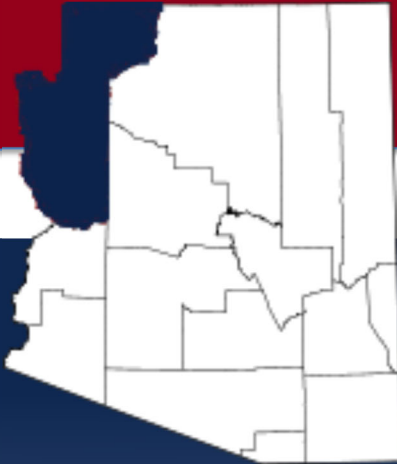


COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension

Mohave County Report 2018



THE UNIVERSITY
OF ARIZONA

Table of Contents



Subject	Page
Letter from the County Director	3
2018 Program Highlights	4
2018 Educational Programs and Participation	5
4-H Youth Development	6-7
Family Consumer Health Sciences	8-9
Arizona Cooperative Range Monitoring Program (ACRMP)	9
Agriculture and Natural Resources (ANR)	10
Master Gardeners/Horticulture Programs	11-12
Hualapai Federally Recognized Tribal Extension Program (FRTEP)	13
Visiting Faculty/County Faculty and Staff/Extension Advisory Board/Contact Information	14





From the County Director

Cooperative Extension's 2018 programs included 4-H youth development, animal science, agriculture, horticulture, natural resources, and family consumer health sciences. These programs provided grassroots education to Mohave County residents. In addition, 192 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 38,352 hours of service with an estimated value of \$979,869.

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 Schalauska
Interim County Extension Director
Mohave County Cooperative Extension



In June of 2019 the Mohave County Cooperative Extension office enjoyed a visit from Dr. Shane C. Burgess, Vice President for Agriculture, Life and Veterinary Sciences, and Cooperative Extension, Charles-Sander Dean of the College of Agriculture and Life Sciences, and Director of the Arizona Experiment Station at the University of Arizona.



Because of Mohave County Cooperative Extension, in 2018...

- **Mohave County Cooperative Extension volunteers contributed 38,532 hours of service valued at \$979, 869** (Independent Sector, using 2018 value of volunteer of \$25.43/hr.) serving as Master Gardeners, 4-H Leaders, and Extension Advisory Board members. **Mohave County Cooperative Extension faculty also acquired \$485,435 in grants to support educational programming efforts.**
- 4-H youth were supported by 74 **4-H Volunteer Leaders**. In 2018, 2 new Volunteer Leaders were recruited and certified and **26 4-H teens** took on volunteer leadership roles.
- **72 market livestock projects** have been successfully completed by youth exhibitors, as evidenced by their entry and sale in the Junior Livestock Sale at the 2018 MC Fair, completing their **entrepreneurial program of operating a small business**. Profit earned by members often supported future 4-H activities/camps and future college expenses.
- 162 members displayed **907 exhibits** at the Mohave County Fair in the **4-H/FFA Division**, 78% were rated as Blue Ribbon or above for their project work, and skills demonstrated serving as a showcase for Mohave County 4-H Youth to exhibit what they had raised, made and learned.
- Jamie Campbell provided key leadership for our week-long camping program. **MoYava 4-H Camp** with 86 4-H members from Mohave and Yavapai Counties developing skills, knowledge, and attitudes supporting **responsible care of public lands and their natural resources**.
- 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 and other topics in partnership with BLM offices in Mohave County (Kingman and the Arizona Strip).
- **BLM Cooperative Rangeland Monitoring was supported by \$349,358 in grant funding** which facilitated data collection from 202 key areas on 67 grazing allotments across Mohave County and included the Arizona Strip.
- **ANR Agent also coordinated and delivered ten workshops which educated 1,031 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 Bullhead City to 20 participants.** 67 Master Gardener volunteers contributed 5,332 hours of volunteer service to their communities reaching 3,774 consumers with science-based gardening information at 152 public events.
- **Mohave County Cooperative Extension SNAP-ED staff delivered direct education on nutrition, gardening and physical activity to 2, 118 Mohave County residents at 145 sites** including food banks, schools and senior centers.
- 1,750 educational outreach contacts were made on Hualapai Tribal lands in Mohave County through the **Federally Recognized Tribal Extension Program (FRTEP)**, and the numbers are higher when counting all of Cooperative Extensions efforts! Educational opportunities were provided to tribal members in the areas of agriculture, natural resources and 4-H Youth development programs. Natural Resource summer camp, educational field trips to pristine locations to learn about biomes, gardening, growing plants, entomology, insect and pest control, Beginning Tribal Rancher forums, 4-H Club participation -- all of these programs have benefitted from Extension participation and its services. Building connectivity between tribal departments and the University of Arizona has expanded networks and increased opportunities through the partnerships developed and nurtured on the Hualapai reservation".
- **Child Care Health Consultant Programs delivered 82 health and safety trainings to 668 participants** on topics including: hand washing, Diapering, Arrival Health Check, Classroom Safety, Structural Physical Activity, Abuse, Sanitation, Disease Transmission, Oral Health, Personal Care Routines, Blood Borne Pathogens, Playground Safety, Staff Health, Safe Sleep and Sun Safety.

2018 Educational Programs & Participation



THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension

Mohave County

In 2018, our educational programs focused on:

4-H Youth Development	4-H youth development programs, 4-H volunteer training/support, youth leadership, Natural Resources Education, Youth Development, and Science, Technology, Engineering, and Math (STEM) Education.
Family, Consumer and Health Sciences	The 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	In 2019, Master Gardener training was provided in Kingman. 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 2018

Program Area	Educational Outreach	Office Contacts	Totals
4-H Youth Development	4,200	1,768	5,968
SNAP-Ed	2,118	260	2,378
Child Care Health Consultant (First Things First)	668	110	778
Range Livestock	1,181	981	2,162
Horticulture	3,774	532	4,306
Hualapai Programs	1,431	850	2,281
Totals	13,372	4,501	20,718

4-H Youth Development - Projects & Clubs

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



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

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 of a community have a role in creating a strong and healthy society. Sustained positive relationships between young people and adults support the healthy development and well-being of youth, while also benefiting 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.
- Research has shown that 4-H youth are more likely to receive better grades in school, be involved in leadership positions and community service. 4-H youth are also less likely to steal, use drugs, vandalize property, and skip school.

Mohave County 4-H Office

While serving as the Program Coordinator, Shirley Vasovski certified sixteen new volunteers that were given training including review of the AZ Policies and Procedures Handbook, the 4-H Volunteer Handbook, and the Code of Conduct. Community and project clubs were led by 110 adult volunteers and reached over XXX youth participating in projects ranging from sewing/textiles, leadership, livestock and small stock to horse and outdoor adventures.



4-H Youth experiencing the I-Space lab on Campus .



Shea Medlin receiving an award for Showmanship at County Pre-Fair.

Plants and Animals

Arizona students remain the lowest performing in the country in science: an area that many education and business leaders regard as critical to boosting the state's economic health. *The Nation's Report Card* showed that Arizona 8th graders improved only slightly from two years ago, and were higher than those in only five other states. 4-H plant and animal projects teach science-based principles to youth participants.

Mohave County 4-H members enrolled in 304 large and small livestock projects and gained skills and knowledge through workshops, clinics, contests, exhibitions, and demonstrations. Seventy two market livestock projects were completed and sold at the Junior Livestock Sale at the 2018 Mohave County Fair. Forty seven of these market livestock projects were entered into a Carcass Contest where the product was evaluated and graded at the University of Arizona Meats Lab. The results showed that five goats (100%), 11 lambs (81%), 26 swine (46%), and 5 steers (40%) earned Merit Awards based on the quality of the product. These 4-H youth gained and enhanced important life skills and will make better decisions as consumers of food and fiber.

Mohave County 4-H also hosted the Colorado River Small Stock Show. This was the 29th year this event was offered. The event celebrated it's 29th year in 2018, was open to statewide youth, and rotates location between Mohave, La Paz, and Yavapai Counties. In 2018, 123 youth represented 27 clubs and showed 308 animals. There was also a Quiz Bowl which had participation from 21 teams.

School gardening programs were also offered at four Mohave County Schools. These gardens served 1,052 students and received support from 72 teachers and 101 volunteers. Not only did students learn how to grow garden vegetables, but they also learned to love eating fresh vegetables they grew at school and in home gardens.

4-H Youth Development - cont'd



THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension

Mohave County

Leadership Development

Members experientially learn and practice leadership & life skills. Research has found that positive youth development is enhanced by the opportunities 4-H offers for teens and young adults to develop mastery, leadership, service and attachment to a group. 4-H youth to develop valuable skills that last a lifetime.

Leaders influence and support others in a positive manner for a shared goal. Leaders aren't just elected. They can be members of committees, small groups and teams. Learning about yourself and how you work with others is a key part of developing leadership skills. Examples of 4-H Leadership are:

- Understanding roles, attitudes, tasks and functions necessary for effective leadership.
- Strengthening local 4-H units in leadership responsibility and encourage other youth.
- Participating in program planning, development, and implementation and helping recruit new members and leaders.

Mohave County 4-H members and leaders worked together with other counties to develop the agenda for 2018 Journey: Opportunities for Leaders of Tomorrow (J.O.L.T.). J.O.L.T. is a week-long residential camp where teens work together to facilitate personal development, team building and self-confidence.



Youth learn about electrical circuits at MoYava 4-H Camp at Mingus Springs.

Environmental Education and Earth Sciences

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; appreciate the outdoors and natural resources. According to the American Camping Association (ACA), camping programs provide the forum for children to discover and explore their interests, values, and talents.



Zane Campbell receiving an award for leadership from District Supervisor Jean Bishop at the Annual 4-H Recognition Night.

Camp MoYava started as a partnership between Mohave and Yavapai County 4-H and. In 2018, it was opened up to other 4-H youth from other counties. Eighty-six (86) youth learned about the environment and natural resources by participating in the five-day residential MoYava 4-H Camp. Sixteen youth and adults worked together in a youth/adult partnership to design and implement this summer camp. Youth attended an average of 9 hours of programming each day with a total of 32 hours of programming. Increases were seen in subject matter knowledge by participants at the 2018 MoYava 4-H Camp. Specifically, these were: 33% in forest health; 13% in archery; 33% in boating safety and canoeing skills; 39% in natural resources; 49% in STEM (Understanding Electrical Circuits); 23% in first aid and chest compression only CPR; 39% in stream ecology; and 48% in outdoor living.

4-H Educational Programs and Contests/Events

Several educational and recognition programs were offered to improve the self-esteem of youth in 2018. These programs included: 4-H Awards Program, County Challenge Days, County Recognition Night, Demonstration Day, Family Fun Day, and MC Fair. The Mohave County 4-H Challenge Day Days attracted 58 members representing 7 clubs in 12 contest areas. Of these entrants, 42 members (72%) received a score of 80% or higher indicating an advanced level of competency. Fourteen members, leaders, and parents attended the Horse Challenge Day and 33 members received horse awards. The Mohave County Demonstration Day also attracted 39 members and parents.

Mohave County 4-H members also hosted 4-H members from Michigan. The visitors toured local agriculture, historic sites, and National Parks and Monuments while staying in Mohave County.

Family Consumer Health Sciences

Margine Bawden, Regional Coordinator
Bree Daugherty, Program Coordinator
Maggie Wilcox, Child Care Health Consultant
Christen Williams, Instructional Specialist

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. 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 (FCHS) and the Department of Nutritional Sciences. In Mohave County, FCHS programming in 2018 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. Interim County Director, Jeff Schalau, has also assisted with FCHS programs.

First Things First

Maggie Wilcox is the Child Care Health Consultant (CCHC) for La Paz and Mohave Counties and the Colorado River Indian Tribe. 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.

Eighty-two health and safety trainings were delivered to with 668 participants which included 305 children and 233 Child Care Staff. These trainings covering the following topics: Hand washing, Diapering, Arrival Health Check, Classroom Safety, Structural Physical Activity, Abuse, Sanitation, Disease Transmission, Oral Health, Personal Care Routines, Blood Borne Pathogens, Playground Safety, Staff Health, Safe Sleep and Sun Safety. CCHC had total of 82 site visits across Mohave County.

In addition, 130 High School students taking Early Childhood Education classes learned about careers working with young children. The programs included instruction in child development, child health, nutrition, and safety, as well as, the planning and facilitation of developmentally appropriate play and learning activities, Child guidance, family relationships, and parenting are also addressed. In addition to technical skills, students completing the programs will also develop advanced critical thinking, applied academics, career development, employability and life skills.



THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension

Mohave County



A sunshade was installed at the Tiny T-Birds Day Care Center in Bullhead City. This offers additional sun protection to children attending this Center.



First Things First collaborations included:

- Delta Dental Foundation
- Mohave La Paz Oral Health Foundation
- Mohave County Cooperative Extension Snap-Ed
- ADHS- Empower Program
- The University of Texas MD Anderson Cancer Centers
- Bullhead City Lions Club
- Indian Health Services Fort Mojave

SNAP-Ed

The University of Arizona Cooperative Extension-Mohave County is a partner in the Arizona Health Zone (AZHZ) that works to provide nutrition and obesity prevention education and activities to persons eligible to receive Supplemental Nutrition Assistance Program (SNAP). The goal of the program is to improve the likelihood that under-served children and adults will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the Dietary Guidelines for Americans.

In 2018, Mohave County Cooperative Extension Supplemental Nutrition Assistance Program-Education (SNAP-ED) consisted of one program coordinator and one instructional specialist. The program utilized engaging evidence-based curriculum enhanced with interactive components such as fun physical activities, food preparation and cooking classes, and gardening technical assistance to promote a healthy lifestyle to SNAP eligible audiences.



Over the past year, the team has worked to increase healthy food retail; encourage participation in community, home and school gardens; increase the amount of physical activity in schools; and support family-friendly physical activity opportunities throughout the communities. Programming was delivered to various sites throughout Mohave County including schools, afterschool programs, senior living centers, food banks, shelters, and Tribal Nations. 145 site visits were conducted reaching over 2,100 individuals in Mohave County.



New Horizons Community Garden, Lake Havasu City, AZ

Other program highlights from 2018 include, the creation of the Mohave County Food Systems Coalition which worked towards increasing the amount of healthy foods coming into Mohave County while ensuring that those foods reach the people in need through collaboration with partners on multiple levels County-wide. In addition, the program was able to work to increase physical activity opportunities within the Kingman and Peach Springs communities with the establishment of a walking group for seniors and a “Day for Kids” event. The program was also able to push forward their efforts within school health to include policy work by assisting the Kingman Unified School district with revising their local wellness policy.



School garden assessment and planning, Topock Elementary School, Topock, AZ.

Range & Livestock Programs

Andrew Brischke, Area Assistant Agent, ANR
Del Despain, PhD, Research Scientist, Natural Resources & Environment

Rokelle Reeve, Research Specialist, ACRMP, Arizona Strip
Liz Delcamp, Research Specialist, ACRMP, Arizona Strip
Ariana Gloria, Research Specialist, ACRMP, Kingman
Jennifer Collins, Research Specialist, ACRMP, Kingman
Allyson Stein, Research Technician, ACRMP, Kingman

Arizona Cooperative Range Monitoring Program

A continuous challenge to managing rangelands is to know what is occurring on landscapes, ranches, and pastures. Therefore, there is a need to monitor rangelands. 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 our natural resources.

The Arizona Cooperative Range Monitoring Program (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.

Throughout 2018, 126 key areas (sites) on 41 Allotments on BLM AZ Strip lands were sampled with 46% rancher participation. 53 key areas on 21 Allotments on BLM Kingman lands were sampled with 28% rancher participation. The ACRMP came together for “Monitoring Week,” where the team assembled in Quartzsite, AZ, and sampled as many key areas as we could during the week for BLM Yuma. As a result, 23 key areas on five Allotments were completed. Data was compiled and stored in BLM Monitoring Files at each respective Field Office and technical summary reports were sent to respective managers or producers of each Allotment. In addition to monitoring and providing one-on-one education, team members assisted at MCCE workshops and presented three posters at the National Society for Rangeland Management Annual Meeting.

An important aspect of the ACRMP is to provide support and training for the VGS program. VGS is a software program developed by Dr. 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.



Range and Livestock Programs

Rangelands are extremely important to society for the goods and services they produce and for the ecological services they provide. With over 8.6 million acres, almost 80% of the land in Mohave County is owned by Tribal Trust Land, Arizona State Land, or Federal Agencies; most of which is rangeland. Mohave County is a large producer of beef cows in the state of Arizona and there is a need to balance livestock grazing with natural resources, particularly on public lands administered by government agencies. Mohave County Cooperative Extension (MCCE) educates land managers and livestock producers on working landscapes in order to optimize rangeland resource sustainability while maximizing livestock production profits.

2018 Range and Livestock Program Highlights

Workshops are held that teach a variety of subjects relating to rangeland management, monitoring, livestock production, and other identified needs requested by clientele. MCCE collaborated with Utah State University Extension (USUE) to host the 40th annual AZ/UT Range & Livestock Workshop & Tour with record participation including over 400 participants over the course of the 3-day workshop and tour. Additionally, the collaboration produced two other workshops, the Cowman's Reproduction Workshop with 75 participants, and the AZ/UT Invasive Weeds Workshop with 57 participants.

Other workshops hosted by MCCE in lower Mohave County included an Arizona Department of Agriculture Food Workshop, two state-wide workshops at the UA Research Ranch, V Bar V, where topics covered pregnancy check (63 participants) and artificial insemination (73 participants). A workshop was hosted in partnership with Hualapai Natural Resources (23 participants) where producers learned about preconditioning and low-stress livestock handling.



40th Annual Range Livestock Workshop and Tour at the Spendlove Ranch and Feedlot in Virgin, UT



Arizona Cooperative Rangeland Monitoring Program during Monitoring Week 2018

Conservation Collaborations

In addition to workshops, Mohave County Cooperative Extension is an active member or advisor of many conservation groups throughout the County. Some of the major partnerships include advising the Big Sandy Natural Resource Conservation District (NRCD), the Mohave Livestock Association/Farm Bureau (MLA/FB), and the Arizona Department of Water Resources (ADWR). A collaboration between producers and MCCE has been developed to inform the national authors of the US Drought Monitor. Bi-weekly or monthly (depending on growing seasons) reports are sent out to producers to collect on the ground conditions to inform and make recommendations to the authors of the Drought Monitor map.

Youth Programming

The Natural Resource Conservation Workshop for Arizona Youth (NRCWAY) is a statewide annual camp. Youth in grades 8 -12 attend a weeklong camp on James 4-H Camp located on Mingus Mountain to learn about different natural resource topics. In 2017, 33 youth campers participated in NRCWAY. MCCE partnered with the MLA/FB, Natural Resource Conservation Service, and Big Sandy Natural NRCD to provide an educational activity including native rangeland forage plants and "Herewood," a wooden cow that shows many goods we purchase in every-day life that are derived from the by-products of livestock at the Mohave County Fair.

Master Gardeners/Horticulture

Andrew Brischke, Area Assistant Agent, Agriculture and Natural Resources

Amy Nickel, Instructional Specialist Senior, Master Gardeners



THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension

Mohave County

Mohave County Master Gardener Program

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. The Mohave County Master Gardener Program is divided into three areas, Bullhead City, Kingman, and Lake Havasu City. Each area Master Gardener group provides home gardening education and expertise to the public through workshops, event booths, Q&A forums, hotlines, and emails.

Master Gardeners are trained through a 13-week Urban Home Horticulture Course (UHC), with over 45 hours of instruction provided by Specialists from the University of Arizona, County Extension personnel, local experts, and veteran Master Gardeners. Training rotates between each of the three cities from year to year. In 2018, the course was offered in Bullhead City. Upon completing the course, students are eligible to 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.



School Garden at Mt. Tipton Elementary, Kingman Arizona

Master Gardeners contributed over 5,332 hours of volunteer service and 844 hours of continuing education. 152 Master Gardener events were held throughout Mohave County and reached over 3,774 citizens. Volunteers consulted on 532 gardening related questions from Mohave County residents through a combination of calls to the Master Gardener hotline, and Home and Garden Days; which are Q&A forums open to the public each month at the Mohave County Public Libraries 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, Vegetable Display and Judging Booth. Other community events where Master Gardeners can be found are the annual Lake Havasu City Winterfest, held in February each year, as well as local Home & Garden Shows held in Bullhead City, Lake Havasu City, and Kingman each spring.

Mohave County Master Gardeners have become an integral part of community and school gardens, and municipal programs in each of our major cities. Kingman area Master Gardener volunteers provided ongoing education and expertise to five different Kingman area public schools, resulting in robust school gardening programs that receive accolades from both students and staff. Their monthly horticulture workshops included an on-site grape pruning workshop at the Digt Community Garden, a seed starting workshop at the Kingman branch of the Mohave County Library, as well as a new workshop entitled "How to Enter the Fair", designed to encourage participation in the Mohave County Fair. They also developed and implemented a hands-on gardening activity for the Mohave County Arc, a non-profit program that provides services for individuals with developmental disabilities.



Mohave County Master Gardener Booth at the 2018 Mohave County Fair

2018 Master Gardener Program Highlights

In 2018, 20 students attended the UHC training in Bullhead City. Four (4) students from the previous 2017 UHC in Lake Havasu City successfully completed their volunteer hours and were promoted from Associate to Certified Master Gardener. 67 active Certified and Associate



Bullhead City Master Gardeners demonstrate “How to Plant your Cool Shade Tree”.

Bullhead City Area Master Gardeners continued their partnership with Fox Creek Middle School's garden program through the end of the 2017-2018 school year, and consulted with Topock Elementary to begin a gardening program utilizing an existing greenhouse on their campus. They served as consultants to Bullhead City municipal planners who are interested in establishing a community garden at Rotary Park in Bullhead City. Their partnership with municipal agencies was again highlighted in their annual participation with Mohave Electric Cooperative's "Operation Cool Shade". Master Gardeners helped Mohave Electric Cooperative (MEC) identify five desert adapted trees to be sourced and provided at wholesale cost to MEC customers. Master Gardeners also delivered a free presentation at the Mohave County Library entitled "How to Plant Your Cool Shade Tree", and were on hand to assist with distribution of the trees, and answer any questions about planting and care.

Lake Havasu City Area Master Gardeners partnered with local non-profit agency, New Horizons, to establish the Les Galst Community Garden, and consulted with a student group at ASU Havasu to determine the feasibility of beginning a community garden on campus. They have an ongoing partnerships with Lake Havasu City municipal agencies – co-sponsoring a free tree pruning seminar led by the Parks & Recreation Department, as well as working with Lake Havasu City's Water Conservation Specialist to inform citizens of proper plant selection and irrigation methods that will reduce water consumption. Lake Havasu City Master Gardeners also write a monthly featured article on desert gardening topics for the local newspaper, Today's News Herald.



Lake Havasu City Master Gardeners helped design and construct raised beds at the brand new Les Galst Community Garden in Lake Havasu City.

All three Master Gardener groups help to produce a quarterly newsletter entitled *Wind & Weeds*, which was submitted to the National Association of County Agricultural Agents (NACAA), and won both the state and regional awards in the team newsletter category, as well as recognition as a national finalist. These awards highlight the passion, expertise, and creativity of the Mohave County Master Gardeners, which make them an invaluable resource to our community.

Hualapai Tribal Extension Programs

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



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

Overview

Federally Recognized Tribal Extension Program (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. The Hualapai Tribe has had a Tribal Extension Agent since 2002. Elisabeth Alden is skilled in the areas of horticulture and natural resources. She also utilizes other Cooperative Extension Agents and Specialists to bring additional areas of expertise to her educational programming.

Gardening and Horticulture

Gardening promotes healthier living by increasing physical activity, interacting with others, and producing fresh healthy foods. These programs teach growing and nurturing of vegetables and heirloom crops, tree fruit culture, soil preparation, and plant pest/disease management. Horticulture education begins in Head Start Centers and serves all ages on the Hualapai Nation. Recent efforts have included creating gardens at the Hualapai Cultural Center. This program is called “Pa Vasu Gwe Hwal Jo” (The Green Arrow Project). Here, adults and youth grow food crops using a variety of growing methods. The Tribal Extension Agent works closely with Tribal community members to create and grow these crops in a highly visible space. Corn and squash seeds are being saved for future gardens. 4-H Cloverbuds and the youths from the Hualapai Juvenile Detention and Rehabilitation Center also participate in horticulture projects. These are small steps towards local food sovereignty.



Dr. Faulkner from U of A, Beginning Tribal Ranchers program

Beginning Tribal Ranching Program

The Hualapai Department of Natural Resources has secured USDA funding to develop an education program that will work with beginning ranchers to help improve their understanding of the cattle business. Two hundred Tribal members attended nine educational sessions that covered sire selection, body condition scoring, quality assurance, ranch planning, fencing, water development, plant identification, and rangeland monitoring. These programs were well-received and evaluations indicated a high level of satisfaction.

4-H Programs

4-H Youth Development programs are delivered on the Hualapai Nation through the Buck N Doe 4-H Club. The Buck N Doe 4-H Club celebrated their 25th year in 2018. Ten Club meetings are held each year having an average of 30 members in attendance at each. Club members exhibited six beef, six swine, and four lamb projects at the Mohave County Fair where one Hualapai youth won Grand Champion Swine. A two-part summer camp was held in 2018: a three-day camp at the Hualapai Youth Camp (27 youth and 8 adults) and a two-day camp at Diamond Creek near the confluence of the Colorado River (21 youth and 6 adults). In 2018, the new 4-H building was finished in Peach Springs. The new building includes a large meeting space, commercial kitchen, and an office for the FRTEP Agent. Cooperative Extension and the Hualapai Tribe work together for the benefit of community youth through multiple collaborations which engage youth in positive, hands-on learning.



Forestry 4-H program, preparing herbarium specimens with Jessica Orozco June 2018

2018 Visiting University of Arizona Faculty



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

Paul Brown, Biometeorologist, AZMET, Statewide
Margine Bawden, SNAP-Ed Regional Coordinator
Hattie Braun, Horticulture, Coconino County
Keith "Bopper" Cannon, Ranch Manager, V Bar V Ranch
Mike Crimmins, Climate Specialist, Statewide
Del Despain, Research Specialist Sr., St. George, UT
Elise Gornish, Extension Specialist - Ecology, Management,
and Restoration of Rangelands
Betsy Greene, 4-H Horse Specialist
Robin Grumbles, ANR Agent Emeritus

Gene Hall, Insect Collections Manager
Mike Matheron, Extension Plant Pathologist
Barry Pryor, Professor, School of Plant Sciences
Trent Teegerstrom, Specialist, Agriculture and Resource
Economics
Barry Tickes, Area Agent, Agriculture, La Paz County
Ashley Wright, Area Assistant Agent, Livestock, Cochise,
Graham, Greenlee, Pima and Santa Cruz counties
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
Jennifer Collins	Research Specialist, jennifercollins@email.arizona.edu
Bree Daugherty	Program Coordinator, SNAP-Ed, daugherty@email.arizona.edu
Elizabeth Delcamp	Research Specialist, Environment and Natural Resources, efdelcam@email.arizona.edu
Kit Kudukis	Administrative Assistant, kkudukis@email.arizona.edu
Amy Nickel	Instructional Specialist Sr., Master Gardener Program, anickel1@email.arizona.edu
Gerald Olson	4-H Youth Development Agent, golson@cals.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	Secretary, jlspears@cals.arizona.edu
Allyson Stein	Research Specialist, allysonbstein@email.arizona.edu
Maggie Wilcox	Health Educator, First Things First, mwilcox@cals.arizona.edu
Christen Williams	Instructional Specialist, SNAP-Ed, crwilliams@email.arizona.edu

University of Arizona Cooperative Extension Advisory Board

Terry Henry, Chair	ANR/4-H
Mike Gross	ANR
Jessica Orozco	Hualapai Tribe, ANR
Irene Rose	Master Gardener
Linda Short	Community Development/4-H
Lori Sturgill	ANR
Susan Williams	FCHS

MOHAVE COUNTY COOPERATIVE EXTENSION OFFICES

101 E. Beale Street, Suite A
Kingman AZ 86401-5808
Phone: (928) 753-3788
Fax: (928) 753-1665

Hualapai Dept. of Natural Resources
947 Rodeo Way
Peach Springs AZ 86437
Phone: (928) 916-4245

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, Extension & Economic Development, Division of Agriculture, Life and Veterinary Sciences, and Cooperative Extension, The University of Arizona.

The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information in its programs and activities.

