Maricopa County Cooperative Extension continues to serve the fine people of Maricopa County through a variety of programs and educational outreach. Our Master Gardener program continues to reach out to assist homeowners and others in selecting the right plant for the right place with the right amount of water. Our “Master Gardener Plant Hotline” answered over 2,000 questions from people all around the county. We had our first ever Spring Fiesta, an office-wide event, to greet our neighbors from the surrounding area to offer them a little taste of what Cooperative Extension is and what we can do for them. We also collaborated with our fellow UA faculty and others at the Connect2STEM event at the UA Biomedical Campus in downtown Phoenix. We served over 1,500 smoothies from our Blender Bike, a stationary bike, with an attached blender. While the kids pedaled the bike, the spinning blender made nutritious and delicious fruit smoothies. In early 2017, we welcomed Scott Koenig, the new director, for Project CENTRL. A Project CENTRL alumni himself, Scott has been working hard to develop new leaders for our Arizona communities. Our Nutrition Program, working with the University of Arizona Nutrition Network, had a very successful Summer Food Service Program. The program works with schools during the summer months to ensure the kids continue to receive nutritious meals – even when school is not in session. Our 4-H Youth Development Program continues to grow as we create innovative ways for youth to become involved in 4-H through after-school SPIN (Special Interest Clubs) programs. We had our first 4-H Camp G.R.I.T. (Growing, Reaching, Impacting, Tomorrow) this past summer. This is our annual summer camp for 4-H, but with some new and exciting changes and twists. For the first time, non-4-H members were welcomed to sign up for camp to help expose the fun of 4-H to potential new members. Early Bird “Camptivities” started the days for campers’ activities at 6:15 a.m.! Our Turfgrass Program conducts research for golf courses, schools, sport facilities, and landscapers with the highlight of examining adaptability of native grasses and alternative groundcovers. The Turfgrass Program contributes to the $3.9 billion golf industry in Arizona. Our Field Crops IPM Program has been conducting meaningful research that solves problems for growers in Maricopa County to stay competitive in the global market by reducing their use of water and pesticides. Early childhood development continues at the Roosevelt Early Childhood Family Resource Center (FRC). The FRC offers assistance to families with children age 0-5 years so that little ones can be ready for their first day of school. Finally, three of our faculty have moved on to new adventures this past year. Bryan Chadd and Monica Pastor both retired and Kelly Young moved on to new challenges. All of them had a positive impact on the lives of so many people here in Maricopa County. We thank them for their hard work and dedication to Cooperative Extension and wish them well.
Over 1.900 volunteers gave more than 46,700 hours of their time, equaling more than $1.3 million in donated time.

Over 30,000 adults and 115,000 youth participated in Extension activities.

Over 22,000 people came through our doors to attend educational classes, meetings, and get answers.

https://www.facebook.com/MaricopaCountyCooperativeExtension

http://extension.arizona.edu/maricopa
Living healthy is not always easy – it takes a lifetime of learning and practicing what to eat, how to exercise, and knowing the difference between reliable sources of nutrition and physical activity information and fictitious blurbs. Our two nutrition programs, the Expanded Food and Nutrition Education Program (EFNEP), and the Supplemental Nutrition Assistance Program-Education (SNAP-Ed) program, reach into local communities, and make contacts with youth, adults, and seniors. EFNEP is active in five counties within the University of Arizona Cooperative Extension system, with four staff teaching nutrition and physical activity to adults in limited-income areas in Maricopa County. As part of the University of Arizona Nutrition Network (UANN), which is an active partnership of over 10 Cooperative Extension offices across the state, Maricopa County SNAP-Ed faculty (1) and staff (22) coordinate efforts throughout Maricopa County, engaging schools and communities in learning healthy habits through a Policy, Systems, and Environmental change approach. Staff are involved in: (1) direct education teaching nutrition and physical activity; (2) training school teachers to incorporate nutrition and physical activity into their daily classroom instruction; (3) providing consultations to develop and sustain gardens in the community, homes, and at schools; (4) working with schools and school districts to have active wellness policies in place; and (5) working in the realm of Food Access to help with increasing the access and amount of local produce available to the community.

Studies show that participants involved in programs like EFNEP and SNAP-Ed:

- Feel more motivated to increase physical activity (58% participants).
- Intend to fill at least half their plate with fruits and vegetables each day (99% participants).

### 2017 - By the Numbers

- Over 17,000 adults and 76,000 youth participated in SNAP-Ed and EFNEP programs with a total of 2.1 million face-to-face contacts with participants, partners and collaborators across the county.
- 1,278 volunteers donated over 20,000 hours of their time, valued at an estimated $515,700.
- $2.4 million in grants were obtained for SNAP-Ed and EFNEP programs for Maricopa County.

Contact: Traci Armstrong Florian
tarmstro@cals.arizona.edu
Our Field Crops and Integrated Pest Management (IPM) Program continues to serve the diverse agricultural system we have in Maricopa County. With an emphasis on reducing the environmental footprint for our agricultural production, our Field Crops IPM program helps bring new selective chemistries and biological control approaches that optimizes crop yields and protect the environment, animals, and humans. We work to increase irrigation efficiency to reduce agriculture water use, utilize remote sensing, scanning and drone technologies to help keep Maricopa County agriculture competitive with the rest of the country and on the world market. One of the major issues the program is addressing the management of alfalfa and forage crops. Alfalfa hay dominates the cropping system in Arizona with approximately 300,000 acres of alfalfa and other forage crops farmed each year. With some of the highest yield per acre nationwide and an annual crop valued at $500 million, forage crops contribute significantly to the dairy and other livestock enterprises. The Maricopa County Cooperative Extension Field Crops/IPM Program is also leading national grants to study better practices to manage aphids and weevils in alfalfa, pests that can significantly decrease crop yield when not controlled properly. The educational, research, and Extension activities of the program helped Maricopa County growers in making informed and science-based decisions for their crops and pest management to maximize profit and lead sustainable practices of their operations.

Our Field Crops/IPM program aims at:

- Reducing pesticide residues in the environment.
- Improving yield, quality, and economic returns for growers and tribal farms in the region.
- Developing more sustainable and environment-friendly options for pest management and agricultural production for the region, resulting in healthier plants, fewer pest outbreaks, and fewer pest resurgences.

2017 - By the Numbers

- Over 1000 growers and agricultural professionals attended Field Crop Extension events which offered timely, updated, and science-based information, and provided more than 40 Continuing Education Units.

- Our agricultural faculty were involved in over $2 million of grant funds to address the issues of field crops that generate over $1.5 billion for the Arizona economy.

Contact: Ayman Mostafa
ayman@cals.arizona.edu
Horticulture

The Master Gardner and horticulture programs at Maricopa County Cooperative Extension are geared towards helping people discover better ways of living in the Sonoran Desert. Whether it is through choosing the right plants, or locating them properly in your landscape, or deciding on an approach to control a weed or insect infestation, these programs offer the latest in research-based information. The Master Gardner program is one of our most active and vibrant volunteer programs. There are three parts to becoming and staying a Certified Master Gardener: 1) attending the training, which provides novice and experienced gardeners alike with the opportunity to improve their horticultural knowledge and skills; 2) sharing at least 25 hours of expertise and time with the public through organized volunteer activities; and 3) earning at least 12 hours of personal continuing education. Providing support to the green industry in Maricopa County, the Commercial Horticulture Program provides research-based outreach to nurseries, landscape companies, and small acreage vegetable producers.

Our Horticulture and Master Gardener programs:

- Create greater awareness and appreciation for the Sonoran Desert environment we live in.
- Increase the access for Maricopa County residents to fresh fruits and vegetables.
- Create a network of knowledgeable individuals to help answer questions and address horticultural issues for the residents in Maricopa County.

2017 - By the Numbers

- 7,000 people had direct contact with our Horticulture and Master Gardener programs.
- Over 430 active volunteers registered over 28,000 hours, estimated to be worth $675,000.

Contact: Yvonne Cooper
yvonnecooper@email.arizona.edu
Maricopa County 4-H is at the cutting edge of bringing 4-H to new audiences in new ways! 4-H has always been the program that provides youth life skills, builds mastery, develops independence, enhances a sense of belonging, and encourages generosity - that hasn’t changed. These skills are at the core of our program in every way we deliver it. 4-H is also known for its community-based clubs where youth and adults work together hand-in-hand to learn, engage in activities, and connect with their communities. These historical components also haven’t changed. The change we are incorporating is reaching more youth in more ways through 4-H! As a team, we are working to enhance the 4-H Community Club experience, and this is resulting in growth in our community club membership. We are challenging youth from inner city Phoenix schools to master the basics of robotics in six sessions through the 4-H SPIN Club delivery mode. We are challenging youth to find a sense of independence as they learn about staying protected physically, mentally, and emotionally through the 4-H Teen Pregnancy Outreach Prevention Program. Youth are developing an identity and a sense of belonging as they connect science with career opportunities through participation in 4-H Science YOUniversity. Finally, we continue to develop youth’s desire to show generosity by involving our participants in other delivery modes, and demonstrating that there are a multitude of ways to give back to others! There’s nothing but excitement and energy brewing in the Maricopa County 4-H Program!

Youth in 4-H programs:

- Are at much lower risk of having personal, social, and behavioral problems than other youth.
- Are more than twice as likely to contribute to their communities as other youth.
- Are less likely to engage in risky behaviors (e.g., tobacco/alcohol use or bullying) or experience depression than youth in other out-of-school time programs.

2017 - By the Numbers

- Seven 4-H Robotics, Electronics, & Science hands-on SPIN Clubs in three Phoenix Schools and Luke Air Force Base totally 40 new 4-H members.
- One 4-H Science YOUniversity program occurred, reaching 100 inner-city Phoenix youth, with even more projected to participate this coming year.
- Our 4-H Teen Outreach Program has recently expanded from foster care sites to local inner-city Phoenix Schools.

Contact: Kim Christman
kchristman@email.arizona.edu
Early Childhood Development

Ready, Set, Grow! Our Early Childhood Development program focuses on young children, parents and teacher/caregivers. Educational programs teach, train, model and promote positive interactions and experiences that help children reach their fullest potential and become ready for school and life. This award-winning family support program features parenting education, child development classes, community resource and referral, educational workshops, unique learning experiences for young children, group support and community engagement. Our Roosevelt Early Childhood Family Resource Center is located at Martin Luther King Jr. School in South Phoenix. Families with children from birth to age 5 are invited to come to the center Monday through Thursday from 7 a.m. to 7 p.m. and Friday from 7 a.m. to 4 p.m. All programs and activities are free of charge and supported by First Things First.

Programs such as this:

- *Strengthen families, increase children’s literacy levels, help children achieve developmental milestones, increase positive parent and child interactions, increase school readiness and improve community climate.*

2017- By the Numbers

- **Total attendance:** 3,359 adults and 7,548 children
- **3,075 families requested resources and referrals to community agencies**
- **This program has earned over $3 million in grant supported funding in the last eight years.**
- **Over 10,000 children and adults participated and learned in educational activities through our Early Childhood Development programs.**

Contact: Patty Merk, Ph.D.

pmerk@cals.arizona.edu
Turfgrass Science

The University of Arizona surveyed and reported that the golf industry contributed $3.9 billion to the state’s economy. Turfgrass Extension programming in Maricopa County provides research and outreach education for turf managers of turf facilities that host the Arizona Cardinals, Fiesta Bowl, Cactus Bowl, Arizona Diamondbacks, and 15 major league baseball teams and major golf events. The Turfgrass Extension program contributes to schools and municipalities by evaluating ways to optimize water and manpower inputs. The economic impact study also found that golf courses use less than 2% of the groundwater. Current projects investigate and demonstrate the potential integration of native grasses and groundcovers when turfgrasses are removed and the use of colorants on dormant bermudagrass to “green-up” turf during the winter months. We collaborate with campus faculty and experts across the country to assure the latest research findings for weed, insect and disease control, and irrigation management are being delivered and adopted to address the needs and solve turf problems in Maricopa County.

Our Turfgrass Science Extension program:

- Improves turfgrass management strategies and practices for schools, cities, and professional turf facilities by conducting research and introducing innovative technologies to optimize water use and manage pests and weeds.

- Provides educational opportunities for turf managers to learn how to decrease or improve inputs and improve turf quality with techniques that conserve water resources, implement integrated pest management, and reduce their environmental footprint.

2017 - By the Numbers

- Turf Research and Extension with the Agricultural Resource and Economics Department surveyed and determined that the golf industry contributed $3.9 billion to the Arizona economy.

- Turf research is continuing to find alternative grasses that use less water as well as investigating pest management and weed control solutions for turf.

Contact: Kai Umeda

kumeda@cals.arizona.edu
Project CENTRL and Agricultural Literacy

Project CENTRL (Arizona’s Center for Rural Leadership) is a competitively selected, tuition-free, 12-month leadership development program for 16 individuals connected to Rural Arizona. It meets participants where they are in their leadership journey by: 1) Building personal leadership skills 2) Educating on the issues facing rural Arizona 3) Connecting leaders to each other and experts.

Our Agricultural Literacy programs assist educators in the effective use of incorporating information about agriculture into the subjects they already teach, using lessons that are aligned to academic standards. The Summer Agricultural Institute (SAI) is a five-day educational workshop designed to teach K-12 teachers about food and fiber production and help them incorporate that knowledge in the classroom curriculum. SAI and workshops combine hands-on learning about agriculture with practical curriculum development. The Ag. Literacy program also provides food safety guidelines for schools that want to use school-grown produce in the cafeteria.

These programs help:

- **Educators incorporate research-based and scientifically accurate information about agriculture into their curriculum using lessons aligned to Arizona’s College and Career Ready Standards.**
- **Provide a premier leadership program for Arizona residents.**

### 2017 - By the Numbers

- Classroom educators who teach students learned how to implement agricultural concepts into their curriculum to help meet their STEM core requirements in the classroom.
- There are over 600 alumni of CENTRL’s 26 classes. Six (6) alumni serve in Arizona’s 53rd Legislature, 2nd Session.

Contact: Scott Koenig  
Project CENTRL  
skoenig@email.arizona.edu

Brandon Moak  
Agricultural Literacy  
bmoak@cals.arizona.edu
Urban Water Resources

Water continues to be one of the most important issues in Arizona, and most certainly within Maricopa County. Our Urban Water Resources programs, in particular, Arizona Project WET (Water Education for Teachers) and the Smartscape Program, lead the water conservation efforts at Maricopa County Cooperative Extension. Through its workshops and multi-day academies for teachers, Arizona Project WET (APW) enabled 327 educators to be better facilitators of learning and become more aware of Arizona’s water resources. They then shared that knowledge in the classroom with over 25,143 students. The 3,082 students in the Water Scene Investigation (WSI) program have saved the east valley an estimated 4,500,000 gallons of water annually by just changing aerators on faucets at school and in their homes. APW also helped over 1,500 adults learn more about local water issues at public events this past year.

A grant from AMWUA (Arizona Municipal Water Users Association) and the Arizona Department of Water Resources funds the Smartscape Program. The program engages professionals from the landscape industry by educating them on the fundamentals of designing, installing, and maintaining beautiful, water-efficient landscapes that help promote water conservation in our desert environment. The basic Smartscape course is offered twice per year while an advanced course on irrigation is offered once per year.

These programs help:

- Save millions of gallons through the promotion and demonstration of water conversation techniques.
- Train landscape professionals and managers proper techniques to conserve water while maintaining attractive and sensible landscapes for the Sonoran Desert.

2017 - By the Numbers

- Over 19,000 school aged youth in Maricopa County participated in Arizona Project WET programs in 2017, learning about water in the environment and what we can do to protect and use our water resources more wisely.
- 171 landscape professionals and managers from cities and towns in Maricopa County attended Smartscape Basic and Advanced training classes.

Contacts: Pamela Justice  
Arizona Project WET  
pjustice@cals.arizona.edu  

Kirti Mathura  
Smartscape  
kmathura@email.arizona.edu
Maricopa County Cooperative Extension

Our Mission: To engage with people through applied research and education to improve lives, families, communities, the environment and economies in Arizona and beyond.

Our Vision: To be a vital national leader in creating and applying knowledge to help people build thriving, sustainable lives, communities and economies.

As the University of Arizona in Maricopa County:

- We empower people to expand their capabilities to improve their lives.
- We are a well-known, effective, and accessible educational resource for all communities.
- We are a trusted partner in communities for leadership education.
- We develop strong, capable leaders in all communities.
- We are recognized experts for developing and disseminating research-based information.

Our 2018 Advisory Board

Cheryl Goar, Executive Director, Arizona Nursery Association (District 1)

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Below is a listing of the faculty and staff at the Maricopa County Cooperative Extension. These women and men are the ones who deliver the programs to the residents of Maricopa County. Their hard work and dedication have made positive differences in people’s lives, communities, the environment, and the economy in Maricopa County.

KEY: ANR – Agriculture and Natural Resources; EFNEP – Expanded Food and Nutrition Education Program; FCHS – Family and Consumer Health Sciences; FRC – Family Resource Center; IPM – Integrated Pest Management; SNAP-Ed – Supplemental Nutrition Assistance Program-Education; TOP – Teen Outreach Program; WET – Water Education for Teachers; YD – Youth Development; CENTRL – Center for Rural Leadership.

Faculty and Staff 2018
Edward C. Martin, Director, Professor & Extension Specialist
Traci Armstrong Florian, Agent: FCHS, EFNEP, & SNAP-Ed
Kim Christman, Area Agent, 4-H Youth Development
Scott Koenig, Executive Director, Project CENTRL
Patty Merk, Area Agent: FCHS/Family & Youth
Ayman Mostafa, Area Agent, ANR/Field Crops, IPM
Monica Pastor, Area Agent, ANR/Ag. Literacy (Retired Jan 2018)
Rebecca Senior, Assistant in Extension, Living Classroom
Kai Umeda, Area Agent: ANR/Turfgrass

Marina Acosta Ortiz, Program Coordinator, SNAP-Ed/Gardening
Diana Aguilera, Instructional Specialist, Sr. FCHS/SNAP-Ed
Gadelhak Ahmed, Research Specialist, ANR Field Crops
Brittany Alger, TPP Program Coordinator, 4-H YD
Jennifer Amundsen, Program Coordinator, 4-H YD/TOP
Barbara Ashford, Administrative Assistant, SNAP-Ed
Paula Barr Skillcorn, Instructional Specialist, Sr. FCHS/SNAP-Ed
Kevin Bawden, Instructional Specialist Coordinator, FRC
Worku Burayu, Research Specialist, Field Crops/Turfgrass
Angie Castro, Program Coordinator, Sr., FRC
Anne Cimarelli-Stears, Health Educator, Sr., FCHS/SNAP-Ed
Mary Conner, Administrative Associate
Yvonne Cooper, Program Coordinator, Sr. Urban Horticulture
Sharon Dewey, Instructional Specialist, ANR/Horticulture
Carol Diemer, Instructional Specialist, Sr. FCHS/SNAP-Ed
Veronica Duron, Administrative Secretary, 4-H YD
Tamara Floyd, Program Coordinator, Sr., FRC
Jose Gamiz, Instructional Specialist, EFNEP/SNAP-Ed
Arman Ghazi, 4-H YD AmeriCorps
Eunice Gonzales, Business Manager, Sr.
Gloria Gomez Torres, Program Aide, FRC
Faculty and Staff - Maricopa County Cooperative Extension

Kyle Harrington, Program Coordinator, ANR Field Crops
Julie Hasty, Extension Program Assistant, AZ Project WET
Khandle Hedrick, Instructional Specialist, EFNEP
Brittany Hobe, Associate, Accountant, SNAP-Ed
Taylor Hubbard, Program Coordinator, 4-HYD
Amber Jones, Administrative Secretary, Urban Horticulture
Pamela Justice, Program Coordinator, Sr. ANR/AZ Project WET
Niki Key, Administrative Secretary, FCHS
Shae Knowlton, Instructional Specialist, FCHS /SNAP-Ed
Sarah Lane, Instructional Specialist, Sr. FCHS/SNAP-Ed
Jackie Luna, Instructional Specialist, Sr. FCHS/SNAP-Ed
Tim Lonchar, 4-H YD AmeriCorps
Kirti Mathura, Program Coordinator, Sr., Smartscape
Chesa Mendez, Program Coordinator, Sr., FRC
Amber McCrary, Instructional Specialist Sr., FCHS/SNAP-Ed
Brandon Moak, Program Coordinator, Sr., ANR/Ag Literacy
Cathy Munger, Systems Administrator, Principal
Delmi Ortega, Program Coordinator, Sr., FCHS/EFNEP
Haydee Pardee, TPP Program Coordinator, 4-HYD
Vanessa Parra, Accounting Associate
Rachel Phillips, Instructional Specialist, Sr. FCHS/SNAP-Ed
Kaitlin Poe-Orsburn, Instructional Specialist, Community Garden Education
Beth Reidhead, Program Coordinator, Urban Horticulture
Norma Rodriguez, Instructional Specialist, Sr., FCHS /SNAP-Ed
Janel Rogers, Instructional Specialist, EFNEP
Gina Rosenfeld, Program Coordinator, FRC
Liliana Ruiz Fischer, Program Coordinator, SNAP-Ed
Carlo Saldana, Program Coordinator, FRC
Karen Salem, Program Aide, SNAP-Ed Garden/Food Access
Elizabeth Schnoll, Health Educator, Sr., FCHS/SNAP-Ed
Sheri Semones, Administrative Secretary
Josie Slade, Program Aide, ANR/Turfgrass
Dotty Spears, Program Coordinator, Sr., FCHS/SNAP-Ed
Mary Ann Stoll, Program Coordinator, Sr., ANR/AZ Project WET
Lori Tessendorf, Program Coordinator, 4-HYD
Mitchell Thomae, General Maintenance Mechanic
Betty Thompson, Health Educator, Sr., FCHS/SNAP-Ed
Linda Wade, Administrative Secretary, 4-HYD
Tracey Wasson, Administrative Assistant, Project CENTRL
Tricey Wilks, Program Coordinator, SNAP-Ed Social Media/Marketing
Elisabeth Williams, Program Coordinator, Sr., FRC
Jennifer Wolf, Program Coordinator, 4-HYD
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