COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension



Mohave County Report 2016











Table of Contents



Subject	Page
Letter from the County Director	3
2015 Program Highlights	4
2015 Educational Programs and Participation Data	5
4-H Youth Development	6-8
Family Consumer Health Sciences	9-10
Master Gardeners/Horticulture Programs	10
Range and Livestock	11
Hualapai Tribal Extension	12
Visiting Faculty/County Faculty and Staff/Extension Advisory Board/Contact Information	13



Old Main, constructed in 1891, was the original University of Arizona Building. Designed in a style often referred to as 'territorial hybrid', the building was sunk six feet below the surface so the ground would help minimize the effects of the warm Tucson summers.

THE UNIVERSITY OF ARIZONA COLLEGE OF AGRICULTURE & LIFE SCIENCES Cooperative Extension Mohave County

From the County Director

Cooperative Extension's 2016 programs included 4-H youth development, animal science, agriculture, horticulture, natural resources, and family consumer health sciences. These programs provided grassroots education to 13,086 Mohave County residents. In addition, 172 citizens served as Cooperative Extension volunteers. These valuable volunteers enhanced Extension programming by helping Cooperative Extension educators deliver relevant educational programs and information to the citizens and communities of Mohave County. The contribution of these trained volunteers totaled 36,800 hours of service with an estimated value of \$876,008.

Cooperative Extension greatly appreciates the financial support, office space, and services provided by the Mohave County Board of Supervisors. Mohave County Cooperative Extension continues to leverage county contributions through collaborations with local partners and the acquisition of grant funding. With Mohave County's continued support, Cooperative Extension is confident we can continue to offer high-quality educational programs making a brighter future for Mohave County residents.

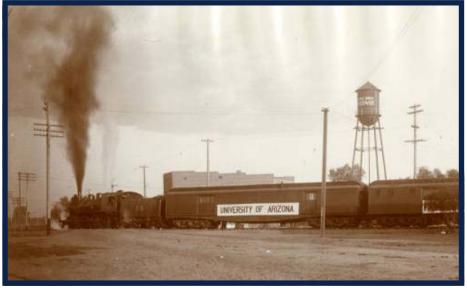
Sincerely,

Jeff Schalau

Interim County Extension Director

1 Selvla

Mohave County Cooperative Extension



Between 1910 and 1919, demonstration trains sponsored by the University of Arizona Agricultural Extension Service brought the latest technologies in agriculture and farming to rural communities across Arizona.

Executive Summary



Because of Mohave County Cooperative Extension, in 2016...

- Mohave County Cooperative Extension volunteers contributed 36,800 hours of service valued at \$867,008 (Independent Sector, using 2015 value of volunteer of \$23.56/hr.) serving as Master Gardeners, 4-H Leaders, and Extension Advisory Board members. Mohave County Cooperative Extension faculty also acquired \$780,345 in grants and gifts to support educational programming efforts.
- 4-H Agent, Gerald Olson, provided leadership for 4-H Youth Development programs which were supported by 110 4-H Volunteer Leaders. This included recruiting and certifying 11 new Volunteer Leaders. Additionally, 22 teens took on volunteer leadership roles. These 4-H volunteers contributed 28,600 hours of their time.
- Seventy five 4-H market livestock projects were successfully completed by 4-H members, as evidenced by their entry and sale in the Junior Livestock Sale at the 2016 Mohave County Fair. Profit earned by members often supported future 4-H activities/camps and future college expenses.
- 4-H Members enrolled in **466 large and small livestock projects** and received educational programs in a variety of animal science areas to provide positive Youth Development experiences. In addition, **153 4-H members** displayed **952 exhibits** at the Mohave County Fair in the 4-H/FFA Division.
- Mohave County 4-H faculty and staff planned and hosted four weeklong camp programs. Two of these were:
 MoYava 4-H Camp with 75 4-H members from Mohave and Yavapai Counties learning about stewardship of
 public lands and their natural resources; and JOLT (Journey Opportunities for Leaders of Tomorrow), a week long 4-H leadership camp that hosted 114 statewide 4-H youth.
- 4-H Agent collaborated with local residents and developed a fact sheet on backyard poultry which resulted in the City of Kingman adopting a new city ordinance that makes it possible to raise poultry in residential areas.
- Agriculture and Natural Resource (ANR) Agent, Andrew Brischke, led and conducted Range/Livestock educational programming and supervised the Master Gardener and horticulture programs.
- Range/Livestock programming supported and educated agency professionals, ranchers, and other interested parties about rangeland monitoring in partnership with BLM offices in Mohave County (Kingman and the Arizona Strip).
- **BLM Cooperative Rangeland Monitoring** was supported by \$435,095 in grant funding which facilitated data collection from 181 key areas on 59 grazing allotments across Mohave County and included the Arizona Strip.
- ANR Agent also coordinated and delivered six workshops which educated 454 producers and agency
 professionals about range management/monitoring, livestock nutrition, and invasive species. These programs
 were evaluated and respondents indicated they increased their knowledge and will be adopting practices as a
 result of attending.
- The **13 Session Mohave County Master Gardener Course** was taught in two locations (Kingman and Lake Havasu City) to 39 participants. **62 Master Gardener** volunteers contributed 7,592 hours of volunteer service to their communities reaching 5,536 consumers with science-based gardening information at 264 public events.
- Area Family Consumer Health Sciences (FCHS) Agent, Trish Zilliox, provided leadership for SNAP-Ed, Child Care Health Consultant, and directed other FCHS efforts in Mohave County.
- Mohave County Cooperative Extension SNAP-Ed staff delivered direct education to 3,077 Mohave County residents at 121 sites and assisted in the establishment of the Kingman Farmer's Market (KFM) which opened for business in Fall 2016. Sites included community gardens and child care centers.
- Child Care Health Consultant programs were funded by First Things First and improved health and safety conditions for children in day care. The CCHC educator reached 219 adults and 648 children on 111 sites in Mohave and La Paz Counties as well as the Colorado River Indian Tribe.
- Extension Agent, Elisabeth Alden provided educational programs for Hualapai Tribal youth in the areas of 4-H projects, gardening, hunter safety, and supported a five-day natural resource camp that was offered in partnership with the Hualapai Tribe Department of Natural Resources. Hualapai Tribal ranchers also received educational information related to rangeland livestock production. This position is grant funded by the Federally Recognized Tribal Extension Program (FRTEP).

2016 Educational Programs



In 2016, our educational programs focused on:

4-H Youth Development	4-H youth development programs, 4-H volunteer training/support, youth leadership, camping, and Science, Technology, Engineering, and Math (STEM) Education.
Family, Consumer and Health Sciences	Supplemental Nutrition Assistance Program (SNAP-Ed) promoted healthy eating, gardening, and physical activity. Child Care Health Consultation is an educational program that promotes Health and Safety in early childhood educational settings for more optimal learning.
Horticulture	Master Gardener training and volunteer support was provided in Kingman, and Lake Havasu City. Master Gardeners volunteer in their communities to educate residents about insect and disease management, landscape maintenance, irrigation conservation, community gardens, and backyard food production.
Livestock and Range	Sustainability of grazed rangelands for ranchers and agency personnel, rangeland monitoring education, and access to technical and educational resources. Cooperative rangeland monitoring is also occurring in Mohave County in a partnership between Cooperative Extension and the Bureau of Land Management.
Tribal Programs	Federally Recognized Tribal Extension Programs (FRTEP) were provided at the Hualapai Indian Reservation in the areas of natural resource management, horticulture, 4-H Youth Development, and range/livestock.

Mohave County Citizens Served in 2016

Program Area	Educational Outreach	Office Contacts	Totals
4-H Youth Development	1,581	1,040	2,621
SNAP-Ed	3,077	114	3,191
Child Care Health Consultant (First Things First)	867	65	932
Hualapai Programs	104	45	149
Range Livestock	599	58	657
Horticulture	5,137	399	5,536
Totals	11,365	1,721	13,086

4-H Youth Development - Projects & Clubs

Gerald Olson, Extension Agent, 4-H Youth Development **Jamie Campbell**, Program Assistant, 4-H Youth Development

Plants and Animals

Arizona students are among the lowest performing in the country in math and sciences. These areas are critical to Arizona's future and the state's future economic strength. 4-H programs that emphasize these areas will help Mohave County youth be ready to take on Arizona's future challenges. Specifically, 4-H projects in plant science, rabbit, cavy, poultry, pigeon, beef, sheep, swine, horse, and dog teach young people the importance of math/science skills while also providing avenues for successful entrepreneurship.

Second through 8th grade teachers in the Mohave County Schools enhanced their science-based teaching programs in gardening and classroom botany projects to meet the Arizona Academic Standards for Science through the use of School Gardening and Plant Science programs.

4-H Members and Leaders were enrolled in 466 large and small livestock projects in Mohave County and have received education in a variety of animal science fields. Forty nine livestock exhibitors had their animal's carcasses evaluated and graded. By viewing their own livestock carcass, members, leaders and breeders have been able to fine-tune their feeding and breeding programs and improve the quality of the meat product they are learning to produce. Youth with skills related to livestock and animal production not only learn about food and fiber production, but are better informed consumers as adults. The University of Arizona Meat Science Department evaluated livestock project animals. Similarly, the 4-H Dog Project taught youth responsibility and patience. Additional 4-H School enrichment programs taught Embryology to nearly 100 students and Insects in the Classroom taught students about the science of entomology.



Youth are able to pet a rabbit for the first time during the 4-H Meet & Greet at the Mohave County Fair.





Mohave County 4-H'ers meet with Dr. Geraldo Lopez to learn about Agriculture Science careers during their visit to University of Arizona.

4-H Personal Development

Research has demonstrated the importance of 4-H in the positive development of young people. Research shows that youth who have participated in traditional 4-H clubs for more than one year have significantly higher developmental outcomes than non-4-H participants. 4-H youth are more likely to report getting better grades, being involved in leadership positions, and being involved in community service. 4-H youth are also less likely to steal, use drugs, vandalize property, and skip school.

Mohave County 4-H Youth Development has many programs available to youth who are enrolled in 4-H as well as other programs to develop these skills. Objectives and priorities for the programs are established through adult and youth volunteer focus groups, advisory committees, interviews, Leadership Councils, program planning groups, school officials, and other collaborators.

Prior to entering their projects into the County Fair each youth completed a 4-H Record Book. The 4-H program has a long history of record keeping which reflects the importance of documenting goals and outcomes. In 4-H, young people track their activities, events, profits and losses, skill development and learning experiences, and much more using the 4-H Record Book.

One hundred and fifty three members displayed 952 exhibits at the Mohave County Fair in the 4-H/FFA Division. Of these, 80% were rated as Blue Ribbon or above for their project work and skills demonstrated served as a showcase for Mohave County 4-H Youth to exhibit what they had made and learned.

4-H Youth Development - Continued

Youth-Adult Partnerships

Youth-adult partnerships are the heart of the 4-H mission, and a guiding principle for how 4-H leaders, staff, and volunteers work with young people. All members have a role in creating and supporting a strong and healthy community. Sustained positive relationships between young people and adults support the healthy development and well-being of youth, while also benefitting adults, organizations, and communities. Youth-adult partnerships occur when:

- Young people are seen as assets to their communities as much as adults.
- Adults create ongoing opportunities for young people to share leadership with them in community settings.
- Youth contribute what they uniquely bring to the group and to the community.
- Youth and adults engage as equals in planning, implementing, and evaluating programs that shape the development of youth, as well as their communities.

4-H offers many opportunities for youth to develop skills for a lifetime. Programs are developed which address the four essential elements of 4-H which are abbreviated BIG-M:

- Belonging (inclusive, safe environments and positive relationship with a caring adult).
- Independence (opportunity to see oneself as an active participant in the future and for self-determination).
- Generosity (opportunity to value and practice service for others).
- Mastery (engagement in learning and opportunity for mastery).



 $\mbox{\sc 4-H}$ club members pose with their 2016 Champion Round Robin Livestock Showmanship winner.





4-H members attending the Carcass Contest in Tucson get a first hand look at the University of Arizona Meats Lab and learned about how meat is sampled for bacterial contaminants.

Mohave County 4-H Interstate Exchange, Contests, and Events

Mohave County 4-H offered many opportunities for youth to develop skills that will serve them for a lifetime. These program and events included: 4-H Interstate Exchange Program, 4-H Awards Program, County Recognition Night, Demonstration Day, Family Fun Day, and the Mohave County Fair. Thirteen teens and adult leaders planned and coordinated the 4-H Interstate Exchange program. Mohave County 4-H members hosted 4-H members from Rensselaer County, New York (Troy), to stay with 4-H families, and toured the agricultural as well as historical sites and National Monuments and Parks in and around Mohave County. At Mohave County 4-H Challenge Days, 78 members represented 11 clubs which entered in 16 contest areas. During these contests, 63 members received a score of 80% or higher indicating an advanced level of competency.



4-H Youth Development - Camps

Camping Programs

4-H builds essential skills that equip youth to be confident and able to adapt to a variety of situations. Youth will assume responsibility for this country's natural resources in the future and must learn the value of renewable natural resources. Mohave County 4-H Leaders have expressed a need and interest to have 4-H Summer Camping programs. According to the American Camping Association, camp experiences provide a forum for children to discover and explore their interests, values, and talents. Through participation in 4-H camp programs, youth are better able to accomplish tasks on their own and in a team, make new friends, try new things, and appreciate the outdoors. A fiveday camp was delivered focusing on natural resource education with programs on wildlife, natural resource soil and quality/conservation. conservation, water Evaluations indicated camp participants gained knowledge in all the above listed areas. In addition, youth attending the Resources Camp showed the following improvements; 67% of campers strongly agreed that they can stand up for things that are important to them. 51% of campers strongly agreed that they know who to go to if they need help with a problem. 55% percent of the campers agreed that they are comfortable making their own decisions. Lastly, over 64% of campers learned that they have a greater understanding of how to wisely use the natural resources after attending MoYava 4-H Camp. In the comments section of the evaluation Campers stated: "It was fun at camp and I made a lot of friends"; "This was a great camp! I had the time of my life! My counselor was amazing and so was my group! I made so many new friends"; "It was an amazing and fun week here at 4-H camp. I always enjoy coming to camp and making new and unique friends."



Mohave County 4-H'ers put a worm on a hook for the first time at a fishing workshop during Summer Camp.





Mohave County 4-H Youth Development Agent, Gerald Olson (left), was named 1st Place Educator by 2016 Best of the Best, Kingman Daily Miner. 4-H Secretary, Jeanette Spears (middle) and 4-H Program Assistant, Jamie Campbell (right) also celebrate Mohave County 4-H being named 1st Place Volunteer Organization by 2016 Best of the Best, Kingman Daily Miner.

Personal Leadership Development –JOLT

Research has found that positive youth development is affected by the opportunities for teens and young adults to develop mastery, leadership, service, and attachment to a group. Statewide 4-H members seeking leadership experience can enroll in a residential summer camp called JOLT (Journey: Opportunities for Leaders of Tomorrow). The 2016 JOLT Teen Leadership Conference was attended by 114 participants from all over Arizona. Mohave County 4-H Agent, Jerry Olson, provided extensive leadership for JOLT in 2016. 4-H youth, adult volunteers, and 4-H Agents design and deliver JOLT each year. JOLT participants completed a retrospective survey which showed significant increases in knowledge, aspirations, skills and attitude in measurements of participant's abilities. In particular, evaluations indicated JOLT participants increased skills in the following areas: 43% gained leadership skills and abilities; 58% gained trust in others; 35% made new friends; 38% solved group problems; and 37% adapted to new situations. These data demonstrated participants increased awareness, knowledge & use of leadership, trust & communication skills and are better prepared to make wise decisions concerning their futures.



Family Consumer Health Sciences

Trish Zilliox, Assistant Extension Agent, Family and Consumer Health Sciences, (FCHS)

Dan Peters, Instructional Specialist SNAP-Ed Bree Daugherty, Program Coordinator, SNAP-Ed Margine Bawden, Regional Program Coordinator, SNAP-Ed Maggie Wilcox, Child Care Consultant (CCHC), First Things First

Family Consumer Health Sciences (FCHS)

Cooperative Extension works to strengthen families, promote healthy lifestyles, encourage wise financial management, and develop community leaders by taking our programs to community centers, child care centers, schools, churches and other venues to reach diverse audiences. It takes teamwork. These programs are conducted by the University of Arizona College of Agriculture and Life Sciences (CALS) county-based extension agents and campus-based extension specialists from the Norton School of Family and Consumer Sciences and the Department of Nutritional Sciences. In Mohave County, FCHS programming in 2016 focused on improving the health and safety at early childcare centers and encouraging healthier eating, more active lifestyles, and promoting the accessibility of fresh fruits and vegetables. FCHS Agent, Trish Zilliox is based in Flagstaff and has 20% responsibilities in Mohave County. She oversees two educational programs in areas of early childhood and health and nutrition.

First Things First

Maggie Wilcox, is the Child Care Health Consultant (CCHC) for La Paz, Mohave and Colorado River Indian Tribe regions. Maggie is funded through First Things First (FTF); Arizona's only public funding source dedicated exclusively to early childhood. Ms. Wilcox is responsible for providing education and training around Health and Safety to improve the learning environment of childcare facilities in La Paz/Mohave and CRIT communities. She works with childcare teachers, directors, in addition to working with academic coaches. Some significant impacts at these sites included:



Dan Peters and Mohave Residents at a Kingman Farmer's Market Planning Meeting, Kingman.





2016 Inaugural Hunger Awareness Walk Participants, Lake Havasu City.

- 12 Health and Safety assessments were conducted and 10 sites met their goals to improve the health and safety standards for the staff, children and families attending.
- Nutritional content in lunches and snacks have improved as children are eating more fruit and vegetables and decreased the sugary drinks they are consuming at the center as observed by the CCHC.
- Sanitation has improved through training and using the correct sanitation and disinfection protocols resulting in a decrease of disease transmission as observed by the CCHC.
- Two programs added family style dining to their programs, providing the opportunity for children to build their social skills by incorporating manners (please and thank you), improve fine motor skills and independence by passing, pouring and serving themselves, building language through conversations, develop healthy eating habits through self-regulation of food choices and food intake.
- Worked with 92 teachers and 23 directors in the region
- Conducted 111 site visits.
- Offered 43 training opportunities that reached 219 adults and 648 children on the following topics: Oral Health, Hand washing, Celiac Disease, Diapering, Sanitation, Abuse, Blood Borne Pathogens, Nutrition, Disease Transmission, Arrival Health Check, Safety in the Classroom, Family Style Dining, and preparation for State Based First Things First Assessments.



Family Consumer Health Sciences—Cont.

SNAP-Ed

The University of Arizona Nutrition Network (UANN) is Cooperative Extension's statewide effort to address issues related to obesity, food access and food insecurity. This work focuses on vulnerable populations including SNAP/WIC recipients, youth and their families and providing educational opportunities about healthy foods, nutrition, and increasing physical activity in our daily lives. The Mohave Extension SNAP-Ed team:

- Increased the availability of healthy food retail.
- Encouraged participation in community, home, school, and child care gardens.
- Encouraged use of farmer's markets with SNAP/WIC access.
- Supported family-friendly physical activity opportunities, throughout the year and community.

Mohave County Cooperative Extension's SNAP-Ed programs are funded through a three-year grant provided by the Arizona Department of Health Services. Bree Daugherty, Program Coordinator, started in September 2016 and brings a strong background in food safety and policy. Dan Peters, Instructional Specialist has been part of the SNAP-ed team since November 2015. Dan was instrumental in establishing the Kingman Farmer's Market and now uses his educational background to improve accessibility to local foods.

Two full time staff are engaged in food demonstrations and nutrition education lessons with 20 approved sites including Tribal Nations, schools, food banks, and retirement centers. 121 site visits were conducted reaching over 2,200 adults and 800 youth. Other important landmarks achieved in 2016 were: establishment of the Kingman Farmer's Market; organized the inaugural Hunger Awareness Walk in Lake Havasu City; and developed 6 new school gardens in Mohave County.



Cerbat Rams Garden Club taking ownership of garden beds. Students painted their garden bed areas with their own designs.



Master Gardeners/Horticulture

Andrew Brischke, Area Assistant Agent, Agriculture and Natural Resources

Carol Stockwell, Instructional Specialist, Horticulture

Master Gardener programs encourage healthier communities, healthier environments, healthier plants and an improved quality of life through science-based, environmentally sound horticulture practices. The Mohave County Master Gardener Program was established in 1990. Today, it remains a vibrant group providing valuable horticulture information to citizens throughout Mohave County.

Master Gardeners are trained through a 13-week course with three and a half hours of weekly instruction provided by Specialists from the University of Arizona, County Extension personnel, local experts, and veteran Master Gardeners. The course was offered in two locations: Lake Havasu City and Kingman. Upon completing the course, enrolled students become Associate Master Gardeners. After volunteering 50 hours, participants become Certified Master Gardeners. Each subsequent year, Master Gardeners must provide a minimum of 35 hours of volunteer service and 12 hours of continuing education to maintain their certification.

2016 Master Gardener Highlights

In 2016, 39 volunteers attended the training course with 46% of those participants completing the required volunteer and continuing education hours to be promoted to Associate Master Gardeners. 62 Master Gardeners contributed over 7,592 hours of volunteer service and 608 hours of continuing education. 264 Master Gardener events were held throughout Mohave County and reached 5,536 citizens. Volunteers assisted 399 community members with gardening questions through the Kingman hotline and Home and Garden Days, which are Q&A forums open to the public each month in Bullhead City and Lake Havasu City.

The Mohave County Fair in September is always a big annual event for the Master Gardeners. They are a popular feature with their Information Booth and Vegetable Display and Judging Booth. They received a First Place Ribbon for both booths at the 2016 County Fair. Another annual event where you can find the Master Gardeners is Winterfest, held in February in Lake Havasu City each spring. They also participate in the Home & Garden Shows held in Bullhead City, Lake Havasu City, and Kingman each spring. Mohave County Master Gardeners provided education and expertise to five Kingman area elementary and middle schools. The Master Gardeners also produce a quarterly newsletter, Wind & Weeds.

Range and Livestock Programs

Andrew Brischke, Area Assistant Agent, Agriculture and Natural Resources

Del Despain, PhD, Research Scientist, Natural Resources & Environment

Rokelle Reeve, Research Specialist, Arizona Cooperative Rangeland Monitoring Program (ACRMP), Arizona Strip Kade Willardson, Research Technician, ACRMP, Arizona Strip

Ariana Gloria, Research Technician, ACRMP, Kingman

Rangelands are extremely important to society for the goods and services they produce and for the ecological services they provide. There is over 8.6 million acres in Mohave County, with almost 80% of the land owned by Tribal Trust Land, Arizona State Land, or Federal Agencies, Most of this land is classified as rangeland. There is a need to balance livestock grazing with natural resources, particularly on public lands administered by government agencies. Workshops are held that teach a variety of subjects relating to rangeland management, monitoring, livestock production, and other identified needs requested by clientele.

2016 Range and Livestock Program Highlights

Mr. Andrew Brischke began work as an Area Assistant Agriculture and Natural Resource Agent in February 2016. Mr. Brischke conducted a needs assessment in Mohave County and met with many stakeholders. A formal Needs Assessment was sent out to producers to identify the range and livestock educational programming needs for the stakeholders of Mohave County.

In April 2016, Mohave County Cooperative Extension (MCCE) collaborated with Utah State University Extension (USUE) to host the AZ/UT Range & Livestock Workshop with over 300 attendees participating over the course of the three-day workshop. In addition, two other workshops were hosted by the collaboration, the Cowman's Reproduction Workshop, and the AZ/UT Invasive Weeds Workshop. Other workshops MCCE helped organize and present at included a Rangeland Monitoring Workshop and two Bureau of Land Management (BLM) Range Forums.

Mohave County Cooperative Extension partnered with the Mohave Livestock Association/Farm Bureau (MLA/FB) and Big Sandy Natural Resource Conservation District (NRCD) to provide a hands-on soil texture educational activity at the Mohave County Fair. In addition, Mr. Brischke provided technical assistance for the Big Sandy NRCD.



Anurew Brischke and Ariana Gloria demonstrated the process of determining soil texture at the 2016 Mohave County Fair.





University of Arizona Cooperative Rangeland Monitoring Team collecting data in the Yuma BLM Management Area. L to R: Ariana Gloria, Rokelle Reeve, Alyson Head, Andrew Brischke, Chaz Perry, Liz Delcamp, and Ashley Hall.

Arizona Cooperative Rangeland Monitoring Program (ACRMP)

Land managers face continuous challenges in effectively describing the effects of livestock grazing on landscapes, ranches, pastures, and other rangelands. Rangeland monitoring is the process of observing, measuring, and documenting interactions, conditions, and changes on rangelands so that sound management decisions can be made to sustain these natural resources.

The ACRMP began as a collaboration between the University of Arizona Cooperative Extension and the Bureau of Land Management (BLM) on the Arizona Strip and Cochise County in 2000, with a state-wide expansion in 2012. Extension personnel are located in BLM field or district offices and work with both the agency and ranchers to coordinate rangeland monitoring and provide one-on-one educational opportunities in their respective areas.

Since leadership was transferred to A. Brischke in July 2016, 122 sites on 36 Allotments on BLM AZ Strip lands were sampled with 14% rancher participation. 59 sites on 23 Allotments on BLM Kingman lands were sampled with 48% rancher participation, and 29 sites on six Allotments on BLM Yuma lands were sampled with 66% rancher participation. In addition, a network of rain gauges located throughout the BLM-administered lands in Yuma were sampled 63 times. Data was compiled and stored in BLM Monitoring Files at each respective Field Office.

An important aspect of the ACRMP is to provide support and training for the Vegetation Geographic Information System (VGS). VGS is a software program developed by Dr. Del Despain to collect monitoring data electronically. Since the development of the program in 2008, adoption of the VGS program has spread throughout the Western US. VGS training courses are often held out-of-state and the ACRMP team often provides support for those courses.

Hualapai Tribal Extension Programs

Elisabeth Alden, Assistant Agent, Hualapai Federally Recognized Tribal Extension Program (FRTEP)

Overview

FRTEP funding is secured through the USDA National Institute of Food and Agriculture (NIFA). Funding is used to support Extension Agents who establish Extension education programs on the Indian Reservations and Tribal jurisdictions of Federally-Recognized Tribes.

4-H Programs

The 4-H Agriculture Facility on the Hualapai reservation is still being developed. The nearly three acre parcel of land was donated by the Hualapai Tribe. This includes livestock pens for swine, sheep, goats and beef projects with additional areas for horses. Youth enrolled in the 4-H Club program are able to house their projects at the facility for no cost. There are two arenas for gymkhana and Junior Rodeo events. In 2016, multiple events were held at the facility.



Youth prepared beds and planted the garden at the Boys and Girls Club.

Gardening

Gardening programs for youth are ongoing. Summer Camp program was held, and campers had three nights in the ponderosa pine forest, and one night on the CO River, along with a day in a river raft. The group experienced an orderly "evacuation" as the first night coincided with a wildfire event 8 miles away from the camp. Transition to a new camp





The 2016 Natural Resource Camp and Range Technician, Arriana Gloria is speaking to Hualapai youth campers above.

location was accomplished very quickly without fuss. One AZ Hunters Safety class was held on the reservation. Buck-N-Doe 4-H Club participated in the Mohave County Fair and the carcass contest. A Recognition Dinner event was held to honor the youth, volunteers and family members of 4-H club youth.

Natural Resources

Hualapai FRTEP works closely with the Hualapai Department of Natural Resources. We are focused on getting a building constructed at the 4-H Agricultural Facility. This building will provide a space for 4-H clubs and other groups to hold meetings. It will also house Hualapai Cooperative Extension and the Hualapai Nation Soil & Water Conservation District. Plans for the building include a fully equiped kitchen, which will not only encourage the expansion of 4-H cooking classes, but the Buck-N-Doe 4-H Club will have a location out of which to base their fund-raising and catering events. Tribal Council has approved the building design, construction bids have been submitted, and a contractor has been selected and fundraising continues as the site is under development.



Hualapai 4-H members, volunteer leaders, and family pose for the camera at the 2016 Mohave

Visiting University of Arizona Faculty



Paul Brown, Biometeorologist, AZMET, Statewide Margine Bawden, SNAP-Ed Regional Coordinator Hattie Braun, Horticulture, Coconino County Mike Crimmins, Climate Specialist, Statewide Peder Cuneo, Specialist, Animal Science Del Despain, Research Specialist Sr., St. George, UT Dan Faulkner, Beef Specialist, Statewide Dawn Gouge, Urban Entomologist, Statewide Mike Hauser, 4-H Agent, Apache County Lucy Li, Urban Entomology Asst. in Extension Mike Matheron, Extension Plant Pathologist

Patty Merk, Area Agent, FCHS/Family & Youth Shaku Nair, Urban Entomology Asst. in Extension Jeff Silvertooth, Assoc. Dean and Director, Econ. Dev. & Extension

Trent Teegerstrom, Specialist, Agric. and Resource Economics

Barry Tickes, Area Agent, Agriculture, La Paz County Doug Tolleson, Rangeland Specialist, Statewide Peter Warren, Entomology Agent, Pima County Mike Wierda, Pesticide Trainer, Statewide

Glenn Wright, Extension Fruit Specialist, Yuma County

University of Arizona Cooperative Extension Mohave County Faculty and Staff

Elisabeth Alden Assistant Agent, Hualapai FRTEP, aldene@cals.arizona.edu

Andrew Brischke Area Assistant Agent, Agriculture and Natural Resources, brischke@email.arizona.edu

Jamie Campbell 4-H Extension Program Assistant, jamcamp@email.arizona.edu
Bree Daugherty Program Coordinator, SNAP-Ed, daugherty@email.arizona.edu

Elizabeth DelcampResearch Specialist, Environment and Natural Resources, efdelcam@email.arizona.eduAriana GloriaResearch Technician, Environment and Natural Resources, aig1@email.arizona.eduAlyson HeadResearch Technician, Environment and Natural Resources, alhead@email.arizona.edu

Christine Murphy Office Specialist, christinemurphy@email.arizona.edu

Gerald Olson 4-H Youth Development Agent, golson@cals.arizona.edu

Dan Peters Instructional Specialist, SNAP-Ed. danpeters@email.arizona.edu

Karen Pizzuto Regional Business Manager, Sr. (Coconino/Mohave/Yavapai) kpizzuto@cals.arizona.edu Rokelle Reeve-Layton Research Specialist, Environment and Natural Resources, rlayton@email.arizona.edu

Jeff Schalau Interim Regional Director, (Mohave/Yavapai), jschalau@cals.arizona.edu

Jeanette Spears 4-H Secretary, jlspears@cals.arizona.edu

Maggie Wilcox Health Educator, First Things First, mwilcox@cals.arizona.edu

Kade Willardson Research Specialist, Environment and Natural Resources, kadewillardson@email.arizona.edu

Patricia Zilliox FCHS Area Assistant Agent, (Coconino/Mohave), zilliox@email.arizona.edu

University of Arizona Cooperative Extension Advisory Board

Terry Henry, Chair Agriculture/4-H Irene Rose Master Gardener

Linda Short Community Development/4-H

Bonnie Willet FCHS
Susan Williams FCHS

MOHAVE COUNTY COOPERATIVE EXTENSION OFFICE

101 E. Beale Street, Suite A Hualapai Dept. of Natural Resources

Kingman AZ 86401-5808 947 Rodeo Way

Phone: (928) 753-3788 Peach Springs AZ 86437 Fax: (928) 753-1665 Phone: (928) 769-1284

Fax: (928) 769-2309

Web: extension.arizona.edu/mohave/

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvertooth, Associate Dean & Director, Economic Development & Extension, College of Agriculture and Life Sciences, The University of Arizona. The University of Arizona is an equal opportunity, affirmative action institution. The University prohibits discrimination in its programs and activities on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information and is committed to maintaining an environment free from sexual harassment and retaliation.