For more information, contact Curtis, at (775) 784-1682, or kcurtis@cabnr.unr.edu

Ranchers get a hands-on experience of the entire process of beef production in “Your Beef’s at Stake.” Conducted in collaboration with the College of Agriculture, Biotechnology and Natural Resources, this comprehensive program involved four interactive video sessions and two days at Wolf Pack Meats. Twenty producers took their cattle from a live basis to retail cuts in order to improve the quality, consistency and marketability of their beef.

Photo by Jean Dixon
HELPING HOMEOWNERS AFTER THE FIRE

Carson City’s 2004 Waterfall Fire destroyed 17 homes, damaged many more residential landscapes and claimed nearly 9,000 acres of public and private land. The aftermath left property owners stymied, with dead vegetation and other rehabilitation needs. Former Carson City Mayor Ray Mayasako said, “I can think of no other organization that has result-oriented credibility like the University’s Cooperative Extension . . . you get the job done,” as he asked Extension Educator JoAnne Skelly to lead the Waterfall Fire Education Project.

With funding from Carson City, Skelly, colleague Ed Smith and their team quickly went to work. By Spring of 2005, they:
• Visited more than 100 properties to assess damage and make recommendations;
• Fielded more than 500 phone calls and emails;
• Developed an email listserve to provide information and updates;
• Gave presentations to more than 500 people on post-

Cheating Cheatgrass

You might say that cheatgrass was the first Mideast terrorist to hit U.S. soil,” said Cooperative Extension’s Jay Davison about the invasive weed imported from central Eurasia in the late 1800s. Cheatgrass has invaded millions of acres of Nevada’s rangelands and is considered by some the No. 1 environmental threat to the state.

Davison and colleague Ed Smith conducted a research trial testing the herbicide Plateau® to see if it was effective in controlling the cheatgrass which had invaded a 100-foot-wide fuel break constructed in 2002 adjacent to a Carson City subdivision.

The 2003 treatments revealed a year later that the control areas contained 150 pounds of cheatgrass per acre, while the sprayed plots showed only 4 pounds. The herbicide did not harm native plants, a vital advantage in that it would allow immediate reseeding of an area with beneficial vegetation.

While the 2004 Waterfall Fire destroyed 17 homes in other subdivisions, the homes adjacent to the test site stood miraculously intact.

“The fire ‘laid down’ at the edge of the test plots,” said Davison, revealing how powerful this tool against flammable cheatgrass could be in wildfire-prone areas.

(No endorsement of products is intended.)
You might say the Living With Fire videos and DVDs — placed in statewide libraries, fire stations, video stores and University Cooperative Extension offices in Summer 2004 — went like wildfire. The first order quickly disappeared, replaced by more than 1,200 copies, with only a few hundred remaining in 2005.

“We will definitely produce more,” said program creator Ed Smith, who developed the pieces with the help of colleague JoAnne Skelly, firefighters, KOLO News Channel 8 and The Media Center. They are available in English and Spanish, and address five different vegetation types throughout Nevada.

Funding was provided by the Bureau of Land Management, USDA Forest Service and Nevada Division of Forestry, through a National Fire Plan grant.

DEFENSIBLE SPACE TIPS NOW AVAILABLE ON VIDEO AND DVD

Wildland fires burned nearly 300,000 acres in central Nevada during the past five years, and Eureka County Extension Educator Willie Riggs was not about to have his neighbors sustain the devastating economic losses again.

In a partnership with Eureka County, the Nevada Division of Forestry, Bureau of Land Management and Nevada Fire Safe Council, Riggs developed a GIS/GPS database to evaluate and determine the areas with probabilities to burn. Sections were determined for defensible space and green stripping projects.

In 2004, nearly 500 acres over 75 miles of green stripping was conducted. Six target areas were drilled and broadcast seeded to create defensible space, with monitoring planned for the future. This project caught the attention of other counties and states across the nation.

Riggs also facilitates a volunteer firefighter program to further protect property, livestock and people from the devastating impacts of wildfire.

Green Stripping in Eureka

Wildland fires burned nearly 300,000 acres in central Nevada during the past five years, and Eureka County Extension Educator Willie Riggs was not about to have his neighbors sustain the devastating economic losses again.
Finding NEMO

Educating decision makers about the impact of development on water quality

When Cooperative Extension’s Susan Donaldson found NEMO at Connecticut Cooperative Extension, she knew she had to bring it to Nevada. Nonpoint Education for Municipal Officials educates decision makers about development’s impacts on water quality. Northern Nevadans consistently rank water quality as a top concern, and so a better understanding of these impacts enables land use planners to address these issues while development is still in the planning phase.

“The NEMO program helps prevent water quality problems that can occur as a result of development, rather than simply providing Band-Aid solutions after they occur,” explained Donaldson.

With funding from the Nevada Division of Environmental Protection (NDEP), Donaldson adapted the NEMO materials to northern Nevada’s arid climate. With input from an advisory group of planners, engineers and educators, she produced five fact sheets and five PowerPoint lessons as part of the 171-page NEMO curriculum.

In 2004, Donaldson presented nine workshops, reaching 70 decision makers, including Washoe County and Sparks planning commissioners, Washoe County and Sparks community development planners, and citizen and neighborhood advisory boards. Twenty landscapers, private planners and engineers also attended. Program participants gave the training a rating of 4.8, on a scale of 1 (not valuable) to 5 (very valuable).

Decision makers are using the materials, particularly the “List of Questions to Ask When Reviewing Plans,” during their review of proposed land developments. Washoe County is revising their area plans, and has completed and approved the first plan in Spanish Springs. It references low-impact development, the subject of a NEMO lesson. This plan will be used as a template for all other area plan revisions.

“Donaldson’s efforts have resulted in a more informed public,” said NDEP Administrator Leo Drozdoff, “and she is directly responsible for helping stakeholders apply their knowledge and skills to solve community environmental challenges. The importance of her work cannot be overstated in this time of unprecedented population growth and rapid land use change.”

“Nonpoint Source Pollution (NSP)”

NSP is the major source of water quality degradation in Nevada’s watersheds. It results from our daily activities that occur throughout the community, rather than from large, single sources, such as factories. New development is one of the major sources of NSP since it often results in bare soil, increased erosion and more sediment entering our water bodies.

For more information, contact Donaldson at (775) 784-4848, or donaldsonsm@unce.unr.edu

Photo by Jean Dixon
MINERAL COUNTY OFFICE OPENS ITS DOORS

Cooperative Extension’s new Mineral County office opened its doors in Spring 2004, completing the 90-year tradition of University faculty and programming in all 17 counties.

Staci Emm, a native of Mineral County, was named the first Extension Educator, responsible for identifying important issues and ensuring that appropriate educational programs are implemented and result in measurable, positive impacts.

“The opportunities are endless in Mineral County, and this gives me a chance to create programs from the ground up to meet the community’s needs,” said Emm.

She hit the ground running, and one year later — through many community collaborations — she has instituted these programs:

■ WALKER LAKE: Emm completed a Walker River Basin Research Study, which focuses on identifying commonalities and differences among water rights owners in the Basin. Emm galvanizes adults and youth to become more aware of the local water quality and quantity issues.

■ YOUTH PROGRAMS: A 2003 survey revealed that job preparation, the use of drugs and alcohol and teen pregnancy were the top youth issues in the community. Emm’s Creating the Community Connection brings people together in a proactive approach to substance abuse prevention and intervention. Recruiting for a Mentoring Program has begun, in collaboration with KARRS (Kids at Risk Rescue Squad), where students are matched with a mentor to increase attendance, academic performance and community service, and decrease problem behavior.

■ HORTICULTURE: The No. 1 concern of residents was community beautification. Emm educates citizens about using horticulture as a community beautification tool, kicking off a Horticulture Week in Spring 2005, including work in the Memorial Rose Garden and home visits.

For more information, contact Emm at (775) 945-3444, or emms@unce.unr.edu

“We are very proud to have Staci here. If I were to grade her, I’d give her an ‘A.’ She’s an excellent asset to the community and has been very helpful to our citizens. She knows how to get information from the University to our county.”

Nancy Black, Mineral County Commissioner
TALL WHITETOP

Economic study shows benefits of control

Tall whitetop is a devastating non-native weed that has infested thousands of acres of Nevada’s waterways, range and agricultural lands.

The invader grows four or five feet tall in wet areas, forming dense patches that become monocultures interfering with desirable native vegetation. The weed is a prolific seed producer, generating more than 15 billion seeds that spread far and wide, reducing wildlife habitat, recreational opportunities and impacting the quality and value of crop and livestock production.

“The economic impacts of tall whitetop had not been investigated,” said Lyon County Extension Educator Loretta Singletary, “and in fact, very few studies have been conducted for any weed using arid, relatively low-value agricultural settings.”

Singletary, Wayne Johnson, Cooperative Extension state specialist, and former specialist Mark Eiswerth conducted a study along the West Walker River to compare tall whitetop’s management costs with estimated future benefits of management, and to estimate the time required for a land manager to recover control costs through increases in agricultural yield. The team used a global positioning system and aerial photos to identify weed infestations in the study area.

They discovered that:
- On land used solely for grazing, the economic returns from management did not equal costs until 15 years after initial treatment of the weed;
- However, on land used for grazing plus hay harvest, benefits equaled and began to exceed costs after four to five years; and
- When estimating costs and benefits of management for an adjacent landowner (Landowner B), also with an infestation, the landowner benefited economically from weed management in five to six years. (See graphic)

“These data show that investment in tall whitetop control is more economical on lands managed for grazing and hay harvest as opposed to grazing only,” observed Singletary, “and that cooperative rather than single efforts are more profitable in controlling adjacent weed infestations.

**COST RECOVERY TIME**

Payback periods for tall whitetop control are sensitive to land uses.

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<th>Landowner A</th>
<th>Hay harvest plus grazing</th>
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<th>Landowner B</th>
<th>Hay harvest plus grazing</th>
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<td>Payback</td>
<td>5 years</td>
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“**These data show that cooperative rather than single efforts are more profitable in controlling adjacent weed infestations.**”

Loretta Singletary, Lyon County Extension Educator
The old days of specimen-filled plastic bags stacked in corners waiting for identification are, well, old and gone...welcome to the new world of digital diagnostics where speedy identification of plants and insects is possible through microscopes and digital cameras.

But the stakes may be higher than, “What’s wrong with my tomatoes?” These early detectors bring a new level of sophistication to something Cooperative Extension has been doing for years — diagnosing plant problems and identifying weeds and insect pests for homeowners, farmers and ranchers. Today, there’s need for a quick response to threats of bio-terrorism. This new technology represents a growing network of sentinels across the West and beyond that are on the lookout for exotic pests or pathogens that could threaten U.S. agriculture, security and public safety.

“These tools are our eyes and ears,” said Jeff Knight, entomologist with the Nevada Department of Agriculture. “But in addition to the homeland security issues, we can serve our clientele better with a more rapid turnaround of sample identification.” The NDOA is a close partner in this project — both Knight and Dr. Shouhua Wang have trained Cooperative Extension personnel and are, in fact, the rapid identification sources. Here’s how it works, according to Willie Riggs, Eureka County Extension Educator.

“I ‘shoot’ some pictures of an insect and send it to Jeff, who then returns the ID via email. In a rural community, this two-to-three days or sooner turnaround is important. We then have a file of the insects, which serves as a library so we don’t have to keep sending the same specimen. The files also serve as teaching tools for presentations. The Eureka Health Clinic has been informed too so we can help them ID insects for bite treatment,” added Riggs.

Many of the county offices are training Master Gardener volunteers to assist the public with sample diagnoses. “During Master Gardener diagnosis, we sometimes show homeowners the pictures too, for educational purposes,” said Marcia Moffitt, Lyon County Cooperative Extension program assistant.

Washoe County’s Bill Carlos uses the equipment daily during the horticulture season. A frequent user is Ron Gustafson, Moana Nursery horticulture consultant, who brought in an Austrian pine sample with, it turned out, a red turpentine beetle infestation.

“This is a great, time-saving electronic tool,” said Gustafson. “It helps consumers receive an accurate identification and, consequently, the proper control strategy.”
Lincoln County tourism study enhances economic development

It’s not widely known but of all the counties in Nevada, Lincoln County has the most state parks…and their hot springs in Pioche and Caliente, and the magnificent Cathedral Gorge with its sandstone hills are untapped tourist destinations. “The beauty in Lincoln County is just unbelievable,” said Tom Harris, Resource Economics professor and Cooperative Extension state specialist. “Many Las Vegas residents have second homes in Lincoln County,” he added.

The need to market the county’s tourism opportunities and diversify its economic base is what led to the formation of the Alamo, Caliente and Pioche Tourism Planning Committee. With the help of the University’s Cooperative Extension economists, the committee and other community members developed a tourism vision, identified assets and tourism strategy priorities. Kim Turley, co-owner of Windmill Ridge, an Alamo business, served on the committee. She noted that “Lincoln County cannot grow without tourism. This was a very necessary task to undertake.”

The Lincoln County Comprehensive Tourism Master Plan was published through the University, and new committees have been formed to address town signage and advertising issues. Cooperative Extension’s Buddy Borden said this project provides key baseline information to begin the planning and implementation stage to attract tourism.

Saving water in the Moapa Valley

“My wife Joanne and I are from Idaho Falls,” explained Don Cissel, a new participant in a Cooperative Extension gardening class. “We’re used to a lot of grass and green landscapes.”

IMPACTS

- Based on their designs, the water savings on retrofitted landscapes by class participants is more than 10 million gallons — more than $16,000 per year;
- 100% of participants completing an evaluation in the Gardening Basics class reported one or more changes in practices as a result of the class; and
- Participants in the Landscape Retrofit class rated their knowledge gain 4.7 on a scale of 1 to 5, with 5 being high.

Nevertheless, the Cissels built a home in Logandale and started a landscaping project four years ago. Because they travel a lot, desert landscaping works very well for them. “We decided not to put rocks around the yard because they just absorb more heat,” said Don. “But we do have several trees, and lots of our plants are in bloom.”

The Moapa and Virgin Valleys are experiencing rapid growth, and new residents moving in find growing conditions in the desert much different than most other places. They soon realize they will have greater success if they use localized planting and growing information, available at the University’s Cooperative Extension office.

“We offer Gardening Basics and Landscape Retrofit classes to the community,” said Extension Educator Alice Crites. “Of the 15 participants in our last retrofit class, everyone completed a personal landscape design at their residence. Our programming is extensive — the staff holds classes and demonstrations, conducts tours, participates in community events and educates through the media,” added Crites.

Educational horticulture information reaches throughout Northeast Clark County — in displays at local health food stores and nurseries in Overton, and at the nursery and Chamber of Commerce in Mesquite.
Leslie Hoover used to whisk through the market, never reading labels…that is, until she became a class participant in Cooperative Extension’s Nutrition Basics program, extended to rural Nevadans from Clark County. But then again, those were the old days, when she weighed 35 pounds more.

“I went from a size 24 to a size 18 in about four months,” said Hoover, a 55-year-old Fallon homemaker who took the class twice “because I wanted to demonstrate to people that this works!”

The classes resulted from a 2003 survey where Churchill County residents were asked to rate the importance of nutrition education — 58% of respondents said it’s a concern for them. Extension Educator Pam Powell then enlisted Las Vegas-based Nutrition Specialist Mary Wilson to conduct the 13 weekly classes in the Summer and Fall of 2004, and again in Spring 2005.

The course helps residents choose healthy, low-fat meals, use the food pyramid, understand cholesterol, dine out healthfully, figure out fast foods and read labels.

“It’s much harder to lose weight when you get older,” observed Hoover, “I feel so much better now, and that’s attributed to my weight loss, drinking eight glasses of water a day and exercising. Even my German Shepherd “Ruff” has lost weight, from 100 to 64 pounds! He walks with me and I’m also more careful what I feed him.”

Rural Nevadans receive nutrition classes via interactive video

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For more information, contact Powell at (775) 423-5121, or powellp@unce.unr.edu

PRESCRIPTION DRUG DISCOUNT CARD

Affordable medical care is the No. 1 concern of Churchill County residents, as identified in the needs assessments. As part of her Healthy Rural Communities program, Extension Educator Pam Powell received USDA funding to help identify those rural seniors who are qualified to enroll in the Medicare Approved Discount Drug Card. Powell is building a team to reach as many qualifying Nevadans as possible to save them money on their prescription drug costs.

Churchill County Extension Educator Pam Powell leads a discussion during an interactive video presentation of Nutrition Basics.

Photo by Jean Dixon
PYRAMID LAKE PAIUTE TRIBE AND UNIVERSITY’S COOPERATIVE EXTENSION OPEN JOINT OFFICE

For the first time in Nevada and in what may be a unique collaboration in the country, the Pyramid Lake Paiute Tribe and the University’s Cooperative Extension have agreed to jointly provide educational programming at the Pyramid Lake Reservation.

“Reaching underserved populations is part of our mandate,” said Frank Flavin, Cooperative Extension’s western area director, “and we are pleased to provide programs in collaboration with the tribe.”

A memorandum of agreement was signed by the tribe and the University in March 2005, and a reservation satellite Extension office opened June 2005.

“Our educational needs include: environmental and natural resource stewardship and education; cultural outreach and youth programs,” said Robin Powell, Pyramid Lake Paiute Tribe environmental manager. “We needed to develop a program that could demonstrate the importance of Extension Indian Reservation Program funding at the national level, which will filter to Nevada tribes,” Powell added.

“We can bring all the resources of the University to bear on the needs of Native American citizens living on the reservation,” said Flavin. “We’ll work hard to improve the quality of life and economic growth within their cultural context,” he added.

Successful quilter gets start at business class

“This one has gone nuts,” said BeB Andrae about her quilting machine that hums steadily in the basement, churning out quilts that are snapped up by friends and clients.

Andrae turned her hobby into a new business after she learned the principles of small business management in a 12-week interactive video class in 2004. The course, sponsored by Cooperative Extension and Nevada MicroEnterprise Initiative, discussed marketing, financial projections, taxes, legal issues, time management and how to write a business plan.

Andrae had been quilting for nine years on her home sewing machine, but the throat area wasn’t large enough to accommodate the thickly rolled quilting layers. So she presented her business plan to a local bank and in just two weeks received a $15,000 loan to purchase a new long-arm quilter.

“I can disappear for hours downstairs,” said Andrae. “I turn the radio on, and get a rhythm going with the machine. I do embroidery, a lot of fancy designs and more layers now. My husband Chuck told me, ‘You’re down there anyway, you might as well make money while you’re there!’”

The machine has been making its own loan payments since 2004, but after Andrae retires from her 30-year position with the Child Support Enforcement Office, she’ll concentrate full-time on quilting and pick up the pace. “I’m glad I took the classes and researched my business venture to make sure it would be a success,” Andrae said.